CHAPTER – I

INTRODUCTION AND DESIGN OF THE STUDY

1.1  INTRODUCTION

*Everything else can wait, but not agriculture*

-Jawaharlal Nehru¹

Thus stated the then Prime Minister of India when he was asked to take in the reins of power of Independent India in 1947, as he knew very well that developing agriculture was the need of the hour for an under developed country due to complete exploitation by the colonial power. In spite of moving to the status of a fast developing country the scenario has not changed much. This land of ample natural resources is, still supported by agrarian economy irrespective of the increased F.D.I in motor cars and mobile phone divisions along with software enabled business processing services. This is due to the fact that, agriculture is, for sure, the major employment provider in the Indian subcontinent of 1.25 billion plus population, either directly or indirectly. Statistics says that 70% of Indian population involves in this primitive profession. Some even swell with pride to say that they are agriculturists since they do not fold their hands before others to seek employment. They are the self employed employers whose households stand as employment station for many. To any Indian,

owning land is a symbol of prosperity, despite the fact that the income through farming is never lucrative.

All the same, Indian peasantry is often blessed with poverty rather than prosperity. The hour of crisis has come closer because of the constant threat of unstable market and the luring trap set out by real estate giants to gobble cultivable lands for constructions for commercial purpose and the government’s inability or indifference to have a decisive say over it. This makes them feel dejected and push them to the point of shunning this profession totally. Time and again governments at the centre and state have been announcing financial helps to boost the agri related activities.² It is not just because they are concerned about them. The people at the helm of affairs know very well that if those providers of square meal are not protected, the nation will go starving, stretching out its hands to be fed by the other chartable rich countries, out of sympathy, as it happened before green revolution.

In the Indian subcontinent as in many of its neighbouring countries viz., Sri Lanka, Nepal, agriculture is a holistic profession³. Ploughing land is not the sole activity. Land is not used merely for raising crops to support one’s family and meet out its needs but an opportunity to earn and prosper in the bargain. Hence they keep it a main backdrop to raise money for a healthier life. These folks have learnt that they have to pull on even through worst weathers. The education imparted by experience guided them in to

² N. Srinivasan, Farm Loan Waiver: Right Choice for Supporting Agriculture, CAB Calling, April-June, 2008, p. 32.http://cab.org.in
activities such as animal husbandry, poultry farming, orchard developing, olericulture, sericulture for the extra income.

On a casual visit to any farm in Erode district whether in wet or dry or semi-arid belt, one can chance upon an acre being allotted to support a good number of buffaloes, cows, goats, sheep and fowls. As the income through crops are biennial (paddy, groundnut, maize etc.,) or annual (tapioca, sugarcane, turmeric etc.,) here they have to rely on other activities which are farm related to generate income to meet out their daily requirements as well as the expenses needed as input to raise a crop. Even those who have mono crop farms (coconut groves) cannot rely on it completely as many have lost valuable trees due to the draught for the past two years. The livestock alone lent a helping hand to walk out of the tough time during these two years. Hence a study on the contribution of subsidiary activities of farmers in income generation becomes significant as there are many suicide notes left by aggrieved brethren of many Indian states.

1.2 SIGNIFICANCE OF THE STUDY

Agriculture came into existence when the thirst of man to possess drove him to acquire, occupy and cultivate land to fulfil the need of feeding, clothing and sheltering himself and his tribe. The excesses he stored were sometimes bartered to his neighbours to get back what he lacked; but the times have changed. What was started as a necessity has got established as a business. He is often tried and challenged by much failing weather that this aged old profession almost resembles gambling. He
gambles all his resources on the land with a staggering market at the opponent side. The dice rarely favours him. Hence he now looks up to other professions and entreprenial ventures where he need not soil clothes and sweat profusely.

That happens much in the case of the farmers of Erode district. The industrialisation and mushrooming of ‘for profit’ educational institutions have taken their toll on the otherwise fertile soil. They slowly occupy the lands of the country side because of easy access to soft water from cannals. The farmers who are fed with reliable monsoons either switch over to other businesses like hardware, and construction materials or run private finances with the amount they get by selling their lands. Crores of rupees spent by the state government during the period of the visionary Mr.K.Kamaraj, the ex Chief Minister of Tamil Nadu to bring the water of river Bhavani from Bhavani Sagar Dam through Lower Bhavani Project across the rocky, barren Moorish lands of Erode district is slowly losing its purpose. Over industrialisation and education business have started depleting the water resources and polluting the land which is for sure a bank of livelihood resources for future generation. Someone has to take a bold step to bring it to a grinding halt. The farmers of this district who are dexterous in their art are to be supported by envisaging a plan to goad them to retain the lands and adopt innovative practices to make this profession more profitable. Hence the study
1.3 STATEMENT OF THE PROBLEM

The name of the three Cauvery delta districts – Thanjavur, Thiruvarur and Nagapattinam often surfaced in the media in 2012 for farmer suicides. There was even a clash in Lok Sabha between the two prominent parties of Tamil Nadu over the death of seven farmers in those districts in a month due to the withering crops because of the obvious reason of a dry Cauvery. At the same time Erode district, which is also the beneficiary of the same river that quietly flows by its city is not shaken up by the same fact as there was no farmer suicide registered not only during that period but till date. It does not mean that this part of Tamil Nadu has a good ground water level to support and sustain irrespective of a dry weather and sandy river. The agrarian populace of this region has learnt to eke out a living with subsidiary activities related to farming. They see that if one fails, the other extends its supporting hand. If one visits a farmer’s house of any community, or any social strata, in this district, he/she can understand how complex their practice is. The farmers of this region whether small or medium or big have separate space for farm related activities like poultry farming, cattle rearing, sericulture, horticulture, vegetable cultivation, orchard development. They are interdependent and are towards a comprehensive development of a farmer’s life. Here a farmer keeps moving on braving a failed monsoon, disputed river water sharing, pest attack, unexpected price rise or fall because of his/her age old wisdom that a farmer is complete in his/her profession when he/she is able to establish aided with the above mentioned subsidiary activities. Hence an attempt is made to study the pattern of subsidiary activities practised in this

district by its farmers to enhance their income. The outcome of this research will enable the farmers of this state and its neighbours to come out of debt trap and prosper.

1.4 OBJECTIVES OF THE STUDY

1. To study the origin, growth and functioning of Department of Agriculture in Tamil Nadu.

2. To study the determining factors of cultivation in Erode District.

3. To identify the level of contribution of subsidiary activities to the income of farmers.

4. To study the level of satisfaction of the farmers of the income generated through subsidiary activities.

5. To find out the implication level and effect of modern technology in farming and its related activities to enhance the income of farmers.

6. To study the problems faced by the farmers during cultivation and marketing their produce.

7. To recapitulate the major findings and to offer constructive suggestions and conclusion.

1.5 RESEARCH METHODOLOGY

While going through the substantial collection of data from the secondary sources and from the research survey, it has been found that descriptive and analytical research was the most appropriate method for the study. The schedule and the questionnaire were all framed accordingly.
1.5.1 SAMPLING DESIGN

Survey was conducted among 500 farmers in Erode District. Stratified random sampling technique was chosen.

1.5.2 DATA COLLECTION

Primary Data

Questionnaire and Interview schedule were used as the main tools to collect the first hand information from the selected sample farmers. For this purpose the researcher has consulted the subject experts, agriculture department officials and the office bearers of Erode Farmers’ Association to have first hand information. After consultation with all the above mentioned personalities a well defined and structured questionnaire was prepared for farmers. A schedule was prepared for the members of Association of Farmers. The researcher used close-ended and open-ended questions in the questionnaire to collect primary data. The reliability of the primary data is 85.9% (The Cronbach Alpha = 0.8591). The selection of sample respondents is shown in Table 1.1.
**TABLE No.1.1**

**BLOCK WISE DISTRIBUTION OF SAMPLE RESPONDENTS**

(FARMERS)

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Blocks</th>
<th>No. of Farmers Selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Erode</td>
<td>45</td>
</tr>
<tr>
<td>2.</td>
<td>Perundurai</td>
<td>35</td>
</tr>
<tr>
<td>3.</td>
<td>Thalavadi</td>
<td>35</td>
</tr>
<tr>
<td>4.</td>
<td>Kodumudi</td>
<td>35</td>
</tr>
<tr>
<td>5.</td>
<td>Modakurichi</td>
<td>35</td>
</tr>
<tr>
<td>6.</td>
<td>Bhavani</td>
<td>35</td>
</tr>
<tr>
<td>7.</td>
<td>Gobi</td>
<td>35</td>
</tr>
<tr>
<td>8.</td>
<td>TN Palayam</td>
<td>35</td>
</tr>
<tr>
<td>9.</td>
<td>Sathiyamangalam</td>
<td>35</td>
</tr>
<tr>
<td>10.</td>
<td>BhavaniSagar</td>
<td>35</td>
</tr>
<tr>
<td>11.</td>
<td>Nambiyur</td>
<td>35</td>
</tr>
<tr>
<td>12.</td>
<td>Ammapettai</td>
<td>35</td>
</tr>
<tr>
<td>13.</td>
<td>Chennimalai</td>
<td>35</td>
</tr>
<tr>
<td>14.</td>
<td>Anthiyur</td>
<td>35</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>500</strong></td>
</tr>
</tbody>
</table>

**Secondary Data**

The secondary data were collected from the reports of RBI, NABARD and Co-operative Banks, Department of Agriculture, Erode, Tamil Nadu Agriculture University, Coimbatore, various national and international journals, magazines, books on latest trends in agriculture, web sources, Articles in dailies viz., The Hindu, The New Indian Express and government reports. The libraries of Bharathiar University, and Agriculture University, Coimbatore, Sri Vasavi College, Erode were the main sources of printed form. Published data from Erode Collectorate and Erode Farmers Association were of a major support for this study.
Construction of Schedule and Questionnaire

The key aspect of the present research was identified through preliminary interviews (Pilot study) with some selected farmers and important functionaries of Erode Farmers Association. The schedule and questionnaire so drafted were circulated among research experts and research scholars for a critical review with regard to wording, format, sequence and the like. Then, those were re-drafted in the light of their comments.

Pre-Test

The schedule and questionnaire meant for the respondents were pre-tested with 50 sample respondents. After pre-testing, necessary modifications were made in them to fit in to the framework of the present study.

1.5.3 Tools of Analysis

The collected data were put to statistical analyses by using percentage, average, range, standard deviation, Chi-square Test, Multiple Regression Analysis, Correlation analysis and Discriminant Function Analysis and Garrett Ranking Technique was used to rank the problems faced by the farmers while cultivation and marketing their produce.

Chi-Square Test

In order to identify the factor influencing the role of subsidiary activities in income generation of farming community by the selected
respondents the chi-square ($\chi^2$) test was used and the formula is given below:

\[
\text{Chi-square test (}\chi^2\text{)} = \sum \frac{(O - E)^2}{E}
\]

Degrees of freedom = (R-1) (C-1)

whereas, O = observed frequency
E = expected frequency
R = number of rows
C = number of columns

**Garret Ranking Technique**

This technique was used to rank the problems faced by the farmers while cultivation and marketing their produce. The order of merit given by the respondents was converted into ranks by using the following formula.

\[
\text{Percentage Position} = \frac{100(R_{ij} - 0.5)}{N_j}
\]

Where,

- $R_{ij}$ = Rank given for $i^{th}$ factor by $j^{th}$ individual
- $N_j$ = Number of factors ranked by $j^{th}$ individual

The percentage position of each rank thus obtained is converted into scores by referring to the table given by Henry Garret. Then for each factor the scores of individual respondents were added together and divided by the total number of respondents for whom the scores were added. These mean scores for all the factors were arranged in the descending order and the ranks were given to identify the most important problem.
1.6 PERIOD OF THE STUDY

The study covers the years from 2010 to 2013. The empirical data on primary sources were collected for a period of two years (2010-2012) in the study area.

1.7 SCOPE OF THE STUDY

The study highlights various subsidiary activities practiced by the farmers and their positive influence on the income and lifestyle in the study area. It also analyses the determining factors viz. water availability, nature of soil, size of land holding, cropping pattern. The level of satisfaction of farmers in practicing subsidiary activities to improve the income and the problems faced by them while cultivating and marketing their produce are also studied. The findings of the study will be applicable to any area in any region in Tamil Nadu or in any other state of India if the nature of soil and availability of resources resemble that of Erode.

1.8 LIMITATIONS OF THE STUDY

1. The data provided by the farmers were not authentically supported since they gave the facts out of their memory. As the farmers are often getting their loans waived for loss due to crop failure / damage due to natural calamities / pest attack, they refused to part with the original data regarding annual turnover, profit and further investments fearing that it will affect their future freebies and benefits from the Government.
2. Banks were reluctant in disclosing their data regarding outstanding loans.

3. Some of the farmers do not have clear idea about implementation of modern technology. So even if they adopt, they do not know if they are latest or not.

4. The findings of the study and the observations made in the study are confined only to Erode district of Tamil Nadu State.

1.9 CHAPTER SCHEME

The present study is organised into seven chapters.

The first chapter covers the introduction and design of the study.

The second chapter deals with the review of related literature.

The third chapter traces the evolution of Agricultural Department in Tamil Nadu and describes in detail how it promotes agriculture and its allied activities.

The fourth Chapter highlights the profile of the study area.

The fifth Chapter analyses the determining factors in raising crops and marketing the produce. Percentage analysis is the tool applied to process the data.
Finally the **sixth chapter** deals with the influence of variables like amount of land used, mode of irrigation, other sources of income, nature of residence, locality of habitation on the income generated through subsidiary activities. Two way table, average, range, standard deviation, Chi-square Test, Multiple Regression Analysis, Discriminant Function Analysis, Correlation and Garrett Ranking Technique are the statistical tools applied on the primary data.

The **Last Chapter** recapitulates the major findings, and based on the findings offers relevant suggestion and conclusion.