

RUBBER WOOD: A STUDY OF SUPPLY AND DEMAND IN INDIA.

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Introduction

The shrinking of the area under forests has been causing great concern and anxiety among the Indian planners and policy makers for a long time. The per capita forest area which was around 0.2 hectare in 1954-55 has declined to 0.11 hectare by 1982-83. The National Forest Policy Resolution of 1952 proposed to increase the area under forests to 33.3 per cent of the total land area. But the target has not been fulfilled as the percentage was only 22.8 in 1982-83.

With the increase in population, the demand for wood of every kind is bound to increase. Our people are traditionally depending on firewood for cooking. Wood is also required for a variety of uses in such industries as paper, plywood, furniture, building, match, packing case and a host of others. Naturally there must be increase in the availability of wood; but unfortunately there is a decline in the availability. The gravity of the situation has been recognised by the Sivaraman Committee on Backward areas. The Committee noted that by the turn of the present century rural India would need 250 to 300 million cubic metres of wood every year and to meet that requirement it would be necessary to plant fast growing trees over an area of four million hectares every year for the next 20 years*. In this connection an examination of the role of rubber plantation industry to alleviate the

situation is relevant.

Findings of studies

To evaluate the demand and supply of rubber wood, the Rubber Board has been carrying out studies frequently. A study has been conducted recently to assess the availability of rubber wood in the next five years. The study covered around 10000 hectares under rubber. The information was collected from the estates by sending a questionnaire. A similar study was made in 1972-73. The present study collected information on the type of rubber trees felled in the estates, the number of trees per hectare at the time of felling, the quantity of wood obtained per tree, the cost of felling, the programme of felling during the next five years etc.

The present study has revealed that at the time of clear felling there were 227 trees per hectare. In the previous study (1972-73) the corresponding figure was 184 trees. The difference for the number of trees in the two studies is due to a number of factors. In 1972-73, the trees felled for replanting were mainly ordinary varieties, whereas the present study shows that they are more often clonal seedling trees. It is a common knowledge that high yielding clonal seedling trees are usually looked after well by the planter compared to ordinary varieties and as a result the stand per hectare at the time of clearfelling would be higher. Further the application of fertilizers and plant

protection chemicals has been more in vogue during the last twenty years when these trees were in their prime of youth. These reasons coupled with the good maintenance, resulted in more number of trees available at the time of clear felling. The initial stand however is higher and according to the Rubber Board recommendation it is to be 420 to 445 trees per hectare for buddings.

Although there are more trees at the time of clear felling, the wood per tree is found to be lower in the present study compared to the previous one. According to the present one, the average wood available per tree is 31 cft (0.88 cmt) as against 37 cft (1.05 cmt) in the previous study. This decline is due to the fact that when there are more trees in a unit area, the size of each tree is bound to be lower, because of the competition for plant nutrients by the trees and the consequent lowering of the quantity of available plant food among them, resulting in lower girthing per tree. The increase in the number of trees at the time of clear felling has resulted in 3 per cent increase in the total wood available from a hectare.

It has been found in the present study as well as in the previous one that a certain percentage of wood is used in the estate itself, as firewood in the smoke house and by the workers. Around 10 per cent of the total wood is used in the estates and it is mainly of branch wood.

There has been increase in the price realised by the estate

*Commerce, Bombay 8 September, 1984. p. 384.

from the sale of wood. In the previous study the price per tree was around 18 rupees which has gone up to Rs. 122 in the present one. However such a price is generally available to estates accessible by road. Consequently there has been increase in the cost of clear felling which was Rs. 2.50 per tree in 1972-73. The corresponding figure is Rs. 14/- per tree today.

The Rubber Board has been encouraging subsidised replanting since 1957. The progress of replanting over the last five years averaged around 4000 hectares per annum. On that basis and taking into account the findings of the above study, 28 million cft (0.79 million cubic metre) of rubber wood would be available in India per annum. It has been found from studies that on an average the rubber tree would give about 60 per cent of stem wood (round wood) and 40 per cent of branch wood. On that basis the stem wood and branch wood available per year are placed at 17 million cft (0.48) million cmt) and 11 million cft, (0.31 million cmt) respectively. Most of the branch wood is utilised as firewood in Kerala and a large part of it within the estates themselves.

Utilisation of rubber wood

Surveys have been conducted periodically to find out the number of saw mills exclusively or predominantly handling rubber wood in Kerala. The surveys conducted in Kottayam district a few years ago and Quilon district last year, have revealed that there were 163 saw mills handling rubber wood. Idukki, Ernakulam, and Trichur districts are the other three important districts producing rubber wood. In these districts the number of saw mills handling rubber wood is placed at 150. The main activity of these units is to saw the stem wood for manufacturing packing case

materials. Two units are also located in Kottayam district of Kerala to produce furniture, window and door frames, shutters, T. V. cabinets etc, out of rubber wood and a number of plywood factories and veneers and splinter factories* also use rubber wood. Still packing case is the most important product of the industry.

Although rubber is produced mainly in Kerala, it is sold outside the State as packing case material. The main centres of consumption of packing case according to importance are Bombay, Madras, Poona, Bangalore, Hyderabad and Coimbatore. Studies have been made as to the quantity of rubber wood consumed in Bombay, Madras, Poona and Coimbatore and a reasonable estimate has been prepared for the remaining places.

Table I shows the quantity of rubber wood consumed at the important centres.

Table I
Packing case materials consumed (1984)

Bombay	—	3.7 million cft (0.105 million cmt)
Madras	—	2.7 " (0.076 ")
Poona	—	2.0 " (0.057 ")
Bangalore	—	1.5 " (0.042 ")
Hyderabad	—	1.0 " (0.028 ")
Coimbatore	—	0.7 " (0.020 ")
Other places in Tamil Nadu, Karnataka & Andhra	} —	2.00 " (0.057 ")
		<u>13.6 " (0.385 ")</u>

In Bombay, Madras, Poona and Coimbatore there exist distinct markets for rubber wood packing case material and a number of dealers have been identified as the principal sales outlets in these places. In all these centres the trade is concentrated in the hands of a few dealers.

* A separate study of rubber wood consumption in plywood factories and veneers and splinters factories is in progress.

Table II
Number of dealers (1984)

Centres	No. of principal dealers identified
Bombay	23
Madras	34
Poona	31
Coimbatore	10
Total	<u>98</u>

Railway wagons, trucks and ships are used to transport rubber wood from Kerala and Kanyakumari district. However shipping is confined to the transport of rubber wood from Calicut to Bombay. For the purpose, mechanised country craft known as *Uru* in Malayalam is used. It takes 5 to 6 days to reach Bombay by this mode of transport and the cost of transport per tonne comes to around Rs. 200/-. By road and rail it takes 4 to

5 days and 12 to 15 days respectively to reach Bombay from Kerala and amount to Rs. 370/- to Rs. 400/- per tonne as transport cost. The packing cases are sold in different grades and the common grade is of the size $\frac{3}{4}$ to 1 inch (1.88 to 2.5 cm) X 5 to 8 inches (12.5 to 20 cm) X 5 ft (1.5 metre). The price per cft (or 0.028 cmt) of the common grade in different marketing centres in the beginning of 1984 is shown in table III.

Table III

Price per cft. of common grade
of packing case material-1984

Bombay	Rs. 26 per cft (0.028 cmt)
Poona	26 "
Madras	25 "
Coimbatore	23 "

The future

There appears to be vast scope for converting rubber wood into quality wood with a view to making quality products. At present there is some awareness regarding the use of rubber wood for the purpose of manufacturing plywood. In a recent study by the Forest Research Institute of Kerala has been observed: "In India at present rubber wood is mostly used for firewood, packing cases and match veneers and splinters. Its susceptibility to fungal and insect attack limits its wider

utilisation, although studies elsewhere have established the suitability for rubber wood for furniture panel products etc. Rubber wood will continue to be utilised if it is not treated with preservative chemicals for protection against fungal and insect attack".*

From the studies undertaken in the Rubber Research Institutes in various countries it has been found that preservative chemicals can be applied to rubber wood by pressure methods or non-pressure methods. The KFRI has done research work on a non-pressure method of diffusion of preservative chemicals,§ and have come up with a recommendation. The report concluded: "Rubber wood is easy to work with hand tools. It

*KFRI Research Report No. 15, Kerala Forest Research Institute, Peechi, Dec. 1982. P. 1.

§ Ibid. P. 12.

does not split while nailing. Treated rubber wood will be highly suitable for making low-cost and medium quality furniture items, door and window frames etc.¶"

Rubber wood is being used for furniture manufacturing in other countries after treatment. The chemically treated rubber wood is a light hard wood with a pleasing colour and fair grains. There is no doubt that it would be possible for us too to undertake large scale use of this material for such products. What is required is to create an awareness of the vast potential of this raw material.

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¶ Ibid.

MALAYSIA BUYS UNIROYAL ESTATES

Uniroyal, the US tyre company has announced the sale of its plantations in Malaysia, totalling nearly 11,000 hectares, for 199m ringgit (\$84m) to Permodalan Nasional, the Malaysian Government's investment agency. With the sale, there are now only two foreign groups still with substantial plantations in Malaysia. They are the French Socfin company, with 28,000 hectares and the British-Dutch Unilever group with 14,000 hectares. In the past decade, Malaysian companies, including government agencies, have been gobbling up foreign-owned plantations as part of the government's policy of buying back control of the country's natural resources. Estates bearing such famous foreign names as Dunlop, Guthrie, Harrisons and Barlow are now owned by Malaysian interests. Permodalan Nasional is buying the Uniroyal plantations through its wholly-owned subsidiary, Kumpulan Guthrie, which was itself taken over in a celebrated dawn raid on the London Stock Exchange in September 1981, and which cost Permodalan nearly 1bn ringgit. Apart from the Uniroyal estates, Kumpulan Guthrie is currently in the final stages of acquiring Highlands and Lowlands, a publicly listed plantation group with 28,000 hectares. It is offering to pay 2.7 ringgit cash for the 302m shares of High and Low, valuing the company at over 185m ringgit. With the latest acquisitions, the big four Malaysian plantation groups are Kumpulan Guthrie (121,000 hectares), Harrisons Malaysian Plantations (85,000 hectares), Sime Darby (77,000 hectares) and Kuala Lumpur Kepong (61,000 hectares).