

Public Works (1898) Department.

RAILWAY BRANCH.

G.O., No. 1311. *Ry*

DATED 21st Oct^r 1898.

[Despatch Abstract.]

Supply of Sleepers

Ordered that Copy of the Resolution of the Board of Revenue regarding the — together with a Copy of the description of Mesua ferrea, be forwarded to the Ry. & as Concerned with an enquiry if they will be prepared to accept Sleepers of the timber for extensions & renewals.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

SERIAL
No. 21

Board of Revenue,
Land Revenue, - Trav.

No. 42

Dated 6th October 1898

Received }
Registered } 13-10-98

Enclosures

Spare copies

SUBJECT.

Submitting to Government
report called for regarding
the supply of sleepers to
railways in the Presidency.

BACK PAPERS.

G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.

REVENUE DEPARTMENT.

1898.

Board of Revenue

(Land Revenue),

MADRAS.

Printed October th.

Proceedings, Forest No. 427, 6th October 1898.

OCTOBER.

Submitting to Government report called for regarding the supply of sleepers to railways in the Presidency.

PROCEEDINGS OF THE BOARD OF REVENUE
(LAND REVENUE).

READ—letter from H. A. GASS, Esq., Acting Conservator of Forests, Southern Circle, dated 5th September 1898, No. 798.

ABSTRACT.—Submitting remarks on Board's Proceedings, Forest No. 301, dated 21st July 1898, regarding the supply of sleepers for the Calicut-Cannanore Railway.

READ—Government Order, No. 1141 Ry., dated 16th September 1898.

ABSTRACT.—Informing the Board of Revenue of the number of sleepers which are likely to be required annually for renewals on the standard and metre-gauge railways in the Madras Presidency, and requesting it to report what steps it proposes to take for supplying them.

RESOLUTION—Forest No. 427, dated 6th October 1898.

In the Government Order read above the Board is directed to report as early as possible for the information of Government what steps it is proposed to take in the matter of the direct supply of sleepers to railways in this Presidency.

2. Certain proposals were submitted in Board's Proceedings, No. 301, dated 21st July 1898, but the figures given in the Government Order now read show that there has been a misunderstanding as regards the size of the sleepers required for the Calicut-Cannanore Railway.

3. The letter from the Agent, Madras Railway, forwarded with Government Order, No. 544, Railway, dated 7th April 1898, gave quotations for two sizes of sleepers, and the Board assumed that the smaller of these, viz., a sleeper of $3\frac{1}{2}$ cubic feet was that which is required for the Calicut-Cannanore Railway and based its proposals accordingly, but from the enclosure to Government Order, No. 1141, Railway, dated 16th September 1898, it would appear that the size required is either that used by the South Indian Railway, viz., $6' 6" \times 9" \times 4\frac{1}{2}"$ or that proposed for the Shoranur-Cochin Railway, viz., $6' \times 8" \times 4\frac{1}{2}"$. The Board will require to have definite information on the point before commencing work.

4. It is observed that the Madras and South Indian Railways pay different prices per sleeper according to the wood of which it is made, and if necessary differential prices can be quoted, after further enquiry, with reference to the wood used and the locality from which it is supplied, but the Board would prefer an all round-rate of Rs. 2-4-0 for a sleeper $6' 6" \times 9" \times 4\frac{1}{2}"$ which, it is observed, is the rate that has been paid by the South Indian Railway for Irul sleepers. The price per sleeper $6' \times 8" \times 4\frac{1}{2}"$ would be Rs. 2-12-0. Delivery would be made at Podanur from Coimbatore, at Kailai from South Malabar, at Calicut and Tellicherry from North Malabar, while those from South Canara would be delivered at any port in Malabar which might be found convenient for the Railway Company.

5. In its Proceedings of the 21st July 1898, No. 301, paragraph 7, the Board offered to supply all the sleepers required for the Calicut-Cannanore Railway if all the timbers mentioned by it were accepted and the road to the Pollachi Upper Anamalai forest were pushed on with. The present Acting Conservator of Forests,

Mr. Gass, in consultation with whom the present Proceedings are written and who is also permanent District Forest-officer, Coimbatore, considers that we do not yet know enough of the Pollachi Upper Anamalai forests to justify us in offering to make any supply from there owing to the long carriage, and the difficulty of converting the prevailing timber, viz., *Mesua ferrea* or *speciosa*; he also considers that the capabilities of the Lower Anamalai forests have been overestimated. The smaller size of the sleeper required, however, makes it unnecessary for the Board to withdraw its proposal to supply 1,36,000 sleepers within three years using only the woods which it now appears are already approved by the Madras and South Indian railways, viz., Karimaradu (*Terminalia tomentosa*), Irul (*Xylia dolabriformis*) and Irambogam (*Hopea parviflora*). Further information from North Malabar even enables it to raise its offer to 200,000 within three years, and if the smaller sleeper be used the number would be 250,000. This does not include the demand for the Tinnevely-Quilon railway. This railway was not mentioned in the former orders of Government and consequently full enquiries have not yet been made as to the capabilities of the Tinnevely forests. A further communication will be submitted on the point, as well as with regard to experiments which are now being made with other kinds of wood in communication with the officers of the Madras Railway Company.

6. It is also proposed to thoroughly investigate the capabilities of the Pollachi Upper Anamalai forests. A saw-mill and wire ropeway have just been successfully installed in the Lower Anamalais in which a tramway has been in work for years, and if similar arrangements on a larger scale can be made for the exploitation of the more extensive and more fully stocked forests of the Upper Anamalais, the Board sees no reason to doubt that it will be in a position largely to increase its contribution towards meeting the very large demand for sleepers which has arisen in connection with the extension of railway construction in the Presidency.

7. The most important timber in the Upper Anamalai forests being *Mesua ferrea* the Board would be glad to be informed at the earliest possible date whether sleepers of that wood would be accepted. It does not appear that any of them has been used by the Madras or South Indian Railways but Gamble, at page 27 of his Manual of Indian Timbers, states that it has been found to answer for sleepers equally well with Pynkadu.

(True Extract.)

Secretary.

To the joint Secretary to Government, Public Works
Department, Railway Branch.

Copy to the Secretary to Government, Revenue Department.

Exd. P. Seetharam.

Order No. 1311 Dtd 2/10/98

Recd G.O. 1141. B. 16th Sept. 98

Brms of Rev. Resolution, 427 Brms. Oct 6th 98.

Order thereon

A copy of the Board's Resolution together with a copy of the description of Mesua Ferrea given in page 27 of the Gambeli book, will be forwarded to the Madras. South India and East Coast Railways, with an enquiry whether they will be prepared to accept sleepers of the timber for extension & repairs with a request that they will specify the size of sleeper standard or meter gauge, which they would be prepared to take. It is noted that in the Govt. of India Standard dimensions the following sizes are recommended, viz for broad gauge 9'6" x 9" x 5", with as a minimum 8'11" x 8" x 5". and for meter gauge 6'0" x 7" x 4 1/2" with as a minimum 5'9" x 6" x 4".

F.V.S.

B

19/10/98

To Pres. Dept.

By Asst M. B.

" S. I. B.

W. J. E. B.

Brms of Rev. Resolution

Mesua Ferrea

Vernacular Names Naglesar, Bengali; Nahor, Assamese; Nangal, Tam.

Naga-kesara, Telugu.

Here quote the part marked in pencil in

page 27 of Gambeli.

Note of the Gov. Secy. In Assam Nahor (Mesua Ferrea) is known to be an excellent sleeper timber. F.V.S.

19/10/98

Mesua Ferrea

Vernacular names. Nagesari, Bengali; Nahor, Assamese; Nangal, Tamil; Naga-Kesara, Telugu.

A large evergreen tree. Heartwood dark red, extremely hard. Pores moderate - sized, often in groups, scarcely, often filled with yellow resin. Medullary rays extremely fine, uniform, equidistant, very numerous. Vascular fine, wavy, concentric lines of light-coloured tissue.

Eastern Bengal from the Monas eastward (though traces of its having formerly been found west of that river occur sometimes in the mounds of places, e.g., Vageshwarbari, or Naksarbari, a town in the Sikkim Terai on the Nepal frontier), Assam, South India, Ceylon, Burma and the Andamans, often cultivated.

The weight and transverse strength have been determined by the following experiments: -

		Weight	Value of $\frac{1}{2}$
A. Mendis	Ceylon N° 57, with bars 2' x 1" x 1" found	72 lbs	994
Brandis	Burma N° 18, 1862	69 "	-
Bennett	Andamans N° 4, 1872	70 "	1058
	(Assam (4 specimens) 1878	67.5 "	-
Smythies	Kanara (1 - - -)	62 "	-
	Burma (6 - - -)	70 "	-

Several of our specimens, however, reached 74 to 76 lbs per cubic foot in weight. It is very durable. It has been found to answer for sleepers equally well with Pynkado, but the cost of cutting the hard wood, its weight, and the freight from the Tenasserim forests to Calcutta prevent its being much used, as the total cost is scarcely covered by the price (Rs 5) per broad-gauge sleeper. It is used for building, for bridges, gunstocks and tool handles; but its more general use is prevented by its great hardness, weight and the difficulty of working it. In Ceylon an oil is obtained from the nut, and the tree is often planted for the sake of its handsome flowers.

Noted by the Consulting Engineer for Railways. In Assam Nahor (Mesua Ferrea) is known to be an excellent ~~sleeper~~ timber.