Introduction

India is one of the largest producers and consumers of natural rubber or *caoutchouc*. Natural rubber is used extensively in many applications and products. Natural rubber was introduced by Britishers in 1873 at the Botanical Gardens, Calcutta. Small rubber growers represent the major chunk of farmers in Kerala economy. RPS has its own limitations, formation of RPS has improved the welfare of small rubber growers. Small rubber growers were unorganised and the rubber processing was unscientific, so the quality of the product was very low. RPS improved the quality of rubber. Small rubber growers were unorganised and the rubber processing was unscientific. RPS has improved the welfare of small rubber.

The climatic conditions for optimum growth of rubber trees are:

Rainfall of around 250 cm evenly distributed without any marked dry season and with at least 100 rainy days per year.
Temperature range of about 20 to 34°C, with a monthly mean of 25 to 28°C.

High atmospheric humidity of around 80%

Bright sunshine amounting to about 2000 hours per year at the rate of six hours per day throughout the year.

Absence of strong winds.

Natural rubber or Latex comes from the juice of the rubber tree. Rubber was originally named *caoutchouc* or weeping wood. Rubber was first called so by Joseph Priestly, the discoverer of oxygen, considering its ability to erase pencil writing.

**Global production of Natural Rubber**

Thailand, Indonesia, Malaysia, India, Vietnam, China, Sri Lanka, Philippine and Camobia are the world's largest producers of natural rubber. About 48% of the global demand for natural rubber comes from China, India and Malaysia.

**Natural Rubber in India**

Rubber plantation in India began only in the 19th century. Sir Henry. A. Wickham is rightly considered as the Father of modern rubber plantation in India.

The following table shows natural rubber production in India in 2009 and 2010.

Data for 2010 are actual up to Sept., preliminary estimates for Oct. and anticipates for Dec.

From the above table itself it is clear that the overall production has increased from 820,000 tonnes in 2009 to 845,000 tonnes.

The table shows that the consumption of Natural rubber has increased from 825,000 tonnes in 2009. This have increased to 868,000 tonnes in 2010. Import has also increased from 154,000 tonnes in 2009 to 178,000 tonnes in 2010.

Consumption of Natural Rubber in India was anticipated to increase by 5.1% to 905,000 tonnes during 2010. Rubber Board of India expects the same pace to continue to the next year taking the country’s demand to 1.0 million tonnes which would be short of the domestic supply by 110,000 tonnes. India has amended import tariff for Natural rubber falling under HS 400121, 400122, & 400129. While the basic tariff continues at 20%, a ceiling of Indian rupees 20 per kg has been newly introduced on the incidence of basic import duty. The amendment also entitles import of 40,000 tonnes, until March 2011, at the reduced 7.5% basic rate.

**Natural rubber production in Kerala**

Kerala is one of the greatest producers of Natural rubber in India. The following table give us an idea regarding the rubber production in Kerala. From the table, it is quite clear that Kottayam district stands top in the production of natural rubber. In Kerala production of Natural rubber has increased from 579866 tonnes in 2000-01to 783485 tonnes in 2008-09. Production outside Kerala was at the same time 50539 tonnes and 81015 tonnes respectively. Total Natural rubber production in India was 630405 tonnes in 2000-01 which has increased to 864500 tonnes in 2008-09.
Rubber as a Small growers Crop

Rubber is considered as a small grower’s crop as it is a major source of income to the small agricultural holders of Kerala. Rubber cultivation requires utmost care and attention from planting to marketing. Rubber is considered as a small Growers crop due to various reasons.

Rubber trees are not prone to serious diseases and can have a productive life of about twenty-five years. Only minimum care is needed for maintenance of rubber trees after the initial stage. Even the family members can carry out taping and other operations. Crop is obtained continuously throughout the year except for certain occasional breaks. Rubber trees will grow almost anywhere, in tropical regions,

Problems faced by the Small Rubber Growers

The period of gestation of rubber is about seven years. After the commencement of taping proper processing and profitable disposal of the crop create problems to the small growers. The system of grading is always manipulated by buyers and it often results in lack of realisation of fair selling price. The middlemen marketing chain also creates harm to the interest of the small holders. Low profitability is one of the problems faced by the Small Rubber Growers. Rapid rise in the wages of labours and increase in the price of fertilisers are the problems faced by the small rubber growers. Due to shortage of labours, in Kerala state we depend on migrant labourers for taping. MRPS has employed migrant workers from West Bengal for rubber taping Conversion of land for other uses is also another cause or decline in the production of rubber. Abnormal increase in land prices is also another problem that has led to the decline in area under rubber cultivation.

RPS and small rubber growers

Small rubber growers represent the major chunk of farmers in Kerala economy. Before the formation of RPS small rubber growers were unorganised and the rubber processing was unscientific, so the quality of the product was very low. Thus rubber growers got only nominal price for their product. In order to solve this Rubber Board took the first initiative in 1960’s by staring Rubber Marketing Cooperative Societies. But it could not reach out to resource poor growers in rural areas. The political and bureaucratic control in these cooperatives was a hindrance to promote the self-help concept. In order to solve this and to promote self-help concept, in 1986 the Rubber Board promoted formation of small voluntary associations of small growers registered under the Charitable Societies Act called the Rubber Producers’ Societies (RPS) in 1986. Mr.PC.Cyriac IAS, the then Rubber Board chairman is the one behind the formation of RPS. In India according to the recent estimates there are about 2304 RPS. RPS functions as a self helping group which aims at the economic and social empowerment of growers.

Features of RPS

1. They operate in small compact areas having radius of 2 to 3 Kms.
2. Membership in the range of 50 - 200. Only small rubber growers having rubber holding located within the operational area of concerned RPS can be members.
3. Each RPS member should contribute Rs 50 as membership fee and Rs 10 as annual subscription.

4. It is a non-political group and works on democratic line. Administration through elected Director Board headed by President. Directors are to be elected by rotation.

5. Rubber Board’s local Field Officer will be nominated to the Board of Directors of the society.

6. Should not engage regular employees. Any one engaged for any assistance should work on a fair commission paid on the basis of actual work turned out.

7. The General Body should meet regularly once in every quarter and should take policy decisions and review progress of implementations and as well as performance. The General Body should as far as possible meets in members’ holdings and should discuss technical and development issues of interest and concern. Rubber Board’s Field Officer do participate in such discussions.

8. Designated Chartered Accountant should annually audit and certify the accounts of the RPSs. The accounts should be presented to the Director Board and General Body from time to time.

**Functions of RPS**

RPS assists in transfer of new technologies to members. It also assists common marketing of member’s rubber grade-wise and at remunerative prices. This is considered as one of the greatest merit of the formation of RPS. This has improved the living conditions of small rubber growers as they are getting remunerative prices for their product. RPS also promote and assist group approach for new planting, replanting, productivity enhancement, availing of bank finance, Rubber Board grants etc. RPS also establish and run common crop processing facilities that help members to upgrade the quality of rubber. It also raises nurseries and supply high yielding planting materials to members. Members of RPS receive supplies of various inputs from Rubber Board and other possible sources and distribute among eligible members.

**Expected Benefits from RPS**

There are economic as well as social benefits which are expected to get from the RPS. Members of RPS would get fair price for their products. It would create cooperative spirit and communal harmony as member would be from different castes and culture. The members would get quality services at subsidised prices as they are making bulk orders. They get Professional and expert services in marketing and sales of their products. Selected RPS are supported financially as well as technically to transform them into model ones which act as demonstration centres for other RPS. Support is given for capacity building and to develop infrastructural facilities for scientific community processing. Provision has also been given for treatment of the effluent generated while sheet processing for biogas generation. These model RPS’s function as technology dissemination. There are also processing companies and trading companies in the rubber growing areas in Kerala. Most of them are private companies jointly owned by Board and RPS in the concerned areas.

**Schemes for Assisting Rubber Growers’ Cooperatives**

The help from Rubber Board to cooperatives includes organisational assistance, share participation, working
capital loans etc. Thus, about 40 Rubber Marketing Co-operatives with either districts or taluks as areas of operation have since come into existence and are functioning with varying degrees of success. Their functions include rubber marketing, marketing of various plantation inputs such as fertilisers, fungicides, acid for coagulation of latex, tapping aids etc. A number of marketing co-operatives also have large sized modern rubber processing factories.

There are over 200 village level service co-operatives and co-operative banks which, among their other activities, are serving the rubber grower through marketing of rubber, fungicides, chemicals, tapping aids and other estate requisites. Rubber Marketing Co-operatives and village level co-operatives play important roles as nodal agencies for extension services. They organise and conduct a very large number of seminars, study classes etc for the benefit of rubber growers under the guidance of the Board. The Board has organised a number of schemes for the co-operatives. This includes

Financial Assistance for Strengthening Rubber Processing & Rubber Marketing Activities of Co-Operative Sectors

Loan to Co-operatives for Strengthening Marketing Infrastructure

Board has recently offered financial help to RPS and SHG’s to develop various primary infrastructure facilities with an aim to strengthen the smallholders sector. The scheme is aimed at enhancing productivity and quality up gradation of their produce for which the board has an outlay of Rs 29 lakh in the current fiscal. The assistance for setting up input distribution centre would be 50 per cent of actual rent of the building with a maximum of Rs 500 per month. The RPSs and SHGs would also be provided a part of their expenses to set up a common service centre, rubber nursery and labour bank. The scheme also has provisions to support RPSs for pollution control and environment protection measures in their community processing centres. Such RPSs will be assisted with 50 per cent of the actual expenditure or maximum of Rs one lakh, whichever is less, for setting up new effluent treatment plants. Financial assistance is also available for cover crop seed collection, plant protection measures, rain guarding and group management of small rubber holdings.

**Assistance for Establishing Ecofriendly Group Processing Centre by RPSs**

There is a scheme to provide Financial and technical assistance to RPS which own 20 cents of land for setting up fully fledged Ecofriendly Group Processing/Technology Transfer Centre. There are schemes for providing financial for construction of Smoke House, Effluent Treatment Plant or Training Hall separately also. Financial assistance will be limited to the cost of construction undertaken. Procedure for claiming the assistance is similar to that of the scheme for setting up of Group Processing Centres.

**Scheme to provide help to purchase Latex collection Equipments**

RPS that purchase equipments required to set up latex collection centre are provided financial assistance to buy Platform Balance, Chemical Balance and Hot Air Oven and transportation and installation charges.
Table 1 Production

<table>
<thead>
<tr>
<th>India Production</th>
<th>('000 tonnes) (2009)</th>
<th>('000 tonnes) (2010)</th>
<th>(% change)</th>
</tr>
</thead>
<tbody>
<tr>
<td>January to November</td>
<td>719</td>
<td>746</td>
<td>3.7</td>
</tr>
<tr>
<td>December</td>
<td>101</td>
<td>99</td>
<td>-2.0</td>
</tr>
<tr>
<td>Full year</td>
<td>820</td>
<td>845</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Source: Natural Rubber Trends & Statistics, Volume 2, No. 12, December 2010

Table 2 Consumption of Natural Rubber

<table>
<thead>
<tr>
<th>Indias consumption of NR</th>
<th>Jan. to Nov.2009 ('000 tonnes)</th>
<th>Jan. to Nov.2010 ('000 tonnes)</th>
<th>(% change)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption of NR</td>
<td>825</td>
<td>868</td>
<td>5.2</td>
</tr>
<tr>
<td>Import of NR</td>
<td>154</td>
<td>178</td>
<td>15.3</td>
</tr>
</tbody>
</table>

Source: Natural Rubber Trends & Statistics, Volume 2, No. 12, December 2010

Table 3 District-wise production of natural rubber (Tonnes)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Thiruvananthapuram</td>
<td>33316</td>
<td>33586</td>
<td>34206</td>
<td>38226</td>
<td>37915</td>
<td>43800</td>
<td>47260</td>
<td>44950</td>
<td>45880</td>
</tr>
<tr>
<td>Kollam</td>
<td>46289</td>
<td>46854</td>
<td>48366</td>
<td>50035</td>
<td>53233</td>
<td>55440</td>
<td>59360</td>
<td>55655</td>
<td>54380</td>
</tr>
<tr>
<td>Pathanamthitta</td>
<td>62423</td>
<td>62522</td>
<td>62333</td>
<td>67985</td>
<td>69094</td>
<td>70665</td>
<td>77440</td>
<td>73690</td>
<td>79640</td>
</tr>
<tr>
<td>Alappuzha</td>
<td>4033</td>
<td>4114</td>
<td>4356</td>
<td>5093</td>
<td>5577</td>
<td>6790</td>
<td>7400</td>
<td>6750</td>
<td>6800</td>
</tr>
<tr>
<td>Kottayam</td>
<td>14126</td>
<td>14054</td>
<td>14324</td>
<td>15262</td>
<td>16240</td>
<td>16960</td>
<td>17360</td>
<td>16810</td>
<td>17690</td>
</tr>
<tr>
<td>Idukki</td>
<td>45435</td>
<td>45280</td>
<td>45285</td>
<td>49496</td>
<td>52441</td>
<td>55300</td>
<td>57115</td>
<td>54800</td>
<td>59035</td>
</tr>
<tr>
<td>Ernakulam</td>
<td>73557</td>
<td>73219</td>
<td>73752</td>
<td>79647</td>
<td>82603</td>
<td>84800</td>
<td>88435</td>
<td>87565</td>
<td>84270</td>
</tr>
<tr>
<td>Thrissur</td>
<td>19670</td>
<td>19752</td>
<td>19932</td>
<td>21363</td>
<td>22488</td>
<td>25090</td>
<td>27200</td>
<td>25375</td>
<td>23595</td>
</tr>
<tr>
<td>Palakkad</td>
<td>31819</td>
<td>31759</td>
<td>34334</td>
<td>40816</td>
<td>43553</td>
<td>51165</td>
<td>52575</td>
<td>50720</td>
<td>49860</td>
</tr>
<tr>
<td>Malappuram</td>
<td>33007</td>
<td>32904</td>
<td>33883</td>
<td>39959</td>
<td>42548</td>
<td>48110</td>
<td>56105</td>
<td>54390</td>
<td>53400</td>
</tr>
<tr>
<td>Kollam</td>
<td>22871</td>
<td>22864</td>
<td>23490</td>
<td>25544</td>
<td>26258</td>
<td>29440</td>
<td>31835</td>
<td>29445</td>
<td>28925</td>
</tr>
<tr>
<td>Wyanad</td>
<td>3865</td>
<td>4038</td>
<td>4753</td>
<td>6230</td>
<td>6685</td>
<td>7620</td>
<td>8245</td>
<td>6085</td>
<td>8600</td>
</tr>
<tr>
<td>Kannur</td>
<td>36459</td>
<td>38800</td>
<td>40658</td>
<td>50381</td>
<td>54980</td>
<td>54945</td>
<td>61575</td>
<td>60350</td>
<td>60795</td>
</tr>
<tr>
<td>Kasaragode</td>
<td>24024</td>
<td>24125</td>
<td>25795</td>
<td>29758</td>
<td>31184</td>
<td>33360</td>
<td>35110</td>
<td>35150</td>
<td>40800</td>
</tr>
<tr>
<td>Kerala</td>
<td>57986</td>
<td>58030</td>
<td>58497</td>
<td>65513</td>
<td>69976</td>
<td>73922</td>
<td>78327</td>
<td>75313</td>
<td>78348</td>
</tr>
<tr>
<td>Outside Kerala</td>
<td>50539</td>
<td>51050</td>
<td>54168</td>
<td>58515</td>
<td>58857</td>
<td>63400</td>
<td>69620</td>
<td>72210</td>
<td>61015</td>
</tr>
<tr>
<td>Grand Total</td>
<td>63045</td>
<td>63140</td>
<td>64943</td>
<td>71165</td>
<td>74965</td>
<td>80262</td>
<td>85289</td>
<td>82534</td>
<td>86450</td>
</tr>
</tbody>
</table>
Scheme for Setting up Latex Collection Centre and Training Hall

Financial assistance is provided to RPSs having 5 cents of own land to the tune for setting up Latex Collection Centre and Training Hall.

Scheme for the purchase of Generator

RPSs which have set up group processing centre are eligible for financial assistance to purchase/transportation and installation of generator.

Scheme for the purchase of sheeting battery

RPS which have set up Group Processing Centre are eligible for financial assistance to purchase/ transportation and installation of Sheeting Battery limited

RPSs as Technology Transfer Centres

About 200 RPS are equipped with facilities for conducting training programme imparting intensive training in taping training in scientific method of taping and processing of latex. Meetings are conducted every year with the support of RPS to popularise modern technology of rubber cultivation and processing Seminars, group meetings and statutory meetings of RPSs are also conducted every year.

Rubber Swasraya Sanghom (Rubber Self-help Group)

There is a scheme to promote the formation of Self-help group to strengthen extension services such as Financial assistance for purchase of latex collection equipment to set up Latex/scrap/sheet collection centre, Financial assistance to arrange training programme related to rubber sector such as Beekeeping, Nursery Management, and Processing of Latex into quality sheet/preservation of latex, grading etc. Capacity Building, account maintenance etc. Rubber board also provides technical assistance and supply of planting material to raise source bud nursery at concessional rates.

Financial assistance for Self Help Group or RPS to adopt Apiculture

The scheme is to provide financial assistance to RPSs/SHGs for extra income generation by Apiculture. The financial assistance is extended for a minimum of 10 grower and maximum 20 growers in one SHG/RPS.

Financial Assistance to RPS to buy Computers and Peripherals

In order to modernise the functioning of RPS, they will be provided financial assistance to buy computers and other related equipments.

Scheme to provide Nucleus Source material for establishing nurseries in SHG/RPS

There is a scheme to provide Nucleus source material for establishing nurseries in RPS/SHG

Scheme for distribution of estate inputs to small growers

This is also another programme to enhance production. These are the various schemes offered by the rubber board to promote RPS.

Award for Best RPS

In India Rubber Board has instituted award for best RPS from 1997 onwards. This is
Suvarnasangham award. This has encouraged RPS to perform well.

**Award for best rubber grower**

KM Chandy award is instituted by Board for the best rubber grower in India.

**National Federation of Rubber Producers' Societies**

The National Federation of Rubber Producer's Society (NFRPS) is the apex body with more than 2000 RPS affiliated to it. Its headquarters is at Kottayam. The NFRPS is a body registered under Charitable Societies Registration Act. The main objective of this apex body is to secure common economic stability to the member. It also aims at eliminating all kinds of middle men to ensure remunerative prices for small rubber growers. The main objective of this apex body is to secure common economic stability to the members. Eliminating all kinds of middlemen to secure reasonable price for the hard earned produce of the small rubber cultivators is also a major aim.

**Conclusion**

Even though RPS has its own limitations, formation of RPS has improved the welfare of small rubber growers. RPS improved the quality of rubber. This has increased the income of the small rubber growers which improved their living status. The various schemes promoted by Rubber Board enhanced the production of rubber. RPS has also encouraged co-operative spirit and also provide quality and expert help at their finger tip. According to estimate in India there are more than 2000 RPS in India. Kottayam in Kerala is famous for rubber production in India with the greatest number of model RPS.

**References**

ANPRC Bulletin, Natural rubber trends and statistics, vol: 2 No:12 December 2010
Rubber, www.wikipedia.org
Scheme for promoting RPS in India, www.rubberboard.org.in
Small rubber growers and RPS in Kerala, www.shodanganga.inflibnet.ac.in
Sunil Varghese, Challenges and opportunities of cooperative marketing with respect to small rubber growers in Kerala, IOSR Journal of Business and Management (IOSRJBM), ISSN: 2278-487X Volume 3, Issue 6 (Sep.-Oct. 2012)