

Early Experiments in Manufacture of Caoutchouc in Assam

Shrutidev Goswami

The caoutchouc (India-rubber) forests in Assam extended over large areas in the Kamrup, Darrang, Nowgong, Sibsagar and Lakhimpur districts and in parts of the Naga and Khasi and Jaintia hills, upto an elevation of 2,500 feet.¹ These were generally situated at the foot of the hills in low and damp ground, covered with dense evergreen forests. They were very much scattered and were at a considerable distance from the inhabited parts of the province.² The tree was believed to have been originally discovered by Dr. Roxburgh, a pioneer in botanical study, in 1810. The gum found here was peculiar to this region, and was different from the one found elsewhere in the world. The gum or the juice was extracted by transverse incisions across the bark down to the wood, a full-grown tree having many such incisions at the same time. The quantity obtained from one single tree had not been accurately measured, but half a *maund* could well be considered to be the average produce.³

The first experiment of the manufacture of rubber in Assam was made in the Charduar forests in the district of Darrang by Messers Kemp and Brownlow, who were allowed exclusive privilege of manufacture of rubber for one season, from October 1838 to May 1839 on payment of rupees four for every *maund* of the manufactured article.⁴ The estimated quantity to be produced at the factory at Charduar during that period was extremely small, viz. seven hundred *maunds* (equivalent to fifteen hundred *maunds* of the liquid) and the revenue to be derived, at the rate of four rupees a *maund* would be Rs. 2,800.⁵ At the request of the manufacturers this duty was later abolished and the forest was rented to them for three years at a fixed annual rent of rupees three thousand.⁶ The sudden death of C. Brownlow, one of the partners of the concern, however, brought an abrupt end to the operation. Since then two or three experiments were made to manufacture the article but all proved abortive.

The growing demand of the article in England soon induced

other speculators to enter into the field. Amongst them was I. N. Martin, Executive Officer of Lower Assam, who solicited on behalf of his brother an exclusive privilege to collect caoutchouc gum from Charduar forest rent-free for a period of ten years with a view to manufacture rubber by a new and improved process.⁷ Martin was also of the opinion that the land surrounding the Charduar forest being incongenial for summer cultivation the same could profitably be utilised for the development of a permanent trade in an article like caoutchouc, which, in his opinion, would not only benefit the state but also the inhabitants of the region by holding out to them the means of collecting the gum and selling the same to the manufacturers.⁸ The Board of Revenue, Lower Provinces, was conscious of the benefit which the province was likely to derive from the production of an article of such commercial importance and was desirous of "affording all reasonable encouragement to individuals disposed to embark their capital and bestow their labour on such an undertaking". The Deputy-Governor of Bengal, therefore, readily agreed to grant to I. N. Martin, on his brother's behalf, the privilege of collecting the caoutchouc gum in the Charduar forest for ten years without revenue. The privilege granted was not exclusive ; the Government reserving for itself the right to grant similar privileges to other speculators applying for similar permission.⁹ The right given to Martin was to be expressly confined to "the collection of the gum in question and will not be allowed to interfere with any existing rights whatever, whether of cultivation, timber cutting, right of way or other wise ; nor it is to prevent the officers of Government during the term of the grant from disposing of any part of the forest in any manner that may be thought advisable."¹⁰

Martin was not satisfied with the privilege so granted. He argued that bestowing of similar rights to other parties simultaneously would create a lot of difficulties not only to his enterprise but also to the Government ; there would always be the danger of others trying to obtain the secret of his process with the help of native workers. He begged, on behalf of his brother, the enjoyment of the sole right to collect the gum from the Charduar forest.¹¹ In forwarding the letter of Martin to the *Sudder Board of Revenue* for consideration, Jenkins, the Commissioner of the province, pointed out that competition of two or more speculators in the same forest would have the effect of raising the price of the gum beyond what the speculation would bear. There was also the imminent danger of overtapping of the gum causing undesirable injury to the trees.

On the other hand, the Commissioner argued that if Martin was allowed an uninterrupted freedom over a particular tract, there was every possibility that the undertaking could be established on a 'permanent footing' and that it would be to the best of his interest that the trees were not destroyed by overtapping.¹² The Deputy-Governor of Bengal reviewed the whole issue in its proper perspective. He was, however, against the establishment of a 'monopoly' of the trade in question.¹³ But in order to ensure Martin sufficient guarantee that "the fruits of his industry and capital in any given part of the Forest may not be appropriated by those who come after him", the Deputy-Governor agreed, without departing from the general policy, that the interest of the speculator should be protected as far as possible, but at the same time laid down that if in future any other 'respectable parties' applied for similar privileges "it should be competent to the government at its discretion to cause the forest to be divided and allowed among the several speculators in such manner as may appear equitable and practicable".¹⁴

Martin's speculation unfortunately proved a failure. The first shipment of the gum sent in 1847 reached London at a time when England was passing through a great commercial crisis. The value of the article was consequently so depreciated that there was hardly any inducement for additional production. Moreover, the article, though useful for ordinary purposes, was actually much inferior to the product of South America and hence it could not compete with the latter in the London market.¹⁵ The undertaking was eventually abandoned.¹⁶ In 1851, another Martin, son of J. C. Martin, the last speculator, having recently arrived from England, was desirous of availing himself of the exclusive grant of the Charduar forest with a view to revive his father's undertaking. In view of the risks involved in the process and the uncertainty of the London market Martin appealed that the whole of the forest should be given to him for a particular period without payment of revenue, no portion of it being liable to resumption within that period. Since no other party was engaged in the work after the abandonment of the earlier project in 1847, the Board of Revenue recommended that the applicant be granted the sole privilege in one half of the forest for a period of fifteen years.¹⁷ Shortly afterwards, Messers Ritchie and Company of Belfast also applied for a similar right over the other half of the forest.¹⁸ The Government's policy being opposed to the creation of "anything like a monopoly" over the enterprise it could not dissuade other enterprising speculators from embarking on a similar venture. It, therefore, entertained both the

applications and directed that Martin be allowed the absolute privilege for fifteen years over one half of the forest to be chosen by him.¹⁹ As per terms of the agreement Martin was not allowed to interfere in any way in the executive management of the forest nor was he permitted to cut any tree or grass or to gather any other produce of the forest. He was further instructed to plant every year such number of rubber trees as he might thought reasonable and necessary for the healthy preservation of Charduar forest.²⁰ As regards the other half of the forest the Government reserved it for one year during which time the other party (Messers Ritchie & Co.) was asked to enter into necessary agreement before commencing the work. On their signing the agreement Messers Ritchie and Company was leased the eastern portion of the forest on the same terms and conditions on which the other portion had already been given to Messers Martin and Company.²¹

During the first year Messers Martin and Company collected gum sufficient to manufacture 750 *maunds* of solid rubber. The output, though below expectations, was certainly not discouraging to the manufacturers. On the other hand the manner in which the operation was conducted greatly benefitted the ryots as the money spent among them in purchasing the gum was bound to improve their material condition and afford them the means of extending their cultivation. This induced them to apply for an additional lease of the Noduar forest, adjoining the Charduar forest, containing an area of roughly 280 square miles. This forest had not been worked before, but was expected to yield a large quantity of caoutchouc gum. The forest was subsequently leased out to the applicants for fifteen years without payment of revenue and on the same terms and conditions on which a part of the Charduar forest had been granted.²² It appears that the two companies mentioned above started working jointly under the name Martin Ritchie and Company and exported in 1852-3 caoutchouc worth more than Rs. 20,000.²³ With the establishment of a second factory the production increased considerably in the next few years. However, by 1859 a large number of trees were found to have been killed by overtapping.²⁴ Consequently the policy of leasing the rubber forests to private parties for long period had to be revised so as to give maximum protection to the trees.

In 1863 the Deputy commissioner, Lakhimpur, received an application from one Campbell for the grant of extensive tract of land in North Lakhimpur for the purpose of collecting gum to manufacture rubber. In pursuance of the policy of the Government

of not granting long lease, the application was rejected and on the orders of the Board of Revenue the forests were sold to the highest bidder for one year, first by dividing the district into four *mahals*, two on the north and two on the south bank of the Brahmaputra.²⁵ A similar step was also taken in respect of the rubber-producing Mangaldoi Sub-division.²⁶

In 1865 a proposal was made to replace the system of annual farming of the rubber forests by an arrangement made for ten years. It was pointed out that under the present arrangement the farmer was unable to introduce any 'organised scheme' for collecting the gum and there was every likelihood that a great harm would be done to the trees by overtapping. The proposal was transmitted to the Conservator of Forests, Lower Provinces, by the Board of Revenue, who on the contrary observed that ten years' lease was no protection against overtapping and recommended the continuation of the existing system.²⁷ In 1869 a proposal was made to declare the rubber tree in Assam a reserved tree on all Government lands and to place restriction upon the sale of the raw produce in the neighbouring markets. It was also decided to prohibit tapping of the trees on Government land and to open only one or two well defined ranges at a time. Here the collection of the gum was to be permitted under licenses only.²⁸ Almost simultaneously it was decided that artificial propagation of *ficus elastica* would not only be a remedy to the problem of overtapping but also a good financial proposition. With this objective in view two experimental rubber plantations were set up in 1874, one at Charduar and the other at Kulsi in Kamrup district.²⁹

It is thus clear that the preservation of the vast caoutchouc forests of Assam had been always a very delicate task for the Government. Originally no positive step was actually taken to preserve these trees. As seen already, the forests were let out to various speculators for long periods. In their zeal to derive the maximum, the speculators often resorted to overtapping of the gum and thus inflicted permanent injury to many of the healthy trees. The preservation of the rubber-producing trees of Assam from wasteful exploitation was, therefore, a matter of great significance, more particularly because, with the increasing demand of this commodity in the world market there had also been a rise in revenue.³⁰ Still the management of the vast rubber forests in Assam was no easy task. The British territory was surrounded on all sides by rubber producing country where no import duty was ever levied. Consequently, even if a man was found in possession of the gum, he would

say that he had collected it outside the British territory and it was extremely difficult to prove his guilt. A strict vigilance was out of question because the trees were scattered along the whole line of the frontier.³¹ Secondly, seldom were the boundaries within which the lessees were to conduct their operations clearly defined. As a result the farms let out in each district had been held to include "not only the right to buy the India-Rubber produced in the districts but also foreign caoutchouc i.e. India-Rubber collected in and imported from territory to which the British civil and revenue jurisdiction has not been extended."³² To remove this anomaly the Governor-General observed that henceforth the forest area within which the district officers were to exercise their authority should be clearly defined and that the Government would not be responsible for the protection of life and property of its subjects beyond that boundary line.³³ Such restrictions it was also calculated, would induce the tribesmen to bring rubber within the line of the British territory and by establishing marks at certain advantageous places the Government would be in a position to purchase the rubber for itself or might allow others to do so under necessary supervision and control.³⁴ These measures proved highly beneficial in the subsequent years.

References

1. "The caoutchouc tree itself occurs very generally as a solitary tree occasionally however two or three may be found grouped together. In size they are far superior to all other trees and especially in the extent of surface covered by their branches. They certainly deserve to be ranked amongst the largest known trees being probably inferior in size to the banian only" .. 'Report on the Caoutchouc Tree of Assam', *The Journal of Asiatic Society of Bengal*, vii (January to December 1838), pp. 132-142.
2. Bengal Revenue Proceedings, Forests (hereafter BRP(F)), October, 1871, Nos. 9-10, Memorandum on the Conservancy and Working of the Caoutchouc Forests in Assam.
3. 'Report on the Caoutchouc Tree of Assam', *op. cit.*, p. 137.
4. Bengal Revenue Proceedings (hereafter BRP), 12 March, 1839, No. 130, Jenkins to *Sudder Board of Revenue*, 28 November 1838.
5. *Ibid.*
6. BRP, 24 March, 1847, No. 6, Jenkins to *Sudder Board of Revenue*, 23 November 1846.
7. *Ibid.*, Martin to Jenkins, 16 November 1846 ; also *Ibid.*, No. 7,

- Martin to Jenkins, 28 December 1846.
8. *Ibid*, No. 6, Martin to Jenkins, 16 November 1846.
 9. *Ibid*, No. 8, Beadon to Secretary to *Sudder* Board of Revenue, 24 March 1847.
 10. *Ibid*.
 11. BRP, 4 August, 1847, No. 10, Martin to Jenkins, 30 April 1847.
 12. *Ibid*, Jenkin: to the Board of Revenue, 18 May 1847.
 13. *Ibid*, No. 11, Halliday to Secretary to *Sudder* Board of Revenue, 4 August 1847.
 14. *Ibid*.
 15. BRP, 14 March, 1849, No. 4, Martin to Matthic, 13 February, 1849*i*.
 16. *Ibid*, No. 2, Plowden to Grant, 22 January 1849.
 17. BRP, 28 May, 1851, No. 9, Plowden to Grant, 28 March 1851.
 18. *Ibid*, No. 10, Bidwell to Grant, 29 April 1851.
 19. *Ibid*, No. 11, Seton Karr to Bidwell, 26 May 1851.
 20. *Ibid*.
 21. BRP, 20 May, 1852, No. 7, Dalrymple to Lushington, 20 May, 1852; also A. J. M. Mills, *Report on the Province of Assam*, Calcutta, 1854, see District of Darrang, p. 12.
 22. BRP, 9 December, 1852, No. 17, Dalrymple to Lushington, 9 December 1852.
 23. BRP(F), January, 1872, No. 16, Mcneile to Secretary to Government of Bengal, Revenue Department, 10 January 1872.
 24. D. Brandis, *Suggestions Regarding Forest Administration in Assam*, Calcutta, 1879, p. 60.
 25. BRP(F), January, 1872, No. 16, Mcneile to Secretary to Government of Bengal, Revenue Department, 10 January 1872.
 26. *Ibid*.
 27. *Ibid*.
 28. *Ibid*.
 29. H. P. Smith and C. Purakayastha, *A Short History of the Assam Forest Service*, 1850-1945, Shillong, 1946, p. 7.
 30. For instance in 1871-2 a sum of Rs. 36,125 was realised from *caoutchouc* alone.
 31. BRP(F), Revember, 1872, No. 40, Appendix B, Progress Report of Forest Administration in Lower Provinces of Bengal for the year ending 31 March, 1872; also D. Brandis, *op. cit.*, p. 60.
 32. BRP(F), March, 1873, No. 1, Resolution, Extract from the Proceedings of the Governor-General of India in the Foreign Department, 24 July 1872.
 33. *Ibid*.
 34. *Ibid*.