



Growth and Challenges of Rubber Plantation in the Northeastern States of India

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Abstract

The paper discusses the growth and challenges of rubber plantations in the northeastern states of India. It has been found that there are bright prospects of rubber plantation in the region. Rubber plants were first planted in 1950 in Assam. It helps change the livelihoods of tribal communities. Karimkhanj, Karbi Anglong, Kamrup, and Goalpara districts are leading in the rubber plantation. Rubber plantation is popular among the tribes in the East, West, North and South Garo Hills in Meghalaya. Peren, Mokokchung, Wokha, and Dimapur districts are popular for rubber plantation in Nagaland. Tuensang, Zunheboto, Mon, and Longleng are other districts with more potential for such plantations. Rubberboard was introduced to rubber plantations in Arunachal Pradesh in the 1980s. The first rubber tree was planted in Tripura by the Forest Department of Tripura in 1963. Tripura and Assam are far ahead of the other states of the region. This region is considered as non-traditional rubber plantation. Rubber plantations have a positive impact on the financial status of cultivators. Lack of skilled workers, low price of rubber sheets, low quality of the rubber sheet, shortage of government subsidies, lack of support from the government agencies, and shortage of modern technologies were the basic challenges before the rubber cultivators.

Introduction

The Southeast Asian countries are well-known for their rubber plantations. Thailand, Indonesia and Malaysia are leading producers of rubber. Initially, rubber plantation in India was dominated by large estates. Later, some structural changes occurred in rubber plantations, and now, small rubber landholders play an important role. The expansion of rubber plantations depends on the price of rubber sheets. The rubber plantation sector needs more investment (Bhowmik, 2006). Rubber is a vital component for the production of commodities. Rubber items are important for daily use. The importance of rubber is increasing day by day. This sector has huge potential for generating income and employment for its cultivator. Rubber product demand is increasing daily (Adikari & Sharma, 2022).

The main natural rubber producers are Malaysia, Indonesia, Thailand, China, Vietnam, and India. China, the United States, India, and Japan are major consumers of natural rubber. The total consumption of natural rubber in India was 10,96,410 MT in 2020-21, and it was 12,38,000 MT in 2021-22. The total area of land under rubber

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cultivation was 8,26,660 hectares in 2021-22, out of that tappable area was 5,26,500 hectares. The average yield of natural rubber per hectare was 1,442 kg/ha in 2020-21, and increased 1,472 kg per hectare in 2021-22. Rubber is a commercial crop traditionally grown in Kerala for the past 110 years. Western Ghats. Kozhikode, Kollam, Ernakulam, and Kottayam are leading rubber-producing districts in Kerala. The other important producers in the country are Tamil Nadu, Andhra Pradesh, and Karnataka.

There is more potential of rubber plantations in the eastern states of India. Its soil and climate are suitable for rubber cultivation. India produces less rubber than it consumes, so a huge gap exists between its production and consumption. Large-scale cultivation can be undertaken in this area to increase rubber production and reduce imports from outside. Interest in rubber plantation is increasing continuously in this region. Large amounts of Jhum cultivated lands are now converted to rubber plantations under the Jhumias rehabilitation schemes. The rubber board is also playing a pivotal role for its expansion. India currently is the six largest producer of natural rubber. Central Government already allowed 100 percent foreign direct investment tea, rubber, cardamom, olive oil tree, palm oil tree, and coffee plantations. Rubber Plantation Development Scheme and Rubber Group Planting Scheme are implemented to expand rubber plantations (Bhowmik & Viswanathan, 2015).

Objectives

The objectives of this paper are (a) to study the growth of rubber plantations in northeastern states of India and (b) to examine the challenges before rubber cultivation in the region.

Methodology

The present study is based on the secondary data. The data has been collected from reports of the Rubber Board, Govt. of India, Tripura Forest Development and Plantation Corporation, and Tripura Rehabilitation Plantation Corporation. Information are also collected from articles of journals, websites, and books.

Results and Discussion

Rubber plantation is a growing commercial plantation in the northeastern region. Tripura and Assam are far ahead in rubber plantation in comparison to the other states of this region. This region is called as non-traditional rubber plantation region. Tripura has historical significance for rubber cultivation in this region. Assam has around 60,000 hectares, while Meghalaya's reaches around 18,300 hectares in rubber cultivation. Tripura has around 86.45 thousand hectares of land for such cultivation. Nagaland has seventeen thousand hectares under rubber plantation. Rubberboard has developed a plant tailored for the northeastern region, considering its climate conditions. Automotive Tyre Manufacturers Association cooperates with the rubber board to develop 200000 hectares of rubber plantation in this region. The supply-demand gap of natural rubber in the region is increasing.



Table 1: Area and Production of Rubber in Assam

Year	Area#	Production[^]	Tapping area*	Employment Generation@
2016-17	57646	17574	15139	179856
2017-18	57945	22324	16099	189790
2018 -19	58120	25247	20859	182873
2019 -20	58129	28931	26659	192503
2020 -21	58897	34348	29052	176771

Source: Economic Survey of Assam, 2021-22, p. 166. Note: # in hectare., [^] in MT., *in a hectare, and @ in numbers.

Table 1 depicts the area and production of rubber in Assam. It has found that the area and production of rubber is increasing continuously. Rubber plants were first planted in 1950 in Assam. Some government agencies of Assam are distributing large amounts of highlands and ceiling surplus lands suitable for rubber plantation to the small indigenous tribal who are poor and unemployed. It helps change the livelihoods of tribal communities. Karimkhanj, Karbi Anglong, Kamrup and Goalpara districts are leading in the rubber plantation. Its potential area for rubber cultivation is approximately two lakh hectares. Nearly 58,000 hectares of land in 28 state districts are under rubber cultivation. Assam government has permitted to use of tea plantation land for using other purposes. It opens the scope of rubber plantations in such lands.

Rubber plantation is popular among the tribes in East, West, North and South Garo Hills of Meghalaya as the climate is more suitable for rubber plantation and used under the rehabilitation scheme of shifting cultivations. The state government of Mizoram focused on a rubber plantation and it introduced trade schemes under the New Land Use Policy programme. Rubber plantation was introduced in the state in 1960. Many districts of Mizoram have the potentiality in rubber cultivation. Kolasib and Lunglei districts have the largest potential for rubber plantation. The scarcity of good saplings, deficiency of practical information, and poor bundles are key issues that limit practice.

Peren, Mokokchung, Wokha, and Dimapur districts of Nagaland are popular for rubber plantation. Tuensang, Zunheboto, Mon, and Longleng are the other districts having more potentiality for this plantation. The Government is giving much stress on rubber plantations for sustainable livelihoods of the people in the rural areas. The total area of land under rubber plantation was 19,132.5 hectares in 2021. The taping land area was 4,989 hectares that producing 15700 metric tons of latex per year. The area of land

suitable for rubber plantation in the state is 462180.80 hectares. The government has proposed 115546 hectares of land for rubber plantation. National Bank for Agriculture and Rural Development and North Eastern Council distributed rubber sheet rollers to rubber growers to increase rubber sheet production.

There is a potential for rubber cultivation in Arunachal Pradesh. Shifting cultivation in the state can be replaced by Rubber plantations. The rubber board has implemented plans for boost rubber cultivation. The board has identified nine districts suitable for rubber plantations. They are Longding, Tirap, Changlang, Lower Dibang Valley, Lohit, East Kameng, Papum Pare, West Siang, and East Siang. Rubber board was introduced in rubber plantation in 1980s. Rubber board has identified 25,000 hectares of land suitable for the plantation.

Table 2: District-wise Rubber Plantation in Tripura

District	New Planting* (hector)	Immature Area (hector)	Mature Area (hector)	Total Area (hector)	Production (MT.)	Productivity Kg./Ha.
North	301.29	1662.91	8325.71	9988.62	9450.52	1197.00
Unakoti	199.53	702.50	3245.30	3947.80	3630.68	1188.50
Dhalai	426.63	1510.32	5042.90	6553.22	5861.98	1174.00
Khowai	303.9	246.64	4369.50	4616.14	4217.36	1200.00
West	61.12	3081.29	13580.49	16661.78	17521.29	1295.00
Sepahijala	297.08	2619.45	15699.43	18318.88	20739.12	1412.00
Gomati	318.5	1476.30	10611.06	12087.36	15893.31	1657.00
South	464.47	3359.69	13730.74	17090.43	16056.93	1185.00
TOTAL	2372.52	14659.10	74605.13	89264.23	93371.19	1288.56

Source: Economic Review of Tripura 2021-22, p.109. Note: * in 2021-2022.

Table 2 shows district-wise rubber plantation in Tripura. It has been found that Sepahijala district have highest area under rubber plantations followed by South Tripura and West Tripura. Unakoti district have least quantity of land under rubber plantation preceded by Khowai and Dhalai districts. Sepahijala district also produce the highest quantities of natural rubber followed by West Tripura and South Tripura district. Productivity of rubber is highest in Gomati district followed by Sepahijala and West Tripura districts.



First rubber tree was planted in Tripura by the Forest Department of Tripura in 1963. Tripura Forest Development Plantation Corporation Ltd was established in 1970 due to the progress of pilot rubber plantation project. In 1977, the Government of Tripura launched the project for economic settlement of jhum cultivators through rubber plantation. Now, Tripura is the leading rubber-producing state in India after Kerala. Rubber plantation is a key plantation in the state. It was introduced in 1963. Tripura is the region's prominent rubber producing state and the country's second largest producer. The state government has established Tripura Rehabilitation Plantation Corporation in 1982 for rehabilitation of shifting cultivators and the other marginalised cultivators through rubber plantation. Group and Block Plantation schemes was started in 1992 that considered revolution in rubber plantation. The Rubber Board is a leading agency for the financial and technical assistance to the farmers. The state has more potentiality for the growth of plantation in future. Rubber Board has implemented schemes for increasing land under the plantation. The other agencies like Tripura Tribal Areas Autonomous District Council, Tripura Rehabilitation Plantation Corporation and Tripura Forest Department are also working for the extension of the rubber plantation in the state. Forest Development is the key owner of rubber plantation in the state

Tripura is well-known for its rubber plantation. It is also known as the 'Second Rubber Capital of India'. The state contributes about 9.4 percent of the total rubber production of the country and 58 percent of the total rubber production in north-east states. Tripura Rubber Mission was introduced for proper organising the work of agencies involved in rubber production and marketing. Rubber plantation has considered as most vital profitable plantation because of its return and future prospect. Social and economic status of its cultivators improved due to the rubber plantation. The Government of Bangladesh has allowed transportation of rubber cargo from Agartala through Agartala-Akhaura land port. It is more useful for mitigating the transport problem of the landlocked state.

There is huge potential for the growth of rubber-based industries in Tripura. Some rubber-based factories have been set up in the Bodhjungnagar industrial park area. There are also two big industries, named DS Group of Industries and Maa Rubber Industry in the state which have their own factories of rubber sheets and rubber-based products. The state has also established many rubber woods-based furniture factories in different regions in the state. Tripura had been providing shelter to different tribes having various cultures. The tribal jhumia families of the state are facing a lot of problems due to their over dependence on shifting cultivation. So, life of the tribal jhumia families are very hard and challenging. The State and Central governments have implemented the jhumia rehabilitation schemes for rehabilitation of tribals. Later, the scheme named 'Watershed Development Project for Shifting Cultivation Areas' was executed during the Seventh-Five-Year Plan for resettlement of the jhumias. This scheme was introduced for the north-east region and is fully sponsored by the central Government. Government implemented schemes for replacement of Jhumias by agriculture, horticulture, animal husbandry and pisciculture in compact blocks. These



schemes were initially implemented through District Administration and later through various government agencies.

Rubber cultivators of the region are facing many challenges. Lack of skilled workers, lack of finance, low price, low quality of the rubber sheet, shortage of government subsidies, lack of support from the government agencies, and shortage of modern technologies were the basic challenges before the rubber cultivators.

Conclusion

There is scope for rubber plantation in northeastern region. Rubber plants were first planted in Assam in 1950. Karimkhanj, Karbi Anglong, Kamrup and Goalpara districts are well-known for rubber plantation in Assam. Rubber plantation is popular among the tribes in the East, West, North and South Garo Hills of Meghalaya. Kolasib and Lunglei districts of Mizoram have potentiality for rubber plantation. Peren, Mokokchung, Wokha, and Dimapur are the districts of Nagaland are popular for rubber plantation. Tuensang, Zunheboto, Mon, and Longleng districts have potentiality in such plantation. There are prospects of rubber plantation in Longding, Tirap, Changlang, Lower Dibang Valley, Lohit, East Kameng, Papum Pare, West Siang, and East Siang districts of Arunachal Pradesh.

Assam has around 60,000 hectares while Meghalaya's have around 18,300 hectares of land under the rubber cultivation. Tripura have around 89.26 thousand hectares of land under rubber cultivation. Nearly 19,132.5 hectares' land is under rubber plantation in Nagaland. Rubber board have been identified 25,000 hectares of land is suitable for the plantation in Arunachal Pradesh. Tripura is a leading rubber producer state in north east India. There were also many challenges before the rubber plantation in the region was established. They are the shortage of modern technologies, lack of finance, low quality of the rubber sheet, shortage of government subsidies, lack of skill workers, low price of rubber, and lack of support from the government agencies.

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