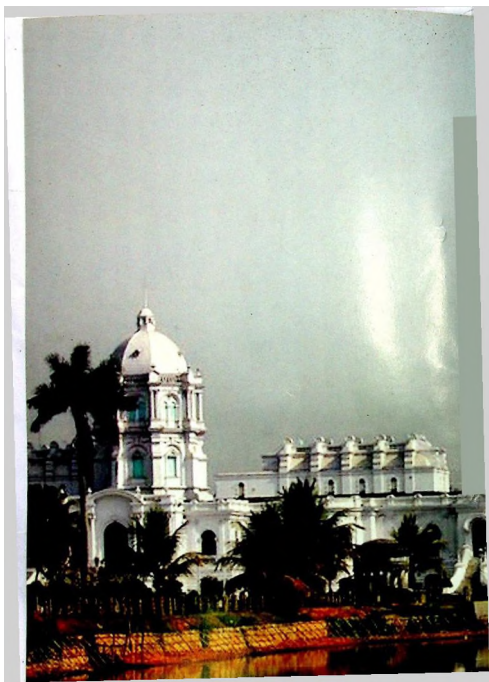


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# RUBBER IN TRIPURA





# RUBBER IN TRIPURA



THE RUBBER BOARD  
KOTTAYAM-2

*By* *Sub* *o*



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### Rubber in Tripura

The state of Tripura is situated in the extreme southwest corner of the North Eastern region of India with a geographical area of 10,492 sq. km. The population based on 2001 census is 32.88 lakh comprising 31% Scheduled Tribe, 16% Scheduled Caste and the remaining belonging to General category. The climate of Tripura is humid, subtropical with an average rainfall of 2100 mm a year.

Rubber was introduced in Tripura in 1963 by the Forest Department. Further expansion of rubber cultivation in the state was assigned to Tripura Forest Development Plantation Corporation (TFDPC) in 1976. Laying special emphasis for the rehabilitation of the tribals, Tripura Rehabilitation Plantation Corporation (TRPC) was established in 1983. With 35760 ha under rubber, Tripura is the second largest rubber growing state in the country, next only to Kerala.

The Rubber Board started its activities in the state by opening a one man office (an office of a junior field officer) in 1967 for undertaking developmental and extension activities. The office was upgraded to the status of a regional office in 1979. A regional research station was also established the same year in an area of 85 ha at Taranagar.



Subsequently, a nucleus rubber estate cum training centre was also established under a joint rubber production commissioner in 1984 within the scheme of 'Accelerated Development of Rubber in the North East' implemented by the Government of India.

A nursery cum demonstration plot was established at Tulakona in an area of 14.32 ha. In 1985 another farm was established at Surendranagar in 100 ha. Two new regional offices at Udaipur and Dharmanagar were also started in 1988 and 1994. Now the Board also has eight field stations in the state.

Rubber has now become the most accepted and commercially viable crop in Tripura. Apart from its commercial value, rubber planting has been recognized as a major economic activity around which the rehabilitation projects for 'shifting cultivators (*Jhumias*)' has been set up.

The National Bureau of Soil Survey and Land Use Planning has estimated that an area of approximately 1,00,000 ha is available for rubber cultivation in the state.

- 2 Rubber based welfare programmes in Tripura are well acclaimed as an excellent example towards upgradation of the living standards of the tribals. The monthly income of the growers rises from Rs. 200/- to 2000/- when they start tapping the trees. Considering the multiple benefits of rubber, such as generation of employment and income, and providing a tree cover for the denuded land, the state



government is giving great importance to rubber development schemes. The Government is also focussing on value addition through promotion of downstream activities. It is worth mentioning that the tribal rehabilitation programmes jointly implemented by the Rubber Board and the Government of Tripura have achieved considerable success, helping the poor tribals enhance their income substantially and also achieve a meaningful rehabilitation.

Rubber has already started influencing the socio-economic profile of rural Tripura. This has been rated as one of the most successful projects for rehabilitation of shifting cultivators. The state government, right from the beginning has been giving great importance to rubber and the Rubber Board has been implementing a variety of programmes for the development of rubber in the state. The state government agencies like Tripura Forest Development and Plantation Corporation Ltd (TFDPCL) and Tripura Rehabilitation Plantation Corporation Ltd (TRPC) also have contributed significantly for the rubber plantation development in the state. The government also has launched a 'Rubber Mission' to bring about overall rubber based development.

The Rubber Board also started implementing Group and Block Plantation Schemes from 1992 onwards and thus a revolution was set off. These schemes have changed the whole scenario of rubber cultivation in Tripura. The Rubber Board keeps on promoting rubber plantations from village to village, achieving spectacular progress which is summarized as follows:



**Extent of Achievement**

Year of planting	Area in hectares
1976-77	574
1981-82	3590
1986-87	10085
1991-92	17860
1996-97	23936
2001-02	30575
2006-07	35760

**District - Wise Area & Production (as on 31.3.2007)**

District	Mature area (ha)	Immature area (ha)	Total area (ha)	Production (MT)
West Tripura	8521.04	6656.51	15177.55	9429
South Tripura	8567.95	3853.50	12421.45	7971
North Tripura	2868.73	5294.27	8161.00	2600
Total	19957.72	15804.28	35760.00	20000

The Rubber Board, Tripura Forest Development and Plantation Corporation Ltd (TFDPCL), Tripura Rehabilitation Plantation Corporation Ltd (TRPC), Development Unit, North Eastern Council and the state government are working together towards the goal of rehabilitation and the upliftment of the tribals of the state. They are working in their own capacity to achieve the following goals:

- i) Manage and enhance the existing resources of the promoting agencies.
- ii) Improve the productivity of existing rubber and the quality of produce
- iii) Improve the skills of the existing human resource.
- iv) Do replanting and re-stocking of rubber.
- v) Strive to achieve qualitative and quantitative goals set for the latex centrifuging factory & crepe mill at Takmacherra.
- vi) Impart training to entrepreneurs in setting up rubber- based industries in Tripura at the newly created Process cum Product Development Centre at Anandanagar.
- vii) Set up a Technically Specified Rubber unit.

- viii) Value addition of rubber wood through chemical treatment by setting up of Tripura Rubco Rubwood Pvt Ltd
- ix) Creation of marketing facility for rubber and related products.
- x) Rehabilitate tribal shifting cultivators (*jhumias*) on rubber plantations.
- xi) Raise rubber plantations for the socio-economic upliftment of scheduled caste & other economically backward people.
- xii) Diversify existing activities by cultivating intercrops, medicinal plants, bee keeping etc.
- xiii) Conserve forest and rehabilitate degraded forest lands.
- xiv) Raise bamboo plantations and subsequent value addition.
- xv) Raise fuel wood plantations for conservation and enrichment of biomass and to meet the demand for fire wood for smoking the rubber sheets.

The Rubber Board is promoting rubber cultivation in Tripura by providing technical as well as financial assistance to the small and marginal farmers. The list of planters includes Tripura Forest Development Plantation Corporation Ltd. (TFDPC Ltd.), Tripura



Rehabilitation Plantation Corporation Ltd. (TRPC Ltd.), Tripura Tribal Area Autonomous District Council (TTAADC) and about 30,000 individual growers from different communities and almost all walks of life. The state govt., through its district and local panchayats also helps people, ranging from poor villagers to surrendered extremists, to take up rubber plantation under their rehabilitation schemes.

Agency/grower wise break up of area under rubber is as follows,-

Category of grower		Area promoted by the grower (ha)	Percentage of share of the agency
Small Growers	Group/Block/ Individual Grower	16131	45.11
	TRPC Ltd	4509	12.61
	Other Agencies	3776	10.56
Large Growers	TFDPC Ltd	11344	31.72
Total		35760	100.00

The Rubber Board also played a major role in the World Bank Assisted Rubber Project implemented from 1992 with the main objective of expanding and strengthening the rubber plantation sector in Tripura to increase production of smallholdings, improve processing and increase on-farm and off-farm employment.



The main components of the schemes were

1. New planting.
2. Productivity enhancement in smallholdings in traditional areas
3. Establishment / upgradation of rubber and rubber processing facilities
4. Institutional strengthening of Rubber Producers' Societies and
5. Development of participating women and tribal population, particularly in Tripura.

The Rubber Board has devised a novel method of helping small growers to organise themselves at grass-root level and to jointly work to acquire upto date know-how in the improvement of productive efficiency, group processing and competitive marketing. These voluntary organisations of growers are known as Rubber Producers' Societies (RPSs). The RPSs operate in small compact areas of 2 to 3 km radius, with membership ranging from 50 to 200. There is another layer of group activities under the umbrella of RPSs known as self help groups. Very recently another type of organization called Rubber Growers' Society (RGS), comprising only immature growers, is also taking shape. The RGS members adopt group approach to raise nurseries and supply planting materials, procure and supply farm inputs and acquire modern farming technology.

#### **Schemes offered by the Rubber Board**

1. Rubber Plantation Development Scheme: Under this scheme rubber planting is promoted by providing incentives of about 40 percent of the cost of cultivation, which include cash subsidy, cost of planting materials and fencing.
2. Restocking & revitalization scheme: Under this programme financial assistance is provided for sick and partially damaged plantations.
3. Input subsidy: Subsidy is provided to small and marginal growers for estate inputs and chemical fertilizers used in the plantations,
4. Incentives for soil & moisture conservation: Financial aid to efforts made by small growers to ensure soil & moisture conservation in rubber.

5. Incentives for irrigation facility: Financial assistance is also provided for irrigating immature plantations.
6. Assistance for productivity enhancement: Measures for productivity enhancement like rainguarding etc are also subsidized.
7. Assistance for processing & smoking: Processing sheds and smoke houses constructed by the Rubber Producers' Societies are financially supported.
8. Assistance for community hall/ dripping shed: Assistance is also offered to Rubber Producers' Societies for construction of community hall/ dripping shed.
9. Tappers' training: Tappers are imparted 30 day comprehensive and intensive training in tapping.
10. Human resource development programmes: These programmes educate the stake holders on the different aspects of estate management, office/ finance management, self help group activities etc.
11. Labour welfare schemes: These schemes are for labourers in rubber plantations by providing financial assistance for housing, children's education, sanitation, health care measures, small savings and insurance.

### Block Plantation

Block Plantation Scheme is a rubber based rehabilitation project intended to wean away tribal *Jhumias* from shifting cultivation and also achieve the dual goals of eco-restoration and sustainable income for the beneficiaries. The scheme is also extended to the Scheduled Caste community of the state. This is a collaborative project of the Rubber Board, and Tribal Welfare Department (SC Welfare Department, Govt. of Tripura). Under this scheme a compact land (block) owned by SC/ST families is identified. The plantation is raised by engaging the SC/ST families as wage earners. The work is done under the direct supervision of the Rubber Board officials. On attaining tappareability, the beneficiaries are imparted training in tapping and processing and marketing procedures under the Rubber Producers' Society.

- 8 | The scheme, which was envisaged as an integrated approach, has converged various services like balwadi, health camps, provision of



drinking water, sanitation, roads etc. at village level and created community level institutions like RPSs, SHGs etc., It has empowered women through Women Thrift Groups(WTG); provided continuous employment to beneficiaries; ensured additional sources of income; utilized fallow and barren lands; saved tons of soil & nutrients from run-off; made provisions for common processing and marketing of the produce and facilitated an exposure of its beneficiaries to the outer world, leading to their economic independence.

When implemented in 1992, the scheme differed from other conventional development projects in Tripura, in two ways. The first aspect of difference was its family oriented approach rather than being aimed at individuals and the second was its human face. The block planting project in fact adopted the whole family of the beneficiaries. And here for the first occasion, men and plants, in a plantation development scheme, were prioritized together.

#### **Achievements of Block Plantation scheme:**

Rubber Block Plantation for socio-economic settlement of the 'Jhumias' in Tripura has been considered a great success. An international organisation like the World Bank has commended it as outstanding. The scheme has so far adopted about 3,000 families along with their 20,000 dependents and settled them permanently



with 3251 hectares of rubber in 53 different parts of the state. Beneficiaries in 25 colonies (block plantation units) have already begun to sell rubber produced in their units and earn money, as tapping has commenced in their 1992 and subsequent plantations (Annexure I).

#### **Group Processing Facilities**

Scientific processing of latex into marketable forms of rubber is currently one of the thrust areas of the Board's activities in the North East. For processing latex into sheet rubber by ensuring better quality, the Board is giving technical and financial assistances to Rubber Producers' Societies for arranging infrastructure facilities like processing shed, smoke house, effluent treatment plant, sheeting battery, rubber roller etc.

The Rubber Board, has so far constructed 75 group processing facilities cum smoke houses, 20 community halls/dripping sheds and 17 bio-gas plants.

Activities connected with rubber led the resource poor growers, both from tribal and non-tribal communities, to higher levels of social status and leadership, awareness and affluence.

#### **Research Activities**

A Regional Research Station (RRS) of the Rubber Research Institute of India (RRII) was started in Agartala in 1979 with the following mandates:



1. Develop high yielding clones suitable to the agro-climatic conditions of Tripura through breeding and selection, mother tree selection and clone evaluation.
2. Develop clones with ideal secondary traits such as large timber production, tolerance to low temperature etc.
3. Develop location-specific farming technology for producing quality planting materials, crop husbandry including soil and nutrient management practices, disease protection protocols, rubber-based integrated sustainable farming, harvesting techniques and primary processing of latex into marketable forms of rubber and identifying sources of auxiliary income during gestation period of rubber.
4. Assess the impact of natural rubber cultivation on improving the quality of life and empowerment of the native people.
5. Determine the ability of natural rubber in restoring degraded ecosystems, especially the Jhummed lands in Tripura.

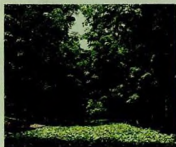
The Rubber Board has made substantial achievements in all the above aspects and the findings are taken to the field by extension officers. Wherever applicable, findings from the RRII headquarters at Kottayam are modified to suit Tripura conditions (adaptation research) and applied in the field.

The Board has identified clones best suited for Tripura conditions which are classified into the following categories.

Category I: RRIM 600

Category II: PB 235, RRII 208, RRII 203, RRII 105 and GT 1

Most of the area in Tripura is planted with RRIM 600, which outperforms RRII's flagship clone (RRII 105), the highest yielder in



the traditional region. Performance of the latest RRII clones (RRII 414 and RRII 430) in Tripura is being evaluated. Latex yield drops during summer, but is excellent during early winter (December-February) and post-monsoon months (August- September). Regular tapping during winter (high yielding season) is harmful to the trees.

Yield in Tripura ranges from 1500 to 1700 kg/ha/year in the experiment farms and 1000 to 2000 kg/ha/year in the farmers' fields. The wide range in yield in the growers' field indicates lack of skill of the growers and tappers. In Kerala the yield in the growers' field ranges from 1500 kg/ha/year to 2500 kg/ha/year or more.

Techniques for raising seedling nurseries and good quality budded plants, in tune with the climatic conditions of Tripura have been developed and successfully extended to the growers' fields. Sufficient quantity of seeds is now produced in Tripura to meet the planting material demand of the state. There is no more need to depend on Kerala for meeting the requirements planting material (seeds or budded plants) in Tripura.

Routine soil and leaf analysis are done and fertilizer recommendation is given by RRS. A mobile soil testing lab functions to take science to the door step of the growers. Scientists visit the growers' fields on request when there are specific problems.

Technical and economic feasibility of cultivating various intercrops in immature rubber plantations have been developed. The crops include banana, pineapple, ginger, turmeric, pigeon pea, sesamum and groundnut. Field trials on rubber-tea cropping system are in progress. Rubber monoculture appears to be more profitable than tea monoculture or rubber-tea cropping system in the predicted price scenarios for the near future.



There are some diseases that are common in rubber plants in Tripura and control measures are available for all of them. Abnormal leaf fall disease of rubber that remain extremely vigilant about its possible spread to the North east because RRIM 600, the most popular clone here is extremely susceptible to this disease.

#### **Marketing Support:**

The most successful story in the rubber cultivation in Tripura is the establishment of marketing setup. The wide network of rubber dealers, spread over most of the areas, ensures for the growers, the country's best farm gate price of an agriculture commodity. The increased global demand also contributed to price stability. Two other factors, which were of prime effectiveness, are regular market intervention by the Rubber Board - promoted companies and the bargaining capacity built up by the Rubber Producers' Societies. The presence of one such company, Manimalayar Rubbers (P) Ltd, which was floated by the Rubber Board and Rubber Producers' Societies acts as corrective force in the market. The monopoly of the local dealers of 80's came to an end with the entry of this trading company. Within a short span of ten years this company has grown in to a major player in trading rubber and estate inputs throughout the state of Tripura. In the inception year of 1997-98 the total transaction of the company was only 29 MT and annual turnover was Rs 6,63,489/-. By the end of 2006-07, these figures have crossed 1000 MT and Rs 10 Core. Now-a-days local dealers refer to the price offered by the Manimalayar Rubbers' as the benchmark price of rubber in Tripura.



### Economic Review (2006-07)

Rubber plantations add to the economics of the state, both at the micro and macro levels. Apart from producing latex, which is an industrial raw material for about 40,000 industrial products, rubber plantation industry facilitates many by-products, value added products and earn almost equal amounts from ancillary activities. Figures for 2006-07 are as follows-

#### Sales realizations:

Rubber has enriched the state's economy by means of sales realization of its produces viz. ammoniated latex, ribbed smoked sheet and different kinds of scrap. Rubber honey, rubber seed and products of intercropping like banana, pineapple etc were the main by-products of rubber plantation industry which add to the state's economy.

Item	Quantum	Amount in Rs (lakh)
Latex, Sheet, Scrap	20000MT @ Rs 70/- per kg	14000
Rubber Wood	2000 haX200 cu mt @ Rs 300/-per cu mt	1200
Rubber Honey	100 haX800 kg @ Rs 75/-per kg	60
Intercropping	100 haX1000 kg @ Rs 15/-per kg	15
Rubber Seed	45 MT @ Rs.2/- per kg	0.9

#### Manpower & employment:

Raising a rubber plantation is a labour intensive activity. In raising it and harvesting and marketing of the produce, considerable labour is involved. The manufacturing industry also generates sizeable employment.



## Annexure I

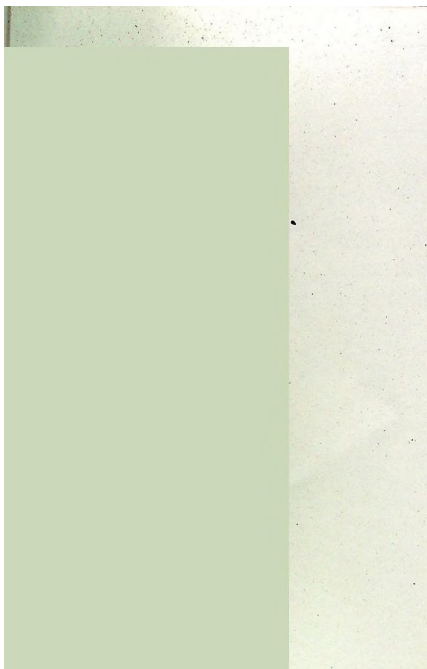
Sl. No.	Name of Block Planting Unit	Year of planting	Total area (ha)	No. of beneficiaries	Average area per beneficiary (ha)
<b>West Tripura</b>					
1.	Laxmandepha	1992	93.00	64	1.45
2.	Rangamala	1992	143.00	143	1.00
3.	Borakha	1992	41.00	57	0.71
4.	N.C. Nagar	1993	41.00	41	1.00
5.	Promodnagar	1993	92.00	89	1.03
6.	R.C. Nagar	1993	54.00	53	1.01
7.	R.S. Para	1994	57.91	55	1.05
8.	Konaban	1994	52.00	56	0.92
9.	Hrishidas Colony	1995	118.77	101	1.17
10.	S. Anandanagar	1995	43.62	47	0.92
11.	P.S. Para	1995	61.94	78	0.79
12.	Kaiyadepha	1995	37.00	25	1.48
13.	Sutamura	1995	30.00	34	0.88
14.	C.M.C. Para	1995	42.00	30	1.40
15.	Santarampara	1995	155.71	103	1.51
16.	K.C. Para	1996	21.00	29	0.72
17.	Kamalasagar	1996	35.30	21	1.68
18.	Kariyamura I	1997	113.44	70	1.62
19.	Kariyamura II	1998	86.56	63	1.37
20.	Killamura	1998	109.14	111	0.98
21.	Padmanagar	1998	57.60	48	1.20
22.	Bhagawanpara	1999	70.76	65	1.08
23.	B.C. Para	2000	39.43	44	0.89
24.	Khambarbari	2000	53.18	42	1.26
25.	Tajjiling	2001	51.84	32	1.62
26.	Jangalia-Bairamura	2001	63.56	55	1.15
27.	J.M. Para	2001	43.71	40	1.09
28.	Bashikobra Para	2001	52.00	52	1.00
29.	Khatansa	2002	91.77	89	1.03
30.	Hamariya Khilli	2003	134.48	83	1.62
31.	Jogaibari Promonagar	2003	75.34	48	1.56
32.	New Bairamura	2003	39.54	29	1.36
33.	Andredephe	2004	64.31	70	0.91
34.	Kaliram	2004	32.57	27	1.20
35.	Shibpara	2000	14.00	14	1.00
36.	Eshankopra Para	2005	22.80	23	0.99
37.	Jangalia	2005	43.89	36	1.21
38.	Rambabu Para	2006	43.66	44	0.99
39.	Barkubari	2006	22.25	15	1.48
<b>Total (West Tripura)</b>			<b>2445.08</b>	<b>2126</b>	<b>Av:1.15</b>

**South Tripura**

40. Kanchani Colony	1992	73.53	95	0.77
41. Sastriroy Para	1993	28.22	11	2.56
42. Dariabagma	1994	99.00	64	1.54
43. Kamalpur	1994	77.00	98	0.78
44. Rani	1995	89.00	53	1.67
45. Hetalia	1997	33.00	45	0.73
46. Sarasima	1997	32.59	42	0.77
47. Tabaria	1997	68.52	44	1.55
48. Totabari	1998	111.09	93	1.19
49. Kanipathar	1999	20.00	17	1.17
<b>Total (South Tripura)</b>		<b>631.95</b>	<b>562</b>	<b>Av: 1.12</b>

**North Tripura**

50. Bairagibari	1997	59.00	62	0.95
51. Gatacherra	1997	35.20	26	1.35
52. Tapihum Reang Para	1998	44.00	44	1.00
53. Balidumcherra	1998	36.00	36	1.00
<b>Total (North Tripura)</b>		<b>174.20</b>	<b>168</b>	<b>1.08</b>
<b>Grand Total</b>		<b>3251.23</b>	<b>2856</b>	<b>Av: 1.14</b>





**THE RUBBER BOARD**  
(Govt. of India, Ministry of Commerce & Industry)

Published by  
The Deputy Director  
Publicity & Public Relations Division, Rubber Board, Kottayam-686 002