CHAPTER - I

PROBLEM SETTING

1.1 General Introduction

Indian agriculture has been undergoing a technological transformation during the last twenty years. This has been made possible by the use of high yielding crop varieties which call for an increased use of modern inputs like quality seeds, fertilizers, assured irrigation, plant protection measures and increased use of labour. The transformation of traditional agriculture on these lines has increased the demand for capital to a larger extent.1

Accelerated growth in agricultural production has been one of the principal aims of the Government of India from the beginning of the First Plan. It has assured an added urgency in recent years in view of the increasing pressure of population on land and the heavy cost of importing agricultural commodities particularly food-grains. The growth in agricultural production can be studied by reviewing the growth in production in agricultural crops.2

Agriculture produces a variety of paddy, wheat, cereals, fruits, pulses, vegetables, sugarcane, oil seeds and cotton.

1.2 Banana Production in Different Countries

Seventy five percent of the world's banana is grown in the western hemisphere. It is extensively cultivated in Mexico, Guatemala, Nicaragua, Costa Rica, Panama, Cuba, Dominican Republic, Haiti, Jamaica, Indonesia, South China, India, Sri Lanka and Australia. Of the total world banana production, Africa accounts for 5 percent and Asia and America 25 percent. The production of banana for commercial purpose and especially for export takes place only in countries in Central and South America and Africa. Next to Brazil, India is the second largest banana producing country in the world. The chief banana growing States in India are Maharashtra, Karnataka, Kerala, Tamil Nadu, Andrapradesh, Orissa and Bihar.

1.3 Banana Fruit as Food

Fruits are one of the oldest forms of food known to


man. They are regarded as one of the protective foods which are especially helpful for maintaining health and preventing disease. Fresh and dry fruits are the natural staple food of man; they contain substantial quantities of essential nutrients in a rational proportion. They are excellent sources of minerals, vitamins and enzymes. They are easily digested and exercise a cleansing effect on blood. Banana contains a fair amount of vitamins A, B₁, B₂ and C, a small quantity of vitamins D and E and also large amounts of potassium, phosphorus, calcium and iron. Persons subsisting on this natural diet will always enjoy good health. Moreover, the ailments caused by the intake of unnatural foods can be successfully treated by fruits. Fresh and dry fruits are thus not only good food but also good medicine. Production of fruits in India dates back to the ancient times. Banana is one of the most popular fruits in India where it has been the food of sages since ancient times. Flowers, leaves and fruits have figured prominently in the cultural life of India. In South India

both the plants and fruits are extensively used in all auspicious occasions such as weddings, festivals and for worship. The fact that mango and banana leaves are traditionally used to decorate doors and gateways on festival occasions speaks of their importance and the high esteem with which they have been held. Mango, banana, phasla, jack fruit, baelaonla and citrus fruits like lemon and citron seem to be indigenous to India. 

Banana provides a more balanced food than many fruits. Banana produced in an acre yields 15 million calories of energy as compared to one million calories for wheat. In Brazil and Costa Rica the annual per capita consumption of banana is about 60 kg compared to 50 kg per head in India. In Congo Ecuador and Uganda it goes up to 27 kg largely replacing cereal consumption. Banana satisfies the definition of food, that is one which contains ample proportions of nutritive constituents, easily digested and absorbed at reasonable cost. It is one of the most easily assimilated of all fruits.

The most spectacular use of banana is in the control of colic disease in children, a condition which manifests itself as an intolerance of carbohydrate but in which banana can be easily digested. On a number of occasions ripe banana is said to have saved the life of seriously

7a. Ibid....p.4.
affected children. From the nutritional point, banana has a calorific value ranging from 67 to 137 calories per 100 gm. 8

1.4 Uses of various parts of Banana Plant

Banana is relatively inexpensive and is within the reach of all classes of buyers. Every part of the banana plant is used, besides the use of the fruits for the table and for cooking. Unripe nendran banana is preferred to make slices. The kunnan and nendran bananas are ideally suited for preparing baby foods 8a. Fruits of poovan are believed to be good even for diabetics and the dried fruit as an antiscorbutic. Banana powder can be used as baby food and in the manufacture of chocolate and biscuits. The Kerala banana chips prepared from raw nendran varieties are famous all over India 8b.

Banana flour made into gruel and diluted with milk is a good food for patients suffering from gastritis. Banana ash is rich in alkaline salts and therefore can check acidity in stomach, and colic. Ripe fruits taken with tamarind and salt are said to control dysentry. Even bad ulcers are cured by smearing a paste of aromatic and

8a. Ibid..... p.4
sweet fruits of Devakadali. Panchamirtham and Rasayanam are also prepared from ripe fruits. In Uganda and Tanganyika banana fruit is used as steamed, roasted, backed or fried food. In Africa, bear & pure and denatured alcohol are made out of banana. Yeast of good quality is also made out of banana flour which can replace malt in breveries. Banana flour is prepared from unripe fruits and banana powder from ripe fruits.

The central core of the pseudostem is used as a vegetable in South India and Africa. It is believed to counteract the ill effects of stones and hairpieces, taken in with the food. In Africa, the juice of the pseudostem is taken for increasing the lactation of a mother. Starch is manufactured from pseudostem. About 8.5 percent starch can be extracted from it. Near Poona, the pseudostem of 'dwarf cavendish is reported to be used for paper manufacture. At the Tamil Nadu G.D. Naidu Agricultural University, Coimbatore waste pseudosterns of all varieties of banana have been used for manufacturing paper boards. The juice from the pseudostem can be used in dye industry as it has the property of a permanent stain.

Banana leaves are very popular in South India and Africa as dinner plates and wrapping material. It is a flourishing industry in certain areas of Tamil Nadu where
banana is cultivated exclusively for leaves\textsuperscript{9a}. The economic value of the leaves is stressed by Hayes who says that about 2000 acres of banana are grown in Thanjavur District largely for the leaves\textsuperscript{9}. The main bud or heart of banana bunches is also used as a vegetable in India, Thailand, Malaysia, Indonesia and Philippines. Banana yields good fibre well known for its strong fibre qualities. The sheaths and leaves are used for making crude ropes. Fibre production and paper making are some of the commercial possibilities\textsuperscript{9a}.

1.5 Status of Banana Export from India

Banana is one of the tropical fruits highly considered for international trade. In recent years attempts are being made in India, to orient banana production to meet export needs. In 1975-76, 2000 tonnes were exported and in 1976-77 the target was 3000 tonnes. This is quite insignificant as compared to 4 million tonnes exported by certain American countries. A detailed study was made of the export prospects and the following are identified as important factors for the success in export trade.

\begin{itemize}
\item Hayes W.B., \textit{Fruit growing in India} (Allahabad: Kitabistan, 1970) p.280.
\item Madhava Rao. V.N., (1984) op.cit., p.3.
\end{itemize}
1. Cost of cultivation should not exceed $25.5 per tonne.
2. The yield of exportable quality banana should be at least 11 tonnes per acre.
3. For export purposes, holdings should be larger:
   In most banana exporting countries the average size is 50 hectares. A bulk of the exports is from farms having more than 100 hectares.

The State Trading Corporation of India exported banana to the extent of 1000 tonnes in 1965 and 5490 tonnes in 1966 to the Union of Soviet Socialist Republic (USSR) but incurred losses. A Banana and Fruit Development Corporation was then formed in Madras to organise export of banana from southern States. As a result of the negotiations of this Corporation, the State Trading Corporation exported a trial consignment of 1035 tonnes. Nearly 40 percent of the exported fruits were rejected due to short-falls in quality specification, larger shipping freights and packing expenses, which together accounted for heavy losses again. It was clear from this experience that large scale exports should be thought of only after tackling field problems relating to production and quality specification.

This requires the need for a deeper probing into better selection of banana varieties according to area, minimise cost of cultivation, maximize yields and maximising foreign exchange earning by exporting banana, risk-taking by different varieties of banana cultivators and better marketings by farmers.

It is in this context that the present study has been undertaken in a prosperous agricultural district of Tamil Nadu viz. Tiruchirappalli, where the percentages of banana growers and production are the largest which are 33.14 and 28.38 respectively in 1986-87.

1.6 Objectives

The general objective of the study is to examine the production and marketing of the three varieties of banana namely poovan, rasthali and nendran in the three selected blocks of Tiruchirappalli District viz., Lalgudi, Anthanallur and Thottiam. The specific objectives are

(1) to analyse the influence of cost of cultivation and profitability on choice of the varieties of banana.
(2) to identify the resource-use efficiency for poovan, rasthali and nendran bananas,
(3) to study the risk-taking in poovan, rasthali and nendran bananas and

(4) to study the marketing of banana products.

1.7 Hypotheses

The following hypotheses have been framed in the light of the above objectives.

(1) Cost of cultivation and profitability do not influence the choice of the variety of banana production, for they do not vary significantly as between the varieties.

(2) Resource-use efficiency significantly varies as between the varieties of banana and areas under banana.

(3) There is no significant difference in regard to risk-taking in the cultivation of different banana varieties.

(4) Large farmers do better than small and marginal farmers in the matter of marketings of banana products.

1.8 Methodology

The survey design of the study is based on four
stages sampling and they are (i) Selection of District (Tiruchirapalli) (ii) Selection of three blocks in the selected District (Lalgudi, Anthanallur and Thottiam) (iii) Selection of revenue villages in the selected blocks and (iv) selection of banana growers in the wet land cultivation in the selected revenue villages.

In this study one district i.e. Tiruchirapalli is selected out of 21 in Tamil Nadu by applying the purposive sampling method. In 1985-86, Tiruchirapalli, Tirunelveli, Madurai and North Arcot were the leading banana growing districts among the districts in Tamil Nadu. Tiruchirapalli occupies the highest position in the cultivation of banana both in area and production out of the four leading districts. It constituted 21.26 percent in area and 25.05 percent of production. During 1986-87 Tiruchirapalli, Tirunelveli and Chidambaranar were leading banana growing districts among the districts of Tamil Nadu. Tiruchirapalli occupied the top most position both in area and production of banana out of the three leading districts. It constituted 28.38 percent in area under banana and 33.14 percent of production which were higher than those in the previous years. From the above data it is clear that concentration of banana cultivation in Tiruchirapalli district is more than in the other districts.
of Tamil Nadu. Another notable fact here is that the farmers are continuously cultivating banana intensively and extensively whether they get gain or loss. In addition to the above factors the following considerations are taken for the selection of Tiruchirapalli district as the sample district in this study. Agriculture occupies an important place in the economy of the Tiruchirapalli district. Secondly cash crops account for a major part in the consumption expenditure of the farmers of Tiruchirapalli district.

In the second stage, three blocks viz. Lalgudi, Anthanallur and Thottiam are selected in Tiruchirapalli district on the basis of agro-climatic conditions and of the highly concentrated banana cultivation. The important factors included in the agricultural conditions are cropping pattern, land use pattern, irrigation potential and different varieties of banana in different areas of Tiruchirapalli district. These informations have been collected from the records available in the Office of the Assistant Director, Statistical Department, Tiruchirapalli. Anthanallur block has 33 revenue villages, while Lalgudi block and Thottiam block have 53 and 31 revenue villages respectively. Four, five and three revenue villages were selected for the study from Anthanallur, Lalgudi and

+ For administrative purpose villages are classified as Revenue village. A revenue village may have number of hamlets.
Thottiam blocks respectively. Sample farmers were selected at the final on the basis of stratified random sampling method. The distribution of the sample banana growers is presented in Table 1.1.

1.8.1 Data Collection

A pilot study was done to test the schedules and to verify the concepts and definitions adopted in this study. The data collected included choice of bananas (poovan, rasthali and nendran), factors influencing choice of banana, gross output, net output, cost of cultivation, risk-taking by farmers, seasons of cultivation influencing the different levels of price, marketing of banana, pest and pesticides and socio-economic conditions of banana cultivators.

1.8.2 Reference Period

The level of production and marketing of banana besides the socio-economic conditions of farmers were studied for 3 years i.e. from 1985 to 1988. To identify the factors influencing choice of banana, resource-use efficiency, risk-taking by different banana cultivators and marketing of banana by different categories of farmers (marginal, small and large farmers) data for nendran banana
Table: 1.1 DISTRIBUTION OF SAMPLE BANANA GROWERS IN THE THREE BLOCKS.

<table>
<thead>
<tr>
<th>Block and Village</th>
<th>Number of Revenue villages</th>
<th>10% of the sample villages</th>
<th>Number of Banana growers</th>
<th>10% of the Banana growers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthanallur</td>
<td>33</td>
<td>4</td>
<td>125</td>
<td>25</td>
</tr>
<tr>
<td>1. Goppu</td>
<td>250</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Kuzumani</td>
<td>260</td>
<td>26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Anthanallur</td>
<td>356</td>
<td>35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Pattaivaithalai</td>
<td>255</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lalgudi</td>
<td>53</td>
<td>5</td>
<td>125</td>
<td>28</td>
</tr>
<tr>
<td>5. Sathamangalam</td>
<td>280</td>
<td>28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Thirumangalam</td>
<td>250</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Poovalur</td>
<td>150</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Thirumanamedu</td>
<td>200</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Kookur</td>
<td>100</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thottiam</td>
<td>31</td>
<td>3</td>
<td>125</td>
<td>125</td>
</tr>
<tr>
<td>10. Kattuputhur</td>
<td>1250</td>
<td>125</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Nattam</td>
<td>320</td>
<td>32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Thottiam</td>
<td>395</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>117</td>
<td>12</td>
<td>4066</td>
<td>406</td>
</tr>
</tbody>
</table>

Source: Personal survey.
were collected for only one year, 1985-86. Here it is to be noted that nendran banana is a one year crop. For poovan and rasthali bananas (three year crops) the data were collected for three years from 1985-1988.

1.8.3 Tools of Analysis

1.8.3.1 Z-Statistic

To test the significance of the difference between two population means two random samples of large size have been obtained from each population\(^10\). To test the hypothesis the following null hypothesis was framed by the Researcher. \(H_0: \mu_1 = \mu_2\), where \(\mu_1\) and \(\mu_2\) are the first and second populations respectively. The alternative hypothesis is \(H_1: \mu_1 \neq \mu_2\)(two tailed tests).

\[
Z = \frac{|\bar{x}_1 - \bar{x}_2|}{\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}}
\]

\(x_1\) = mean of the first random sample
\(x_2\) = mean of the second random sample
\(\sigma_1\) = standard deviation of first population
\(\sigma_2\) = standard deviation of second population
\(n_1\) = size of first sample
\(n_2\) = size of second sample.

If $\sigma_1$ and $\sigma_2$ are unknown, they are replaced by $S_1$ and $S_2$ the sample standard deviations. Hence the test statistic becomes

$$Z = \frac{|\bar{x}_1 - \bar{x}_2|}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}}$$

The test criterion adopted is as follows. If $Z > 1.96$ null hypothesis is rejected at 5% level. If $Z > 2.58$ null hypothesis is rejected at 1% level, otherwise null hypothesis is accepted at the corresponding level of significance.

1.8.3.2 Analysis of Variance in Two-Way Classification Model

In a two-way classification the data are classified according to two different criteria or factors. The procedure for analysis of variance is somewhat different from the one followed while dealing with the problems of one-way classification. In two-way classification the analysis of variance table takes the following form$^{11}$:

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of squares</th>
<th>Difference</th>
<th>Mean squares</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between columns</td>
<td>SSC</td>
<td>c-1</td>
<td>MSC = SSC/c-1</td>
<td>MSC/MSE</td>
</tr>
<tr>
<td>Between rows</td>
<td>SSR</td>
<td>(r-1)</td>
<td>MSR = SSR/r-1</td>
<td>MSR/MSE</td>
</tr>
<tr>
<td>Residual or Error</td>
<td>SSE</td>
<td>(c-1)(r-1)</td>
<td>MSE = SSE/</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(r-1)(c-1)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>SST</td>
<td>r-1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SSC = Sum of squares between columns
SSR = Sum of squares between rows
SSE = Sum of squares due to error
SST = Total sum of squares.

The sum of squares for the source 'Residual' is obtained by subtracting from the total sum of squares the sum of squares between columns and rows, i.e.

SSE = SST - (SSC + SSR).

The total number of degrees of freedom = n-1 or cr-1, where c refers to number of columns, and r refers to number of rows.

Number of degrees of freedom between columns = (c-1)
Number of degrees of freedom between rows = (r-1)
Number of degrees of freedom for residual = (c-1)(r-1)

The total sum of squares, sum of squares for 'between columns' and sum of squares for 'between rows' are
obtained in the same way as before. Residual or error sum of square

= Total sum of squares - sum of squares between columns - sum of squares between rows.

The F values are calculated as follows:

\[
F(\nu_1, \nu_2) = \frac{\text{MSC}}{\text{MSE}},
\]

where \( \nu_1 = (c-1) \) and \( \nu_2 = (c-1) \) \( (r-1) \).

or \[
F(\nu_1, \nu_2) = \frac{\text{MSR}}{\text{MSE}}
\]

where \( \nu_1 = (r-1) \) and \( \nu_2 = (c-1) \) \( (r-1) \).

It should be carefully noted that \( \nu_1 \) may not be the same in both cases. In one case \( \nu_1 = (c-1) \) and another case \( \nu_1 = (r-1) \). The calculated values of F are compared with the table values. If the calculated value of F is greater than the table value at pre-assigned level of significance, the null hypothesis is rejected otherwise it is accepted. It would be clear from above that in problems involving two-way classification, residual is the measuring rod for testing significance. It represents the magnitude of variation due to forces called chance.
1.8.3.3 Cobb-Douglas Production Functions

The postulated production relationship in agriculture is reflected in the algebraic form of the function. We state our production function in the following equation:

$$Q = C A^{b_1} L^{b_2} F^{b_3} S^{b_4} B^{b_5} O^{b_6}$$

In our analysis, we shall use the log-linear transformation of this production function and state it as,

$$\log Q = \log C + b_1 \log A + b_2 \log L + b_3 \log F + b_4 \log S + b_5 \log B + b_6 \log O,$$

Where

- $Q$ = Gross value of output of crops in rupees
- $A$ = Land in acres.
- $F$ = Farm manures and Fertilizers in rupees
- $L$ = Human labour and bullock labour in rupees
- $S$ = Seed or suckers in rupees
- $B$ = Bamboo or supporting pole in rupees
- $O$ = Expenditures on irrigation, pesticides, plant protection measures, rent on land and interest on loan in rupees.
- $C$ = Constant

$b_1, b_2, b_3, b_4, b_5$ and $b_6$ are the corresponding elasticities.

1.8.3.4 Chi-Square ($\chi^2$) Test

To determine whether the discrepancies between the observed and expected frequencies qualify as a probable or an improbable outcome, a value is calculated for $\chi^2$ and compared with its hypothesized sampling distribution\(^{13}\). To calculate the value of $\chi^2$, the following expression is used.

$$\chi^2 = \sum \frac{(f_o - f_e)^2}{f_e},$$

where $f_o$ denotes the observed frequency and $f_e$ denotes the expected frequency for each category of the qualitative variable. In this study the $\chi^2$ has been used to test the difference between high income and low income of different banana growers (poovan, rasthali and nendran) with respect to age, caste, education, family size and consumption expenditure.

1.8.3.5 Regression Analysis

In the line of regression of $Y$ on $X$, viz.

$$Y = a + bx$$

the coefficient 'b' is the slope of the line of regression. It represents the increment in the value of the dependent variable Y for a unit change in the value of the independent variable X. For notational convenience, coefficient of regression of Y on X is denoted as byx. This coefficient can be obtained independently also without resort to simultaneous normal equations using the following formula\(^{14}\).

Regression coefficient of Y on X is

\[
\text{byx} = \gamma \frac{\bar{y}}{\sigma_x}
\]

\[
= \frac{\sum xy}{N\sigma_x \sigma_y} \times \frac{\bar{y}}{\sigma_x} = \frac{\sum xy}{N\sigma_x^2} = \frac{\sum xy}{\sum x^2},
\]

where \(x = X-X\) and \(y = Y-Y\).

Regression coefficient has been used for testing the degrees of association between the yield of banana and risk taking by farmers in the different banana cultivators (poovan, rasthali and nendran) in the three blocks of Lalgudi, Anthanallur and Thottiam.

1.8.4 Importance of Selection of Inputs

Inputs for poovan, rasthali and nendran banana cultivation are land, labour, fertilizer and manures, seed, seed.

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propping poles and others such as cost on irrigation, pesticides, plant protection measures, rent on land and interest on loan. The relative importance of each input is described below.

Land

Land is measured by different size holdings. Fertile lands are best suited for banana cultivation. In Anthanallur block soil is deep, well drained and loamy with rich calcium. Lalgudi block contains rich alluvial soil. Thottiam block comprises of major soil types such as red loam, lomy and mixture of loam clay and red soil.

Labour

Money value of manual labour and bullock labour are used for preparation of land, planting, weeding, digging, up-rooting of daughter plants, application of fertilizer and manures, fixing the support poles, watering the plant till the harvest and removing dry leaves per acre per year.

Fertilizer and Manures

Farmyard manures are applied before the preparation of land. Fertilizers are applied three times per year. The fertilizers applied are urea, muriate of potash, ammonium chloride, factomphase, super-phosphate, complex
mixture, organic mixture, D.A.P.*, neem cake and ground nut cake. 110 grams of nitrogen, 35 grams of phosphorous and 330 grams of muriate of potash are needed per plant. At the third month 100 grams of urea, 220 grams of super phosphate and 200 grams of potash are applied per banana plant. At the 5th month 145 grams of urea and 350 grams of potash are applied per plant. Additionally neem cake and groundnut cake are applied.

Sucker

There are three kinds of seed stock. Depending on soil, season and personal taste the farmer may select sword suckers, palm suckers or root chunks. Ordinarily the 'seed' should be set within three or four weeks.

Supporting Poles

Banana plants when supported with good props are often saved from dislodging. Strong poles of bamboo and casuarina are generally used for this purpose. The most effective method of propping entails the use of double props. The method consists of fastening two lengths of bamboo or casuarina 25cm from the end spreading out the legs and placing the portion above 'V' under the bunch stalk, the legs being pushed towards the base of the plant until the prop supports the bunch.

* D.A.P. = diammonium phosphate.

14a. From personal survey at the sample villages.
Other Inputs

Other inputs are cost on irrigation, pesticides, plant protection measures, rent on land and interest on loan. Banana plants are irrigated once in 10 days. During the rainy season i.e. September to December banana plants do not require much quantities of water. But in other months they require 20-25 times of irrigation per year. The irrigational sources are canals, tube-wells and wells. In well irrigation, pumpsets and diesel engines are used. The cost of irrigation is calculated from the current charges or diesel charges. Some plant protection measures are fencing charges and the wages for night watchman.

1.8.5 Limitations of the Study

The required data for this study were collected for three agricultural years, i.e. from 1985 to 1988 by the personal interview method. Since the farmers did not keep records, they recollected and furnished informations from their memory and hence recall bias is an unavoidable limitation in the study. However, the response of the respondents was satisfactory and the recall bias was minimised by several cross checks made by the Researcher. As the cost of cultivation of banana, output of banana are varying in different areas in the same district, generalisation of the results of this study to other areas was made with great care.
1.8.6 Plan of the study

The study is presented in six chapters. The first chapter gives the problem setting, objectives, hypotheses, methodology and limitations of the study. The second chapter consists of history and cultivation of banana. The third chapter deals with a review of literature and conceptual framework. The profile of the study area and the socio-economic background of the farmers are furnished in the fourth chapter. Chapter V presents the analysis of choice of banana varieties, resource-use efficiency, risk taking by farmers and marketing of banana products. The last and the sixth chapter summarises the major findings and the conclusions of the study.