CHAPTER I

INTRODUCTION

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Chapter I

INTRODUCTION

The State of Kerala is in the forefront of the Indian states reputed for plantation crops. Rubber is one of the most important plantation crops cultivated in Kerala. Of the total rubber produced in the country, about 92 per cent comes from the state, and in the area of cultivation, 84 per cent is the contribution of the Kerala State. Thus, Kerala holds a dominant position both in the area as well as in the production of natural rubber in the country. Considering the significant role that the state plays in rubber production, the Government of India selected Kottayam as the headquarters of the Rubber Board.

As in other natural rubber producing nations, rubber cultivation in India, particularly in Kerala, has become the main focus of the small growers. "Indian economy is small farmers' economy with limited land and other resources. Unless the welfare of small farmers is assured, national welfare can hardly be ensured. The development of the total economy of India depends to a major extent on the development of small farmers." However, the productivity of the smallholder sector is generally low and is overwhelmingly lagging behind the well-organised estate sector. This may be due to various reasons. According to P.C. Cyriac "Small holdings in India, as in other rubber producing countries, suffer from low productivity, poor quality of processing and weak marketing system."
The major factors affecting the growth and development of the small holders are financial constraints, fluctuation in rubber price and technological backwardness.

In India, the rubber plantation sector is dominated by the small rubber growers. The small rubber growers had long remained as an unorganised lot. The Rubber Board realised the need to promote a spirit of self-help among the small rubber growers and considered the formation of an institution to encourage the growers to organise themselves under dedicated co-operatives. Such an organisation could empower the rubber sector even by ensuring the transfer of latest technologies. The institution thus formed under the auspices of the Rubber Board is, Rubber Marketing Societies. But these societies are mostly confined to either district or taluk headquarters, which are not that accessible to small rubber growers who are mostly scattered in villages. "The Rubber Marketing Societies have developed successfully in the matter of membership, but only a limited percentage of the total small holders' crop could be channelised through the societies." In order to overcome this defect, the Rubber Board promoted the formation of grassroot level organisations in the villages. These voluntary organisations, which have been started as charitable societies, are called the Rubber Producers' Societies.

1.1 Statement of the Problem

In India, cultivation of rubber on commercial basis dates back to 1902 under the British rule. Initially, rubber was cultivated in large rubber
plantations only. On analysing the history of rubber cultivation in India during the last hundred years, it can be seen that there is a gradual and steady increase of the small rubber growers over large plantation owners. But the Rubber Board Statistics shows that the productivity of rubber per hectare in the case of the small rubber growers has been remaining comparatively lower when compared to that of large rubber plantations. As a result the income of the small rubber growers is lower than what it ought to be. This may also be due to reasons like several limitations in cultivation, processing and marketing. In order to overcome problems like these the Rubber Board promoted the formation of the Rubber Producers' Societies at the grassroot level. Since the Rubber Producers' Societies are voluntary organisations registered as charitable societies, they are expected to render economic as well as social benefits to their members. As the small rubber growers are unorganised and as they are scattered throughout the country, only an effective institutional body can ensure their welfare and bring about positive changes in all the aspects of their life. But it still remains to be analysed how far the Rubber Producers' Societies have achieved the objectives for which they are constituted. In this context the researcher feels that a study about 'Small Rubber Growers and Rubber Producers' Societies in Kerala' is very significant.

Thus, the present study is an attempt to explore the socio-economic benefits rendered by the Rubber Producers' Societies to their members. Various socio-economic variables that have a direct impact on the small rubber growers are kept in focus throughout the study.
1.2 Need and Importance of the Study

Rubber plantation in India is dominated by smallholdings, which comes to 88 per cent of the area of rubber cultivation in the country. Out of the total small holdings, Kerala accounts for 84 per cent of the area of rubber cultivation in the country. Majority of the small rubber growers are scattered throughout various villages. The small rubber growers face a number of problems from the planting stage to the marketing of rubber. The Rubber Producers' Societies are formed with the main objective of assisting the small rubber growers in this regard. The present study analyses how far the Rubber Producers' Societies have attained their objectives. An evaluation of the problem can reveal areas in which the performance of the Rubber Producers' Societies is meritorious and in which fields it is defective. Hence, the present study "Small Rubber Growers and the Rubber Producers' Societies in Kerala" would help the Rubber Producers' Societies to identify their limitations so that they will be in a position to rectify them. Therefore, the researcher believes that the present study is beneficial to the small rubber growers and that it will help to develop strategies for improving the performance of the Rubber Producers' Societies. Moreover, one of the primary aims of this study is to focus attention on the broader aspects of the socio-economic benefits rendered by the Rubber Producers' Societies to their members.

1.3 Scope of the Study

In India the total area under rubber cultivation was 562670 hectares in 2001-2002, while the area in Kerala was 474365 hectares (84 per cent). The total production of natural rubber in India during
2001-2002 was 630405 tonnes and in Kerala it was 579866 tonnes (92 per cent). During the year 2001-2002 there were 2041 Rubber Producers' Societies in India, out of which 1977 (97 per cent) were in Kerala. In Kerala rubber is one of the major perennial crops and it is cultivated in all the fourteen districts from Kasargod to Thiruvananthapuram. As the major share of rubber area and production belong to Kerala the scope of the present study is limited to the state of Kerala with special attention on three districts. But the findings of this study can be utilised to work out the socio-economic benefits rendered by the Rubber Producers' Societies to their members, in other parts of the country also.

1.4 Review of Literature

Appropriate review of literature was made to formulate a theoretical framework for the study. There are a number of books and articles, which have been written by various scholars, dealing with rubber cultivation and the Rubber Producers' Societies that were reviewed in detail. Relevant information was also collected by attending seminars, discussions and symposia conducted by the Rubber Board. The researcher studied such previous work done in the areas related to the present study. A detailed review of literature is given below.

1.4.1 Small Rubber Growers - An Overview

Farmers (land owners) cultivating rubber are called rubber growers. The term 'small rubber growers' has been traditionally used to refer to an
agriculturist who manages a farm that is relatively small in size. The maximum area limit of a smallholding differs from country to country.

V.K. Guptha says that “the most striking feature of the agriculture of South-East Asian countries is the very small farm size and that over the years, the percentage of small farmers has been increasing.”

In Malaysia rubber smallholder is legally defined as the owner of a parcel of agricultural land of 100 acres (40.49 hectares) or less where approved crops are grown. Rubber is the first such approved tree crop. In Sri Lanka it is only 10 acres (4.05 hectares). In Thailand smallholders who account for more than 90 per cent of the latex production dominate the rubber production scenario. There are only very few estates in Thailand.

P.C. Cyriac states that in India rubber holding of 20 hectares and below are called smallholdings. But the average size of a smallholding is less than one hectare. Perhaps, India is the only country where the average size of rubber holding is so small.

It was reported by B. C. Sekhar that a rubber smallholding in India is statutorily defined as a holding that does not exceed 20 hectares. According to him, the average size of a smallholding is 1.19 hectares.

According to Rubber Plantation Development Scheme - phases I to IV (1980-2000) - the term ‘small rubber grower’ stipulates that the total area planted with rubber owned by a person or jointly by a group of persons should have its extent limited to 5 hectares.

According to the Rubber Act, 1947, small grower means, “an owner whose estate does not exceed 50 acres in area (20.33 hectares).”
But a vast majority of the members of the Rubber Producers' Societies are owners of rubber area up to 5 hectares. Therefore, small rubber growers for the purpose of this study include rubber growers having rubber area between 50 cents and 5 hectares.

1.4.2 Small Rubber Growers and Rubber Economy

Natural rubber occupies a key place in the economy of Kerala. One important features of the economy of Kerala is that it is highly smallholder oriented. During the beginning of the 19th century there were only large estates. Later the change in Government policies, especially the passing of Land Reforms Act in Kerala in 1963, the introduction of new and improved technologies in production and processing, the introduction of development schemes by the Rubber Board, the growth of industries in the 1920s and the upward movement of price index in the 1980s created in the small holders the tendency to plant rubber in more area.

C., Barlow and O.S. Peries, from their several years' experience in the Rubber Research Institute of Sri Lanka, believe that the adoption of improved techniques and technology can evoke progressive changes in the condition of small rubber holding sector and can produce substantial economic benefits.

Colin Barlow explained that the small holders remained unaware of the latest methods and techniques to improve productivity, better processing techniques and effective marketing strategies. Hence they are disorganised and economically backward.
In the opinion of N.J. Mathew\textsuperscript{19} any planning for the development of the rubber plantation industry should concentrate on the modernisation of the small rubber holding sector.

S.H. Deshpande\textsuperscript{20} remarks that the small farmer that we have in mind is a farmer who operates below the subsistence level. In other words his net farm business income, i.e. Gross income minus paid out cost, does not leave him any margin for saving.

According to George Jacob, small holders form 82 per cent of the total Rubber area in the country.\textsuperscript{21} Their share in the total natural rubber production is 79 per cent. Therefore, the prospects of the rubber plantation industry depend heavily on the progress and prosperity of the small holders. This points towards the need for urgent measures to achieve higher efficiency in production, processing and marketing in the smallholder sector.

Daniel George conducted a study\textsuperscript{22} on the financial problems of small rubber cultivators of Punalur region. The study highlights the important problems faced by small growers such as

- the ignorance to adopt scientific processing of latex,

- the absence of proper training to tappers; the non-expert tappers damaged rubber trees which resulted in poor yield, and

- the crude method of grading of sheets helps rubber dealers exploit the small rubber holder.
T.U. Ushadevi states that an important feature of Kerala's rubber economy is that it is overwhelmingly smallholder oriented. George Kanipally explains that the main problems faced by the small rubber growers are the distance between the producers and the manufactures as well as the exploitation by middleman.

P. Rajasekharan and V. Haridasan conducted a study in 1990 covering the 480 small Rubber Growers in Kottayam district and came to the conclusion that only if the small growers are given adequate training their income from cultivation will increase.

Peter Mathew studied about the relationship of scientific literacy of the small rubber growers with their training and education and found that the different types of training given to the small rubber growers are inadequate for obtaining maximum yield from their holding.

1.4.3 Perspectives on Rubber Producers’ Societies

A number of scholars have surveyed the functioning of the rubber producers' societies and other co-operative organisations working in this field and have made their observations regarding them.

The reason for the failure of the Rubber Marketing Co-operative societies, according to K.K. Abraham, is the absence of roots for them in the villages where the farmers live, cultivate and produce rubber. The Rubber Producers' Societies run by farmers at the village level make the co-operative movement strong and beneficial by having the necessary roots and foundation. They have been registered under the charitable societies Act in order to make them function effectively eliminating the
complications in the working and red-tapism. The Rubber Producers' Societies are the self-help groups of the small rubber growers and are considered as non-governmental organisations in the rubber cultivation field. It was with the intention of establishing a forum to save the small rubber growers from exploitation by developing a fellowship of the growers that P.C. Cyriac, the then chairman of the Rubber Board initiated the activities of the RPSs.

P.K. Narayanan remarked that the transfer of appropriate technology on a seasonal basis to the vulnerable section of the rubber planting community in an intelligible manner, coupled with timely delivery of quality inputs and equipment at cheaper rates is perhaps the largest single factor that would help maximise production and productivity of rubber from smallholdings. Productivity of smallholdings has been remaining lower than that of the professionally managed large estates. In the light of this the Rubber Board felt it necessary to promote group approach among rural smallholdings at the village level for timely transfer of technology and delivery of inputs.

The role of the Rubber Producers' Societies as a nucleus for dissemination of information and distribution of inputs to the members is highlighted by K.S. Varma. The RPSs channelise and expedite the distribution of financial and technical assistance from the Rubber Board and the government by group action. They can improve the quality and price of the rubber produced by members by helping them to follow proper agricultural practices, better processing, product manufacturing and group marketing.
P.C. Cyriac has remarked that the Rubber Producers’ Societies are groups of 50 to 300 small rubber growers residing in a locality. The societies have a service area of two to three kilometres radius. Rubber Growers having a rubber area of 0.20 hectares (50 cents) are eligible to become members. This small group makes the interaction among themselves more effective.

In the opinion of K.K. Jacob, the development of co-operative marketing societies and the Rubber Producers’ Societies, is indispensable for the welfare and well being of the small rubber growers. It is the duty of the government to identify the various problems and constraints which normally affect the growth of these co-operatives and to initiate timely action to put the co-operatives in the right path for sustained growth and progress.

K. Santhakumari, who analysed the impact of the Rubber Producers’ Societies on their members with special reference to Pathanamthitta District, concluded that if the shortfalls are rectified they can play a key role in the future development of the Rubber plantation industry in our country.

Having made a study of the marketing channels of natural Rubber with special reference to co-operative marketing in Kerala, K.K. Kuriakose stated that the formation of the Rubber Producers’ Societies in each village for the daily collection of latex and scrap rubber, facilitates the full utilisation of the production capacity of the processing factories run by the marketing societies. The Rubber Producers’ Societies in the villages need to be strengthened by providing required professional support.
through appropriate agencies. The study suggests that the Rubber Board and the government should take special effort to increase the financial assistance given to the small rubber growers and strengthen rubber marketing societies and the Rubber Producers' Societies.

Olappamanna states that the small farmers lack the facilities for storing their products without marketing when the prices are low. If godowns for common use are established it will be highly beneficial. Agencies like the Rubber Producers' Societies were started for the uplift of the small-scale farmers must pay attention to this matter too.

The Rubber Producers' Societies are organisation formed fully in the democratic way at the village level with the aim of creating unity and an attitude for working for the common good among the rubber growers. Calling attention to this fact, P.N. Narayanan Nair added that they have a working style above political and sectarian thoughts. The Rubber Producers' Societies must be able to distribute agricultural implements that the farmers need for the expansion of rubber cultivation, at subsidised rates. The Rubber Producers' Societies must be able to find out the infinite possibilities for rural uplift through rubber.

In the words of P.M. Madavankutty Nair, the Rubber Producers' Societies are movements organised at the village level fully in the democratic way. They also play a key role in fostering better relationship between the Rubber Board, which has completed 50 years of successful activity, and the Rubber growers who have made a wonderful advance in the agricultural history of India.
A.K. Krishnakumar says that the Rubber Producers' Society is a valuable asset, attempts the reformation of the small-scale rubber growers. The small farmers having an average of less than half a hectare of rubber-cultivated land in possession produce 87 per cent of the total rubber produced in India. But they get less than the market price. The main reasons for this are the shortage of basic facilities and the fact that the small farmers are unorganised. Only the Rubber Producers' Societies can make the technological and scientific knowledge available to the farmers, distribute agricultural implements to them and make available other facilities that they need.

In a study about the technology adoption in rubber smallholdings in Kerala, T.U. Ushadevi states that the Rubber Producers' Societies helped a lot in the diffusion of technology among the small rubber growers. The technology package adopted by the estates is more advanced than that of the small growers. The future of rubber economy in India and Kerala depends on performance of the small holding sector. Adoption of the practice of testing soil and leaf is very poor among the small rubber growers of Kerala.

Model Rubber Producers' Societies function as training centres for the small rubber growers. They make technical information available at the Rubber Cultivation Research Centres reach the farmers and help them to acquire the technical knowledge needed for the production of RSS1 sheets, as observed by V.J. Johnson.

Joshi Sebastian is of the view that the rubber grower gets all the benefits he is eligible to have, except the processing expenses by getting
latex processed at the society. The Rubber Producers' Societies make available better price for the products and unify the farmers to face crises.

According to Sebastian, the Rubber Producers' Society is changing itself into a voluntary organisation in its full meaning because of its voluntary activities for the uplift of the weaker sections of the area, and particularly of the women, over and above the improvement of the rubber plantation area.

Rubber Marketing can be brought under the control of the small growers, says M.C. George, if the Rubber Producers' Societies carry out latex collection, processing and storing at the rate of one society per village.

Omkar S. Kanwar is of the opinion that the small rubber growers should form co-operatives on similar lines of AMUL and set facilities to process and add value to their produce that would bring them remunerative prices and that these co-operatives should think in terms of exporting rubber.

The most significant achievements of the Rubber Producers societies, according to T.K. Samuel, are to bring the disorganised, helpless, small scale rubber growers under one umbrella and to give awareness related to Rubber production.

K. K. John remarked that the Rubber Producers' Societies could do some commendable job for stabilising the price of natural rubber especially at the time of price slide by helping the growers to withhold their produce till the price increases. By providing safe and sufficient godown facilities, the RPSs can help the growers to postpone the sale of
their produce till the price improves. He added that by giving sufficient 
godown facilities, supply of rubber could be regulated in accordance with 
the demand and price by blocking the immediate entry of natural rubber 
into the market. The Rubber Board and Government should provide funds 
for the construction of godowns to the RPSs.

The survey of literature relating to small rubber growers given in 
the preceding section reveals that a number of steps have already been 
taken by different agencies including the Government and the Rubber 
Board to find and solve problems faced by the small rubber growers. One 
such important step was formation of Rubber Producers' Societies. But it 
is to be noted that even after the introduction and popularisation of the 
idea of Rubber Producers' Societies among the small holders, a number 
of problems faced by them remain unsolved. This may be due to the 
structure and mode of functioning of these societies. An in-depth analysis 
of the problems and prospects of the Rubber Producers' Societies and 
their impact on the socio-economic situation of the small rubber growers 
is therefore, imperative. But such a study on this important segment is not 
yet carried out. Hence a study about "Small Rubber Growers and Rubber 
Producers' Societies in Kerala" is considered rational and relevant.

1.5 Objectives of the Study

The study sets its focus on the rubber growers of Kerala, 
specifically on the small rubber growers who are members of the Rubber 
Producers' Societies. The main objective of the study is to evaluate how 
far the Rubber Producers' Societies are successful in their activities, 
which will improve the conditions of the small growers.
The specific objectives of the study are:

1) To study the economic benefits provided by the Rubber Producers' Societies to the small rubber growers.

2) To evaluate the social benefits rendered by the Rubber Producers' Societies to the small rubber growers.

3) To analyse the role of the Rubber Producers' Societies in imparting training to the members.

4) To study the effectiveness of the personality based performance of the Board of Directors of the Rubber Producers' Societies.

5) To study the effectiveness of the activity based performance of the Board of Directors of the Rubber Producers' Societies.

6) To identify the various problems in the working of the Rubber Producers' Societies.

7) To examine the leadership role of the office bearers of the Rubber Producers' Societies.

8) To make suggestions based on the findings of the study.

1.6 Hypotheses

Based on the problem the following hypotheses were formulated and tested.

1) The Rubber Producers' Societies are effective as regards the economic benefits rendered to the small rubber growers.
2) The Rubber Producers' Societies are effective in the case of social benefits rendered to the small rubber growers.

3) The Rubber Producers' Societies are effective in the case of training imparted to the small rubber growers.

4) The personality-based performance of the Board of Directors of the Rubber Producers' Societies is not effective.

5) The Board of Directors are not performing very well in the case of activity based performance.

6) There is no positive correlation between the leadership role of the office bearers of the Rubber Producers' Societies and the successful functioning of the Rubber Producers' Societies.

7) There is no positive correlation among the Rubber Producers' Societies in the three districts under study as regards the problems they face in carrying out their operations.

1.7 Methodology

This study is exploratory and analytical in nature. A survey of the small rubber growers who have practical experience of the problem is used for materialising this study. Several issues relating to the main aspects of the study were discussed in detail with experts, researchers and other eminent personalities in the fields of agriculture, and co-operation, to have an insight into the subject before the collection of data. The information and ideas obtained through these discussions were useful in formulating a framework for the study.
Sources of Data

The data for the study were collected from both primary and secondary sources.

Through adopting the 'interview method' the researcher collected primary data from small rubber growers. The data have been collected from 796 small rubber growers who are members of the Rubber Producers' Societies, with the help of a structured interview schedule. 76 office-bearers of the Rubber Producers' Societies were also interviewed by using another interview schedule.

Books and periodicals, research articles, seminar reports, study reports of expert commissions and committees, government publications, Rubber Board Publications etc, were surveyed by the researcher for the purpose of collecting the secondary data. This has been done to familiarise with various aspects of the study and to evolve appropriate methodology for the study. A careful survey of literature made by the researcher revealed unexplored or unsolved problems faced by the Rubber Producers' Societies. This is really a gap in the field and this study is an attempt to analyse this unexplored area.

Pilot study

A pilot study was conducted to test the validity of the interview schedule. Based on this pilot study, appropriate modifications were made in the interview schedules. The final interview schedules are given in Appendix I and II. The pilot study helped the researcher to identify the major variables and to formulate a conceptual framework for the study.
1.8 Sample Design

A 'stratified proportionate random sampling method has been used for selecting the respondents from the 81636 small rubber growers. The study covers all the small rubber growers who are members of the Rubber Producers' Societies in Kerala.

Geographically, Kerala state can be broadly divided into three strata, viz, northern, central and southern regions. The Northern region consists of Kasargod, Kannur, Wyanad, Kozhikode, Malappuram, Plakkad and Trissur districts. The northern region covers 151811 hectares (32 per cent) of the rubber area in Kerala and it has 656 (33 per cent) RPSs. Rubber cultivation is highly concentrated in the central region consisting of Ernakulam, Idukki, Kottayam, Alappuzha and Pathanamthitta districts which covers an area of 257586 hectares (54 per cent) and has 1049 (53 per cent) RPSs. The Southern region consisting of Kollam and Thiruvananthapuram districts has a rubber area of 64968 hectares (14 per cent) with 272 (14 per cent) RPSs. For selecting the respondents the following procedure was followed. As the first stage of sampling, Kasargod district from the northern region, Kottayam district from the central region and Kollam district from the southern region have been selected for the purpose of this study. The three districts selected for this study are shown in Figure 1. As a second stage, the selected districts were classified into different strata based on the number of the Rubber Board Regional offices in each district.
The following table shows the Rubber Board Regional Offices and RPSs in the districts under study.

**TABLE 1**

**Rubber Board Regional Offices and RPSs in the Districts Under Study**

<table>
<thead>
<tr>
<th>Districts</th>
<th>Rubber Board Regional Offices in the district</th>
<th>No. of RPSs under RB.R.O</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kasargod</td>
<td>Khajangad</td>
<td>102</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>102</td>
</tr>
<tr>
<td>Kottayam</td>
<td>Palaii</td>
<td>108</td>
</tr>
<tr>
<td></td>
<td>Kottayam</td>
<td>114</td>
</tr>
<tr>
<td></td>
<td>Changanacherry</td>
<td>103</td>
</tr>
<tr>
<td></td>
<td>Erattupetta</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>Kanjirappally</td>
<td>126</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>514</td>
</tr>
<tr>
<td>Kollam</td>
<td>Kottarakkara</td>
<td>81</td>
</tr>
<tr>
<td></td>
<td>Punaloor</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>153</td>
</tr>
<tr>
<td></td>
<td>Grarid Total</td>
<td>769</td>
</tr>
</tbody>
</table>


The Rubber Board Regional Office of the Kasargod district is in Khanjargad and there are 102 Rubber Producers' Societies within the jurisdiction of this regional office. The Rubber Board Regional Offices
of the Kottayam district are at Palai, Kottayam, Changanacherry, Erattupetta and Kanjirapally. There are 138 Rubber Producers' Societies within the jurisdiction of Palai Regional Office, 114 in Kottayam, 103 in Changanacherry, 63 in Erattupetta and 126 in Kanjirapally. Thus there are 514 RPSs in Kottayam district.

The Rubber Board Regional offices of the Kollam district are at Kottarakkara and Punaloor. There are 153 RPSs in Kollam district. 81 of them are within the jurisdiction of Kottarakkara Regional Office and 72 are in Punaloor. 10 per cent of the RPSs were selected from each Rubber Board Regional office. Thus 76 Rubber Producers' Societies were selected from the three selected districts. The list of RPSs and Rubber Board Regional Offices selected for this study are shown in Table 1 above.

For selecting the respondents from the three districts, the following methodology was adopted. Ten percent of the average number of the members of all the Rubber Producers' Societies of each Rubber Board Regional Office was determined and it was multiplied by the number of societies selected from the region. To fix the average number of the members of Rubber Producers' Societies under a given Regional Office, the total number of members of Rubber Producers' Societies in each Regional Office was divided by the number of Rubber Producers' Societies in that region. This is done for each region and the total gives the sample size.
For instance, the Rubber Board Regional Office of Kasargod District at Khanjangad has 102 Rubber Producers' Societies. From this 'ten percent' of the Rubber Producers' Societies, i.e. 10, are selected. The total number of the members of Rubber Producers' Societies of Khanjangad Rubber Board regional office is 9388. This is divided by the number of Rubber Producers' Societies in this region, i.e. 102. The resultant figure is 92 and 10 per cent of this average is 9. Thus, nine members were selected at random from each of the 10 societies and the number of respondents was fixed at 90, i.e., nine from each society. The same technique is adopted in other selected Rubber Board Regional Offices also and that gives the sample design.

Among the 76 Rubber Producers' Societies selected as per the above-mentioned procedure, 10 belong to Kasargod district, 51 to Kottayam district and 15 to Kollam district. The RPSs were selected by taking 10 per cent of the total number of RPSs under each regional office (shown in column 3 of Table 2) of the selected districts and is shown in column 4 of Table 2. Similarly, among the total sample of 796 small rubber growers, 90 belong to Kasargod district, 557 to Kottayam district and 149 to Kollam district. The number of RPSs and the number of members in various regional offices selected for the purpose of this study are shown in Table 2 below.
### TABEL 2

#### Sample Design

<table>
<thead>
<tr>
<th>District</th>
<th>Rubber Board Regional Office in the district</th>
<th>No. of RPSs under RB.RO</th>
<th>10% of the RPSs membership</th>
<th>Average Membership</th>
<th>10% of the average membership</th>
<th>Respondents selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kasargod</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>102</td>
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<td>9388</td>
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<td>9</td>
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<td>102</td>
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<td>9388</td>
<td>92</td>
<td>9</td>
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<td>Kottayam</td>
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<td>7884</td>
<td>125</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>126</td>
<td>13</td>
<td>14125</td>
<td>112</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>514</td>
<td>51</td>
<td>56529</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kollam</td>
<td></td>
<td>81</td>
<td>8</td>
<td>7496</td>
<td>92</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>72</td>
<td>7</td>
<td>8223</td>
<td>114</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>153</td>
<td>15</td>
<td>15719</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grand Total</td>
<td></td>
<td>769</td>
<td>76</td>
<td>81636</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Direct survey

The following table shows the list of the Rubber producers' Societies in India during the year 2002.
<table>
<thead>
<tr>
<th>No.</th>
<th>Districts</th>
<th>No. of Societies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Thiruvananthapuram</td>
<td>119</td>
</tr>
<tr>
<td>2</td>
<td>Kollam</td>
<td>153</td>
</tr>
<tr>
<td>3</td>
<td>Pathanamthitta</td>
<td>169</td>
</tr>
<tr>
<td>4</td>
<td>Alapuzha</td>
<td>46</td>
</tr>
<tr>
<td>5</td>
<td>Kottayam</td>
<td>514</td>
</tr>
<tr>
<td>6</td>
<td>Idukki</td>
<td>97</td>
</tr>
<tr>
<td>7</td>
<td>Ernakulam</td>
<td>223</td>
</tr>
<tr>
<td>8</td>
<td>Thrissur</td>
<td>71</td>
</tr>
<tr>
<td>9</td>
<td>Palakkad</td>
<td>114</td>
</tr>
<tr>
<td>10</td>
<td>Malappuram</td>
<td>90</td>
</tr>
<tr>
<td>11</td>
<td>Kozhikode</td>
<td>65</td>
</tr>
<tr>
<td>12</td>
<td>Wyanad</td>
<td>78</td>
</tr>
<tr>
<td>13</td>
<td>Kannur</td>
<td>136</td>
</tr>
<tr>
<td>14</td>
<td>Kasargod</td>
<td>102</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1977</td>
</tr>
</tbody>
</table>

**B) Other States**

<table>
<thead>
<tr>
<th>No.</th>
<th>State</th>
<th>No. of Societies</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Tamilnadu</td>
<td>24</td>
</tr>
<tr>
<td>16</td>
<td>Karnataka</td>
<td>28</td>
</tr>
<tr>
<td>17</td>
<td>Other states</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>Grand Total</td>
<td>2041</td>
</tr>
</tbody>
</table>

Source: Compiled from various publications of the Rubber Board

From the above table it is evident that Kerala outnumbers the other Indian states in the case of RPSs.

The following figure shows the rubber producing districts of Kerala selected for the purpose of this study.
Figure 1

Rubber Producing Districts of Kerala Selected for the Study
1.9 Collection of Data

The opinions of the small rubber growers were collected by conducting interviews with them. Interviews were conducted to elicit information from the office bearers of the RPSs also. Information concerning the socio-economic benefits rendered by the Rubber Producers' Societies was collected with the help of rating scales developed by the researcher especially for this study in conformity with statistical methods and principles. Multiple choice questions and open-end questions were used wherever necessary. While interviewing, each question and statement in the interview schedule was explained by the interviewer to the respondents to elicit information from them. Utmost care was taken to give sufficient time to the respondents to think over and answer the questions. The small rubber growers and the office-bearers of the Rubber Producers' Societies were encouraged to talk freely and frankly about the problem under study.

1.10 Period of the Study

Interviews started on 1 April 2001 and continued till 31 March 2002. For analysing the financial and investment patterns, data pertaining to the financial years 2000-2001 have been collected.

1.11 Techniques of Analysis

The data collected from various sources have been classified, tabulated and analysed by applying appropriate mathematical and statistical techniques. Statistical results have been derived with the help of SPSS (Statistical Package for Social Sciences).
The socio-economic benefits rendered by the Rubber Producers' Societies from the viewpoint of the small rubber growers and the office bearers were analysed using statistical tools like Percentage, Chi-square Test, Ranking, Concordance, Kruskal Wallis Test, Friedman Test, and Five Point and Three point Scaling Techniques.

1.12 Conceptual and Operational Definitions

- **Rubber Producers' Societies**

  The Rubber Producers' Societies are grass root level voluntary organisations of small rubber growers registered as charitable societies and promoted by the Rubber Board.

- **Small Rubber Growers**

  As per the Rubber Act, 1947 small grower means, an owner whose estate does not exceed 50 acres in area (20.33 hectares). But members of the Rubber Producers' Societies own rubber area upto 5 hectares only. Therefore, the small rubber growers for the purpose of this study include the rubber growers having rubber area between 50 cents to 5 hectares.

- **The personality based performance of the board of directors**

  The personality based performance of the board of directors refers to their personal qualities and skills, which have a direct bearing on the functioning of the Rubber Producers' Societies. They include organisational skill, marketing skill, experience, leadership skill, developmental activities undertaken and accountability.
• **The activity based performance of the Board of Directors**

The activity based performance of the Board of Directors refers to their mode of activity in relation to solving the problems faced by the RPSs and their interaction with the members. They include the activities needed for the successful functioning of the RPSs like providing necessary information to growers, solving disputes, providing training, innovativeness etc.

• **Economic Benefits**

Economic benefits refer to the various benefits provided by the RPSs, which give some monetary gain to the small rubber growers.

• **Social benefits**

Social benefits refer to the non-economic benefits enjoyed by the small rubber growers, as a result of the successful functioning of the RPSs, which help to improve their condition, such as developing managerial qualities, empowering women, acting as a nodal agency, local area development etc.

1.13 **Limitations of the Study**

Despite the fact that very reliable results, which can be generalised, have been arrived at, the investigator would like to point out some unavoidable limitations that have entered into the study. They are stated below.

• Primary data required for the study have been elicited from sample respondents and are, therefore, subjected to the normal errors
inherent to such social surveys due to the natural bias in the reporting of data by the respondents. Eventhough all measures have been taken to cross check and verify the correctness of data, the possibility of such errors cannot be completely ruled out.

- Eventhough majority of the rubber-cultivated land is in Kerala, rubber is now being cultivated in fifteen other Indian states too. The total area of rubber cultivation in India is 562670. There are 474365 (84.4 percent) hectares of rubber area in Kerala during the period under study, but the rubber area of all other Indian States comes to 88305 (15.7 per cent) hectares only. Since majority of the rubber area is in Kerala State, the present study is limited to the Kerala State only.

- The present study is limited to the members of the Rubber Producers' Societies only. The small rubber growers who are non-members of the RPSs are out of the scope of this study.

1.14 Presentation of the Report

The study report is presented in five chapters.

Chapter I : Introduction
Chapter II : Small Rubber Growers and Rubber Producers' Societies in Kerala
Chapter III : Rubber Producers' Societies: An Analysis from the Viewpoint of the Small Rubber Growers
Chapter IV : Rubber Producers' Societies: An Analysis from the Viewpoint of the Office Bearers
Chapter V : Conclusions and Recommendations
Notes


