

## MADRAS RECORD OFFICE.

Government of Madras.

*Revenue* DEPARTMENT.

|                            |       |                          |
|----------------------------|-------|--------------------------|
| G.O. No.                   | 1124  | Press<br><del>Mis.</del> |
| <sup>234-37</sup><br>Dated | 28-7- | 1870.                    |

Not to be folded or roughly handled

Read the following papers :—

No. 234. Despatch from the Right Honourable the Secretary of State for India, (Revenue—Forests,) to His Excellency the Right Honourable the Governor in Council, Fort Saint George, dated India Office, London, 21st December 1869, No. 11.

I TRANSMIT to your Excellency in Council the accompanying copy of a letter from the Madras Railway Company and  
Dated 30th November 1869. of its enclosure, which I have allowed

the Company to forward to their Agent at Madras, complaining of the alleged high rate of royalty charged by your Government for the firewood cut in your jungles.

2. The policy to be pursued on this question has been uniformly laid down by all my predecessors in this department in various despatches to the Governments of all the Presidencies, and may be summed up to be, the necessity of increasing the supply of timber and firewood so as to keep pace with the growing necessities of the demand for it, whether that demand arises from the wants of the community, or especially from the requirements caused by the introduction of railways, steamboats, or machinery of any kind, consuming wood for fuel or construction; and to dispose of the produce of such conservancy as freely as may be possible at the fair market-price.

3. In the case of the railways it has been especially stated that, as their demands are large and urgent, the conservancy measures must be increased to meet their requirements; but it has been always distinctly laid down that they are not entitled to special privileges or advantages above the rest of the community. These views were especially set forth in the despatch of Secretary Earl de Grey and Ripon to the Governor-General of India in Council, numbered 8, and dated the 28th of February 1866, a copy of which was forwarded to your Government on the 9th of May following, on the occasion of a similar complaint from the Madras Railway Company.

4. I adhere entirely to this policy, which seems to me based upon sound principles. It may, however, be a question whether in this instance the increase of royalty from 10 to 16 Annas was judicious. But this is a point for the consideration of your Excellency in Council, and I desire that you will cause an inquiry to be made, and, should the rate be found to have been fixed at a higher rate for the community than is expedient, that you will cause it to be reduced to the amount which you think necessary.

5. I transmit a copy of my reply to the Madras Railway Company.

ENCLOSURE No. 1.

From JULIAN BYRNE, Esq., Secretary, Madras Railway Company, to the Under-Secretary of State for India, dated London, 30th November 1869, No. 2,495.

The Board of Directors propose, with the sanction of the Secretary of State for India in Council, to address the letter as per margin,  
No. 442. copies of which are enclosed, to the Agent and Manager of the Company at Madras.

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2. In submitting this draft for approval the Board are desirous of drawing especial attention to its subject, the great and continued additions which the Madras Government have been making to the royalty or tax they levy on firewood cut in their jungles, and the very serious effect of this on the working charges of the railway. It will be seen that within a very short time this tax has been added to till it now amounts to four times the original sum, and is equal to a charge of not less than 15 or 16 shillings upon the wood-fuel, equivalent in power for steam purposes to a ton of coal. This enormous addition to the cost of wood-fuel is driving the railway back to the use of English coal and coke, and depriving it of the advantage of cheaper fuel which it has hitherto enjoyed, and on which its remunerative working so much depends.

3. The Directors have many difficulties to contend with in earning, with a traffic so limited as that of the Madras Railway, any adequate return on its capital, and they cannot afford to lose in this way one of the few advantages they have possessed. With the zealous co-operation of their servants they have striven to construct and to work the railway cheaply, and have established, they hope, some title to remonstrate against proceedings which go to render those exertions unavailing. To the payment of a moderate duty on the wood for defraying the cost of conservancy the Board would never think of objecting, but they do strongly object, and they trust the Secretary of State will agree with them, to the Government of Madras taking advantage of their command of the sources of supply to raise their charge and make a profit by such means out of the railway.

4. I am therefore desirous to express the Board's trust that the Secretary of State will be pleased to communicate with the Government of Madras, in view to a re-consideration of the recent increase in the royalty, and to such consequent reduction therein as will allow of the Company supplying themselves with wood-fuel at a reasonable cost as heretofore.

ENCLOSURE No. 2.

From JULIAN BYRNE, Esq., Secretary, Madras Railway Company, to the Agent and Manager, Madras Railway, dated London, 26th November 1869, No. 442.

THE Board have learned with much concern from your letter No. 853, paragraph 14, that the Government have proceeded to raise still higher the royalty charged on wood cut for railway purposes in their jungles. From 4 Annas the 1,000 lbs., which the Board believe was the original rate, it is now 16 Annas or fourfold, and this rise has been rapid. In 1867 the charge was 6 Annas; on the 1st of June 1868, it was raised to 10 Annas; and on the 1st of September last, it was raised to 16 Annas per 1,000 lbs. weight. Taking the equivalent in wood for a ton of coal, as proved by careful experiment, to be from 3½ to 4 tons, it follows that the royalty now levied on the wood-fuel is equal to one of 15s. or 16s. a ton upon coal—an increase of cost so great as to deprive the Company of much of the advantage they had and looked forward to having in the use of wood-fuel.

2. When the Company had proposed to undertake the planting of tracts of waste land to supply themselves with firewood, and acquired land for the purpose, but were obliged to abandon the plan and give back the land to Government, they received the assurance of the Secretary of State that the Government would "take such measures as would meet the requirements of the case;" and it seems to the Board that after this

Mr. Stansfeld's letter, 22nd March 1866.

to proceed to raise so enormously the royalty, and consequently the cost of the fuel, is hardly consistent with that arrangement. The requirements of the case, they submit, cannot be said to be met if the cost of the article be raised so as to deprive the consumer of the advantage he had at the time in using it. The royalty, which was then but 6 Annas, is now 16; the increased cost of the fuel in consequence is leading, you inform us, already to a larger use of coke and coal in its stead, and if the Madras Government pursue the course they have taken, it may clearly end in interdicting to the railway the use of wood-fuel altogether. The Board cannot, of course, suppose that any such intention has existed they believe rather that the effect of the increased royalty has

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not been fully appreciated, and that when the rate of one Rupee per 1,000 lbs. of wood is translated as it now is into a rate upon the quantity of wood equivalent to a ton of coal for locomotive purposes, it may present itself under a different aspect, and the Government may be led to consider favourably the Company's claim to have their requirements more reasonably met than they will be under such increased rates of royalty.

3. In this expectation the Board desire that you will lay these representations before the Government, with a request that the royalty may be allowed to remain at 10 Annas per 1,000 lbs. of wood as it stood before the last increase. This will still be equal to a charge of 9 or 10 shillings upon the quantity of wood equivalent to a ton of coal, and is a royalty higher by 66 per cent. than was payable when the correspondence above referred to took place.

ENCLOSURE No. 3.

From the Under-Secretary of State for India, to the Secretary, Madras Railway Company, dated India Office, London, 21st December 1869.

I AM directed by His Grace the Secretary of State for India in Council to transmit to you, in reply to your letter of the 30th ultimo, a copy of a despatch\* which he has addressed to the Governor in Council at Madras on the subject of the complaints made by the Madras Railway Company as to the increase of royalty charged upon firewood cut in the jungles belonging to Government at Madras.

\*Dated 21st December 1869, No. 11.

2. This despatch will explain the views entertained by the Duke of Argyll upon the points raised in your letter, but I am to state that His Grace cannot admit that the words quoted by you in your letter to the Company's Agent at Madras from Mr. Stansfeld's letter of the 22nd of March 1866, that the Government would "take such measures as would meet the requirements of the case," were intended or can be construed to mean that any special privileges or advantages were to be conferred on the Railway Company beyond those which were granted to the rest of the community. The contrary doctrine has always been laid down by previous Secretaries of State, and His Grace considers it to be sound in principle.

No. 235. Endorsement of the Secretary to Government, Public Works Department, dated 13th January 1870.

Read the following letter from the Consulting Engineer for Railways, to the Secretary to Government, Public Works Department, dated Madras, 11th January 1870, No. 10.

I HAVE the honour to enclose, for the consideration of Government, a letter\* from the Agent of the Madras Railway Company, with which is forwarded a copy of a communication from the Board of Directors, soliciting a re-consideration of the existing rate of seigniorage levied upon all wood felled in Government forests. That rate was fixed by Government† at 1 Rupee per 1,000 lbs. and came into force on the 1st September 1869.

† Vide G. O., Revenue Department, 19th June 1869, No. 2,093.

2. The Board observe that the seigniorage (or royalty, as they term it,) has risen rapidly of late, and that it now stands at four times the original rate. They

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state that, "taking the equivalent in wood for a ton of coal, as proved by careful experiment, to be from 3½ to 4 tons, it follows that the royalty now levied on the wood-fuel is equal to one of 15 or 16 shillings a ton upon coal—an increase of cost so great as to deprive the Company of much of the advantage they had and looked forward to having in the use of wood-fuel."

3. The Board further refer to the proposal which came forward in 1866, that the Company should undertake the planting of tracts of waste land to supply themselves with firewood, stating that when they were obliged to abandon the plan "they received the assurance of the Secretary of State that the Government would take such measures as would meet the requirements of the case;" adding, "that after this to proceed to raise so enormously the royalty, and consequently the cost of the fuel is hardly consistent with that arrangement."

4. The Board seem to have quite misapprehended the object which the Government had in view in the late change in the price of firewood. And in the first place it seems to me that the terms "seigniorage" and "royalty," when applied to the price charged for firewood, are out of place and calculated to mislead. The transaction seems to me to partake of the nature of a sale as really as in the case of Salt. And, looking at the question from this point of view, I think that the price now charged for firewood (which, as the Board observe, is equal to a charge of 15 or 16 shillings a ton for coal), can only be regarded as very moderate. The Board seem not to be aware that the recent increase in the rate was based upon a principle which has been repeatedly enunciated by Government, namely, that the price to be charged for timber cut in Government forests should be regulated with reference to the cost of production. It is clear that the recognition of this principle must necessarily be the first step in dealing with "the question of keeping

\* Letter from Under-Secretary of State, to Board of Directors, 22nd March 1866—*vide* G. O., 8th January 1867, No. 61. "up the supply of wood for the railways," which, as the Board observe, the Secretary of State assured them should receive the special attention of the Government.

5. In speaking of the land which they acquired in 1866 for the purpose of forming fuel-plantations, the Board state that they were obliged to abandon "the plan and give back the land to Government." I beg to point out that the Board are mistaken in this. It is true that the Secretary of State† refused

† In letter from Under-Secretary of State, 22nd March 1866. at first to authorize the experiment, but he was subsequently induced‡ to reconsider his objections; and the final

‡ In letter from Under-Secretary of State, 20th July 1866—*vide* G. O., 8th January 1867, No. 61. abandonment of the project was the

§ *Vide* G. O., 4th April 1867, No. 1,018. voluntary act of the Company's representatives. It is to be greatly regretted

that the experiment was not allowed to be made, if only for the sake of proving how moderate the price is which the Railway Company are now called on to pay for firewood. There can be no doubt that any fuel grown by their agency would have cost a far higher figure.

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ENCLOSURE No. 1.

From the Agent and Manager of the Madras Railway Company, to the Consulting Engineer for Railways, dated Madras, 5th January 1870, No. 8.

THE question of seigniorage on firewood has lately engaged the serious attention of the Board of this Company, and I have been desired by the Directors to solicit the consideration of His Excellency the Governor in Council to their observations as made known in the Secretary's letter of the 26th November, No. 442, a copy of which is enclosed.

2. The grounds on which the Directors base their application appear to me so cogent that I have the honour to request you to be good enough to bring the subject under the notice of the Government in view to a reduction of the seigniorage on wood used for locomotive purposes on this railway to 10 Annas per 1,000 lbs.

3. The question is a most important one, as it bears directly upon our working expenses, and I trust therefore that His Excellency the Governor in Council will favourably consider the representations of the Railway Directors.

TRANSFERRED to the Revenue Department with reference to the Order in that department, No. 2,093, dated 19th July 1869.

(Signed) CHARLES A. ORR, Colonel, R.E.,  
Secretary to Government, P.W.D.

No. 236. From Major R. H. BEDDOME, Officiating Conservator of Forests, to the Acting Secretary to Government, Revenue Department, dated camp at Ootacamund, 6th April 1870, No. 2,032.

WITH reference to the question now before Government of the supply of railway-fuel from our reserves and plantations, I have the honour to inform you that the following area is at present under reserve for this purpose.

2. Forest, jungle, or plantation-sites reserved for railway-fuel purposes:—

| District.      | Name of Reserve or Plantation. | Acres.      | Remarks.                                                  |
|----------------|--------------------------------|-------------|-----------------------------------------------------------|
| Cuddapah ...   | Balapilly ...                  | 1,000       | Reserve of jungle, fenced round.                          |
|                | Vallacantoo ...                | 2,000       | Do. do. unfenced.                                         |
|                | Kondapooram.                   | 497         | Plantation-site now being handed over.                    |
|                | Kamalapooram.                  | 249½        | Plantations commenced in 1869 now being fenced in.        |
| North Arcot.   | Reddipilly ...                 | 500         | Plantations commenced in 1869, not yet fenced in.         |
|                | Trevellum ...                  | 358         | Casuarina plantations nearly all planted up, also fenced. |
|                | Thellay Reserve A. ...         | 5,000       | Reserve of jungle not yet fenced in.                      |
| Salem ...      | Do. B. ...                     | About 2,560 | Reserve of jungle fenced in.                              |
|                | Do. C. ...                     | Do. 640     | Do. do. do.                                               |
|                | Do. D. ...                     | Do. 640     | Do. do. do.                                               |
|                | Do. E. ...                     | Do. 1,280   | Do. do. do.                                               |
|                | Do. E. ...                     | Do. 1,280   | Do. do. do.                                               |
| Coimbatore ... | Mallapooram }<br>Plantation. } | 100         | Planting lately commenced, partially fenced in.           |
|                | Waliar Reserve.                | 1,000       | Reserve of jungle and forest all fenced in.               |
|                | Total...                       | 17,104½     |                                                           |

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3. This is only an area of between 26 and 27 square-miles, but it is estimated that nearly 100 square-miles will be necessary for a permanent supply for the Presidency. Much jungle and forest-land is still available in the districts of Cuddapah (near Balapilly), North Arcot, South Arcot, Salem, Madura (the forest-tracts near Nattam, the Kurandamallays, and Serumallays), Malabar (Chenat Nair forest) and Bellary (sandy tracts suited for Casuarina). To enable our officers to draw up sketch-maps, showing what is available, it is necessary that they should be put almost exclusively on this duty for several months, and that they obtain the assistance of the Revenue authorities to ascertain what tracts are absolutely Government waste land, and what compensation should be given in other cases. These maps will then show what area is at present reserved, and what area of forest or jungle is still available (both Government and private); we shall then be able to see what additional land will have to be taken up for planting. Mr. Cadell in charge of the Salem and South Arcot ranges, and Mr. Yarde in charge of Cuddapah, North Arcot, and Bellary, both commenced operations of this nature some months ago, but the routine work of their ranges is now so great that they were constantly called off this duty, and the work consequently progresses very slowly; I would therefore strongly urge upon Government the necessity of appointing separate Assistants for the ranges of North Arcot and South Arcot and also for Tinnevely, so as to enable the officer in charge of Madura to give his whole attention to that district, which now becomes of the greatest importance, as the railway is to be extended through Dindigul and Madura. These appointments not to be of a temporary character but permanent, as the work in all these ranges has so enormously increased that a separate forest officer in each Collectorate is now absolutely necessary, and I have already urged it upon Government without reference to any extended operations for railway-fuel purposes; and the revenue is now so much larger in each of these ranges than when the establishment of officers now in force was sanctioned, that the increase is fully authorized. Plantations and reserves, extended departmental working, and more systematic conservancy, have all been added to the duties of these ranges since the sanction for the establishments now in force. The appointment of a Travelling Assistant Conservator (to be attached to the office of the Conservator), whose duties will chiefly lie in these reserves and plantations, is also very necessary. These four proposed appointments will at first be all in the grade of 3rd-class Assistants (salary 200 Rupees per mensem), and the 800 Rupees can be met from the sanctioned amount for the 1st-class Travelling Deputy-Conservator (800 Rupees), an appointment which has not been filled up since Dr. Cleghorn left, and which it has been proposed should be abolished; so that the salaries can actually be met, if necessary, without any reference to the re-organization scheme now under consideration of Government; but at the same time, I would suggest that this matter should be considered in connection with the re-organization.

4. That a considerable area will have to be taken up for plantations, there can be no doubt, and the sooner it is taken in hand the better; but until the maps in question are drawn up, and we know exactly what tracts of forest and jungle are available, it will be impossible to state what must be the extent of the area to be planted *ab initio*. All tracts of jungle and forests now reserved, or in future to

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be reserved, will be re-planted as they are cut, and the land will be exclusively reserved for this purpose, and all these reserves will be supplemented by nurseries. The proposed maps will show all private forests available for locomotive fuel-supply, and Collectors should be authorized to use every endeavour to purchase outright, or to lease all such tracts, so that they may be brought under systematic working.

5. Casuarina planting will, so far as I can judge from our present plantations, be very remunerative; though the tree cannot be treated as coppice, its growth is so rapid in favorable localities, and the planting so much less precarious than that of any other trees in the plains, that I believe it will be the most paying of all. I hope to obtain considerable tracts suited to the growth of this tree in the districts of Bellary and South Arcot.

No. 237.

ORDER THEREON, 28th July 1870, No. 1,124.

Forests, No. 11.

Of the three papers recorded above, the first two relate to the recent increase in the rate of seigniorage chargeable on firewood.

2. The circumstances under which the present rate of seigniorage (one Rupee per 1,000 lbs.) was fixed are as follow:—After a discussion, which had extended over nearly three years, it was determined, towards the end of 1866, that there was no immediate prospect of the wants of the Railway Companies in regard to wood-fuel being met by private enterprise, and action was accordingly taken upon the sanction given by the Right Honourable the Secretary of State in his despatch, dated 9th May 1866, No. 15, to incur State expenditure in the Forest Department for this purpose. Subsequently, though sanction had been accorded to the Madras Railway Company undertaking experimental operations on their own account on two plantations, the Madras Local Railway Board at their Meeting of the 12th March 1867 determined not to prosecute these experiments.

3. During 1866 and 1867 some progress was made in the formation of railway fuel-reserves in the Coimbatore and Salem Districts, and towards the close of the latter year the Government, in their Order, under date 19th November, No. 2,739, suggested to Major Beddome, the Officiating Conservator of Forests, whether the rate of seigniorage then charged might not be fairly somewhat raised in order, in some measure, to meet the additional inevitable cost of these measures of conservancy.

4. After consultation with his Assistants, and having in view the heavy cost of re-production, Major Beddome suggested that the rate of seigniorage should be raised from Annas 6 to Annas 10 per 1,000 lbs., and though the Railway officials regretted the necessity of the rise, they confessed that on the ground taken by the Acting Conservator, there was no legitimate reason for objection (letter from the Locomotive Superintendent, dated 16th March 1868, No. 58, recorded in the G. O., 8th April 1868, No. 949). The Government accordingly, in the Order just quoted, authorized the adoption of the increased rate, and urged on the Officiating

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Conservator the expediency of at once forming reserves in certain localities on the North-West Line, which had been indicated by the Railway officials and the Consulting Engineer.

5. These reserves were duly commenced. When writing on the subject in November 1868, the Officiating Conservator reported that the Locomotive Superintendent of the Railway Company had informed him that the Company could not afford to pay more than Rupees 5 per ton for wood-fuel delivered at stations north-west of Cuddapah, and stated that such a rate would altogether fail to pay the cost of production which he estimated at Rupees 10 per ton.

6. The Officiating Conservator's remarks were referred for the consideration of the Consulting Engineer in the G. O., 28th January 1869, No. 248, and that officer, in his reply, dated 8th April 1869, recorded in the G. O., under date 21st May 1869, No. 1,436, explained that the rate of Rupees 5 per ton which the Railway Company could afford to pay for wood delivered at stations beyond Cuddapah, had reference only to the cost at which wood was obtainable at Cuddapah from the Balapilly jungles, and had no reference to the respective cost of wood and coal-fuel. He also submitted a letter from the Agent and Manager of the Railway Company, showing that the average cost of coal (the cheapest of imported fuel) at stations beyond Cuddapah was from Rupees 33 to Rupees 40 per ton, and that one ton of coal was reckoned to be equal to three tons of wood, so that at the present price of coal it would clearly be advantageous for the Railway Company to pay Rupees 10 per ton for wood-fuel at stations beyond Cuddapah. In reference to the fuel-question he also recorded the following remarks:—

"The cost of firewood is at present regulated entirely by the rate of seigniorage charged by Government. This was lately raised\* from 6 Annas per 1,000 lbs. to 10 Annas, or to 22½ Annas per ton. There can, however, be no doubt that, even with this enhanced rate of seigniorage, the cost of firewood cut in the Government jungles is at present far below the cost of production; such a condition is not only wrong in principle but operates most prejudicially by preventing the growth of firewood by private enterprise. The opinion of the Government has been† repeatedly recorded as to the impolicy of allowing it to continue. Its vicious operation

is shown most clearly in the present instance, where the ease with which firewood can be obtained from the Government jungles furnishes the Railway authorities with an argument against paying a price more nearly resembling the cost of production; and such an argument necessarily tends to prevent any artificial cultivation, even by the agency of the Forest Department.

"So far as the railways in this Presidency are concerned, the question is one of vital importance. For their supplies of coke and coal they are, in all probability, likely to be for ever dependent upon external sources; and in the event of England being engaged in a naval war, the nearest available source of supply would be the coal-fields of Northern India, from which a land carriage of some 2,000 miles would be inevitable." "Under those circumstances, if

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"there were no reserve of firewood from which to draw their supplies of fuel, the railways could not be worked, except at a cost largely in excess of the present rates.

"The following table shows the consumption in tons of the different kinds of fuel during the years 1867 and 1868 by the Railway Companies in this Presidency:—

|                 | Madras Railway. |        | Great Southern of India Railway. |       | Conjeveram Railway. |       | Total. |        |
|-----------------|-----------------|--------|----------------------------------|-------|---------------------|-------|--------|--------|
|                 | 1867.           | 1868.  | 1867.                            | 1868. | 1867.               | 1868. | 1867.  | 1868.  |
| Coke ...        | 1,488           | 1,909  | 23                               | 32    | .....               | ..... | 1,511  | 1,941  |
| Coal ...        | 5,191           | 3,584  | 3,513                            | 2,791 | 167                 | 43    | 8,871  | 6,418  |
| Patent fuel ... | 364             | 3,259  | .....                            | 462   | .....               | 1     | 364    | 3,722  |
| Firewood ...    | 49,235          | 48,068 | 1,923                            | 5,923 | 14                  | 367   | 51,172 | 54,358 |

"In the year 1863 the weight of firewood consumed by the Madras Railway was 9,821 tons. In 1867 this had increased to 51,172 tons, and in 1868 to 54,358 tons. These figures give an idea of the extent to which the demand for firewood may be expected to increase when the railway system becomes more extended. Taking three tons of firewood as equivalent to one ton of other fuel, the consumption of firewood amounted, during the years 1867 and 1868, to about sixty per cent. of the total quantity of fuel used.

"Taking these facts into consideration, I venture to suggest the advisability of a further revision of the rate of seigniorage. As above stated the last increase in the rate was from 6 Annas to 10 Annas per 1,000 lbs. From the papers

\* Revenue Department, No. 159. "printed with the Order\* of Government, dated the 15th January 1867, I observe that a proposal had then been made by the Forest Department to raise the rate to one Rupee per 1,000 lbs. I recommend that this rate be adopted, and that an early date be named, after which the seigniorage shall be one Rupee per 1,000 lbs., or Rupees 2-4-0 per ton. This increase should not, however, be final, and the rate should be gradually raised, until it becomes more nearly assimilated to the cost of production. Whether, keeping this in view, it will be necessary to fix varying rates for different parts of the Presidency is not for me to say."

7. In the Order, under date 21st May 1869, No. 1,436, the Government referred the Consulting Engineer's proposal to raise the rate of seigniorage from 10 Annas per 1,000 lbs. to one Rupee to the Conservator of Forests, and that officer having expressed his concurrence in Major Shaw-Stewart's views in regard to firewood used by locomotives, the proposal was sanctioned in the G. O., under date 19th July 1869, No. 2,093.

8. It is to this Order that the London Railway Board object in the letter of the 26th November 1869, submitted by the Consulting Engineer with his communication above recorded, of which a copy forms an enclosure to the despatch from His Grace the Secretary of State, also recorded above.

9. It will be perceived, however, from the foregoing paragraphs that, as observed by the Consulting Engineer, the London Railway Board are in error in their statement that the Railway Company's experiments in the growth of firewood were discontinued by the desire of Government, and are equally incorrect in their apprehension of the object which the Government had in view in raising the rate of seigniorage, the new rate having been based on the principle that the price to be charged for timber cut in Government forests should be regulated with reference to the cost of production, the recognition of which principle is clearly essential in the interests both of the Railway Company and the public, if the supply of firewood is to be maintained.

10. Though the Consulting Engineer's letter might have been considered a sufficient reply to the communication from the London Railway Board, which it enclosed, the Government deemed it proper, on receipt of the despatch above recorded, to summon the Consulting Engineer, the Conservator of Forests, and the Agent and Manager of the Madras Railway, to a personal conference on the subject of the rate of seigniorage, and on the general question of the railway fuel-supply.

11. At this Meeting it was unanimously determined that having in view the cost of the re-production of wood-fuel, the present rate of seigniorage could not be deemed by any means high, and it was subsequently resolved by the Government to address His Grace the Secretary of State on the subject, deprecating any reduction in the present rate, and intimating that an increased rate might hereafter be deemed desirable, in order that, as suggested by the Consulting Engineer for Railways, the price of fuel may gradually become more nearly assimilated to the cost of production.

12. The state of the existing reserves and the general prospects of the railway fuel-supply were also fully discussed at the conference, and the Conservator of Forests having stated that he was unable to push on the formation of reserves with the means at his disposal, was directed to submit a general plan of operations for sanction, with proposals for such an increase to the department as he considered absolutely necessary, in order to carry out the views of Government in a thoroughly efficient and expeditious manner.

13. The third paper, recorded at the head of these Proceedings, is Major Beddome's reply to this requisition. He reports that there are at present about 26 square-miles of railway fuel-reserves and plantations which are situated in Cuddapah, North Arcot, Salem, and Coimbatore, but that the wants of the railways of the Presidency will not be fully met until this area has been increased to 100 square-miles. The current work of his department, which has largely increased owing to the extended operations of late years, render it impossible for the Range officers to pay sufficient attention to this important branch of their duties unless aided by some additional Assistants. Major Beddome accordingly proposes that four 3rd-class Assistants should be nominated to the department, one to be employed as a personal Assistant to the Conservator, one to the charge of the forests of North Arcot, one to aid Mr. Nisbet in the charge of Salem and South Arcot, and the fourth to aid Lieutenant Walker in the charge of Madura and Tinnevely.

14. The Right Honourable the Governor in Council has given the Conservator's proposals his most careful consideration, and concurs with him in believing

that if any real progress is to be made in the matter under consideration, it is essential that the Forest Department should be strengthened to some extent. Having in view the importance of early action in this matter, he is pleased to resolve that three 3rd-class Assistant Conservators be immediately nominated to the department, and that Major Beddome be requested to report what additional subordinate assistance he will require for the charge of the reserves already existing and for those about to be created. These proceedings will be reported for the confirmation of His Excellency the Viceroy and Governor-General in Council, and it will be explained that the charge will be met from the existing budget-provision under "Establishments," and that due care will be taken that the total grant is not exceeded by the future nomination of subordinates.

15. His Excellency in Council is of opinion that the most expedient manner of disposing of the three additional officers will be to place one for a few weeks under the orders of Mr. Assistant Conservator Sheffield, in order that he may qualify for the charge of the Kurnool forests, which are of comparatively minor importance. This will set Mr. Sheffield free for the charge of the North Arcot forests. The other two officers will, as proposed by Major Beddome, be placed under the orders of Mr. Nisbet in Salem, and Lieutenant Walker in Madura.

16. As proposed by the Conservator steps will at once be taken for the reservation of the further area of 75 square-miles of fuel-reserve stated to be needed to meet the present and future requirements of the railways. Mr. Assistant Conservator Yarde, who is stated to have a good knowledge of planting, and who is now in charge of the Cuddapah forests, will be required to pay special attention to the fuel-reserves of Bellary and Cuddapah. The line of railway in these two districts will probably extend when completed to about 260 miles, which, at 50 acres per mile, would require about 20 square-miles of reserve. This existing plantations and reserves in Cuddapah are apparently about 7 square-miles in area, so that it will devolve upon Mr. Yarde, with the assistance of the Revenue-officers of the two districts, to secure a further area of 14 square-miles either by extending the present sites or by securing fresh ones.

17. The South-West Line of the Madras Railway will probably need about 30 square-miles of reserve, and those portions of the North-West and Bangalore Lines, which lies in the North Arcot District, about 3 square-miles. The extent of 33 square-miles of reserve should be about equally divided between the three districts of North Arcot, Salem, and Coimbatore. In North Arcot there are at present the Thillary reserve said to be 4 square-miles in extent, and the Trevellum Casuarina plantations, which are under 1 square-mile. It will therefore rest with the Conservator, aided by Mr. Sheffield when transferred to North Arcot, and the district Revenue-officers, to select a further area of about 6 square-miles.

18. In the Salem District there are already existing five fuel-reserves, one of 4 square-miles, two of 2 square-miles, and two of 1 square-mile, as well as the Malapooram plantations extending to 100 acres. It will probably, therefore, not be desirable to increase the number of reserves in this district, but they might well be considerably increased in extent, if conveniently situated for the wants of the line in the Coimbatore District, and of that portion of the Southern of India.

Line between Erode and Trichinopoly. The Conservator should himself consider this question on the spot in communication with the Collector and Mr. Nisbet.

19. In the Coimbatore District there is at present only the Walliar reserve, which is less than 2 square-miles in extent. It will therefore be necessary for the Conservator, in communication with the district Revenue-officers, to arrange for a further extent of about 9 square-miles being secured with as little delay as possible.

20. The North-West and South-West Lines of Railway having been provided for as proposed in the foregoing paragraphs, it will devolve upon Lieutenant Walker to take steps, in communication with the Collectors of Tanjore and Trichinopoly, for meeting the requirements of the South of India Line in those districts, which will involve the formation in appropriate situations of at least 8 square-miles of reserve or plantation. In the first instance, however, Lieutenant Walker, in anticipation of the contemplated extension of the Great Southern of India Railway through the districts of Madura and Tinnevely, will demarcate from existing forest-land, or designate for planting an area of at least 12 square-miles distributed in lots of convenient dimension and position, with reference to the direction taken by the projected lines.

21. The Conservator will be good enough to submit a report on the 1st of October next, stating what progress has been made in carrying out the instructions now issued, and a quarterly Progress Report of the operations of the department, in regard to the fuel-reserves, must be forwarded thereafter, until all the tracts required have been taken possession of and properly demarcated and fenced in. Definite information should also be supplied by Major Beddome regarding the existing jungle-reserves at Walliar in Coimbatore, in the Salem District, and at Thellay in North Arcot. The extent which has been cut in each year since the formation of each reserve should be stated, with the description of wood cut and the quantity of fuel which was obtained per acre, and the present appearance of the tract in regard to re-production, in order that some estimate may be formed of the number of years each description of fuel-timber will require to re-produce itself in different localities. It would be well also that the Conservator should place himself in communication with the Superintendent of Revenue Survey in order that the more important reserves may at once be surveyed and mapped. A forest officer should be placed in special charge of each of these, if this has not already been done, in order that they may be worked on a regular system and some reliable data obtained.

22. It would be well, if possible, that the new reserves should be not less than about 2 square-miles in extent, so that each would supply about 25 miles of railway, but each must, of course, be formed with regard to local circumstances. The existing reserves should be increased to this area wherever possible.

23. A copy of these Proceedings will be communicated to the Board of Revenue who will be good enough to impress upon the local Revenue-officers that the Government attach the greatest importance to the immediate formation of the reserves, and desire that they will afford all the assistance in their power to the Conservator and his Assistants, deputing an Assistant Collector to aid in the duty wherever the divisional officer cannot personally attend to it. The Con-

## **Railway Fuel Reserves and Plantations.**

1. The planting of trees and topes has engaged the attention of successive Governments in Madras, more or less, from the commencement of the present century, and in order to encourage private enterprise in this direction the Tope Rules of 1848 were published, under which land for forming plantations is granted, free of assessment, for 20 years, provided that it has been waste for ten years previously.

2. In his Minute on the Agriculture of the Presidency the late Governor, Sir W. Denison, suggested that Casuarina, or other fuel plantations, should be formed on a portion of the waste lands of every village, in order that the manure produced by the agricultural stock might find its way back to the land instead of being consumed as fuel. In their order under date, 6th November 63, the Government communicated this Minute to the Board of Revenue, and directed them to consult with the Conservator of Forests, and the Director of Revenue Settlements, on the subject of encouraging the growth of firewood on waste lands.

3. The Board of Revenue were in communication with these Officers and the Collectors of Districts on the subject until the end of the following year, and in January 1865 submitted their views on the question. Though most of the officers consulted were of opinion that the existing Tope Rules afforded ample encouragement for the investment of capital in planting operations, the Board were disposed to make the free grant, for ever, instead of for twenty years only. The Board also viewed favourably a proposal made by Mr. Master that in villages where no waste land was available a portion of the occupied land should be granted at half assessment for firewood plantations, and deemed it worthy of consideration whether proportionate allotments out of the waste might not be attached to every Ryotwary holding in the country, to be held tax-free, so long as they were uncultivated.

4. In their Order under date 2nd May 1865 the Government reviewed the Board's letter at length. They pointed out that the causes which prevented full advantage being taken of the liberal terms on which planting operations might be conducted were three (1) want of capital among the people, (2) the physical unsuitability of certain Districts for the growth of trees, (3) the existence of large tracts of natural Jungles from whence firewood and ordinary timber could be procured much more cheaply than by the growth of plantations. They proceeded to state that the Board's proposals were in many respects objectionable. That it was obviously inexpedient that Government should require or encourage many million acres to be kept waste in perpetuity. That the growth of timber and firewood was governed by the same laws as the culture of other products, that it must be profitable, or capital would not be devoted to it. That it could not be alleged that the assessment of such land as was likely to be devoted to firewood or timber was too heavy. That the mere charge of assessment evidently did not retard planting, as wherever the price of fuel had made it remunerative, as for instance in the vicinity of Madras, it had been largely resorted to. That all that the Government could then do was to establish nurseries and form village topes from the assets of the Jungle conservancy fund. That it was quite clear that the State could not take upon itself the obligation of growing firewood for the people, though it could safely husband existing resources, *and take care not to discourage private enterprise by selling below a fair price.* The Conservator of Forests was however directed to adopt measures for re-planting denuded portions of Government Forests, and the attention of the Railway Company was directed to the necessity of their taking steps to provide for their future requirements.

5. Ever since the date of this order, or for nearly five years the subject of Railway Fuel Reserves and Plantations has engaged the constant and anxious attention of Government, but it is to be feared that their views have not been very energetically seconded by the executive officers.

6. It appears that before the attention of the Railway Company had been called to the matter by Government in their order

above quoted, the Agent and Manager had suggested to the Home Board the formation of fuel plantations, by the Railway Company, and a proposal was made to the Secretary of State on the subject. The Home Government were of opinion that though the Railway Fuel supply was a matter of the gravest importance, it had better not be undertaken by the Company, and that their wants should, if possible be, met by private enterprise. If this was not likely to be

Despatch dated 9th May 1866. No. 15. done, the Secretary of State expressed his willingness to sanction

any expenditure which the local Government might deem advisable for the purpose. Eventually, however, on a further representation by the Railway Board in London, sanction was accorded to the Company undertaking experimental operations on two plantations, but the Madras Local Board, at their meeting of 12th March 1867, decided that as the Government were adopting measures for the growth of firewood, it was inexpedient for the Railway Company, for the present, at any rate, to embark in the cultivation of firewood.

6. In the early part of 1866 a proposal of Dr. Cleghorn that a tract of 5,000 or 6,000 acres of jungle at Walliar, in the Coimbatore District, should be reserved and regularly worked, received the sanction of Government, but owing to difficulties incurred in obtaining possession of the land the reserve at present consists of only about 1,000 acres.

7. During the remainder of this year information was obtained from the several Districts, with reference to the Home Government's remarks on the subject, that there was no prospect of fuel plantations being undertaken by private persons, except in the immediate vicinity of the town of Madras where the price of fuel was remunerative. In July, the Acting Conservator reported that Fuel Reserves had been formed at Mulliaporam and Ahtoor in Salem, as well as at Walliar, in Coimbatore, and suggested that similar Reserves should be marked out near Erode, Bangalore, Cuddapah and Arcot. The Collector of Salem was strongly in favor of marking off a large extent of existing jungle in the neighbourhood of the line of Railway, to be regularly worked, in successive years, and

proposed that the rate of seigniorage should be raised; and the Collectors of other Railway Districts expressed similar views, except in Bellary, whence it was reported that there were no natural jungles to conserve, and the only step that could be taken towards the end in view was to encourage the villagers to plant the beds of tanks with the Bubul tree.

8. In their order under date 15th January 1867 the Government arrived at the conclusion that there was no prospect of the wants of the Railway being met by private enterprise, and impressed upon the Conservator of Forests the necessity of at once forming large fuel reserves. They at the same time recorded their satisfaction that in Salem six tracts, with an area of 12 square miles, had been already reserved.

9. In their order under date 19th November 1867 the Conservator of Forests was requested to report whether the rates of seigniorage might not, with advantage, be raised, so as to meet some of the expenses of conservancy. In April 1868, on Major Beddome's recommendation, the rate was raised from 6 annas to 10 annas per 1,000 lbs. During the year, the Conservator was instructed to obtain, on lease, for the purpose of making fuel reserves, certain private forests which were conveniently situated in Malabar, and the Collectors of Madura and Tinnevely were consulted upon the expediency of leasing some of the forests of the Polliems and Zemindaries of their districts.

10. In the early part of last year the formation of three large plantations on the North West Line was sanctioned (G. O. 23th January 1869) and the Acting Conservator then reported that he expected to be able to grow fuel at Rupees 10 per ton. In April the Consulting Engineer explained that at stations beyond Cuddapah the Railway Company would certainly be able to pay this sum for fuel, as the average price of coal on these portions of the line had been from Rupees 33 to Rupees 40 per ton, and it was calculated that 3 tons of firewood were the equivalent of one ton of coal. In the same letter, Major Shaw Stewart pointed out, in forcible terms, that the price paid for fuel by the Railway Company was very much below the cost of production, and suggested that it should be gradually raised, as it was clearly altogether impossible to expect the outlay

of any capital in planting firewood, so long as the article could be obtained at a cost much below the cost of growing it. He also urged upon Government the necessity of forming a plantation near Cauverypooram, on the banks of the Cauvery, above Erode.

11. In their Order under date 19th July 1869 No. 2093, the Government sanctioned the increase of seigniorage from 10 annas to 1 Rupee per 1000 lbs. as the Consulting Engineer's proposal was concurred in by Major Beddome.

12. Against this order the Home Board of the Railway Company have protested to the Secretary of State, and his Despatch on the subject is now under the consideration of Government. His Grace the Duke of Argyll expresses his entire adherence in the policy enunciated in the Despatch of Secretary Earl De Grey and Ripon, dated the 23th February 1866, to the effect that the Railway Department are to have no special advantages above the rest of the community in regard to firewood supply, but observes that it may be a question whether, in the recent instance, the increase of seigniorage from 10 annas to 16 annas was judicious. His Grace proceeds to desire that an enquiry may be made in view to the amount being reduced, if found to be higher than expedient.

13. As already observed, the Consulting Engineer is strongly of opinion that the rate should be still further raised until the price of firewood obtained from natural jungle, is more nearly assimilated to the cost of artificial production. In his letter to the Secretary in the Public Works Department dated 19th November 1869 No. 392, he gives the following list of the prices paid for firewood, by the Railway Company, at the different stations, and it is estimated by Major Beddome that the cost of production will be in many places Rs. 10, per ton, and even higher so that it will be observed that even with the present increased rate of seigniorage, the price paid is now considerably below the cost of production.

The present cost of firewood at the different fuel-stations on the Madras Railway stated in round numbers:—

|                  | Names of Fuel stations.  | Number of miles distant from Madras. | Cost of FIREWOOD. |           |
|------------------|--------------------------|--------------------------------------|-------------------|-----------|
|                  |                          |                                      | Per 1,000 lbs.    | Per Ton.  |
|                  | <i>South-West Line.</i>  |                                      | RS. A. P.         | RS. A. P. |
| Private .....    | Arconum .....            |                                      |                   |           |
| Government ..... | Amboor* .....            | 43                                   | 2 10 6            | 6 0 0     |
| Do. ....         | Vaniembaddy* .....       | 113                                  | 1 10 0            | 3 10 0    |
| Do. ....         | Mullapoorum .....        | 123                                  | 6 0               | 5 5 0     |
| Do. ....         | Sheravaroy Hills .....   | 180                                  |                   |           |
|                  | Salem .....              | 192                                  | 2 2 0             | 4 12 0    |
|                  | Erode .....              | 207                                  |                   |           |
| Private .....    | Coimbatore .....         | 243                                  | 2 12 0            | 6 3 0     |
|                  | Palghaut* .....          | 302                                  | 1 12 0            | 3 15 0    |
|                  |                          | 332                                  | 1 6 3             | 3 2 0     |
|                  | <i>North-West-Line.</i>  |                                      |                   |           |
| Government ..... | Tripetty .....           | 84                                   | 2 2 0             | 4 12 0    |
| Do. ....         | Ballapully* .....        | 97                                   | 1 14 0            | 4 3 0     |
|                  | Cuddoor* .....           | 109                                  | 2 2 0             | 4 12 0    |
|                  | Cuddapah .....           | 162                                  | 2 12 6            | 6 4 0     |
|                  | Cundapoor .....          | 210                                  | 3 6 6             | 7 10 0    |
|                  | Goody .....              | 258                                  | 4 0 0             | 9 0 0     |
|                  | <i>Bangalore Branch.</i> |                                      |                   |           |
|                  | Jollarpett .....         | 132                                  | 2 0 0             | 4 8 0     |
|                  | Cocpum .....             | 154                                  | 2 8 0             | 5 10 0    |
|                  | Bangalore .....          | 217                                  | 4 0 0             | 9 0 0     |

The stations to which a cross (\*) is prefixed are those to which firewood is brought direct from the jungles, and the word "Government" or "private", denotes whether the jungles, from which each station is supplied, are the property of the state, or of private persons.

14. It is submitted, that under these circumstances, the Right Hon'ble the Secretary of State may be addressed to the effect that this Government are of opinion that the rate of seigniorage, so far from being reduced, may well be gradually raised, until that rate is reached which will not discourage private enterprise in raising plantations, as the present low rate must undoubtedly tend to do.

15. Should the Government adopt this view, it will still remain for decision what measures are to be undertaken for conserving the existing supply of firewood, and supplementing it by plantations. It has already been stated that both these measures have been repeatedly pressed upon the consideration of the executive officers of Government, but as yet with little practical effect. So far as the undersigned is aware, there are but five Railway fuel reserves, all of which were marked out some years back, and with the exception of the three tracts for plantation recently taken up in Cuddapah and Bellary and the casuarina plantation at Trivellum the fuel plantations are quite insignificant.

16. In his letter, dated 1st June, 1869 the Acting Conservator of Forests submitted

some some-what crude proposals for obtaining fuel from the Bolamputty, Palghaut, and Annamully Hills and from the Hills of the Salem District, which are contiguous to the line of Railway by means of tramways. In another letter, dated 28th August 1869, he proposes making the Bargoor River navigable in order to gain access to the Bargoor hill forests, at a cost of about two lacs of rupees, but adds that to this proposal as well as to his former one of tramways, there is the objection that a large supply of wood would be accumulated in one place instead of being spread over the length of the line. It is submitted that if Major Beddome be directed to carry into effect the orders repeatedly issued regarding fuel reserves, and plantations, he will do all that need be done without entering into extended and doubtful experiments. His proposals to try the effect

\* He estimates that on good soil fuel could be raised and sold for Rs. 5-0-0 per ton, whereas in inferior soil it would cost very much more.

of plantations on good land\*, and aided by irrigation, may, it is submitted, be experimentally sanctioned. As soon as the reply from the Collector is received what the probable value of the lands under the Neringepet Anicut will be, it can be determined whether they shall be transferred to the Forest Department as desired by him.

17. Major Beddome estimates that 50 acres of Fuel reserve, or plantation, will be required for every mile of Railway. Probably, at first, it will be easier to obtain the former, than the latter, it is therefore suggested that Major Beddome be at once required, in communication with the Collectors of Railway Districts, to have, say 30 acres, of Fuel reserve marked out for every mile of Railway in the District. At this rate every square mile of reserve would supply fuel for 21 miles of Railway, and there should not be the least difficulty in obtaining this quantity. There are not more than 120 miles of Railway in the Salem District and if the belief of Government expressed two years back, that there were then 12 square miles of reserved fuel tracts under the Forest Department is correct, provision has already been made for 250 miles.

(Signed.) R. A. DALYELL,  
Ag. Secy. to Government

Recd Sept 11

Memo for order  
on 10/10/67 -

—

At the conference with the Ag. Conservator of Forests, the Consulting Engineer for Railways and the Agent & Managers of the Madras Railway, it was determined by the Govt. to await a report from the Ag. Conservator, on the quantity of full cut timbers actually existing, and upon the wants of his Department for the purpose of increasing them to the required extent, before addressing the Right Honble the Secy of State in reply to his

his Despatch on the subject of the rate of sliguorage charges.

2. The paper now under consideration is Major Beddome's report on these points. It appears that of an area of about 100 square miles of full reserve earmarked for Railway purposes alone, there are at present but 27 square miles in existence. Major Beddome proposes to strengthen his Department by the nomination of additional Assistants in order to provide for the extension of the reserves and for the general purposes of his Dept<sup>y</sup>; & points out that the cost can be met from the salary of the travelling By Conservator, an appointment which of late years has not been filled.

filled up =

3. Major Beddome proposes to employ his forest officers in the first instance in preparing maps showing the tracts actually available in the different districts for the formation of full reserves, & when the localities are determined to earmark them to demarcate & form the reserves & to re-plant them as they are cut.

4. It is submitted that application may at once be made to the Govt of India for sanction to appoint the 4 Additional Assistants at a cost of Rs 800 in lieu of the Travelling By Conservator, on that salary. The interest taken by the Home authorities in the full reserves, & the urgent necessities of the Dept<sup>y</sup>.

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Sept<sup>th</sup> may be dwelt upon  
in the representation. No  
allusion need be made  
in the application to the  
re-organization of the  
Sept<sup>th</sup> which is proposed  
by this Govt, as it would  
certainly involve the re-  
shelving of the <sup>present</sup> proposal,  
until the ~~electoral~~ <sup>electoral</sup> scheme  
was placed before the  
Govt of India, and as  
in any case the services  
of the additional as-  
sistants will be needed.

5. It is also submitted  
that orders to the effect  
suggested in the former  
memo. attached may now  
be issued in regard to  
the reply to be sent to the  
Right Hon<sup>ble</sup> the Secy of  
State.

11/10/1909

C. H. Bell

Railway Fuel  
Revenue

234-23

50  
20  
1000

C. 28 July 1870  
No 1124

C. 9 July 1870  
C. 12 May 1870 R. 14 June

Revenue Department

Memo. for orders  
on 11/11/10.

With his despatch dated 21<sup>st</sup> Decr 1869 No 11, the Secretary of State transmits to the Govt. a copy of a letter from the Directors of the Madras Railway Company, in which they complain of the high rate of seigniorage which they are charged for fire-wood.

I agree in the recommendation contained in the last portion of the Memo. that a letter should be addressed to the Secretary of State, defining the present rate of 1 R. charged for firewood.

The subject is very important and may I suggest with advantage be discussed in Council; Perhaps it would be of advantage that Mr. Elwin, & Major Beddome if in Madras should attend.

The suggestion made in Major Beddome's letter (1<sup>st</sup> June 69. No 1436) p. 3. 4. 5 see Pro. 14<sup>th</sup> July 69. seems deserving of immediate consideration and application. It is possible that if carried into effect

2. In this letter the Directors after recounting the evils which have taken place from time to time in the cost of fuel, state that its present high price may compel the Company to abandon altogether the use of wood and to employ instead coke and coal.

The

3. The Secy of State therefore raises the question whether the excess increase of sliguorage from Andas to Andas 16 per 1000 lbs was judicious -

4. Subjoined is a brief statement of the sources which this Presidency possesses in the way of railway fuel, and of the steps which are now being taken to add to them. A few remarks in justification of the present rate of sliguorage are appended -

5. There are at present seven Railway fuel reserves in this Presidency, vizt one in Poddapah, one in the Cherat Rair range and five in the Salem range. These are however merely infant undertakings, for the question of providing for the requirements of the railway by artificial means was only started in March

The Railway could supply itself with firewood more cheaply than if dependent upon the market prices of supply. - Mr

I don't think this could do so.

X It must be premised that these fuel-reserves are not plantations. They are merely fenced-in tracts of jungle. Mr.

1866. Consequently, the railway still draws on the natural forests of the country for its wood fuel, and the drain is thereby caused will be understood when it is stated that a total of 51,172 tons of wood was consumed by the railway of this Presidency in 1867 and of 54,358 tons in 1868. The rate of sliguorage in 1868 was 10 annas per 1000 lbs, so that in that year the railway paid the Govt (or ought to have paid it) Rs 76,101-3-2. According to Major Reddome's calculations, the yield of railway fuel plantations is 6400-lbs per acre per annum. Therefore, it would require (taking the year 1868 as the basis of calculation) nearly thirty square miles of full plantation to fulfil the requirements of the railway, and as the full reserves

elsewhere in this Presidency (including those in contemplation) <sup>would</sup> not, according to a rough estimate, cover one-third of this area, the deforestation caused by the railway is patent.

6. A small full elsewhere is in course of preparation in the Bellary district, and the Ag. Conservator, whose proposal is now before the Collector, wishes to enclose a tract of between 300 & 400 acres on the banks of the Cauvery about 24 miles above Brook. Major Biddome has repeatedly declared in favor of planting and the formation of districts, though perhaps he has been rather backward in allotting his funds to this object. In civilizing his last Administration report, the Govt. urges on him the importance of attending

to this branch of Conservancy.

7. As regards the price, or stipendiary, it is termed charged by the Govt. for full, the original rate was Rs. 1 per 1000 lbs. By G.O. dated 8<sup>th</sup> April 1868 No 949, the Govt. on the recommendation of the Offg. Conservator of Forests raised this rate to 10 annas.

8. In his letter dated 8<sup>th</sup> April 1869 incorporated with Pro. of Govt. dated 21<sup>st</sup> May 1869 No 1436, the Consulting Engineer for Railways presented that even with this enhanced rate, the cost of fire-wood cut in the Govt. jungles was "far below the cost of production, and he recommended that the rate should be raised from 10 annas to 16 annas. He considered that this increase should not be final, but that the rate should continue

continue to be gradually  
raised to a still further  
extent. This letter was  
referred to the Off<sup>g</sup> Con-  
servators of Forests who  
agreed with him and  
by G.O. dated 19<sup>th</sup> July  
1869, No 2093, the price was  
raised to the rate at  
which it now stands  
viz<sup>t</sup> 1 Rupee per 1000 lbs.

The letter from the  
Board of Directors now  
under the consideration  
of Govt has been laid  
before Major Shaw  
Stewart, who in his  
letter dated 11<sup>th</sup> January  
1870 submits the follow-  
ing remarks regarding  
it. He considers the  
present charge ex-  
-tremely moderate. He  
rightly observes that the  
Board of Directors are  
in error in stating that  
the Govt obliges them  
to

to give back the land  
which they had ac-  
-quired in 1866 for the  
purpose of form-  
-ing full plantations  
and that that ac-  
-quisition was ex-  
their own voluntary  
act. And he

thinks that the form-  
-tion of full planta-  
-tions by the Compa-  
-ny would be very  
desirable, if only for  
the sake of demon-  
-strating the cheapness  
of

of the rate which  
they are charged  
by Government -

Remarks -

10. The withdrawal  
of the Company's  
custom and  
the substitution by  
them of coke or  
coal for wood is  
full in fulfil-  
ment of the threat  
which

176  
which is apparently held  
out, would compass a  
most desirable end. Real-  
isation of Revenue by  
the sale of timber is  
not, and never has been,  
the paramount object  
of Forest Conservancy  
in Madras, and the  
calls of the D.P. and  
the public for timber  
are now so heavy, that  
the additional con-  
sumption of it by the  
Railway Company  
will soon become  
positively calamitous.  
Railway

Railway fuel reserves  
have been formed by  
the Government not  
with an eye to profit  
for no calculations  
of profit and loss on  
this head have ever  
been made, but in order  
to stem to some small  
extent the tide of  
deforestation. Even if  
there were no demands  
for timber either on  
the part of the Rail-  
way Company, the D.P.M.  
or the public to meet,

it would still be  
pedient to continue  
conservation and  
planting for climatic  
reasons, to the sound-  
ness of which the  
droughts of the last  
ten years testify.  
Major Reddaway  
has said that in many  
districts the annual  
waste is ten times  
the annual reproduction  
and

and there is not a  
 Forest officer in  
 the Presidency from  
 the Conservator  
 down to the acting 5<sup>th</sup>  
 Class Overseer, who  
 will not cry out against  
 the gradual but  
 never ceasing pro-  
 cess of Forest extinction  
 which is going on. Trees  
 are the most urgent  
 want of the Presidency,  
 but not timber.

11. It is therefore submitted  
 that, for the Railway Company  
 to be allowed to burn wood  
 at any price to such an  
 extent, as to diminish the  
 natural resources of the country,  
 is a wrong principle. The  
 Company can obtain coal  
 either from England or from  
 the now developing coal  
 fields of India, and now that  
 the Suez Canal is opened, coal  
 will probably become much  
 cheaper. The annexed table  
 shows the respective quantities  
 of coke, coal, patent fuel and  
 firewood consumed by the  
 Company in 1867 & 1868.

|             | Madras<br>Railway |       | Great Southern<br>of India Railway |      | Compagnie<br>Indochinoise |      | Total |       |
|-------------|-------------------|-------|------------------------------------|------|---------------------------|------|-------|-------|
|             | 1867              | 1868  | 1867                               | 1868 | 1867                      | 1868 | 1867  | 1868  |
| Coke        | 1188              | 1909  | 23                                 | 32   |                           |      | 1511  | 1941  |
| Coal        | 5191              | 3584  | 3573                               | 2791 | 164                       | 413  | 8891  | 6418  |
| Patent Fuel | 364               | 3254  |                                    | 462  |                           | 1    | 364   | 3722  |
| Firewood    | 47235             | 48068 | 1923                               | 5923 | 14                        | 364  | 57172 | 54358 |

Major

Major Briddome who is now  
in Madras is of opinion that  
it is desirable to reduce with-  
out entirely arresting the  
consumption of wood fuel  
by the railway, for he thinks  
that while that consumption  
is at present too large, it is  
nevertheless possible to make  
a profit out of the railway  
without trenching on the uti-  
lizable resources of the country,  
if the wood supplied to the  
railway be limited to that  
which is produced in scrub  
jungle. He believes that  
a further rise in the price  
of firewood would have  
this effect, for it would  
restrict the use of firewood

to the more remote <sup>al</sup> lines.

12. It is submitted  
that the Secretary of State  
may be addressed in justifi-  
cation of the present rates  
for fuel, and in advocacy  
of a gradual increase of  
them. And that if his reply  
is favorable, the Railway

Japer with the proposal  
made by Mr Ellis & the  
heads of this letter that Companies may be informed  
we ought to have a conference that on the 1<sup>st</sup> Jan'y 1871, the  
with the Forests Railway price of wood fuel belonging  
authorities. We ought to Govt will be raised from  
to have a plan for one rupee to one rupee four  
large scale for the annas per 1000 lbs.  
formation of Railway fuel  
reserves along the lines  
under the charge of the Forest  
Dept. tracts of jungle  
natural & the wood, helped  
of necessary by planting  
Spottiswood + allowed to grow out  
for the stock

*Original  
 signed by  
 Secy. of State  
 11th Aug 1870  
 11th Sept 1870*

*In L.O. 15th July 1870  
 No 234 @ 237*

No 1124 Revenue Dept.  
 Proceedings of the Madras Fort  
 Under date the 28th July 1870

Read the following papers

Despatch from the P.W. the Secy. of State 31st Decr 1869, P. 11  
 From the Comr of Eng for Railways 11th Jan 1870, P. 10  
 From the Off & Comr of Forests 6th Apr 1870, P. 31

*N.  
 A.D.  
 J.D.S.*

Of the three papers recorded above, the first two relate to the recent increase in the rate of signorage chargeable on firewood

2. The circumstances under which the present rate of signorage (one rupee per 1000) was fixed, are as follows. After a discussion which had extended

extended over nearly three years it was determined towards the end of 1866 that there was no immediate prospect of the wants of the Railway Companies in regard to wood fuel being met by private enterprise, and action was accordingly taken upon the sanction given by the Rt Honble the Secy of State in his Despatch dated 9<sup>th</sup> May 1866 N<sup>o</sup> 15 to incur State expenditure in the Forest Dept for this purpose. Subsequently, though sanction had been accorded to the Madras Railway Company undertaking experimental operations, on their own account, on two plantations the

the Madras Local Railway Board at their meeting of the 12<sup>th</sup> March 1867 determined not to prosecute these experiments.

During 1866 & 1867 some progress was made in the formation of Railway Fuel Reserves in the Jambator & Salem Districts, and towards the close of the latter year the Govt in their Order under date 19<sup>th</sup> Novr N<sup>o</sup> 2739, suggested to Major Beddome, the Offg Comr of Forests, whether the rate of signorage then charged might not be fairly somewhat raised in order in some measure to meet the additional inevitable cost of these measures of Conservancy.

After

4. After consultation with his assistants, and having in view the <sup>heavy</sup> cost of reproduction, Major Beddome suggested that the rate of signorage should be raised from Annas 6 to Annas 10 per 1000 lbs, and though the Railway officials regretted the necessity of the rise, they confessed that on the ground taken by the Ag Conservator there was no legitimate reason for objection (Letter from the Locomotive Supt. 8<sup>th</sup> 10 March 1868 A. 50 recorded in the G.O. 5<sup>th</sup> April 1868 A. 116). The Govt, accordingly, in the order just quoted, authorised the adoption of the increased rate, & urged on the Offg Cons the expediency of at once forming reserves in certain localities on the N.W. Line which had been indicated by the Railway Offr & the Consulting Engineer. These

12. X. 1868  
H. 1868  
M. 1868  
D. 1868

5. These reserves were only commenced. When writing on the subject in Nov 1868, the Offg Cons reported that the Locomotive Supt of the Railway Compt had informed him that the Compt could not afford to pay more than Rs 5 per ton for wood fuel delivered at Stations north west of Cuddapah, and that such a rate would altogether fail to pay the cost of production which he estimated at Rs 10 per ton.

6. The Offg Cons's remarks were referred for the consideration of the Cons & Engr in the G.O. 20 Jan 1869 A. 240, and that officer in his reply dated 5<sup>th</sup> April 1869 recorded in the G.O. under date 21 May 1869 A. 1435 explained that the rate of Rs 5 per ton which the Railway Compt could afford to pay for wood delivered at Stations beyond Cuddapah

Cuddapah had reference only  
to the cost at which wood was  
obtainable at Cuddapah from  
the Balascully jungles & had no  
reference to the respective cost  
of wood & coal fuel. He also  
submitted a letter from the  
Agent, Manager of the Rail-  
way Comp<sup>y</sup> showing that the  
average cost of coal (the cheapest  
of imported fuel) at stations  
beyond Cuddapah was from  
Rs 33 to Rs 40 per  
ton, and that one  
ton of coal was reckoned  
to be equal to three tons  
of wood, so that at the present  
price of coal it would  
clearly be advantageous  
for the Railway Comp<sup>y</sup>  
to pay Rs 10 per ton  
for wood fuel at stations  
beyond Cuddapah. In  
reference to the fuel  
question he also re-  
corded the following remarks

He

G.O. Rev. Dpt., 8<sup>th</sup> April 1888  
No 949.

14  
" The cost of firewood is  
" at present regulated entirely  
" by the rate of seigniorage char-  
" ged by Govt. This was lately  
" raised from 6 Annas per  
" 1000 lbs to 10 Annas, or to 22½  
" Annas per ton. There can,  
" however, be no doubt that,  
" even with this enhanced rate  
" of seigniorage, the cost of  
" firewood cut in the Govern-  
" ment jungles is at present  
" far below the cost of produce  
" Such a condition is not only  
" wrong in principle but operates  
" most prejudicially by prevent-  
" ing the growth of firewood  
" by private enterprise. The  
" opinion of the Government  
" has been repeatedly recorded  
" as to the impolicy of allowing  
" it

G.O., R.D. No 2061, 10<sup>th</sup> Nov. 1884.  
" 896, 2<sup>nd</sup> May 1885  
" 159, 15<sup>th</sup> Jan. 1884.

"it to continue. Its vicious opera-  
 "tion is shown most clearly  
 "in the present instance, where  
 "the ease with which firewood  
 "can be obtained from the Govt.  
 "jangles furnishes the Railway  
 "authorities with an argument  
 "against paying a price  
 "more nearly resembling the  
 "cost of production, and such  
 "an argument necessarily  
 "tends to prevent any artificial  
 "cultivation, even by the agency  
 "of the Forest Department."

"So far as the railways  
 "in this Presidency are con-  
 "cerned, the question is one  
 "of vital importance. For  
 "their supplies of coke and  
 "coal they are, in all proba-  
 "bility, likely to be for ever  
 "dependent

20  
 "dependent upon external  
 "sources, and in the event  
 "of England being engaged  
 "in a naval war, the nearest

|  | available | source of supply             |
|--|-----------|------------------------------|
|  |           | "would be the coal fields of |
|  |           | "Northern India, from which  |
|  |           | "a land carriage of some 200 |
|  |           | "miles would be inevitable.  |

"Under those circumstances,  
 "if there were no reserve of  
 "firewood from which to  
 "draw their supplies of  
 "fuel, the railways could  
 "not be worked, except at  
 "a cost largely in excess  
 "of the present rates."

"The following table  
 "shows the consumption  
 "in tons of the different  
 "kinds

"Kinds of fuel during the  
 "year 1867 and 1868 by the  
 "Railway Companies in this  
 "Residency:-

|             | Madras<br>Railway |        | Great Southern<br>of India Rail. |       | Conjeveram<br>Railway |       | Total  |        |
|-------------|-------------------|--------|----------------------------------|-------|-----------------------|-------|--------|--------|
|             | 1867.             | 1868.  | 1867.                            | 1868. | 1867.                 | 1868. | 1867.  | 1868.  |
| Coke        | 1408              | 1909   | 23                               | 32    | -                     | -     | 1511   | 1941   |
| Coal        | 5191              | 3584   | 3513                             | 2791  | 167                   | 43    | 8871   | 6418   |
| Patent Fuel | 364               | 3259   | -                                | 462   | -                     | 1     | 364    | 3722   |
| Firewood    | 49,235            | 48,068 | 1923                             | 5923  | 14                    | 367   | 51,172 | 54,358 |

"In the year 1863 the  
 "weight of firewood consumed  
 "by the Madras Railways  
 "was 9,021 tons. In 1864 this  
 "had increased to 51,172 tons,  
 "and in 1868 to 54,358 tons.  
 "These figures give an idea  
 "of the extent to which the  
 "demand for firewood may  
 "be expected to increase

when

"when the Railway system  
 "becomes more extended. Taking  
 "three tons of firewood as equal  
 "but to one ton of other fuel,  
 "the consumption of firewood  
 "amounted, during the year  
 "1864 and 1868, to about sixty  
 "per cent. of the total quantity  
 "of fuel used.

"Taking these facts into  
 "consideration, I venture to  
 "suggest the advisability  
 "of a further revision of  
 "the rate of seigniorage.  
 "As above stated the last  
 "increase in the rate  
 "was from 6 Annas to  
 "10 Annas per 1000 lbs  
 "of iron

"From the papers printed with  
"the Order of Govt, dated the  
"15<sup>th</sup> Jan'y: 1867, I observe that a  
"proposal had then been made  
"by the Forest Department  
"to raise the rate to Rupee  
"1 per 1000 lbs. I recommend  
"that this rate be adopted  
"and that an early date  
"be named, after which the  
"seigniorage shall be Rupee 1  
"per 1000 lbs, or Rs. 2.4.0 per ton.  
"This increase should not  
"however, be final; and the  
"rate should be gradually  
"raised, until it becomes  
"more nearly assimilated to  
"the cost of production. Whether,  
"keeping this in view, it will be  
"necessary to fix varying rates for  
"different parts of the Pres., is not for me  
"to say."

\* Rev. Spt. No 159

22  
7. In the order under  
date 21 May 1869 No 1430,  
the Government referred the  
Consulting Engineer pro-  
posal to raise the rate  
of seigniorage from 10  
annas per 1000 lbs. to one  
Rupee to the Conservator  
of Forests, and that Officer  
having expressed his con-  
currence in Major Shaw  
Stewart's views, in regard  
to firewood used by  
locomotives, the proposal  
was sanctioned in the  
G.O. under date 19<sup>th</sup>  
July 1869 No 2093.

8. It is to this order  
that the London Railway  
Board object in the letter  
of the 20<sup>th</sup> November 1869  
submitted by the Con-  
sulting Engineer with  
his communication also  
recorded, of which a  
copy forms an Enclosure  
to

to the Despatch from His  
Grace the Secretary of  
State also recorded above.

9. It will be perceived  
however from the foregoing  
<sup>paras</sup> ~~para~~ that as observed  
by the Consulting Eng<sup>r</sup>  
the London Railway  
Board are in error in  
their statement that the  
Railway Company's  
experiments in the  
growth of firewood  
were discontinued by  
the desire of Govern-  
ment, and are equally  
incorrect in their ap-  
prehension of the object  
which the Gov<sup>t</sup> had  
in view in raising  
the rate of signorage,  
the new rate having  
been based on the  
principle that the  
price to be charged  
for timber cut in  
Government

23  
Government Forests <sup>29</sup> should  
be regulated with re-  
ference to the cost of  
production. The re-  
cognition of which  
principle is clearly  
essential in the in-  
terests both of the  
Railway Company  
and the public of the  
supply of firewood is  
to be maintained.

10. Though the Con-  
sulting Engineer's letter  
might have been con-  
sidered a sufficient  
reply to the communi-  
cation from the London  
Railway Board which  
it enclosed, the Gov<sup>t</sup>  
deemed it proper on  
receipt of the Despatch  
above recorded to sum-  
mon the Consulting  
Engineer, the Conservator  
of

of Forests and the Agent and Manager of the Madison Railway to a personal conference on the subject of the rate of seigniorage, and on the general question of the Railway fuel supply.

11. At this meeting it was unanimously determined that having in view the cost of the reproduction of wood fuel, the present rate of seigniorage could not be deemed by any means high, and it was subsequently resolved by the Genl to address His Grace the Secretary of State on the subject deprecating any reduction in the present rate, and intimating that an

an increased rate <sup>30</sup> might hereafter be deemed desirable in order that as suggested by the Consulting Engineer for Railways, the price of fuel may gradually become more nearly assimilated to the cost of production.

12. The state of the existing reserves and the general prospects of the Railway fuel supply were also fully discussed at the conference and the Comptroller <sup>of the</sup> having stated that he was unable to push on the formation of reserves with the means at his disposal, was directed to submit a general plan of operations for some <sup>time</sup> with proposals

proposals for such an increase to the Department as he considered absolutely necessary in order to carry out the views of Government in a thoroughly efficient and expeditious manner.

13. The third paper recorded at the head of these Proceedings is Major Buldwin's reply to this question - He reports that his Department <sup>there are</sup> ~~has~~ <sup>has</sup> at present about 25 square miles of Railway fuel reserves and plantations which are situated in Cuddapah, North Arcot, Salem, and Coimbatore, but that the wants of the Railway

I hope this will  
be all guess work.  
In doing this whole  
area of woodland  
will be required to  
supply a route of  
eastern. All will  
depend on soil, on the  
kind of tree, on the  
rapidity of reproduction.

Railways of the Prudhoe  
 will not be fully met  
 until this area has been  
 increased to 100 square  
 miles. The current work  
 of his Department which  
 has largely increased  
 owing to the extended  
 operations of late years,  
 render it impossible for  
 the Range Officers to  
 pay sufficient attention  
 to this important branch  
 of their duties unless  
 aided by some addi-  
 tional assistants. Major  
 Peilstone accordingly  
 proposes that four or  
 five assistants should be  
 nominated to the  
 Dept., one to be employed  
 as a personal assistant  
 to the Conservator, one  
 to the charge of the  
 Forests of North Arcot  
 one to aid Mr. Nesbit  
 in the charge of Salem  
 and South Arcot and  
 the fourth to aid Lieut  
 Walker in the charge of

of Mudura and Lencina.

14. The Right Honble the Governor in Council has given the Conservators proposals his most careful consideration and concurs with him in believing that if any real progress is to be made in the important matters under consideration, it is essential that the Forest Dept. should be strengthened to some extent. Having in view the importance of ~~which is entrusted by~~ <sup>the Secretary of State's</sup> early action in this matter, he is pleased to resolve that three Third Assistant Conservators be immediately nominated to the Dept, and that Major Beddome be requested to report what additional subordinate assistance he will require for the charge of the reserves already existing and for those about to be created.

These

I would say that we are taking a long time to do this. I would say that we are taking a long time to do this. I would say that we are taking a long time to do this.

These Proceedings will be reported for the confirmation of H.E. the Viceroy and for file in Council, and it will be explained that the charge will be met from the existing budget provision under establishments, and that due care will be taken that the total grant is not exceeded by future nomination of subordinates.

15. His Excellency in Council is of opinion that the most expedient manner of disposing of the three additional officers to be nominated to the Forest Staff will be to place one for a few weeks under the orders of Mr. Asst Conservator Sheffield, in order that he may qualify

qualify for the charge  
of the Kurnool Forests,  
which are comparatively  
of minor importance.

This will put Mr. Sheffield  
free for the charge of the  
N. West Forests. The  
other two officers will as  
proposed by Major Beddome  
be placed under the  
orders of Mr. Nesbit  
in Salem, and Lieut.  
Walter in Madras.

As proposed by  
the Government steps  
will at once be taken  
for the reservation  
of the further area  
of 75 sq miles of fuel  
reserve stated to be  
needed to meet the  
present and future  
requirements of the  
Railways.

<sup>27</sup>  
Railways. Mr. Apple  
Conservator of the  
is stated to have a  
good knowledge of  
planting and who is  
now in charge of the  
Cuddapah Forests, will  
be required to pay  
special attention to  
the fuel reserves of  
Bellary & Cuddapah.  
The line of Railway  
in these two Districts will  
probably extend when  
completed to about 260  
miles, which at 50 acres  
per mile would require  
about 20 square miles  
of reserve. The existing  
plantations & reserves  
in Cuddapah are ap-  
parently about 1000 sq  
miles in area, so that

It will devolve upon Mr  
Gonde with the assistance  
of the Rev. officers of the  
two Districts to secure  
a further area of 14  
sq. miles either by ex-  
tending the present spots  
or by securing fresh ones.

17. The S. M. line of  
the Madras Railway  
will probably need about  
30 sq. miles of reserve,  
& that portion of the  
S. M. line which lies  
in the A. A. District about  
3 sq. miles. This extent  
of 33 square miles of  
reserve should be about  
equally divided be-  
tween the three districts  
of N. Arcot, Salem  
Hombatore. In North  
Arcot there are at pre-  
sent the Thillay  
reserve

<sup>28</sup>  
Reserve said to be about 4  
square miles in extent, and  
the Travellum (aquaria) Plan-  
tations, which are under one  
square mile. It will there-  
fore rest with the Conservator  
aided by Mr. Sheffield when  
transferred to N. Arcot, and  
the District Revenue Officers  
to select a further area of  
about six square miles.

18. In the Salem District  
there are already existing  
five fuel reserves, one of  
four square miles, two  
of two square miles, and  
two of one square mile,  
as well as the Malafonau  
Plantations extending  
to

to 100 acres. It will proba-  
bly, therefore, not be desira-  
ble to increase the number  
of reserves in this District,  
but they might well be  
considerably increased in  
extent, if conveniently  
situated for the wants  
of the line in the Cornu-  
tore District, and of  
that portion of the Southern  
of India line between  
Grove and Richinsford.  
The Conservator should  
himself consider this  
question on the spot in  
communication with

Ms

29

The Collector &  
Mr. Nisbet.

19. In the Cornu-  
tore District there is at present  
only the Wallian reserve,  
which is less than two  
square miles in extent. It  
will therefore remain  
for the Conservator in  
communication with  
the District Revenue  
Officers to arrange for  
a further extent of about  
9 square miles being  
secured with as little  
delay as possible. Proba-  
bly the greater portion  
of this should be situated

I would advise the  
rest of the reserve  
17/8

ms

in the vicinity of Erode if suitable forest can be obtained, but the present reserve at Walliar might doubtless be largely increased.

20. The N. W. and S. W. lines of Railway having been provided for as proposed in the foregoing paras, it will devolve upon Lt. Walker to take immediate steps in communication with the Collectors of Tanjore and Trichinopoly for meeting the requirements of

There is none

Mr. Jeffery & I immediately  
 first, I think -  
 JDS  
 yes N

I would insert  
 which will involve the  
 formation in appropriate  
 situation of at least 8 square  
 miles of land in the district N.

I would substitute  
 the following sentence for the  
 contemplated extension  
 of the Great Southern of India  
 Railway through the Districts  
 of Madurai & Annamally & Lt.  
 Walker will designate  
 from existing Forest land  
 or designate for planting  
 an area of at least twelve  
 square miles distributed  
 in lots of convenient  
 dimensions and position  
 with reference to the  
 direction taken by the  
 projected lines. N.

I would say that  
 Mr. Jeffery & I have  
 been in communication  
 with the Collectors of  
 Tanjore & Trichinopoly  
 for the purpose of  
 obtaining the requirements  
 of the railway.  
 JDS  
 yes N

of the South of India  
 line in those Districts. He  
 will also obtain, with as  
 little delay as possible,  
 at least 12 square miles  
 of Forest reserve in the  
 two Districts of Madurai  
 and Annamally, in suitable  
 lots and conveniently  
 situated for the extension  
 line through those Districts.

21. The Conservator will be  
 good enough to submit a report  
 on the first of September next  
 stating what progress has been  
 made in carrying out the  
 instructions now issued, and a  
 quarterly progress report of the  
 operations of the Dept. in regard  
 to the fuel reserves must be  
 forwarded

forwarded thereafter, until all the tracts required have been taken possession of and properly demarcated. Definite information should also be supplied by Major Biddome regarding the existing jungle reserves at Wallar in Ponnabatu, in the Salem Dist. and at Thellay in N. Arcot. The extent which has been cut in each year since the formation of each reserve should be stated, with the description of wood cut & the quantity of fuel which was obtained per acre, and the present appearance of the tract in regard to reproduction, in order that some estimate may be formed of the number of years each description of fuel timber will require to reproduce itself in doubtful localities. It would be well also that the Conservator should place himself in communication with the Supdt. of Rev. Survey in order

fenced in

and worked

I would say not less than two square miles. We shall not be able to get blocks of four square miles. I have been near the factory.

AA

31 order that the more important reserves may at once be roughly surveyed. A Forest Officer should be placed in special charge of each of these, if this has not already been done, in order that they may be worked on a regular system and some reliable data obtained.

22 It would be well, if possible, that the new reserves should be not less than about <sup>two</sup> four square miles, in extent, so that each would supply about <sup>25</sup> 50 miles of Railway, 25 miles in each direction but each must of course be formed with regard to local circumstances. The existing reserves should be increased to this area

and whenever possible  
 so as to admit of the escape  
 of a special establishment.  
 There should be no difficulty  
 in effecting these extensions  
 at the Waller Reserve, &  
 at some of them in the  
 Salee District. The  
 Waller Reserve in North  
 West is now reported  
 to be about 4 square miles  
 in area.

I would omit  
 this where the  
 reserve is denuded  
 from forest & under  
 reserve could not be necessary.  
 He would be necessary where  
 the reserve is in whole or  
 in part young plantation.

I would omit  
 ( )

23. A copy of these  
 Res. will be communi-  
 cated to the B. of Res.  
 who will be good enough  
 to impress upon the  
 Local Res. Officers that  
 the fact attach the  
 greatest importance to  
 the immediate formation  
 of the reserves, and desire  
 that they will afford  
 all

[The Divisional  
 Office cannot be  
 easily altered but

In carrying the execution  
 of this project I think it  
 would be a good thing to  
 have the Agents called  
 up to Ootacamund to  
 receive their instructions  
 from Genl. & the (inspecting)  
 of Forests in person. I  
 would begin by summoning  
 Mr. Walker where duty  
 will be the most arduous  
 and important as he  
 has to migrate such  
 reserves in a country  
 in a great measure  
 denuded of wood. He  
 must have special  
 instructions as to the method  
 of his procedure and  
 they can only safely

32  
 all the assistance in their  
 power to the Conservator  
 and his Asst., deputing  
 an Asst. Collr. to aid in  
 the duty wherever necessary.  
 [The Cons. Genl. will also  
 communicate a copy  
 to the Agent Manager  
 of the Railway Compt.  
 in case he should desire  
 to offer any further  
 remarks on the subject  
 under consideration,  
 (as to deputing a Railway  
 official to aid in the  
 selection of new sites  
 for the Reserves.)

I should  
 meet him  
 last but

- 13 To the Conservator of Forests & Asst.
- 14 - B. of Res.
- 3 - Consulting Engineer for Railways
- 24 - Mr. Deane
- 5 - Asst. General

given in conference what  
he alone can furnish.  
The first branch of the  
work attempted might be  
my opinion to the formation  
of plantations. The  
denudation of reserves  
- existing woods is  
comparatively easy  
and not so pressing.

fuel reserves

John G. ...  
Secretary of the ...  
Washington, D.C.

much and ...

I would tell the staff of State the  
result of our late conference - of  
that at all events in the Districts  
traversed by the rail the change of  
1 lb - to far from being excessive - is  
in fact less than we <sup>could</sup> ~~first~~ assign for  
the efficient water for charging. This  
is owing to the increasing dis-frustration  
of the timber-lands in these Districts -  
which has for a long time been  
timber & artificial ~~before~~ <sup>before</sup> reforestation.  
I would add that the same office  
is charged to the General Public - &  
would point out that it was the  
Railway Co. who take the whole of the tracts  
assigned to them - & that fresh land  
will be added to them, if they can  
show that they can grow timber more  
cheaply than the public can.

As to fuel reserves - I am not

in front of <sup>the Nat. Soc's</sup> ~~the Nat. Soc's~~ proposal to  
Major Baldwin  
his ~~own~~ assistants - obtaining  
the post of Travelling Secretary. If I agree  
with Major B. that this should be regarded  
as part of the general scheme of re-organisation  
and I feel sure that these assistants  
will ~~be~~ as their predecessors have been  
doing - I can for about the range - write  
longer reports - and do little. Then  
now want action.

It is declared that every mile  
of Railway requires 50 acres of good land.  
He cannot have small plots here & there  
along each line - but must have big  
tracts every 20 or 25 miles will pay or  
answer our purpose. I do not know for  
what distance a truck or waggon full  
of work is done - I mean the truck at-  
tached to the engine - this should be ascer-  
tained.

I understand that at Aktoo  
we have 1200 acres reserved - in charge of  
a person or official on a few horses or carts.

I would make this - and as himself here  
with the <sup>entire</sup> land as he can get without thereby  
in the requirements of the Dept for culture.  
then he is to one reserve and place an Over-  
seer in charge of it & it alone. He should  
have a house built for it here in a suitable  
part of it - and have a certain number  
of watchers. He should be a man of in-  
telligence & as much practical knowledge  
as he can get here - should fence in the  
reserve. Make the road through it - conserve  
the existing wood - grow fresh wood - and  
gather some thing reliable in the way of in-  
formation & statistics of or bribe there.  
I would allow 120 Rs per year & 30 horses al-  
lowed - this would amount to 1/2 Rs  
per acre on 1200 acres. adding say 800  
Rs for watchers - and say <sup>400</sup> Rs for labor  
and the cost would be 2 Rs per acre. I am  
told that we are over age. Each acre should  
yield 1 Ton - worth 5 Rs. The profit is  
small - but our need is work & knowledge

in front of <sup>the Nat. Soc's</sup> ~~the Nat. Soc's~~ proposal to  
Major Baldwin  
his ~~own~~ assistants - obtaining  
the post of Travelling Secretary. He I agree  
with Major B. that this should be regarded  
as part of the general scheme of re-organisation  
and I feel sure that these assistants  
will ~~do~~ as their predecessors have been  
doing - I am for about the range - writing  
long reports - and so little. Now  
we want action.

It is declared that every mile  
of Railway requires 50 acres of good land.  
He cannot have small plots here & there  
along each line - he may but must dig &  
tract every 20 or 25 miles will pay or  
answer our purpose. I do not know for  
what distance a truck or waggon full  
of work is done - I mean the truck at-  
tached to the engine - this should be ascer-  
tained.

I understand that at Abtoss  
we have 1200 acres reserved - in charge of  
a person or official on a few acres a month.

I would make this - and as himself here  
his <sup>entire</sup> ~~entire~~ land as he can get without thereby  
in the requirements of the Lytle for culture.  
then he is to one reserve and place an Over-  
seer in charge of it & it alone. He should  
have a house built for it him in a suitable  
part of it - and have a certain number  
of watchers. He should be a man of in-  
telligence & as much practical knowledge  
as he can get here - should fence in the  
reserve - make the road through it - conserve  
the existing wood - grow fresh wood - and  
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per acre on 1200 acres. adding say 800  
Rs for watchers - and say <sup>400</sup> Rs for labor  
and the cost would be 2 Rs per acre. I am  
told that we are over age. Each acre should  
yield 1 Ton - worth 5 Rs. The profit is  
small - but our need is work & knowledge

The Train has filled. Should be sold by  
auction, being directly, in moderate lots -  
for we have to bring the fuel for the people  
as well as the Brailoony.

I would have similar tracts  
along each line of rail - made &  
proposed - and treat them exactly  
in the same position - Where we could  
not get to large tracts, our reserves  
could fit here by of course.

I would direct Major  
Reddick to set to work at once &  
with the Brailoony web in hand  
to arrange with the local Colon & other  
Comm. the various in the Colon to  
tell us whether the reserves are to  
be. The Colon will have to be directly  
in saying to have the various large  
tracts can be found, and he must  
first go & look at them himself in

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Company with the local Colon  
and one of the Colon assistants, if  
the Colon cannot bring self go - I  
would give Major B a stated time  
in which to bring his report  
for each line. If unable we cannot  
always have tracts on the line - after  
they will be a few miles off it - but  
the cannot be helped - With a  
certain number of these reserves  
along each line, the rest may be  
left to general Colon service.

I would ask the R. B. to  
be sanctioned the expenditure, & per-  
manently - telling them that  
he will take care that the fund  
should remain & be not be exceeded.

but not proposing to abolish  
any particular appointment - till  
we see how we shall stand when  
the reorganisation is taken up.

S. D. S.

I agree in the foregoing suggestions.

A. V.

I do not think that the suggestions offered by Mr. Sin are sufficiently comprehensive and effective. The dykes at stake is an important one. The enquiry will be long and laborious. It cannot be hastily cancelled on the very humble judgment without special agency exclusively devoted to the work. It appears to me that Major Reddome, with all the business he has on hand cannot do more than give a general impulse and supervision, nor will the existing subordinate officers be able to perform their regular work and carry out the systematic investigation necessary for the design of fuel reserves at the same time. I would advise that three of the more experienced District Officers, I care not in what grade, should be selected to act as commissioners at once for the purpose contemplated, one for the north western branch of the Madras Railway; one for the south west branch and one for the great southern of India Railway with its contemplated extension to the South. These officers should be charged with the duty of proceeding down their respective lines "mak - head" as Mr. Sin says, in company with a revenue officer delegated in each district <sup>and a railway official of necessity</sup> for the purpose of selecting new sites at convenient distances and for the purpose of inspecting the reservoirs already formed & making proposals for their improvement.

I would not lay down any rules for the area of the  
reservoir, but distance from the line back reservoir  
must be formed with due regard to local  
circumstances. It is sufficient to designate generally  
that a certain area should be appropriated to  
each route of Railway & that provision must, of  
course, depend upon the kind of wood grown, the  
rapidity of its reproduction & other local  
particulars of which we have at this moment  
little information. We are about to lay out, to  
be sure, as it were, for posterity in a question of  
great concern. It must be done in a  
perpetuating or insufficient manner.

The appointment of three of our best officers to this  
special duty would have a beneficial effect on the  
current duties of the Dept but I think there are  
at this moment at least two candidates for the  
Dept of competency & experience. We must make  
the best of them. The whole number would not do  
find a place in the reorganized Dept but  
I would not wait for any scheme of reorganization  
but act at once & begin by sending Mr Ferguson  
and charging him with the duty of laying out the  
reservoirs for the South West line with instructions  
from Major Beddome given here with the approval  
of the Council.

I agree with much that Mr Sin says there is. I would  
insist on the present charge of R. I would make the anomaly  
suggested for the action reserve - but I would be cautious about  
auction sales in any place, my friend not get any the like R. I.  
by an unreserved sale perhaps & if so, this would put us in a  
false position.

I have had a long discussion  
with Major Beddome regarding the  
reservoirs. More has been done in  
some districts than I thought.

Major B. deprecates the  
making this a special depart-  
ment. This is quite my view also.  
It would be very expensive - there  
are administrative difficulties  
& we have no officers to spare. The  
Dept is some how in a very low  
state. The best & most experienced  
officers cannot be taken from  
the present charge - as we  
are literally no one to take  
their places.

A re-organization of  
the Dept is necessary - but  
mean a little the following plan  
of operations is suggested.

A Probationary Asst. on Rs 150 to  
be attached to Mr. Yarde  
in Cuddalore to learn his work  
and receive Mr. Y. as much as he  
can. Mr. Y. meanwhile to add up  
himself energetically to collecting  
& forming reserves. The Collector  
desired to depute his Divisional  
Officers to accompany Mr. Y. & said.  
If the Asst. is up to his work he  
can eventually be sent to H. Asst.  
A second man to be attached to  
Capt Walker who will follow the  
same course in Madras. This Asst.  
will eventually go to Simsbury.  
A third to be attached to Major  
Morgan - eventually for S. Asst.

Half a dozen quarters a piece  
from Rs 60 to 80 or 100 according to local  
prices to be allotted to the Asst.

change of the reserves when formed. <sup>11</sup>  
Major Morgan can easily run  
down to join the Asst. the pond  
on each side of the 2 series in Coim  
batore. He has already started on the  
Korthern people.

Mr. Sheild says it is the same  
for Kallary - or the Ch. could report  
the waste available.

As matters are this seems  
to be the best - indeed the  
only course.

There are Budget savings  
sufficient to cover these expenses.

Mr. Nesbitt says he has  
enquired - he only gets 100 -

Col. P. says he must send  
some one to Salem to demand  
of the Asst. the reserves -

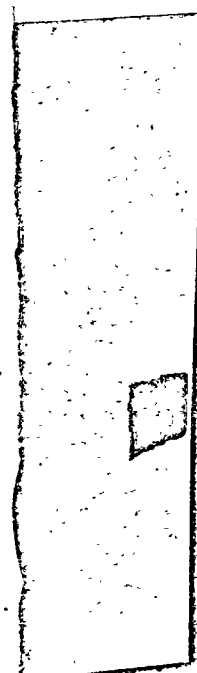
S. P. S.

Copies of letters  
distributed with  
Circular to Surgeon Beddome  
T.D.

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My dear Beddome

You will get a copy in the  
course of a few days, communicating  
to you the text of State's despatches about  
Fuel Reserves, and resolving to  
nominate three additional student  
class assistants and some overseas  
for order to enable the Dept to  
undertake the ~~of conducting them~~ duty, ~~at once, in an~~  
their formation, at once, in an



affectionate manner, It is understood  
that you will permanently undertake  
the reserves of Malabar, Coimbatore  
Salim & South Arcot, aided by Robert  
of Salem, and Sheffield who will be  
happily <sup>to</sup> be, that you will  
look after those of Bellary, Fort and  
Cuddalore, and that Walker <sup>will</sup> at  
once select the sites required for those of  
the great Southern of India line now  
completed in Peshawar, Haryana, and  
~~for the extension through Madras~~

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and Travancore. The new men will  
be placed in Kurnool, <sup>South Arcot &</sup>  
Travancore so that Sheffield, Walker  
& Robert will be materially assisted  
in the ordinary work and will have  
more time for the special duty which  
the post attaches the greatest importance.  
The post will issue special orders to the  
Revenue Officer of District directing them  
to afford you and your Officers all the  
aid in their power in the matter  
and depute an Act to travel  
with them when necessary, and

The Govt will expect a monthly report  
on gun operations.