M.R.O. 14—18,000—27-9-24

MADRAS RECORD OFFICE.

Government of Madras.

Revenue **DEPARTMENT.**

G.O. No. 2061 Press ~~Mis.~~

113-115

Dated 10. 11. 1864.

Not to be folded or roughly handled

Proceedings of the Madras Government, Revenue Department, 10th November 1864.

Read the following :—

No. 113. Proceedings of the Board of Revenue, dated 16th September 1864, No. 6,124 :—

Read again Proceedings of Government, dated 16th May 1864, No. 779.

Read also the following letter from J. W. B. DYKES, Esq., Collector of Nellore, to W. HUDLESTON, Esq., Secretary to the Board of Revenue, dated 25th June 1864, No. 192 :—

1. I have the honor to submit the information called for by the Government, in their Proceedings in the Revenue Department, No. 779, on the suggestion I ventured to make under date the 28th April last, that the question of firewood can only be put on a satisfactory footing by ascertaining the cost of production, and fixing the price accordingly.

2. Hitherto, as the Board are aware, we have been selling natural wood, and, our population increasing, the natural wood has receded, and it becomes necessary to replace it either by private enterprize or under the immediate action of Government.

3. In their Order the Government refer only to the District of Nellore; and the information I now do myself the honor to submit, has therefore reference only to this District, where our rule has been established some sixty years, and the natural wood during that period has receded from twenty to thirty miles round the chief town.

4. For many years, whether in Nellore or elsewhere during the second quarter of this century, trade was stagnant. Men got a bonus to destroy wood !* It is only of late years that the change has set in ; and the rate at which the natural wood is now receding has only to be localized and marked, to show very distinctly the necessity for immediate action, either on the part of Government or private individuals; and myself believing it is hopeless under any circumstances to look for help from the latter quarter, the following calculations have been made solely with reference to Government.

* The Cowle system.

5. The cost of planting, the time wood takes to grow, the cost of guarding during that period, and the assessment that would be obtained were the land otherwise occupied, are the four main items of cost in producing firewood ; and, the first item being wholy unknown as might be expected, for the subsequent calculations the information I have received gives very satisfactory data ; and I may briefly state that ten years is the average time wood takes to grow, 2½ Rupees is the average cost of guarding, and 3 to 10 Rupees is the cost per acre under the head of assessment.

6. One man could guard from 150 to 300 acres ; and taking the cost of a watchman and supervision in round numbers at 50 Rupees the year for 200 acres, is to make a charge that might be reduced from 500 Rupees for 200 acres to 500 Rupees for 300 acres, or from Rupees 2½ to Rupees 1-11-0 per acre. But it is not always possible to get such large blocks of unoccupied land in a ring fence ; and I have therefore taken 200 acres as the average, and similarly take 8 Annas as the average assessment per annum per acre.

7. Taking therefore no count of the cost of planting, ignoring equally the time the money must lie idle, and the usual profits on capital expended, or the addition that should be made to meet probable cost of planting hereafter with reference to probable rise in prices should Government prefer to adopt that course, under the two heads simply of guarding and assessment the calculations given in the preceding paragraphs show that, to raise an acre of wood, we must expend 5 Rupees assessment on the land, 2½ Rupees cost of guarding, and, at the present rate of selling, must cut at the end of ten years twenty-four cart loads the acre to secure ourselves from loss.

8. On the other hand, the calculations I have received as to yield, give ten cart loads as the average yield per acre; and to meet the cost of guarding and assessment, the selling price of wood should therefore be raised 7 Annas or 140 per cent.

9. Copse re-produces itself in six or seven years. We should also after the first year or two be able with safety to let out the cutting of the grass; and in these ways the Board will observe, we could to some extent reduce prime cost as stated in the preceding paragraphs. But

any reduction so made would not do more than meet the cost of planting, and other items referred to and similarly omitted in these subsequent calculations; and 12 Annas may be considered as the lowest price at which wood could with propriety be sold the cart load, to cover the average cost of production.

10. Bought from Government at present at 5 Annas the cart load the wood is sold in the Town of Nellore at Rupees 2-8-0 the cart load, Rupees 5 the same quantity in retail; and this state of the wood market in Nellore, as regards fuel, may, I believe, be taken with propriety to illustrate the general bearings of the question; and for the sake of convenience, in the following remarks I will refer to the Town of Nellore alone. There is everywhere the increasing population, the receding wood, and much the same requirements. What I prove to be applicable to Nellore will be more or less applicable to the District generally, and being thus localized can be more easily discussed.

11. And first, I would call attention to the proportion borne by the charge on account of Government to the cost of the article to the consumer, which could scarce be realized by any one, till thus brought face to face. To the wholesale consumer, the Government charge is half Anna in the Rupee. To the labouring man, who buys his four fagots for himself and family, it is half a pie; and thus tested, it is obvious that it is not Government interference or a rise even of 140 per cent. in the Government prices that could materially affect the cost of the article to the consumer, either rich or poor; and it is somewhere else we must look, to find the causes of the present distress and of the insufficient fuel that affects the health of our large town as much if not more than bad drainage.

12. The Government price of 5 Annas, or rather charge for permission to cut, has really very little to do with the selling price of the wood in the bazaar; and raising the price of wood as sold by Government from 5 to 12 Annas would only make the wholesale consumer pay 2 Rupees 15 Annas for his cart load instead of 2 Rupees 8 Annas, and the labouring man a pie and a quarter instead of half a pie as his contribution towards the Government forests, a rise in prices that cannot be considered excessive for the object in view, or calculated to produce the distress I erroneously apprehended when I addressed Government in April last.

13. And believing it is the distance the wood has to be carried that mainly raises its price at present, I am glad to say that the means are in the hands of Government of raising the Government price as proposed to meet the cost of production, without in any way raising the selling price to the consumer either wholesale or retail; and the course I do myself the honor to recommend may be given in a few words.

14. I beg to recommend that I be permitted to take up a sufficient quantity of land within a radius of ten miles round all our large town to furnish the required supply of wood; and if this authority be granted to me, the selling price of wood may in my opinion be raised 140 per cent., and yet the same article put down in the market at a lower rate than at present. The difference will be saved in the distance.

15. In addition to calling for the information already referred to, on the receipt of the Government Proceedings under acknowledgment, I called further for a rough estimate of the average requirements per 1,000 of the population of all classes. It is a difficult question. There is so much to disturb the results; the data are so varied; some of our population scarce use firewood at all; others go far beyond the necessaries of life. Again, if there is cooking for the living, there is the fire also for the dead. It is about a cart load a day in Nellore. There is also the large and noxious expenditure for distilling Arrack; there is burning bricks, burning tiles, chunam, &c., fuel for travellers in addition to the stationary population; and, to take all these points into consideration and come to an accurate conclusion would require a statistical knowledge not available. I have however simply calculated what would be enough for the labouring classes, supposing them all to use only wood; and taking this calculation as the basis, I believe I shall to a certain extent provide for the various other wants referred to; and, if the calculation is below the mark, it will be comparatively easy to increase, whilst I am very certain it will not be necessary to reduce it; I shall not have taken up too much land.

16. The Talook authorities give two cart loads a head a year. The Deputy Collector in charge of the Salt Department raises it to 4½. The Sub-Collector, Mr. Morris, also calculates the consumption at two cart loads a head a year; and thus supported I should be justified in taking 2,000 cart loads as the requirements per thousand per annum for firewood or 200 acres. But these calculations are I think based on data gathered where firewood is abundant. When proper care is taken of the wood before being cut, it is also probable the yield will be larger than ten cart loads the acre; and taking these points into consideration, I do not propose to ask now for more than 750 cart loads the 1,000, of our population, or 75 acres at ten cart loads the acre, as the area to be set apart for providing firewood should these proposals and calculations be considered worthy of being tried.

17. I have taken the cart load to be 1,200 lbs., the fagot 2½ lbs. I have checked the wholesale consumption by the estimated daily supply coming into Nellore on carts, bullocks, men, women and children. The fagot I have weighed; and the results wholesale and retail, thus obtained, have been again checked by jail statistics; all of which tend to show that four fagots or 10 lbs. of firewood is not more than enough for an average family of four a day, 2,500 lbs. or two cart loads are required for a 1,000 of the population and for the same number 750 cart loads should at least be provided for the year, to produce which, as already stated, 75 acres are requisite.

18. At the same time there is no doubt, that every year it will become more difficult to find land conveniently situated for wooding, should the present provision be found insufficient. It is equally desirable, for the sake of the public health, that there should be no stint in this important item of daily consumption. Insufficiently cooked food tells heavily on health. It is also very important to free as much as possible for the enrichment of the land, the cowdung that at present is used as fuel; and taking these points into consideration, should the Board think fit, 100 acres might with propriety be set apart instead of 75 acres per 1,000, or a cart load a head; and 700 acres would thus be the area required to provide a steady supply for a population of 1,000, taking seven years to be the period required for re-production.*

* The accompanying Statement A shows the requirements of the District thus calculated for the Ryotwar villages, and exhibits a deficiency of 35,303 acres.

19. Twenty years ago a man when he wanted firewood (to return to Nellore), sent his cart outside the Town, gave 4 Annas to the coolies to cut the wood, and got his cart load.

20. There are now lying unoccupied within a radius of ten miles of Nellore including this land and excluding the Delta villages, 40,000† acres in round numbers, some of which still carry copse that only requires proper care to give a fair return in four or five years. We have a population of 25,000. We should therefore for Nellore require 17,500 acres for a steady supply; and if the Board will allow me to take up this land for the purpose of providing the Town of Nellore with a proper and steady supply of wood, in the course of five or six years, the year's supply, though it could not be put down so cheap as it was twenty years ago, could still be put down from the same land, or its neighbourhood, less the cost of a carriage at present of from twenty to thirty miles; and this will more than cover, as I have stated, the extent to which it is proposed to raise the price at which Government sells it.

† Wood.

	Acres.	
Exclusive of Delta villages ...	4,432	
Nellore Township	3,126	
		7,558
Waste.		
Exclusive of Delta villages ..	28,876	
Nellore Township	3,537	
		32,413
		39,971

21. Shaganam and Dagadarti are our limits now of our wood market instead of the country as formerly in the immediate neighbourhood of the town. These distances it is that fix the present market price of firewood, for the cutting of which however 8 and 9 Annas must be given instead of 4 Annas as formerly; and taking the Government demand at 5 Annas, and the cost of cutting at 8 Annas, we have in round numbers 1¾ Rupees at 2½ Rupees the cart load to meet the cost of carriage (twenty miles) and the profits of the undertaking; whilst, at the ordinary authorized rates, this is simply what must be paid for the cart hire at 14 Annas the ten miles.

22. It is probable that the carts are a good deal *shaken* on their way into Nellore; that the sticks picked up go to swell the retail trade and profits on the wholesale venture; that the 5 Annas is certainly not paid to Government in every instance, &c.; and in these ways 1¾ Rupees do not perhaps actually represent the precise margin left to the speculator after meeting unavoidable outlay. But these are minor features; and it will, I think, be admitted that it is the cost of carriage that mainly raises the price of wood to the consumer; and that the distance from which it has to be brought being reduced by half, we shall be able to raise the Government price by 7 Annas, and yet give no cause for increasing the cost of the article to the consumer. It would be 7 Annas against 12 Annas cart hire; and, supposing the carter to work cheaper on his own account than the regulation rates, it would still, from what we know of the cost of felling, be impossible to reduce the cost of carriage to 7 Annas the ten miles, and the proposed rise in the Government selling price should be 2 per cent. in the consumer's favor on the cart load.

23. Should the Board think fit, as I have referred chiefly to the Town of Nellore, so in like manner the soundness of these views might with propriety be tested where the want of firewood is perhaps most felt, and the several measures could be most effectually supervised; and 2,500 acres is the area we should in that case have to take in hand at once, and could probably guard at the cost of Rupees 700 per annum. Much of it that once carried valuable wood is now let as pasturage at an Anna or two an acre. I have directed the Tahsildar to see whether the Ryots would relinquish the land for an object of such importance to themselves; and securing at once all the land required, but only disturbing the cattle annually to the extent of 2,700 acres required, I trust no inconvenience would be felt on this head. As the area available for pasture annually diminished, fresh arrangements could be made to the westward; and, instead of opposition, seeing its importance, not only for fuel, but also as regards attracting and retaining moisture, setting free labour now carried off to distant jungles, &c., the proposed planting would, I hope, have the cordial co-operation of the Nellore Ryots.

Population of the Town 25,000 at 700 acres for every 1,000 souls 700

7,17,500 acres.

25,000 acres.

for seven years, or for the year.

24. The cost of the proposed arrangements could not at present be met from our receipts; for the three Talooks of Nellore, Rapuru, and Guduru, which for Nellore Town alone should show receipts at the rate of fifty carts, or Rupees 15 a day, 5,000 Rupees a year, do not show altogether under the head of firewood Rupees 300, and the whole District shows only results that no extent of Inám villages can possibly explain. But, if the Sriharikota receipts on account of firewood may be made available, after paying for a suitable guard there, then no difficulty would be experienced in respect to funds, and the experiment might be carried out on a larger scale.

ENCLOSURE No. 1.

ABSTRACT.—Statement showing the requirements of firewood of the District of Nellore for the Ryotwar villages calculated at 700 acres as the area necessary to provide a steady supply for a population of 1,000, and seven years as the period required for re-production.

1. Ordered that the foregoing letter from Mr. Dykes be submitted to Government with reference to the Government Order, dated 6th May 1864, No. 779.

2. Mr. Dykes in his letter to Government, dated 28th April 1864, No. 2, suggested that the present tax on firewood, the produce of Government jungles, should be raised to an amount sufficient to cover the cost of *growing* wood to be used as fuel. The reason on which he based this suggestion was that "so long as the price of the wood now available is fixed without reference to the cost of its re-production," private persons willing to engage in growing wood are precluded from doing so, inasmuch as they cannot, while the price (tax) is thus arbitrarily fixed, calculate the cost of growing wood, or its value when grown.

3. In his letter to the Board he expresses an opinion that "it is hopeless under any "circumstances to look for help" from private persons in supplying the public with wood for

fuel. He therefore proposes that Government should undertake to grow wood with this object, and enters into certain calculations showing the cost at which Government could grow wood for fuel, the quantity of fuel consumed by the native population per head, and the extent of land required to supply the supposed demand. Thus he reckons that 100 acres of land would be sufficient to supply a thousand people with fuel for one year; that to keep up a constant supply 700 acres ought to be allowed for each thousand, "taking seven years to be the period required "for re-production;" that the cost of growing wood as proposed would be Rupees 7-8-0 an acre distributed over ten years, and that to re-imburse the Government, if they undertook the expense of thus supplying the public with fuel, the Government charge on each bandy load of firewood ought to be 12 Annas (looking at present wholesale and retail prices) instead of as now only 5 Annas a bandy load.

4. Mr. Dykes believes that wood grown for fuel will prove productive at the end of ten years from the time of planting. A single year's felling will, it would seem, suffice to repay all the expenses previously incurred, and subsequent felling once in every seven years all intermediate expenses.

5. According to this calculation, the extent of land needed for supplying the Town of Nellore, containing a population of 25,000 persons, would be Acres 17,500. Mr. Dykes desires leave to commence the experiment by occupying this extent of land within a radius of ten miles round Nellore to supply that Town with fuel, taking up each year Acres 2,500 at a cost of Rupees 700 per annum, till the whole extent (Acres 17,200) is planted out.

6. Mr. Dykes' proposed mode of supplying the public with fuel is intended to meet the increasing difficulty with which wood for fuel is now procurable, especially in the large towns. He points out that the "natural wood has receded;" that it continues to recede while the demand for fuel is increasing; and that the price of wood must continue to rise with the increasing cost of carriage. He believes (1) that a constant and sufficient supply might be kept up provided Government would undertake to grow wood within a moderate distance of the large towns; (2) that wood thus supplied might be sold in the market at a less price, or at all events at a price no higher than is now paid, inasmuch as a great saving would be effected in conveying the wood to market, a saving that would more than counterbalance any increased expense incurred in growing wood as proposed.

7. The Board observe that Mr. Dykes has erroneously viewed the tax now levied on firewood as the "price" of the wood. As the tax is arbitrarily fixed, it is impossible (according to his reasoning) for persons wishing to grow wood to calculate what the expense of growing it would be, or what price such wood would command in the market when grown. Mr. Dykes is, however, mistaken in thinking that Government sell the wood. The tax is covered by the price at which the wood is sold in the market, but is not itself the "price," or the sale value of the wood. Nor is the present price of wood sold for fuel liable to any fluctuations on account of the tax, for the tax is a fixed charge on a given quantity of wood, and therefore is not a fluctuating element in the cost at which the wood can be brought to market. This cost may be increased, as shown by Mr. Dykes, by the increasing expense of carriage, or by the increasing cost of labor, by one or by both of these causes; but so far as the tax is an item in the necessary cost, if Government do not vary the rates, the tax can have no disturbing effect on prices. It is obvious therefore that to persons wishing to grow wood, the tax, as now levied, can form no impediment to their estimating the cost of growing it, or to their estimating the profit which present market prices would yield. In calculating the former they need not allow for any tax, for the Government has never proposed to extend the tax now laid on forest or on jungle wood to wood grown by private persons, nor in estimating profits by present prices need they fear that prices will hereafter be reduced by a reduction in the tax at present levied.

8. Mr. Dykes supposes that the tax is regulated "rather with reference to the means of the "poorer classes than what must be demanded to avoid loss were the wood sold by those who "grew it." The object with which the tax is imposed is to provide for conservancy charges on account of existing forests and jungles. This is the principal object whether the tax be charged on firewood cut for sale, or on the larger wood grown in the forests. If the Government under-

take to plant trees it is with the view of keeping up the existing supply of wood, whether firewood or forest timber. The Board's rules for the conservancy of village jungles are also intended to supply a small fund for planting, but such operations are necessarily limited, and the Board have never contemplated planting or growing wood to an extent that would interfere with private enterprise in the same direction.

9. The returns from the tax as now charged ought to cover all expenses connected with the object explained above, but to impose a higher tax with the view of deriving from the forests an additional source of revenue, or even to secure for Government the difference which wood, as at present supplied, is selling for, and the price which wood may eventually bring when the forests may fail to meet existing demands, would be to enhance the price of wood to the country before, in the natural order of things, so high a price need be paid. The public could derive no benefit by such a scheme, nor, indeed, has Mr. Dykes proved that any real necessity exists for raising the present tax on forest grown wood in order to meet the cost at which wood might be grown on his plan. If the Board understand that plan the wood when grown and brought to market is to be sold at a price which would itself be sufficient to re-imburse Government all preliminary expenses, and this in the case supposed would be the more natural course.

10. The Board are also of opinion that Mr. Dykes would find it practically impossible to reduce the market price of firewood in the manner he proposes. It is true that the price might be reduced in proportion to the reduced price at which the wood could be conveyed to market, as, for instance, in the case of Nellore, provided Mr. Dykes could furnish the whole required supply from land lying within the proposed radius of ten miles ; but if a part only could be so supplied, the price in the Nellore market would be regulated by the cost at which the wood brought from the greater distance could be supplied, and the difference between that price and the actual cost at which wood could be grown on more favorably situated land would belong to the owner of such land, or the owner might obtain a rent for his land equivalent to that difference. At present private persons may calculate the profits which current prices would give them as enhanced by any saving they could effect in the cost of conveying the wood to market, and any natural advantage which persons growing wood on the more favorably situated land would thus enjoy is so much additional inducement to private persons to engage in growing wood.

11. Mr. Dykes has not explained his reasons for assuming that private persons will not "under any circumstances" undertake to supply the public with fuel, though of course his plan can have no claim to consideration if this preliminary point be not established. The Board do not think that such a view of the case is correct. They believe that as prices rise, the people will be as ready to engage in supplying wood as they supply other commodities for which the markets afford an effective demand. Mr. Dykes should endeavour to give effect to the views expressed on this subject in paragraph 6 of the Government Order, dated 4th June 1859, No. 744. As remarked by Government, private persons may be backward in taking up land in order to grow wood for a profit ; but in due time this must be done in India, as in other countries ; and in order to promote so desirable an object, every Collector should endeavour to keep prominently before the people of his District, the liberal terms on which private persons are permitted to occupy land, when it is taken up for the special purpose of supplying the country with either timber or firewood. The time has passed when it could be said that private persons will not "under any circumstances" engage in such undertakings, for already more than one large tract of land has been occupied in the neighbourhood of Madras by persons intending to grow wood on it for fuel as a profitable mode of employing their capital.

No. 114. Proceedings of the Board of Revenue, dated 12th October 1864, No. 6,745.

Read the following letter from J. W. B. DYKES, Esq., Collector of Nellore, to W. HUDLESTON, Esq., Secretary to the Board of Revenue, dated Siddipuram, 23rd September 1864, No. 313 :—

1. I have the honor to acknowledge the receipt of the Board's Proceedings of the 26th instant, submitting for the consideration of Government, my letter of the 25th June, on the subject of firewood.

2. In the 11th paragraph, the Board refer to my having failed to give my reasons for assuming that private persons will not, under any circumstances, undertake to supply the public with fuel, though my plan can have no claim to consideration if this preliminary point be not established ; and then giving it as their opinion that this view of the case is not correct, the Board refer in conclusion to the fact that more than one large tract has been occupied in the neighbourhood of Madras to grow fuel, as proof that the time is passed for such assertions as I had hazarded.

3. The length to which my letter of the 25th June extended rendered me averse to entering upon any subject that I thought could be avoided ; and I therefore refrained from going into the reasons which led me to assume that private enterprize could not be depended upon for such remote returns. I thought that it would be admitted with reference to every day's experience. But as the Board observe it is an important element in the plan submitted for consideration ; and I therefore beg that the Board will be pleased to submit for the further consideration of Government, that the grounds I went on had not only reference to this country, but to all other countries that I know of, where the people depend for fuel on the vegetable growth of this formation.

4. Men of large property in Europe plant timber, and, where the vegetable growths of earlier formations are to be found on their land, are to be depended on for fuel also. But I know no country where fuel is *grown* by private enterprize. The Board refer "to other countries" where wood is so grown, but not naming these countries, it is impossible to institute a comparison ; and no where do I believe would it be considered safe to depend on private enterprize for so vital an element of a people's prosperity.

5. In France, the wood-yards of Paris are supplied from the Government forests. In Germany, the forests and the foresters are essentially Government ; and whilst fully aware of the serious nature of the step I contemplate, of its effect on private enterprize, and the abuses such a system is open to, I nevertheless thought it safe, with France and Germany before my eyes, to assume that private enterprize could not be depended on here more than there, and regret I did not place these additional reasons before the Board in the first instance.

6. If the large "tracts" referred to by the Board are the tracts that have been taken up for Casuarinas, I would take this opportunity of submitting for consideration whether they really affect the argument.

7. When Casuarinas have to be transplanted, watered for the first year, and are capital timber when grown, I doubt if they will be of much avail as regards the firewood market.

Ordered to be submitted to Government in continuation of the Board's Proceedings quoted by the Collector.

No. 115. ORDER THEREON, 10th November 1864, No. 2,061.

Forests, No. 7.

1. In his letter of the 28th April last, Mr. Dykes addressed Government on the subject of fixing the charge for Government firewood with reference to the cost of production, as the only means of leading the people to grow firewood, and so replace the rapidly decreasing supply.

2. Mr. Dykes was thereupon requested to furnish Government with information as to the cost of production, &c.

3. This information is submitted in his letter of the 25th June last, to the Board of Revenue, whose views on the subject are contained in their Proceedings of the 16th September. In his last letter of the 23rd idem, Mr. Dykes furnishes explanations on a part of the Board's Proceedings.

4. Mr. Dykes estimates the average assessment and cost of guarding per acre to be 8 Annas for the former, and 4 Annas for the latter annually. And as he states that copse renews

itself in seven years, the total expenditure for assessment and guarding would be Rupees 5-4-0, per acre, exclusive of interest on the outlay. Of the important item, planting, Mr. Dykes gives no estimate at all. The produce of an acre he estimates, very moderately, at ten cart loads, which at the wholesale price now ruling in the town of Nellore would realize Rupees 25. The charge for felling is said to be 8 Annas per cart load, or 5 Rupees per acre, so that the grower would in the seventh year have nearly 15 Rupees per acre, out of which to realize expenses of planting, conveyance to market, interest, and profit. In the absence of any information as to the cost of planting, these calculations are obviously of little use.

5. Mr. Dykes on the data he has obtained makes two propositions.

6. The first is that the Government charge should be raised from 5 Annas to 12 per cart load, which would at least cover the cost of guarding and assessment. Mr. Dykes' calculation of these items is higher than it should be, as scrub jungles would rarely bear so high an assessment as 8 Annas per acre, and the jungle renews itself in seven, not ten years. But on the other hand, he omits the value of the wood as it stands. There can be no doubt that, if Government allow firewood to be cut in their jungles for less than it can be grown, private individuals cannot afford to grow it. The Board are averse to any enhancement of the price, but the Government consider that Mr. Dykes' arguments are sound, and though such a sudden rise as from 5 to 12 Annas would be too much, the price might very reasonably be raised to 8.

7. Mr. Dykes' second proposition is that he should be allowed to commence growing firewood for the inhabitants of the Town of Nellore. The Talook officers calculate the annual consumption at two cart loads (of 1,200 lbs.) each per head, the Sub-Collector, Mr. Morris, adopts the same rates, while the Deputy Collector in the Salt Department gives 4½ as the rate. The lower of these rates gives 2,000 cart loads as the consumption of 1,000 people; but Mr. Dykes for the present desires to raise only 750 cart loads. The population of Nellore being 25,000, an area of 17,500 acres would be required to ensure a steady supply. Mr. Dykes, therefore, wishes to take up this extent of land within a radius of ten miles, planting 2,500 acres annually. He advocates, eventually, similar arrangements in the neighbourhood of every large town. Calculating at the rate of 700 acres for every thousand of the population, and taking seven years as the period of re-growth, Mr. Dykes estimates that 3,85,000 acres should be under wood; while the present area is only 3,50,000 acres.

8. The Government cannot undertake the obligation of providing firewood for the people throughout the country (for of course the Nellore District could not alone be thus treated), and such a measure as Mr. Dykes proposes would most effectually shut out private enterprise. All experience shows that Government cannot accomplish such undertakings so successfully or economically as private individuals, and it would be most impolitic on the part of Government to monopolise a branch of industry which hereafter will attain considerable importance. But while thus declining to entertain Mr. Dykes' proposal in its integrity, the Government recognise the importance of the subject, and appreciate highly the interest he has evinced regarding it. They consider it very desirable that an example should be set to the people, and that to the extent necessary for this purpose, as well as for the acquisition of really reliable information on the subject of growing firewood, Government should take the initiative. They resolve, therefore, to instruct Mr. Dykes to take up 200 acres of suitable land in the vicinity of Nellore, and to commence at once a series of systematic experiments, as to the best description of tree, the best mode of planting, the proper number of trees to the acre, the best age at which to cut, &c., &c. He will be supplied with seeds and plants on application, and the necessary funds will be placed at his disposal.

9. The concluding paragraph of Mr. Dykes' letter and the calculation in paragraph 21, show that the firewood tax is not really levied with any stringency. This should be remedied.

(Signed) J. D. SIM,
Secretary to Government.

itself in seven years, the total expenditure for assessment and guarding would be Rupees 5-4-0, per acre, exclusive of interest on the outlay. Of the important item, planting, Mr. Dykes gives no estimate at all. The produce of an acre he estimates, very moderately, at ten cart loads, which at the wholesale price now ruling in the town of Nellore would realize Rupees 25. The charge for felling is said to be 8 Annas per cart load, or 5 Rupees per acre, so that the grower would in the seventh year have nearly 15 Rupees per acre, out of which to realize expenses of planting, conveyance to market, interest, and profit. In the absence of any information as to the cost of planting, these calculations are obviously of little use.

5. Mr. Dykes on the data he has obtained makes two propositions.

6. The first is that the Government charge should be raised from 5 Annas to 12 per cart load, which would at least cover the cost of guarding and assessment. Mr. Dykes' calculation of these items is higher than it should be, as scrub jungles would rarely bear so high an assessment as 8 Annas per acre, and the jungle renews itself in seven, not ten years. But on the other hand, he omits the value of the wood as it stands. There can be no doubt that, if Government allow firewood to be cut in their jungles for less than it can be grown, private individuals cannot afford to grow it. The Board are averse to any enhancement of the price, but the Government consider that Mr. Dykes' arguments are sound, and though such a sudden rise as from 5 to 12 Annas would be too much, the price might very reasonably be raised to 8.

7. Mr. Dykes' second proposition is that he should be allowed to commence growing firewood for the inhabitants of the Town of Nellore. The Talook officers calculate the annual consumption at two cart loads (of 1,200 lbs.) each per head, the Sub-Collector, Mr. Morris, adopts the same rates, while the Deputy Collector in the Salt Department gives 4½ as the rate. The lower of these rates gives 2,000 cart loads as the consumption of 1,000 people; but Mr. Dykes for the present desires to raise only 750 cart loads. The population of Nellore being 25,000, an area of 17,500 acres would be required to ensure a steady supply. Mr. Dykes, therefore, wishes to take up this extent of land within a radius of ten miles, planting 2,500 acres annually. He advocates, eventually, similar arrangements in the neighbourhood of every large town. Calculating at the rate of 700 acres for every thousand of the population, and taking seven years as the period of re-growth, Mr. Dykes estimates that 3,85,000 acres should be under wood; while the present area is only 3,50,000 acres.

8. The Government cannot undertake the obligation of providing firewood for the people throughout the country (for of course the Nellore District could not alone be thus treated), and such a measure as Mr. Dykes proposes would most effectually shut out private enterprize. All experience shows that Government cannot accomplish such undertakings so successfully or economically as private individuals, and it would be most impolitic on the part of Government to monopolise a branch of industry which hereafter will attain considerable importance. But while thus declining to entertain Mr. Dykes' proposal in its integrity, the Government recognize the importance of the subject, and appreciate highly the interest he has evinced regarding it. They consider it very desirable that an example should be set to the people, and that to this extent necessary for this purpose, as well as for the acquisition of really reliable information on the subject of growing firewood, Government should take the initiative. They resolve, therefore, to instruct Mr. Dykes to take up 200 acres of suitable land in the vicinity of Nellore, and to commence at once a series of systematic experiments, as to the best description of tree, the best mode of planting, the proper number of trees to the acre, the best age at which to cut, &c. &c. He will be supplied with seeds and plants on application, and the necessary funds will be placed at his disposal.

9. The concluding paragraph of Mr. Dykes' letter and the calculation in paragraph 2 show that the firewood tax is not really levied with any stringency. This should be remedied.

(Signed) J. D. SIM,
Secretary to Government.

Statement A.

Showing the Taluqwise details of the District of Nellore for the purpose of ascertaining the Revenue and the Population of Towns and Villages for a Steady supply for a population of 1000 persons at the rate of 700 acres for the area required for 7 years.

Names of Taluqs & Towns	Population	Area required for 7 years at the rate of 700 acres per 1000 persons	Deficiency or excess of area under trees	Remarks
1	2	3	4	5
Kanuru	1862	Acres.	Acres.	
Cudapah Taluq	88054	28336	6904 +	22132
Nellore Taluq	52958	22706	37071 —	14365
Total	81822	51102	43975 +	7827
Kanuru	41011	33081	28708 +	45172
Nellore	121391	17348	85114 —	67766
Chandragiri	58130	68414	40691 +	27723
Venkatagiri	33794	16377	23656 —	7279
Udayagiri	31577	39937	22102 +	17835
Kandukur	44297	35772	31008 +	4764
Cuddapah	113785	20640	79649 —	27009
Gudur	47092	24993	31564 —	6571
Total	351097	350464	385767 —	35303

Collector's Office,
25 Oct. 1864.

Collector.

Examined.

Statement A. 15

Showing the Taluqwise details of the District of Nellore for the purpose of ascertaining the Revenue and the Population of Towns and Villages for a Steady supply for a population of 1000 persons at the rate of 700 acres for the area required for 7 years.

* Calculated having been made in the Return from Udayagiri for 1863-64, the figures given are for 1862-63 as Returns.

Copy sent 18 Dec 04

Demi official.

My dear Dykes

You will herewith receive an order of Government sanctioning an Experiment in growing firewood at Nellore. It does not commend to enter into details in the Order, so I have been desired to do this in a less formal manner - leaving you free to experimentalise also in other ways.

The specific objects of the Experiment are as follows.

I To determine the best tree for the purpose. Those noted in the margin are believed to be among the best - There may be others

Casuarina -
Cassia florida.
Inga dulcis.
Parkinsonia aculeata

Rec'd 25th Dec.

On a letter from the Collector of Nellore to the Secretary Board of Revenue Madras 23rd June 1904 No. 192

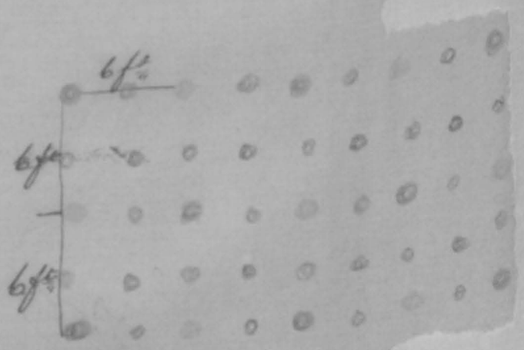
Nellore Forest Division
The Cr.

A Catamaran returning the Agreement signed by Messrs Pitt Dick & Watkins for the Purchase of Cullen for the Nellore Collector Cal. Cutcherry No. 200 dated 2-12-04 in the case between Messrs Arbuthnot & Co. & Messrs Pitt Dick & Watkins & stating that Messrs Arbuthnot & Co. have been informed that the Agreement is returned for completion.

others indigenous to Nellore and worthy of trial - Seeds will be sent to you from hence and the sooner you open nurseries the better -

II The best mode of preparing the ground - whether by pitting - trenching or simply deep ploughing -

III The best mode of planting - Here the Casuarina is planted in distant rows which may be well enough for Timber, but will not suit your object - The Govt would wish you to try the plan shewn in the margin - The colored trees are six feet apart - the plain trees intervene at 3 feet - The latter draw up the former and are to be pruned and ultimately



ultimately removed for saleable firewood - When these are removed the others are six feet apart and as the blue get up the red are pruned and ultimately removed, or perhaps pollarded low down - and sold for small piles, planks and firewood - and the blues are then allowed to grow on as timber trees; You thus have firewood and timber growing simultaneously - The Cassia stands lopping well - The Inga would probably answer best in rows 3 or 4 feet apart - Both the above - certainly the last can be sown in drills - the Casuarinas must -

must be transplanted and small baskets are better than pots as they are put into the ground readily and allowed to rot — being first slashed with a sharp knife —

IV. The best time for cutting down the trees —

V. The best distance at which to cut them.

VI. The expence per acre of each kind of wood.

VII The produce per acre.

VIII. The net profit per acre.

Your Expences should be shown in full & in detail for each experiment; and the more you multiply the experiments, the better for the object in view — The people of course should be encouraged to come and see your experiments and be allowed to learn the expence and results, as you progress — Let me know what aid you need in seed — in money — implements, &c —

Revenue Department

R.K. 2502

Memorandum.

In his letter of the 28th April last, Mr. Dykes addressed Govt. on the subject of fixing the charge for Government firewood with reference to the cost of production, as the only means of leading the people to grow firewood, and so replace the rapidly decreasing supply.

Mr. Dykes was thereupon requested to furnish Government with information as to the cost of production, &c.

This information is submitted in his letter of the 25th June last

last to the Board of Revenue whose views on the subject are contained in their proceedings of the 16th Ultimo. In his last letter of the 23d Ultimo Mr Dykes furnishes explanations on a part of the Board's proceedings.—

Mr Dykes estimates the average assessment and cost of guarding per acre to be 8 annas for the former and 4 annas for the latter annually. And as he states that Copse renews itself in seven Years, the total expenditure for assessment and guarding would be Rs 5-4 per acre — Exclusive of interest on

the outlay — Of the important items, planting Mr Dykes gives no estimate at all — The produce of an acre he estimates, at 10 Cart loads — which at the whole-sale price now ruling in the town of Nellore would realise Rs 25 — The charge for felling is said to be 8 Annas per Cart load or 5 Rs per acre, so that the grower would in the seventh year have nearly 15 Rs per acre, out of which to realise expences of planting, conveyance to market, interest and profit.

In the absence of any information as to the

the cost of planting, these calculations are obviously of little use -

Mr. Dykes on the data he has obtained makes two propositions.

The first is that the Govt. charge should be raised from 5 annas to 12 - per cart load, so as to cover the cost of guarding and assessment at least - Mr. Dykes' calculation of these items is higher than it should be, as scrub jungles would rarely bear so high an assessment as 8 annas per acre and the jungle renews itself in 7, not

10 years - But on the other hand he omits the value of the wood as it stands -

There can be no doubt that, if Govt. allow firewood to be cut in their jungles for less than it can be grown, private individuals cannot afford to grow it - The Board are averse to any enhancement of the price - but it seems to me that Mr. Dykes makes out a good case, and though such a sudden rise as from 5 to 12 annas would be too much, the price might

might very well
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Dykes' second pro-
position is that he
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Head - the
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quires 2,000 Cart loads as the consumption of 1000 people; but Mr Dykes for the present desires to raise only 750 Cart loads— The population of Nellore being 25,000, an area of 17,500 acres would be required to ensure a steady supply— Mr Dykes therefore wishes

+ at the rate of 700 acres for every thousand of the population & taking 7 years as the period of regrowth, Mr Dykes Estimates that 385,000 acres should be cultivated — while the present wooded area is only 350,000 acres.

wishes to take up the extra within a radius of 10 miles annually lasting 2500 acres ~~at once~~ He advocates, eventually, similar arrangements in the neighbourhood of every large town— Calculating Mr Dykes' proposal seems to me quite out of the question. The Government could never undertake the obligation of providing firewood for the people all over the country for of course Nellore could not long be thus treated; and such a measure as he proposes would most effectually shut out private enterprise. All experience shows that Government cannot accomplish

accomplish such under-
takings so successfully
or economically as private
individuals, and it would
be most impolitic on the
part of
Government to monopolise
a branch of trade which,
hereafter, must attain
considerable importance.

But, I think,
it would be well worth
while to make use of
Mr Dykes in a matter
in which he takes so
much interest and allow
him to take up 200 acres,
to set the people an ex-
ample and get Govern-
ment some reliable in-
formation as to the cost
of raising firewood.

The concluding para of Mr Dykes' letter and the Calculation in para 21 show

that the firewood may be
not really levied with
any stringency, and per-
haps it may be best to
enforce it strictly first
and then raise it - though,
as the ryots are allowed
firewood gratis for their
own use, I think 8 annas
per load may very well
be charged on those
who cut it for sale.

Orders requested.

J. D.S

I think Mr Dykes might be allowed to make the experiment upon an Area of 200 Acres, as near the town of Nellore as possible.

I believe that if the ground were planted with Casuarina at 6 feet apart the growth in 8 or 10 years would be sufficient to give 1/2 a Ton or 20 Cubic feet to each Tree or 600 Tons or 1200 Bandy loads to the Acre but then it would not be treated as Copse but would have to be replanted — the cost would be —

1. Fencing
2 Ploughing or preparing ground.
3 Planting.

the annual outlay would be Interest on Cost — Assessment. —
Watching.

The return would be in 10 years according to my calculation 1200 Trees at 20 Cubic feet or 1/2 a Ton to a Tree 600 Tons or 1200 Bandy loads at 8 Annas = 600 R. We had better look at the actual cost of Nos 1. 2. & 3 before we commit ourselves to any scheme

JW

I think it would be as well to make this experiment as full and satisfactory as possible and

25 Oct 1864

Memo: about growing Firewood in Nellore

to make it include the following per the proper number of Trees to the Acre which would yield the largest return.

2 The best system which to adopt Trees for Fire wood —

For cultivation of the 200 Acres I should plant or sow 50 Acres with Trees 3 feet apart each way — 50 Acres with Trees 6 feet apart — 50 with them 9 feet apart and 50 - 12 feet apart —

Then of the 50 at 3 feet apart I should leave 10 to grow untouched — while from the remaining 40 I should cut out after 4 years every other tree

× · × · × trees — and
· × · × in another
× · × · 4 years
· × · × four years

I should remove every alternate row from 20 Acres. Leaving 20 to grow. In fact I should multiply Experiments as to the nature of the Trees & their mode of treatment in every possible way — JW

Cover & Post in Copy Letter for Coast Steamer 27th Oct

Revenue Department.

No. 2061.

Proceedings of the Madras Government
Under date the 10th November 1864

Read the following Proceedings of the Board of Revenue

Submitting with remarks letter from the Collector of Nellore forwarding certain information in regard to the question of growing firewood

(Here enter 16th September 1864, No. 6,121)

In his letter of the 28th April last Mr. Dykes addressed Government on the subject of fixing the charge for Government firewood with reference to the cost of production,

as

as the only means of
leading the people to
grow firewood, and so
replace the rapidly
decreasing supply.

Mr. Dyke
was thereupon requested
to furnish Government
with information as to
the cost of production
&c.-

This information
is submitted in his letter
of the 25th June last
to the Board of Revenue
whose views on the subject
are contained in their pro-
ceedings of the 16th Ultimo.
In his last letter of the
23d Ultimo Mr. Dykes
furnishes explanations
on a part of the Board's
proceedings.

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The first is that the Government charge should be raised from 5 annas to 12 per cart load, which would at least cover the cost of guarding and assessment. Mr. Dykes' calculation of these items is higher than it should be, as scrub jungles would rarely bear so high an assessment as 8 annas per acre and the jungle renews itself in 7, not

10 years. But on the other hand he omits the value of the wood as it stands. There can be no doubt that, if Government allow fire-wood to be cut in their jungles for less than it can be grown, private individuals cannot afford to grow it. The Bn are averse to any enhancement of the price - but the Government consider that Mr. Dykes arguments are sound, and though such a sudden rise as from 5 to 12 annas would be too much, the

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ments in the neighbour-
hood of every large town.
Calculating at the rate of
700 acres for every thou-
sand of the population
and taking 7 years as the
period of regrowth, Mr
Dykes estimates that
85,000 acres should be
underwood - while the
present area is only 35,000
acres -

The Govt cannot
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the people throughout the
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Nellore District could not
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The concluding para of Wm Sykes' letter and the calculation in para 21 show that the firewood taxe is not really levied

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Revenue 1864 Dept.
Pro. of Govt for November.

N. 2061.

Pro. No. 5 8-59
6-5-64

Pro. of the Madras Govt.
Dt 10th November 1864.

From the Collector of Nellore
Dt 16. March 1865 N. 813.

From the Asst Conservator
of Forests Dt 24 April 1865 N. 1201

Passing orders on
Board's Proceedings on the
subject of procuring firewood
by the people in Nellore-

N. 113 @ 115.