Revenue Departme

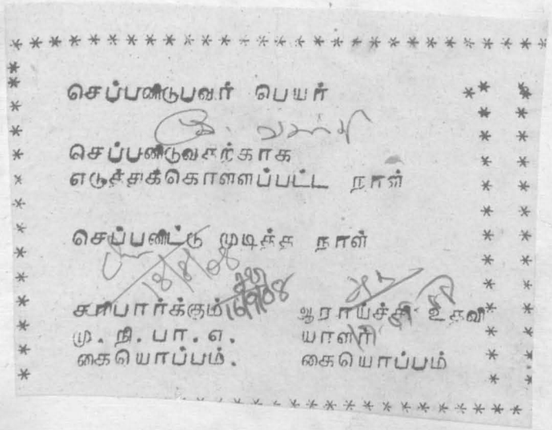
Minutes & Consultatio

27th April 1858

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Order no 509 of 21st Apri

1858


செப்பனிடுபவர் பெயர்

செப்பனிடுவதற்காக
எடுத்தக்கொளப்பட்ட நாள்

செப்பனிட்டு முடித்த நாள்

சரிபார்க்கும் மு. நி. பா. எ. கையொப்பம்.

ஆராய்ச்சி உதவி யாளரி கையொப்பம்

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Fort Saint George, Revenue Consultation of 27th April 1858.

No. 1. Read the following letter from H. CLEGHORN, Esq., M. D. Conservator of Forests; to the Secretary to Government Revenue Department, Fort Saint George; dated Madras, 20th February 1858, No. 278.

Extract Proceedings Board of Revenue 17th July 1855, No. 1790.
Extract Minutes of Consultation 9th August 1855, No. 944.
Extract Proceedings Board of Revenue 22d August 1855, No. 2196.
Letter from Collector of Chingleput to Acting Secretary to Board of Revenue 12th December 1855, No. 336.
Extract Proceedings Board of Revenue 22d February 1856, No. 511.
Extract Minutes of Consultation 17th March 1856, No. 303.
Extract Proceedings Board of Revenue 2d April 1856, No. 953.
Letter from Collector of Chingleput 27th May 1856, No. 1066.
Extract Proceedings of Board of Revenue 3d September 1856, No. 2857.
Extract Minutes of Consultation 5th February 1857, No. 141.
Letter from Collector of Chingleput to Acting Secretary to Board of Revenue 30th May 1857, No. 149.
Letter from Collector of Chingleput to Acting Secretary to Board of Revenue 20th June 1857, No. 183.

SIR,

In reference to a lengthy correspondence between the Collector of Chingleput and Board of Revenue as per margin, connected with the prospective management and conservancy of the Streehurrycottah jungles referred to me in the Board's Proceedings of 10th August last, No. 2688, I have the honor to state that I thought it desirable to send Mr. G. Williams to examine and report fully upon the extent and nature of the jungles, noting all the kinds of wood in them. Mr. Williams proceeded accordingly in the early part of last month, and his report is herewith submitted for the consideration of the Right Honorable the Governor in Council. As some of the statements appeared to militate against the recent orders of Government, it seemed desirable that I should personally inspect and verify the alleged injuries caused by the present system of contract. I visited* the localities under consideration, and traversed the Isthmus in various directions, the result of my observations has been embodied in a Memorandum, in which I have alluded to some of the difficulties connected with the supply of firewood generally, and have proposed a systematic improvement of the flats North and South of Madras.

* *In company with Dr. Frauenfeld, Naturalist attached to the Austrian Frigate "Novara."*

P. S.—With Mr. Williams' report is a list of plants found by him, the column of Botanical names having been filled in from the specimens he collected. Some additional species were detected by Dr. Frauenfeld and myself, and one result of our visit was to ascertain the species yielding Soorool-chuckay (a dye plant) which has been a *questio vexata* from the days of Buchanan.

H. C.

REPORT ON THE STREEHURRICOTTAH FORESTS.

1. The Streehurricotta forest is situated between the Sea and Pulicat lake from near Coromandel towards north up to a little distance beyond Rayidoor. Its greatest breadth does not appear to be so much as eight miles, and it is scarcely four at a few miles above Mavalum where the forest begins to fall off until it terminates a little below the light house at Moonapolliam. The forest is thickest in the vicinity of Cusbah between which and Coromandel, the Palmyrah tree is extensively grown. The soil consists of dry loose sand impregnated with salt, and will not admit of being brought under cultivation to any extent; it is covered with low jungle chiefly of that species of brushwood which makes the best fuel, interspersed here and there with Tamarind, Margosa, Banyan, and a few other large trees, but generally of stunted growth. The larger sort of firewood in the item of tax on forest productions denominated first and second class is not to be got so plentifully in *whole* billets, as the remaining three classes into which this article was divided, for the

2. The Government was induced some years ago to purchase the whole of the Streehurricottah forest from the Mooteedar, who formerly held possession for 30,000 Rupees. It forms part of the Nayer talook, in the Zillah of Chingleput, and consists of thirty three Grammins; the population depending chiefly on cutting firewood for the Madras market. The firewood when cut nearer the sea side, was sent to Madras by Sea; but the canal transport was always preferred being more safe. The trade until July 1857 was carried on by Merchants at Madras through the villagers on the spot, whose services were hired, according to the rate fixed by Government on the different classes of firewood supplied by them; and the expense of toll was included in the payment on the part of the merchants. The revenue thus resulting to Government from this source alone, during a period of ten years, under the original system was, for

	Rs.
Fusly 1256	8,076
1257	11,322
1258	10,406
1259	5,517
1260	5,689
1261	10,740
1262	12,839
1263	6,409
1264	8,538
1265	9,732

The fluctuation in the revenue is accounted for by the canal not being always navigable before the present improvements were carried out. But independently of this source of revenue, other Forest productions which are separately sold on account of Government, such as dye roots, Shayavare, Shooroolchuckay, Avarayputtay, and various medicinal roots and herbs as Eeswaravare, Nunnareevare, Veshaboodee, Paypoodalay, Thaythancotay, beside Tamarind, Honey and Bees wax; yielding annually between three and four thousand Rupees rendered the Streehurricottah forest an important acquisition.

3. Beside those people who have made the forest their home for the purposes of trade in fire-wood, there exists an aboriginal tribe in the forest under notice called Yenadies, on whom the Government depends for the collection of the other forest productions above named. Like jungle people every where, they live a life of freedom from labour of every sort, save that which contributes to their personal enjoyments, and possess no sympathy with the people who adopt the forest as their home where to labour for a subsistence. The Yenadies receive for what they collect a share amounting to 40 per cent. on the *value* of their gathering; beside which, Government makes them an annual allowance of cloth, tobacco, &c., and a certain amount in money for every birth registered among this tribe, giving 4 annas for every male, and 2 annas for every female child; so that the census of the Yenadie population is regularly kept in the Collector's office, and for good reason, for these forest productions might find a vent through other channels easily enough if these people were not thus attached to the interests of Government, in a service which depends entirely on their faithfulness. For food they look almost entirely to the natural productions of the forest; and it must affect them seriously to reduce their resources in this respect even in the least. In the question of subsistence, however, there is little or no difference in the case of the Yenadies and those who have made the forest their habitation, and thereby shut themselves up as it were to the same means of living; and it must be remembered that the Government is not less indebted to these through whose labour, having so separated themselves, the trade in fire-wood which yielded so large a revenue was derived. But it would be anticipating the question to enter in this place into the results produced by the change (which affects the Government as much as the people) before the materials for coming to a judgment are fully exhibited. It is necessary therefore to revert to the other sources of revenue still further derived, and the means hitherto adopted for preserving them as permanent sources of revenue to Government.

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4. The toddy of the Palmyrah tree goes to the Abkary contractor; but as this is one of the excepted trees in leasing the fire-wood under the present system, the revenue derived from this source, and here referred to in order to add it to the profits accruing to Government from the Forest generally, is not however the only benefit resulting from it; for the forest dwellers enjoy perhaps even a larger share than falls to Government from this valuable tree; every part of which might one way or another be converted into use. In a large plantation, the people employed by the Abkary Contractor in drawing the toddy, are not generally sufficient in number, to work it so fully, as not to leave a great many to run into fruit. This tree in Streehurricottah forest is scarcely cut for the purposes of building any more than that its leaves are used for thatching; and the sole reason assigned, vide report of the Superintendent East Coast Canal for 1855-56, for its timber not being used is, the high rate at which it is taxed. The Collector also agrees in this view, and proposes that the tax be altogether abolished, but for what object, does not appear; for if it be the interest of Government to maintain the Abkary, the trees, for that reason alone, would be preserved. On the other hand, if the tax objected to, amounting as it is now asserted, to a positive prohibition, existed in the former Mooteedar's time, it may be accounted for as having been expressly intended for the preservation of the tree as a means of food to the inhabitants to whom it is even at this moment one of their chief sources of subsistence.

An article of food but not a Yam. *H. C.*

The ripe fruit as well as the pulp of the nut before it hardens into seed, is not used as a mere luxury, but as a real diet; and above all the seed sown affords in the young shoot a species of *yam* which before it grows out of the ground, is dug up and fared upon very generally.

5. The next source of revenue likely to be affected by laying bare the Forest, and in one sense the most important, is, that derived from artificial cultivation, it amounted for last fusly (1266) in the 33 Grammums to Rupees 5,000 on dry grain chiefly, for the soil can scarcely be made to yield rice. The quantity of grain consisting chiefly of Kayvaroo, and Kumboo produced annually, is said not to be sufficient for three or four months' consumption, and many of the very poor wood cutters who are even worse off than the Yenadies, live throughout the year on nothing but roots, bulbs, leaves, herbs, berrys &c as stated in the column of remarks (vide list appended to this report.) The soil could afford but a scanty return for any amount of labour that might be spent to render it productive in the article of food. It is manured by the leaves and refuse cuttings soaked in the standing brackish waters of the wilderness; but by this admixture, after years of cultivation on one and the same identical patch fenced here and there in some less jungly spot near a village, the soil, has not now, neither is likely ever, to acquire sufficient firmness to admit of being irrigated by ordinary means. The patches of cultivation, for it can scarcely be termed *field*, are watered by sprinkling with the hand; and men, women and children are employed in this process from morning to evening during season, taking water from ponds scooped out within their respective fences. From such impoverished resources, the people naturally turn to the spontaneous productions of the jungle, in which Providence has deposited for them a varied yet unfailing substitute, more than the labour of their hands is capable of yielding in such a salt and sandy soil; and it is *not likely* that the forest portions laid bare by the axe will ever be brought under the plough.

Certainly not. *H. C.*

6. The circumstances brought under notice render it necessary that the question "whether "it is more advantageous to continue the newly adopted system of leasing the forest in portions "annually"? should be considered somewhat more widely, in order to secure for it a due appreciation in deciding that point, without at the same time, losing sight of those whose interests it concerned the Government hitherto to protect; but before traversing the grounds to be gone over, a point, which I am not in a position to treat upon without having access to the records of the Superintendent East Coast Canal, and the Collector's office, has to be adverted to, and that is, *whether the increase of revenue said to have so immediately followed the revision of toll on firewood is owing to the recent improvement of the Canal, and of its being thereby permanently navigable, or to the reduction of tax itself, or both; or whether the demand for firewood has lately very much increased.* The rule, vide Mr. Cunliffe's formula countersigned by Lieutenant Cham-

bers dated 14th December 1854, more particularly involved, is that quoted in the margin.* The Madras market is supplied with firewood from other parts of the country by means of the Canal, which, in considering the question as it stands in relation to the Streehurricotta forest, have to be separated, with reference to the revenue realized from the latter place alone—and as the toll charged on the trade in the Canal according to the rules at present in operation is levied on the Tonnage of each boat whether carrying Goods, or Passengers, or empty; the revenue so derived affords no criterion to prove the *utility of the system* or *increase of trade* over the former state of things.

* *Rule 4. All boats shall pay toll at the rate of 4 Annas for each Ton or portion of a Ton exceeding one half on each arrival at Madras, whether carrying Goods or Passengers or empty. No other payments whatever to be demandable, and no detention for Tickets or otherwise at any places to be allowed.*

7. To return to the subject in hand. The system adopted since July 1857, by dividing the forest in eight portions, and selling each portion year by year, by which arrangement it is expected that the several portions having each full eight years to grow again will in that time attain their pristine condition, was opposed at first by the Collector as calculated to destroy the forest totally piece by piece. Mr. Shubrick's opinion was supported by the Revenue Board, but being overruled by Government he proposed that the forest should be divided in five instead of eight portions, alledging that *five years is sufficient for regrowth* as in various parts of Europe, and in this case also the Collectors' suggestions were overruled. It cannot however be gathered from the correspondence that transpired that any other consideration was held in view than that of merely releasing the Revenue Establishment from the duties on it in addition to their Departmental employment under the former system, that the system of leasing by piecemeal was introduced—whether the quota hitherto contributed by the whole range of 40 miles to meet the annual demands of the Madras market is likely still to be kept up from the *one eighth portion* of the forest to which the working is now limited is a question that remains to be solved. To judge from the Collector's proposal to divide the forest into five instead of eight portions, seeing that Mr. Shubrick did not offer this suggestion until after mature consideration of the subject it may be inferred that he considered a larger portion absolutely necessary for a one year's supply, leaving this aside for the present, I would bring to prominent notice the fact, that the expence to Government under the old system was not more than the pay of one Zillahdar at 5 Rupees a month; this is all the additional expence under the old system, and it is mightily overweighed by the time and consequent expence incurred in the investigation of complaints when a Ryot cuts a yoke stick for his plough, or a quantity of thorn for fencing his cultivation which is immediately complained against by the present Renter as an invasion of his right; and he has stretched it so far as to take into his portion of the lease the trees that had been watered and brought up by the villagers within their own fields, which is now cut down the same as if they stood in the natural forest, the avenue of shady Margosa trees leading to the Village Pagoda planted and watered for years by the Village is levelled with the like impunity. The Orange trees, for which these jungles have been so famed, are spared it is true, but simply because there are some excepted fruit bearing trees, such as Tamarind, Palmyra, &c., in the lease from which a separate revenue is derived by Government. No provision appears to be made in the lease for securing to Government the other sources of revenue, *viz.* Honey, Bees wax, Medicinal roots, &c., in the portion rented out this year; on the contrary, the Government has given the Renter full latitude* to clear every thing above the surface of the ground so long as the roots are not touched. A portion of land spreading over an area of five miles in a sandy and salt soil, once laid bare and exposed to a tropical sun, offers very

Seven years is allowed for coppice in England, and this period is found suitable on the Malabar Coast, but it is not sufficient for hard woods in the Carnatic.
H. C.

One-eighth not sufficient for the supply of Madras, but too much to fell.
H. C.

I saw no Orange trees except two species of wild Lime. H. C.

* *Minutes Consultation No.* 141, *dated 5th February* 1857, *para.* 5 *with reference to the Revenue Board's proceedings para.* 7 *of No.* 71, *September 3rd* 1856.

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little or no chance whatever for the revivification of the forest; and it should be remembered, that the medicinal, vegetable, and creeping trees require shade and support, for they grow no where, but at the roots of the brushwood which spreads its lower branches over the ground and shades them from the sun. The honey in this forest is mostly deposited in the hollows of large trees. The Honey Bee is thither attracted by these hollows being plastered by the Yenadies with a composition made up of the flowers of the Purreekay chetts (No. 42 of list appended) and the milk of the Pidathee tree (No. 43). By such indiscriminate slaughter, it is clear, that damage must necessarily result to the interests of Government, but beside the evils in this case, the large trees being felled admits of no chance at any time of their over growing again in this place, the sand would drain out the moisture, and its rapid evaporation which must follow will soon dry up the roots. The lease of the one-eighth portion now operated upon was granted in July last, but operations were deferred until September to give time to the Merchants and their wood cutters to clear away their stores; and already within five months the forest is so far cut away, that there remains only the brushwood which come under the last class, and faggots which have to be cleared. In refering to the cutting down of the large trees, it must be observed, that this was never done under the former system of working the forest for firewood; for the wood cutters making trade of it, would always preserve, and husband up the resources of employment as well as food, both which the forest afforded; and they cut only the branches for the largest description of firewood as may be seen in the firewood stocks about Town, where not a single billit could be found of split timber: yet the demands of the market were fully met, yielding a revenue to Government, which in favorable seasons attained a maximum in firewood alone of 12,000 Rupees a year, or 40 per cent on the capital; no less than a third more than the amount for which the annual lease is now sold, and there is every reason to expect since the canal has been improved, that the maximum rate will be kept up if not increased as the trade is increasing that the tax formerly levied cannot be considered too high is proved by the fact that the Renter who got the lease for 8,500 Rupees sold his interest almost immediately by subletting it for a profit of 1,500 Rupees in portions, which fell to the hands generally of those persons who had already some experience of the trade and its advantages, and what profit they would make of it, even according to the present rate of toll on tonnage, in place of the former mode on the Cargo of each Boat load of firewood.

Quite true. H. C.

8. The change now adopted by all the instances adduced, entails a positive loss on the Revenue which does not appear to be counterbalanced by any gain whatever to the public; and it is in reality fraught with the most serious injury to the dwellers of the forest. Proceeding from Village to Village, and from one Yenadies abode to another, it affords a curious spectacle to see the wood-man, axe in hand, and while himself engaged in the work, complaining of the deprivation caused by the slaughter all around of the forest. One Ryot complains that his water exposed to the burning sun will soon dry in a soil so sandy; another that he cannot cut a yoke stick or a shaft; a third that he has no means of strengthening his fence against the intrusion of cattle that are here allowed to wander freely in the forest by hundreds, as their chief pasturage is on herbage and not on grass as elsewhere; a fourth that the cattle have no pasturage, the Yenadie complains of his earnings being cut off; and all with one voice bewail the loss of their means of subsistance, ask the woodman why he assists in the destruction complained against by himself, and his answer is ready, "it is better that *we* get the wages than let strangers come in to devour this also, for already they come from distant Gramums and from Pulicat to live amongst us because we refused at first to help the Renter."

9. The question of reducing the land to cultivation as a better source of revenue to Government, and of food to the people, has to be enquired into; but it is very difficult in jungle tracts inhabited by distinct races who have no mutual sympathy to form a correct opinion on any question of mere general utility when it bears on both classes equally. The Yenadie tribe care very little about cultivation; but there is enough of reason from the peculiarity of the soil, for deciding in favor of the forest as it stands, and the dwellers in the Streehurricotta forests are far from being incapable of judging, the Yenadie tribe are brought a good deal more in contact with townspeople than is the case with the jungle people in other parts; and as for those who make the forest their home for trade, they are in all respects equal to the merchants with whom they have to deal; and in their desire to secure a better supply of food for their own support in

the natural productions of the forest, it cannot be said they do so preferring a life of idleness fo they are fully employed in cutting wood throughout the year. But their means might be greatl enlarged not only in the article of food but also in stocking the forest with timber. If th (Casarina or whip tree) tree were planted here, it would soon grow into wood. The Jack an Custard apple ought to flourish in such a soil as well as the (Bilimbee) and its species. Th growth of sweet orange might be encourage with much advantage, in short as nothing in th way of improving the forest appears to hav been attempted since it became the property Government, it would not be unwise to conve the leased portion, which is now being cleared out, into a field, to try the experiment suggest ed of introducing other fruit trees there.

The proposed scheme in soil such as has been described is very questionable.

H. C.

10. The restricted woods in the renter's lease are, Ponangkah or Soapnut, which is farmed fo five years at 31 Rupees a year, Tamarind, which is gathered for Government, realises about 15 Rupees a year, Venangkah, makes good rafters for sheds, but is not farmed at present; Palmyra on which the tax is now abolished, Thathankotay, the seed of which and the roots are farme with the other die, and medicinal roots and plants. It is stated above that no tree was cut unde the former system of working the forest, so as to be split into smaller pieces, though no restrictio was imposed on the wood cutters; but it appears further, that no branch of a tree was cut abov the thickness of first class firewood, and the twigs of these, and of the tree generally, would g to make up the other classes; but now the large trees are cut away altogether, such as Pal Cheegrahn, Kulalay, Alay, Arasan, Waypone, Kaatvalay, Nagay, Nirroovoolee, Kotaymurun Poongah, Yettie, Veerahmeeurrum, Pidathaymurrum. The Cheegrahn leaf for bathing, and th Margosa seed for burning oil are taken for domestic use.

If ordered I would appropriate a little more time to the enquiry of the toll, &c., in case m services are not immediately required elsewhere.

MEMORANDUM.

The Banks of Cochrane's Canal are clothed with saline plants as *Salsola, Salicornia* an *Suæda*, which with their succulent cylindric leaves may be seen in great abundance, wherever th saltwater or marsh extends. Their Ashes afford Soda by incineration. The Canal is lined b rows of young trees, *Casuarina muricata, Melia Azadirach* and *Pongamia glabra*, and there is hedge of *Parkinsonia aculeata* on both sides, thriving as well as can be expected in an expose situation and on a sterile soil. These valuable improvements have been effected since I last trave led by this Canal in 1851.

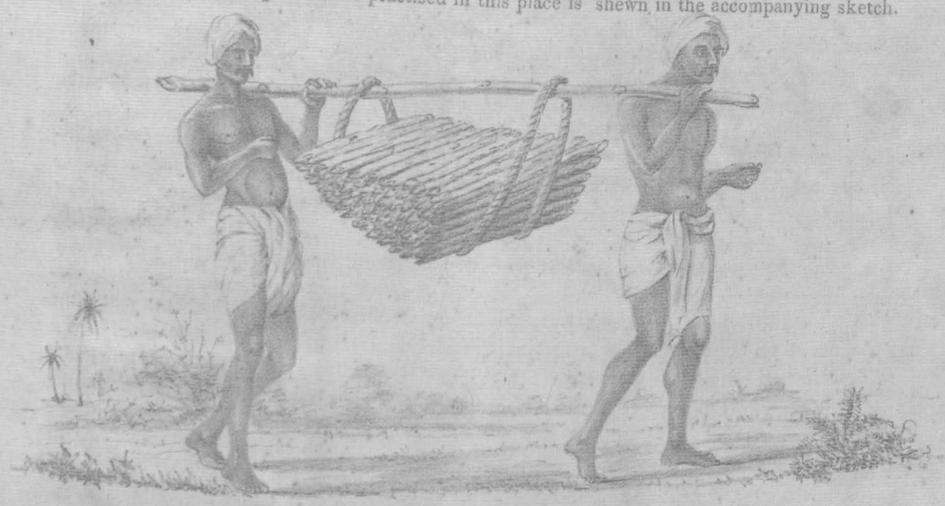
The Palmyra Palm grows spontaneously in vast abundance along the narrow strip of la between the Pulicat Lake and the Sea. Other trees begin to appear at some distance beyon Coramandel, where the tract of Jungle under consideration increases in breadth. But the tre are now here of large size, and there is no part which can be designated Forest, it general presents the appearance of a dense scrubby Jungle. The length of this belt is under 40 mile varying in width from half to nearly eight miles, but it has not been accurately surveyed, and not (I think) so broad as it has been usual to represent it, or else the area of Jungle is late diminished in extent.

The fine loose sand blown with the wind along the flats has a tendency to collect rou every obstacle, even a blade of grass, and a succession of mounds are formed along the Coast generally of the shape and appearance indicated. The subsoil is indurated clay, and at the edge where there is a considerable depth of loose sand, the Calder a bush (Pandanus) grows in abundance, and fringes the line of sandhills. There are some lower portions, in which the waters of the monsoon have collected, and given to the sand an admixture of mo which so far fertilises the soil that millets may be cultivated. I only saw one or two small patc of Paddy. The prospect of converting this waste tract into cultivated land is very distant,



for reasons submitted, I think it would be preferable to allow it to remain as at present a Jungle tract bearing underwood for firewood and beams for native housebuilding, and thereby of most extensive and important use to the community.

From the necessity of a large town like Madras, without River communication, requiring much fuel for daily consumption, the sources of supply cannot be exclusively confined to mountainous or unculturable land. Difficulty is now experienced in supplying the market with timber and firewood, and the scarcity of fuel in Madras has long induced the poorer inhabitants to resort to Streeharricottah, where in addition to stunted trees, underground roots and stems running along the loose sand are pulled up with great ease; and according to the statement of the Military Board at least one half of the fires in Madras are fed from this source. The different sizes of firewood, (*i. e.*, whether faggots of whole sticks, or billets split into 2 or 4 pieces according to the diameter) are given in Mr. Williams' report, and the simple method of carrying the fuel from the Jungle to the Cargo Boats as practised in this place is shewn in the accompanying sketch.



However convenient this supply of firewood is to the Madras traders, as well as the poor residents, the destruction of the shrubs, roots, &c., will become hereafter a serious inconvenience to the public and a source of detriment to the Canal, as the Isthmus will revert to its desert state, and the dry and loose sand be drifted into the Canal, and overspread the adjacent country. If an opposite system be pursued, and the growth of trees and shrubs encouraged, the belt of wood will protect the soil from sweeping winds and afford fodder for Cattle. It appears to me, therefore, that while not neglecting Streeharricottah, it would be most important to commence a systematic mode of planting and reclaiming th ndy flats or downs which lie along the South Coast Canal between the Canal and the Sea. There is no apparent obstacle to this being effected. What has been done by nature at Streeharricottah, indicates the process by which similar waste tracts may be made productive. An undulating surface must first be formed and then a few clumps of bushes may be laid down, this is the beginning of a Jungle. When a belt of trees or bushes is once established in such a situation, it should be kept undisturbed, as long as it will serve the purpose of protecting the trees within, though it may be of no other value. I can myself remember Pulicat 15 years ago, when the old Dutch Station was almost without any thing save a Portia tree, but now there are lines of trees and ornamental shurbs all round the Fort and on both sides of the backwater.

The kinds of trees suitable for planting may at present admit of some doubt, and may perhaps be best learned from some of the practical men who have resided at Ennore and Coramandel. The Casuarina is a useful wood and thrives well, but it does not answer for firewood as it does not split easily, and yields little wood after pollarding. Besides it is *not* desirable that hardwood should be used for this purpose, it would be better to plant for fuel soft quick growing woods. Madras offers a permanent market for all the soft wood which can be brought to it.

The question of firewood supply is becoming one of great moment in various parts of the Presidency, and it is one of no small difficulty, because the regulations found suitable in the moist climate of Mangalore, will not suit the dry climate of Madras, and rules entirely different are required for Ootacamund, where the consumption of firewood for cooking and producing artificial temperature is so much greater.

There are numerous and excellent works* on planting, and all the operations connected with it, as the growth of trees for timber, for scenic effect, &c., but I know of no work in England, or even in Germany (where the Forests are looked after under an organized system of management) affording information on the statistics of wood fuel. I am not aware of any statistical records although such are not wanting with regard to Peat and Coal which constitute the principal fuel of Great Britain where the raising of trees for firewood does not constitute any part of Forestry.

* *London's Arboretum Brittanicum.*
Brown's Forester.
Pontey. Forest Pruner Monteath Forester's Guide.
Mathew on Arboriculture.

As to one question involved in these papers, *viz.* the area necessary to produce a continual supply of firewood for 700,000 people, it does not admit of calculation from any available data, and as to another point, *viz.* the number of years necessary for the reproduction of the jungle, it seems to me that although the period of rest, 7 years is found to be sufficient in the Western Coast, yet it is too short for the renewal of hard wood in the Eastern Coast.

The best kinds of wood to rear merely for fuel are the quickest growers of the Country, such as the firs in Scotland, the Poplar and Willow in England, the Beech in Germany, and the Cassia Ficus, &c., in India which grow very rapidly and sow or extend themselves. As a general rule indigenous will answer much better than introduced trees (Ootacamund is an exception to this rule) for the Native Hill trees are (so for as known) much slower in growth than the naturalised Australians. All that is wanted is conservancy, so as to prevent tracts being quite cleared, to hinder persons from injuring the roots, and to arrange for the renewal of trees cut down. One part of this scheme would be to leave a certain number of standard trees per Acre, say 30 or 40 for *shade* and for *seed*, instead of shaving off every thing to the root, by which means both the medicinal products as well as the larger fuel will gradually but certainly disappear.

If the foregoing suggestions meet with the approval of Government, the measures to be adopted for increasing and extending the growth of tree plantations are next to be considered, and I would now offer the following remarks upon the subject.

1st. The Superintendents of both the North and South Canals, the Overseers and employees of the Department Public Works who have already commenced planting on the newly thrown up earth along the Banks of these Canals might set a good example by extending their plantations. The successive rows of Trees will be better and better protected, and each stronger than the preceding, until they attain the full height. They would, I imagine, be of great value in preserving the bank of the Canal, as well as the water in it. Whilst the loppings and pruning would probably repay the cost of planting. A considerable revenue has been derived from the culture of trees on the banks and cuttings of the great Ganges Canal.† Moreover, the embankments would be rendered beautiful and interesting. Mr. Rohde mentions that when at Masulipatam he planted along the edge of the Backwaters Mangrove seeds at Captain Buckle's request, the total cost exclusive of convict labour was 25 Rupees, and he understands that revenue is now being derived from them, the only care taken was to drive off cattle.

† *Vide Colonel Baird Smith's Report.*

2nd. The Collector might also encourage heads of Villages to take an interest in planting topes by holding out the promise of a reduction on land-rent, whenever he is shown so many hundred trees in a flourishing state. This remission should depend solely upon the Ryots carefully watering (if necessary) and keeping up their topes or avenues. This course has been adopted in Mysore, and in some parts of Bengal and has been attended with considerable success.

3rd. Of course, the Officials of the Department Public Works could only be expected to plant close to the Canal, and the Ryots in the immediate neighbourhood of their Villages. Many

failures in the plants put down the first year must be expected, but the final result with perseverance would be a large supply of wood near Madras with water Carriage to bring it to market.

4th. At the close of the present lease, it will be well to consider whether it be advisable to continue the system of renting out an eighth portion of the Forest *to be cut down to the ground*. If the trees were headed down to 6 or 8 feet and allowed to produce lateral shoots, these would become very numours and produce a greater supply of branches to be sold in bundles for firewood.

5th. I do not think it would be profitable to plant these lands (as a Government scheme with a fixed Establishment) for the exclusive purpose of raising Firewood, but a resident cultivator, holding a lease of these waste lands *rent free* for a certain number of years and planting Palmyra palms for shelter close together, so as to encourage the growth of Coppice within, would receive a fair return for his labour, and little or no professional skill would be required.

(Signed) H. CLEGHORN,
Conservator of Forests.

List of Forest products in the Streeharricottah Jungles.

No.				
1	Avarayputtay, ...	Shrub tree, ...	Cassia Auriculata, ...	Not the Avaray of medicine but used for dying leather and tanning.
2	Eeswaravare, ...	Creeper, ...	Aristolochia Indica, ...	Roots used for medicine.
3	Nunarecvare, ...	Do.	Hemidesmus Indicus, ...	Do. Do.
4	Veshuboodee, ...	Do.	Coceulus Cordifolius, ...	Do. Do.
5	Paypoodalay, ...	Do.	Trichosanthes Cucumerina,...	Do. Do.
6	Thaythancotay, ...	Tree, ...	Strychnospotatorum, ...	Seed used for clearing water and the juice of the root is used for sore eyes.
7	Shah-ya-vare called also Seeroo-vare Patupullum, ...	Small shrub, ...	Oldenlandia Umbellata, ...	The root is used for red dye.
8	Sooroolebucka, ...	Climbs on other trees & grows stout,	Ventilago Maderaspatana,	Do. Do.
9	Konjeepullum, ...	Is cut for firewood and yields 4th Class, large shrub, ...	Murraya Paniculata, ...	Berry large as a pea is eaten, the seed is dried, boiled and used for food as rice.
10	Cassangpullum, ...	3d and 4th Class, large shrub, ...	Memecylon Tinctorium,	Bears a large berry, is eaten.
11	Veerapullum, ...	1st Class, tree, ...	... ...	Bears a small berry, is eaten.
12	Iroombooleepullum, ...	3d and 4th small tree, ...	... ...	Bears a berry size of a pea, is eaten.
13	Thoteelthapullum, ...	4th Class, large shrub, ...	Scutia Indica, ...	Berry size of a pea is eaten.
14	Nagapullum, ...	1st Class, tree, ...	... ...	Fruit is eaten.
15	Gooteepullum, ...	4th Class, large shrub, ...	... ...	Berry large as a pea, is eaten.
16	Nuroolypullum,... ...	1st Class, tree, ...	Cordia, ...	Fruit smaller than gooseberry, is eaten.
17	Chothay Kellapullum, ...	4th Class, large shrub, ...	Flacourtia Tepiaria, ...	Berry, size of pea, is eaten.
18	Pillanjeepullum,... ...	4th Class, large shrub, ...	... ...	Do. Do.
19	Yellanthay,...	1st Class, tree, ...	... ...	Fruit is eaten.
20	Kellapullum, ...	4th Class, large shrub, ...	Carissa Carandas, ...	Fruit large as gooseberry, is eaten.
21	Cheptanjee,...	Do. Do.	... ...	Do. Do.
22	Thaingulee, ...	Do. Do.	... ...	Do. Do.
23	Paalaypullum, ...	1st Class, tree, ...	Mimusops Hexandra, ...	Fruit longish, large as crab, and is eaten, is preserved in honey.
24	Pittee Veerapullum, ...	4th Class, large shrub, ...	... ...	Berry large as pea, is eaten.
25	Banyan, ...	1st Class, tree.	Momordica Charantia,...	Fruit used in curry like the garden Paavulcah.
26	Kat Paavulcah, ...	Creeper, ...	... ...	Fruit like Covapullum, is eaten.
27	Palasoorpullum, ...	Cut for firewood, 4th Class, ...	Canavalia Gladiata, ...	Bears a bean, the seed is dried, boiled and eaten as rice.
28	Thumbahveray, ...	Creeper, ...	... ...	Berry size of a pea, the seed is boiled and eaten as rice.
29	Mullayveray, ...	Do.	Capparis Horrida, ...	Fruit large as lime is pickled.
30	Harthundoocah, ...	Do.		
31	Kat Uvaray, ...	Creeper, ...	Lablah Vulgaris, ...	Bears a small bean, the seed is dried, boiled and eaten as rice, the root is bulbous and is also eaten.
32	Kat Vulleekelungoo, ...	Do.	... ...	Bears a potatoe, is eaten.
32½	Covapullum, ...	Do.	Coccinia Indica, ...	The leaf is boiled and eaten like any other greens, so in the fruit and also the bulbous root.
33	Nellaboothee Kelungoo, ...	Do.	Convolvulaceæ, ...	Do. Do. Do.
34	Veryboothee Kelungoo, ...	Do.	Do.	The potatoe is eaten.
35	Mullaykeeray, ...	Do.	... ...	The leaf is boiled and eaten
36	Kullcheekeeray, ...	Do.	... ...	Do. Do.
37	Kat Vussoolaykeeray, ...	Do.	Basella Indica, ...	Do. Do.
38	Punjeekeeray, ...	Do.	... ...	Do. Do.
39	Nellykeeray, ...	Cut for firewood 3d and 4th Class,	Premna Intigrifolia, ...	Do. Do.
40	Kaaraykeeray, ...	4th Class, ...	... ...	Do. Do.
41	Paalaykeeray, ...	Creeper, ...	Marsdenia, ...	Do. Do.
42	Purrykay Chetoo, ...	4th Class, ...	... ...	The flower of this tree is put into the milk of the Piddathay tree and being pressed becomes waxy, it is then put into the hollows of large trees and the honey bees being attracted to the spot readily begin to build on it.
43	Piddathay, ...	1st Class, ...	... ...	See No. 42.
44	Vunangoo, ...	Yields 2d Class, ...	Pterospermum, ...	Is not allowed to be cut, being used as rafters for sheds on account of its long branches and is taxed higher.
45	Mettookody, ...	Creeper, ...	... ...	Is used for tieing the roofing of sheds.
46	Ponangkah,...	Yields 1st Class, ...	Sapindus Emarginatus, ...	Is not allowed to be cut.
47	Kotaychedy, ...	Is cut for 1st Class, ...	... ...	Bears a fruit but is not eaten, the seed is dried, pounded or boiled and eaten in place of rice.
48	Kolmjee seed, ...	See No. 9, ...	Murraya Painculata, ...	Is boiled and eaten.
49	Thumbah seed, ...	See No. 28, ...	Canavallia, ...	Do. Do.
50	Kotaychedy seed, ...	See No. 47, ...	... ...	Is reduced to flour after repeated boiling, being bitter, is sometimes used with sugar but the seed is generally eaten in place of rice.

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No. 2. ORDER THEREON, No. 509, dated 21st April 1858.

Para. 1. The Conservator of Forests submits a Report by his Assistant Mr. Williams, and a Memo. by himself, on the Streeharicottah Jungles, and the firewood supply of Madras.

2. Dr. Cleghorn, after alluding to the nature of the soil, and to the description of trees and shrubs to be found in these Jungles, adverts to the growing want of fuel in the Madras market necessitating the resort by the poorer inhabitants to Streeharicottah for their supplies. He says, "however convenient this supply of firewood is to the Madras traders, as well as the poor residents, the destruction of the shrubs, roots, &c., will become hereafter a serious inconvenience to the public, and a source of detriment to the Canal, as the Isthums will revert to its desert state, and the dry and loose sand be drifted into the Canal, and overspread the adjacent country." He recommends therefore that the growth of trees and shrubs should be encouraged, and a systematic plan of conservancy established, by which means the soil will be protected from the sweeping winds, and the Jungles, besides providing fodder for cattle, will be in a condition to meet the wants of the Madras market.

3. The measures which Dr. Cleghorn suggests for this purpose are contained in the last para. of his Memo. and are to the following effect:

1stly. That the Superintendents of the North and South Canals, the Overseers and Employees of the Department of Public Works, be encouraged to extend their plantations on the banks of these Canals.

2ndly. That the Collector should encourage the heads of Villages to plant topes, by a promise of reduction of land-rent, on a certain amount of success being attained.

3dly. That the system of renting out one-eighth of the jungles to be cut down to the ground, should be reconsidered at the close of the present lease.

4thly. That the growth of Jungle should be encouraged in the same neighbourhood, by a remission of the assessment, instead of the Government coming forward to plant.

4. As regards the 2nd and 4th suggestions, the Government would refer Dr. Cleghorn to Rule IV. of the Tope rules, published at page 444 of Vol. I. of the Circular Orders of the Board of Revenue. That rule, he will observe, allows that land used for Topes, including plantations for firewood, shall be held rent free for 20 years, and then be charged with the regulated assessment, which, on such a soil as is described in Dr. Cleghorn's reports, must be almost nominal.

5. In the 3rd of the measures proposed, Dr. Cleghorn objects to the Renters being allowed to cut down the Jungle to the ground, and thinks that, if the trees were headed down to 6 or 8 feet, and allowed to produce lateral shoots, they would furnish a better supply of fuel. It is observed that the course to which Dr. Cleghorn takes exception is the one contemplated and intended by Government, for in para. 6 of Extract Minutes Consultation 17th March 1856, No. 303, they expressly declared that the Renter of each lot "would be entitled to clear it of every thing above ground, but not to touch the roots." This is in conformity with the plan pursued in English plantations, where wood of this description is cut close, nothing but a stump being left, from which shoots will spring. If this plan exposes the plant too much in this country, a different system must of course be adopted, such as that of lopping the branches of pollard trees, the plan generally employed in France, and as Dr. Cleghorn maintains that without some shade the forest will not be reproduced, the Government are willing to reconsider the matter prior to the close of the existing lease, which it is believed will expire on the 30th June ensuing.

6. The Government accordingly request that Dr. Cleghorn will, on an early date, submit, for their approval, the rules under which he would propose to treat the Streeharicottah and other similar jungles. Dr. Cleghorn must however bear in mind that there are no means in this country of keeping out cattle or protecting the young shoots of the stumps from destruction. If any means of protecting the young shoots from cattle should occur to Dr. Cleghorn he will be so good as to communicate them to Government.

7. In respect to the system now pursued in the lease of parts of the Streeharicottah jungles once in 8 years, Dr. Cleghorn will consider whether the term of 7 years allowed for the regrowth of the jungles is sufficient; as if not, a longer term will be introduced. It is desirable that any proposition that he may make should reach the Government in time for communication to the Collector before the commencement of the next Fusly, and the Board will instruct Mr. Shubrick not to put up any portion of the Jungle to auction until further orders are given.

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8. Mr. Williams' report has mainly reference to the loss of revenue entailed by the adoption of the renting system, but this, it need not be remarked, was foreseen at the time, and it was on other grounds that the change was introduced. There is however one part of Mr. Williams' report which calls for special notice, and that is the effect of the lease on the rights of the Villagers. It is stated in para. 7 that they cannot cut wood for a yoke stick, or for fencing their cultivation, without a complaint being preferred by the Renter, of an invasion of his rights; while on the other hand, trees reared and nursed by the Villagers are cut with impunity by the Renter, under the terms of his lease. The Government think that the villagers should be allowed to retain a right of taking wood for domestic and agricultural purposes, and that the Collector should have interfered to prevent the Renter cutting down the grove of trees leading to the village Pagoda, planted and reared by the people. The Board of Revenue, to whom Dr. Cleghorn's Reports will be communicated, will be requested to call for a report on these points, and also to request Mr. Shubrick to state whether the tribe of Yanadies have been, or are likely to be, injuriously affected by the introduction of the rents; whatever will tend gradually to reclaim these people from their accustomed habits, and to introduce them to civilized life, must be considered desirable, but at the same time, any violent and sudden change, which will deprive them of shelter and occupation before they have got rid of their distaste for the habits of civilized man, and have acquired, to some extent, a settled means of livelihood, would lead to much distress.

(Signed) H. FORBES,
Acting Secretary to Government.

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Madras.

No 278

Office of Conservator of Forests
20th February 1858.

From,

H. Cleghorn Esqr. M. D.
Conservator of Forests.

To,

The Secretary to Government
Revenue Department
Fort St. George.

Sir,

In reference to a lengthy correspondence between the Collector of Chingleput and Board of Revenue as per margin connected with the prospective management and conservancy of the Shrekherry cottah jungles preferred to me in the Board's proceedings of 10th August last No 2688, I have the honor to state that I thought it desirable to send Mr. S. Williams to examine and report fully upon the extent and nature of the jungles noting all the kinds of Wood in them. Mr. Williams proceeded accordingly in the early part of last month, and his Report is herewith submitted for the consideration of the Right Honorable the Governor in Council. As some of the statements appeared to militate against the recent orders of Government it seemed desirable

Extract Proct. Board of Revenue 17 July 1855 No 1992.
Extract Mof C 9 Augt 1855 No 986.
Extract Proct. Board of Revenue 22 Augt 1855 No 2196.
Letter from Collector of Chingleput to Ag Secy to Board of Revenue 19 Decr 1855 No 3316.
Extract Proct. Board of Revenue 22 Febry 1856 No 511.
Extract Mof C 17 March 1856 No 303.
Extract Proct. Bd of Revenue 2 April 1856 No 953.
Letter from Collector of Chingleput 27 May 1856 No 1066.
Extract Proct. of Bd of Revenue 5 Septr 1856 No 2957.
Extract Mof C 5 Febry 1857 No 141.
Letter from Collr of Chingleput to Ag. Secy to Bd of Revenue 30 May 1857 No 149.
— do — do — 29 June 1857 No 183.

able that I should personally inspect and verify the alleged injuries caused by the present system of contract. I visited* the localities under consideration, and traversed the Isthmus in various directions, the result of my observations has been embodied in a Memorandum, in which I have alluded to some of the difficulties connected with the supply of Firewood generally and have proposed a systematic improvement of the flats north and south of Madras.

I have the honor to be,
Sir,
Your Most Obedient Servant.

H. Chesterman
Conservator of Forests.

P.S. With Mr Williams' Report is a List of Plants found by him, the columns of Botanical names having been filled in from the Specimens he collected. Some additional Species were detected by Dr Fraunfeld and myself, and one result of our visit was to ascertain the species yielding Soorool-chuckay (a Dye plant) which has been a quæstio vexata from the days of Buchanan. HC.

* In company with Dr Fraunfeld Naturalist attached to the Frigate

Rec. 1858
By Despatch from Madras
No 203

From
The Conservator of Forests
Dated 20th July 1858
Rec'd 24th " "
Nos. 3 Pp. 3 Encl. Ppd.
Book No. 3

Submitting Memorandum
Relative to the Teak Forests
of the Province and Proposing a
Scheme for improvement of
the Flats North & South of
Madras.

Recd

3 Pp. Encl. Rs 2.8 Ps 12.5

Forest Products in the Streechavricottah Jungles.

No.				
1	Avarayputtay	Shrub tree	Cassia Auriculata	Not the Avaray of Medicine but used for dyeing leather and tanning.
2	Essavaravare	Creeper	Aristolochia Indica	Roots used for Medicine.
3	Nunareevare	do	Hemidesmus Indicus	do do
4	Vesthuboodee	do	Cocculus cordifolius.	do do
5	Payprodalay	do	Spichosanthes Cucumerina	do do.
6	Thaythaneotay	Tree	Strychnos potatorum.	Seed used for clearing water and the juice of the pooh is used for sore eyes.
7	Stah. ya. vare called also Seevovare Pathupullum	Small Shrub.	Oldenlandia umbellata.	The pooh is used for red dye.
8	Sorroolchuckka	Climbs on other trees & grows Stout.	Ventilago Maderaspatana	The pooh is used for red dye.
9	Konjeepullum	1st cut for firewood and yields 4th Class Large shrub.	Murraya paniculata,	Berry large as a Pea is eaten. the seed is dried, boiled and used for food as Rice.
10	Cassangpullum.	3d & 4th Shrub.	Class Large	Mesneeylon tinctorium Bears a Large Berry. is eaten.
11	Verrapullum.	1st Class	Tree.	Bears a Small Berry. is eaten.
12	Iroomboolepullum.	3d & 4th	Small Tree	Bears a Berry size of a Pea is eaten.
13	Thotteekthapullum.	2d Class.	Large Shrub.	Sontia Indica Berry size of a Pea is eaten.

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14 Nagapullum.	1st Class Tree			Fruit is Eatin.
15 Goolapullum	4th Class. Large Shrub			Berry Large as a Pea, is Eaten.
16 Nuroolypullum.	1st Class. Tree.	Cordia		Fruit Smaller than Gooseberry is Eaten.
17 Chothary Kellapullum.	4th Class. Large Shrub	Flacourtia Sepiaria.		Berry Size of Pea is Eaten.
18. Pillanjee pullum	4th Class. Large Shrub			Berry do do
19 Yellanthay	1st Class. Tree.			Fruit is Eaten.
20 Kellapullum.	4th Class. Large Shrub.	Carissa Carandas.		Fruit Large as Gooseberry, is Eaten.
21. Ketapunjee	4th Class. do			do do do.
22. Thaimgulee	4th Class. do.			do do do
23. Paalaypullum	1st Class. Tree.	Mimusops hexandra.		Fruit longish, Large as Crab, and is Eaten. is preserved in Honey.
24 Pittee-Veerapullum	4th Class. Large Shrub.			Berry Large as Pea is Eaten.
25 Banyan.	1st Class. Tree.			
26 Kat. paavulcah.	Creeper.	Momordica Charantia		Fruit used in Curry like the Garden Paavulcah.
27. Palasoorpullum.	Cut for firewood 4th Class.			Fruit like Cova-pullum is Eaten.
28. Thumbakaraay.	Creeper.	Canavalia gladiata		Bears a bean. the seed is dried, boiled and Eaten as Rice.
29 Mullayveray.	Creeper			Berry size of a Pea, the seed is boiled & eaten as Rice
30 Karthundoocah.	Creeper.	Capparis horrida.		Fruit Large as Lime is pickled.
31 Kat-Avaray	Creeper	Lablab Vulgaris.		Bears a small Bean. the seed is dried, boiled and Eaten as Rice. the root is Bulbous and is also Eaten.
32 Kat. Vallakelungoo.	Creeper.			Bears a Potatoe. is Eaten.
32½ Covapullum	Creeper.	Cecinia Indica.		The leaf is boiled and Eaten like any other Greens. so is the fruit and also the Bulbous root.
33 Kellabootha Kelungoo.	do.	Convolvulaceæ.		The leaf do do do
34 Verybootha Kelungoo.	do	do.		The Potatoe is Eaten.
35 Mullaykeeray	do			The leaf is boiled and Eaten
36. Kullchaekeeray.	do			The leaf. do do do
37 Kat Vnesvolaykeeray.	do	Basella Indica		The leaf do do do
38. Punjaikeeray.	do			The leaf do do do
39. Kellaykeeray	Cut for firewood 3rd 4th Class.	Premna integrifolia.		The leaf do do do
40 Kadeaykeeray.	4th Class			The leaf do do do
41 Paalaykeeray	Creeper.	Marsdenia.		The leaf do do do
42 Purrykay Chetoo.	4th Class.			The flower of this tree is put into the milk of the Piddathay tree & being preped becomes waxy. it is then put into the hollows of large trees & the honey bees being attracted to the spot readily begin to build on it.
43 Piddathay	1st Class.			See No 42.

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44 Vunangon.	Yields 2d Class.	(Pterospermum:	Is not allowed to be cut, being used as Rafters for sheds on account of its long branches and is taxed higher.
45. Nettookody.	Creeper.		Is used for tieing the roofing of sheds.
46. Ponangkah	Yields 1st Class	Sapindus emarginatus	Is not allowed to be cut.
47 Kotaychedy.	Is Cut for 1st Class.		Bears a fruit but is not eaten. the seed is dried, pounded or boiled and eaten in place of Rice.
48 Kohnjee seed.	See No 9.	Murraya paniculata	Is boiled and eaten.
49 Thambah seed.	See No 28.	Canavallia	Is boiled and eaten.
50 Kotay Chedy seed.	See No 47.		Is reduced to flour after repeated boiling being bitter, is sometimes used with Sugar but the seed is generally eaten in place of Rice.

R 268/58

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The Strychnos colla forest is situated between the sea and Pulicat Lake from near Coromandel towards north up to a little distance beyond Rayadom.

Its greatest breadth does not appear to be so much as Eight miles, and it is scarcely four at a few miles above Illaur, when more the forest begins to fall off until it terminates a little below the Eight Kosse at Meenakshiam -

The forest is thickest on the vicinity of Gudah Cobon which Commands the Pulicat Lake and Coromandel.

The soil consists of dry Loose sand interspersed with Gravel and mill not admit of long Roughs under cultivation to any extent; it is covered with Low Jungle chiefly of that species of Euphorbia which makes the best fuel, interspersed here and there with Tamarind, Mangifera, Banyan, and a few other large Trees, but generally of Stunted growth. The larger sort of Timber in the item of Clay on Great Pardicoderon denominated first and second class is not to be got so plentifully as Middle Sized, as the remaining three classes into which the article was divided, for the purpose of being taxed, according to quality and value, before the present system of selling Timbers of the Forest annually, was introduced. It was not the practice formerly to fell large Trees and that the timber into billets of three dimensions

but upon this point. I shall have to enlarge here, after when treating of the Revenue which Government deprives itself of by the newly introduced System.

2. The Government was induced some Years ago to purchase the whole of the Shuchunnicotta forest from the Mooliedar, who formerly held possession, for 30,000 Rupees. It forms part of the Nayer talook in the Zillah of Chingleput and consists of thirty three Grammins; the population depending chiefly on cutting firewood for the Madras Market. The firewood when cut nearer the Sea side, was sent to Madras by Sea; but the Canal transport was always preferred being more safe. The trade until July 1857 was carried on by Merchants at Madras thro' the Villagers on the spot, whose services were hired, according to the rate fixed by Government on the different classes of firewood supplied by them; and the expence of toll was included in the Payment on the part of the Merchants. The Revenue thus resulting to Government from this source alone, during a period of ten years, under the Original System was, for:-

Fusly	1256	Rs 8076
	1257	" 11,322
	1258	" 10,406
	1259	" 5517
	1260	" 5689
	1261	" 10740
	1262	" 12,839
	1263	Rs 6409
	1264	" 8538
	1265	" 9732

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The fluctuation in the Revenue is accounted for by the Canal not being always navigable before the present improvements were carried out. But independently of this source of Revenue, other Forest productions which are separately sold on account of Government, such as dye roots,- Shayavare - Shoorool chuckay - Aravay - puttay, and various medicinal roots and herbs as Eeswaravare, nunnareevare, Veshaboodee, Payporadaty, Thaythancolay, beside Tamarind, Honey and Bees wax; yielding annually between three and four thousand Rupees rendered the Shuchunnicotta forest an important acquisition.

3 Beside those people who have made the forest their home for the purposes of trade in firewood, there exists an aboriginal tribe in the forest under notice, called Yenadies on whom the Government depends for the collection of the other forest productions abovenamed. The jungle people every where, they live a life of freedom from labour of every sort save that which contributes to their personal enjoyments, and possess no sympathy with the people who adopt the Forest as their home where to labor for a subsistence. The Yenadies receive for what they collect a share amounting to 40 per cent in the value of their gathering, beside which, Government makes them an annual allowance of cloth, Tobacco &c and a certain amount in money for every birth registered among this tribe; giving 4 Annas for every male, and 2 Annas for every female child; so that the Census

of the Yenadie population is regularly kept in the Collectors office, and for good reason; for these forest productions might find a vent through other channels easily enough if these people were not thus attached to the interests of Government in a service which depends entirely on their faithfulness. For food they look almost entirely to the natural productions of the forest; and it must affect them seriously to reduce their resources in this respect even in the least. In the question of subsistence however there is little or no difference in the case of the Yenadies and those who have made the forest their habitation, and thereby shut themselves up as it were to the same means of living; and it must be remembered that the Government is not less indebted to these thus whose labour has, having separated themselves, the trade in firewood which yielded so large a revenue was derived. But it would be anticipating the question to enter in this place into the results produced by the change (which affects the Government as much as the people) before the materials for coming to a judgment are fully exhibited. It is necessary therefore to revert to the other sources of revenue still further derived, and the means hitherto adopted for preserving them as permanent sources of revenue to Government.

4. The toddy of the Palmyrah tree goes to the Abkary contractor, but as this is one of the excepted trees in leasing the firewood under the present System, the revenue derived from this source, and here referred to in order to add it to the profits accruing to Government from the Forest generally,

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is not however the only benefit resulting from it; for the forest dwellers enjoy perhaps even a larger share than falls to Government from this valuable tree; every part of which might one way or another be converted into use. In a large plantation, the people employed by the Abkary Contractor in drawing the toddy, are not general sufficient in number, to work it so fully, as not to leave a great many to run into fruit. This tree in Sreehurricotta forest is scarcely cut for the purposes of building any more than that its leaves are used for thatching; and the sole reason assigned vide Report of the Supt: East Coast canal for 1855/56 for its timber not being used is, the high rate at which it is taxed. The Collector also agrees in this view, and proposes that the tax be altogether abolished, but for what object, does not appear; for if it be the interest of Government to maintain the Abkary the trees for that reason alone, must be preserved. On the other hand, if the tax objected to, amounting as it is now asserted to a positive prohibition, existed in the former Mooteadar's time; it may be accounted for as having been expressly intended for the preservation of the tree as a means of food to the inhabitants to whom it is even at this moment one of their chief sources of subsistence. The ripe fruit as well as the pulp of the nut before it hardens into seed, is not used as a mere luxury, but as a real diet; and above all the seed corn affords in the young shoot a species of Yam which before it grows out of the ground, is dug up and fared upon very generally.

An article of food but not a Yam. H.C.

5 The next source of revenue likely to be affected by laying bare the Forest, and in one sense the most important, is, that derived from artificial

Cultivation - it amounted for last fusly (1266) in the 33 Gramums to Rs 5000 - on dry grain chiefly, for the soil can scarcely be made to yield Rice - The quantity of grain consisting chiefly of Kayvarou, and Kumbou produced annually, is said not to be sufficient for three or four months consumption, and many of the very poor wood Cutters who are even worse off than the Yenadies, live throughout the Year on nothing but roots, bulbs, leaves, herbs, berys &c as stated in the Column of remarks - Vide - list appended to this report - The soil could afford but a scanty return for any amount of labour that might be spent to render it productive in the article of food - It is manured by the leaves and refuse cuttings soaked in the standing brackish waters of the wilderness; but by this admixture, after a case of cultivation on one and the same identical patch fenced here and there in some less Jungly part near a village, the soil, has not now, neither is likely ever, to acquire sufficient firmness to admit of being irrigated by ordinary means - The Patches of cultivation, for it can scarcely be termed field, are watered by sprinkling with the hand; and men, women and children are employed in this process from morning to evening during season, taking water from ponds scooped out within their respective fences - From such impoverished resources, the people naturally turn to the spontaneous productions of the Jungle, in which Providence has deposited for them a varied yet unfailing Substitute, more than the labour of their hands is capable of yielding in such a salt and sandy soil; and it is not likely that the Forest portions laid bare by the Axe will ever be brought under the plough.

Certainly not 116

6 The circumstances brought under notice

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5 - The circumstances brought under notice render it necessary, that the question - whether it is more advantageous to continue the newly adopted System of leasing the forest in portions annually or should be considered somewhat more widely, in order to secure for it a due appreciation in deciding that point, without at the same time, losing sight of those whose interests it concerned the Government hitherto to protect, but before traversing the grounds to be gone over, a point, which I am not in a position to treat upon without having access to the records of the Supt. East Coast canal, and the Collectors office, has to be advertied to, and that is - whether the increase of Revenue said to have so immediately followed the revision of toll on firewood is owing to the recent improvement of the canal, and of its being thereby permanently navigable, or to the reduction of the tax itself, or both; or whether the demand for firewood has really very much increased - The rule vide Mr Cumliffe's formula Countersigned by Lieut Chambers dated 14 Decr 1854 more particularly involved, is that quoted in the Margin *

* Rule 4 - All Boats shall pay toll at the rate of 4 Annas for each Ton or portion of a Ton exceeding one half in each arrival at Madras. whether carrying goods or Passengers or Empty. No other payments whatever to be demandable and no detention for Tickets or otherwise at any places to be allowed.

The Madras market is supplied with firewood from other parts of the country by means of the canal, which, in considering the question as it stands in relation to the Streehurricotta forest, have to be separated, with reference to the Revenue realized from the latter place alone - and as the toll charged on the trade on the canal according to the Rules at present in operation is levied on the tonnage of each Boat whether carrying goods, or Passengers, or Empty; the Revenue so derived affords no criterion to prove the utility of the System in increase of trade over

the former State of things.

7. To return to the subject in hand - The System adopted since July 1857. by dividing the forests in Eight portions, and selling each portion year by year, by which arrangement it is expected that the several portions having each full Eight Years to grow again will in that time attain their prestine condition, was opposed at first by the Collector as calculated to destroy the forest totally piece by piece - Mr Shubucks opinion was supported by the Revenue Board, but being over ruled by Government he proposed that the forest should be divided in Five instead of Eight portions alledging that Five years is sufficient for regrowth as in various parts of Europe, and in this case also the Collectors suggestions were over ruled - It cannot however be gathered from the correspondence that transpired that any other consideration was held in view than that of merely releasing the Revenue Establishment from the duties on it in addition to their Departmental employment under the former System, that the System of leasing by piecemeal was introduced - whether the quota hitherto contributed by the whole range of 40 Miles to meet the annual demands of the Madras Market is likely still to be kept up from the one eighth portion of the forest to which the working is now limited is a question that remains to be solved - To judge from the Collectors proposal to divide the forest into five instead of Eight portions, seeing that Mr Shubuck did not offer this suggestion until after mature consideration of the subject it may be inferred that he considered a larger portion absolutely necessary for a one years supply; leaving this aside for the

Seven years is for coppice in Europe and this period found suitable Malabar Coast it is not sufficient for hard wooded Carnatic

1/8th not sufficient The supply of all but too much ?

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present, I would bring to prominent notice the fact, that the expence to Government under the old System was not more than the pay of one Zillahdar at 5 Rs a month; this is all the additional expence under the old System, and it is mightily overweighed by the time and consequent expence incurred in the investigation of complaints when a Ryot cuts a yoke stick for his plough, or a quantity of thorn for fencing his cultivation which is immediately complained against by the present Renter as an invasion of his right; and he has stretched it so far as to take into his portion of the lease the trees that had been watered and brought up by the villagers within their own fields, which is now cut down the same as if they stood in the natural forest - the avenue of shady Margosa trees leading to the Village Pagoda planted and watered for Years by the Village is levelled with the like impunity - The Orange trees for which these jungles have been so famed are spared - it is true, but simply because there are some excepted fruit-bearing trees, such as Tamarind, Palmyra &c in the lease from which a separate revenue is derived by Government - No provision appears to be made in the lease for securing to Government the other sources of Revenue, viz. Honey, Bees wax, medicinal roots &c. in the portion rented out this year - on the contrary the Government has given the Renter full latitude* to clear every thing above the surface of the ground so long as the roots are not touched - A portion of land spreading over an area of five miles in a sandy and salt soil, once laid bare and exposed

I saw no Orange trees except two species of wild Limes. H.B.

* Minutes Consultation N° 141 dated 5 Febry 1857 Para 5 with reference to the Revenue Boards proceedings Para 7 of N° 71 Sept 3 - 1856

to a tropical sun, offers very little or no chance whatever for the revivification of the forest; and it should be remembered that the medicinal, Vegetable, and creeping trees require shade and support, for they grow nowhere but at the roots of the bushwood which spreads its lower branches over the ground and shades them from the sun - The honey in this forest is mostly deposited in the hollows of large trees - The Honey Bee is thither attracted by these hollows being plastered by the Yenadies with a composition made up of the flowers of the Purreiyay Chetty (N° 42 of list appended) and the milk of the Pidathee tree (N° 43) By such indiscriminate slaughter, it is clear, that damage must necessarily result to the interests of Government, but beside the evils in this case, the large trees being felled admits of no chance at any time of their ever growing again in this place - the sand would drain out the moisture, and its rapid evaporation which must follow will soon dry up the roots - The lease of the one-eighth portion now operated upon was granted in July last, but operations were deferred until September to give time to the merchants and their wood cutters to clear away their stores; and already within five months the forest is so far cut away, that there remains only the bushwood which come under the last class, and faggots which have to be cleared - In referring to the cutting down of the large trees, it must be observed, that this was never done under the former System of working the forest for firewood; for the wood Cutters making trade of it, would always preserve, and husband up their resources of employment as well as food; both which the forest afforded; and they cut only the branches for the largest description of firewood as may be seen in the firewood Stacks about Town, where not a single billet could

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be found of split timber; yet the demands of the Market were fully met, yielding a Revenue to Government which in favorable seasons attained a maximum in firewood alone of 12,000 Rupees a year or 40 ₱ cent on the Capital, no less than a third more than the amount for which the annual lease is now sold - and there is every reason to expect since the Canal has been improved, that the maximum rate will be kept up if not increased as the trade is encreasing - that the tax formerly levied cannot be considered too high is proved by the fact that the Renter who got the lease for 8,500 Rs. sold his interest almost immediately by sub-letting it for a profit of 1500 Rs in Portions, which fell to the hands generally of those persons who had already some experience of the trade and its advantages, and what profit they would make of it, even according to the present rate of toll in tonnage, in place of the former toll on the Cargo of each Boat load of firewood.

8 The change now adopted by all the instances adduced, entails a positive loss on the Revenue which does not appear to be counterbalanced by any gain whatever to the public, and it is in reality fraught with the most serious injury to the dwellers of the forest - Proceeding from Village to Village, and from one Yenadies abode to another, it affords a curious spectacle to see the wood-man, Axe in hand, and while himself engaged in the work, complaining of the deprivation caused by the slaughter all around of the forest - One Ryot complains that his water exposed to the burning sun will soon dry in a soil so sandy; another that he cannot cut a yoke stick or a shaft; a third that he has no means of

strengthening his fence against the intrusion of Cattle that are here allowed to wander freely in the forest by hundreds, as their chief pasturage is in herbage and not on grass as elsewhere; a fourth that the Cattle have no pasturage - the Yenadie complains if his earnings being cut off and all with one voice bewail the loss of their means of subsistance - Ask the woodman why he assists in the destruction complained against by himself, and his answer is ready - "it is better that we get the wages than let strangers "come in to devour this also, for already they come "from distant Gramums and from Pulicat to live "amongst us because we refused at first to help "the Renter."

Q. The question of reducing the land to cultivation as a better source of Revenue to Government, and of food to the people, has to be enquired into, but it is very difficult in jungle tracts inhabited by distinct races who have no mutual sympathy to form a correct opinion on any question of more general utility when it bears on both classes equally - The Yenadie tribe care very little about Cultivation; but there is enough of reason from the peculiarity of the soil, for deciding in favor of the forest as it stands, and the dwellers in the Sherhurricotta forests are far from being incapable of judging - the Yenadie tribe are brought a good deal more in contact with townspeople than is the case with the jungle people in other parts; and as for those who make the forest their home for trade, they are in all respects equal to the Merchants with whom they have to deal, and in their desire to

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secure a better supply of food for their own support in the natural productions of the forest it cannot be said they do so preferring a life of idleness for they are fully employed in cutting wood throughout the year - But their means might be greatly enlarged not only in the article of food but also in stocking the forest with timber - If the Casarina or whip tree tree were planted here, it would soon grow into wood - The Sack and Custard apple ought to flourish in such a soil as well as the (Bilimbee) and its species - The growth of sweet Orange might be encouraged with much advantage - in short as nothing in the way of improving the forest appears to have been attempted since it became the property of Government, it would not be unwise to convert the leased portion which is now being cleared out, into a field, to try the experiment suggested of introducing other

The proposed scheme of soil stocking the forest described is very questionable.

HC

10 The restricted woods in the Renters lease are, Ponangkah or Soapnut, which is farmed for five years at 31 Rs a Year - Tamarind, which is gathered for Government, realises about 150 Rs a Year - Venangkah, makes good rafters for Sheds, but is not farmed at present - Palmyrah, on which the tax is now abolished - Thalhankolay, the seed of which and the roots are farmed with the other dye and medicinal roots and plants - It is stated above that no tree was cut under the former System of working the forest, as to be split into smaller pieces, tho' no restriction was imposed on the wood cutters: but it appears further, that no branch of a tree was cut above the thickness of first class firewood, and the twigs of them, and of the tree generally, would go to make up the other classes, but

now the large trees are cut away altogether - such as Vala - Cheegrahn - Kulalay - Alay - Arasan - Waypone Kaatralay - Nagay - Nirnoorrulee - Kotaymunum - Pomgah - Settee - Veerahnmunum - Pidathaymunum - The Cheegrahn leaf for bathing, and the Margosa seed for burning oil are taken for domestic use -

If ordered I would appropriate a little more time to the enquiry of the toll ✗ in case my services are not immediately required elsewhere -

I. Wilson
Asst. Conservator of Forests

Madras 11 February 1858.

2053/58

Conservator of Forests Office No. 1

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S09/21

Memorandum -

The Banks of Cochrane's Canal are clothed with Saline plants as Salsola, Salicornia and Suæda, which with their succulent cylindric leaves may be seen in great abundance, wherever the salt water or marsh extends. Their Ashes afford Soda by incineration. The Canal is lined by rows of young trees Casuarina muricata, Melia Azadirach and Pongamia glabra, - and there is a hedge of Parkinsonia aculeata on both sides, thriving as well as can be expected in an exposed situation and on a sterile soil. These valuable improvements have been effected since I last travelled by this Canal in 1851.

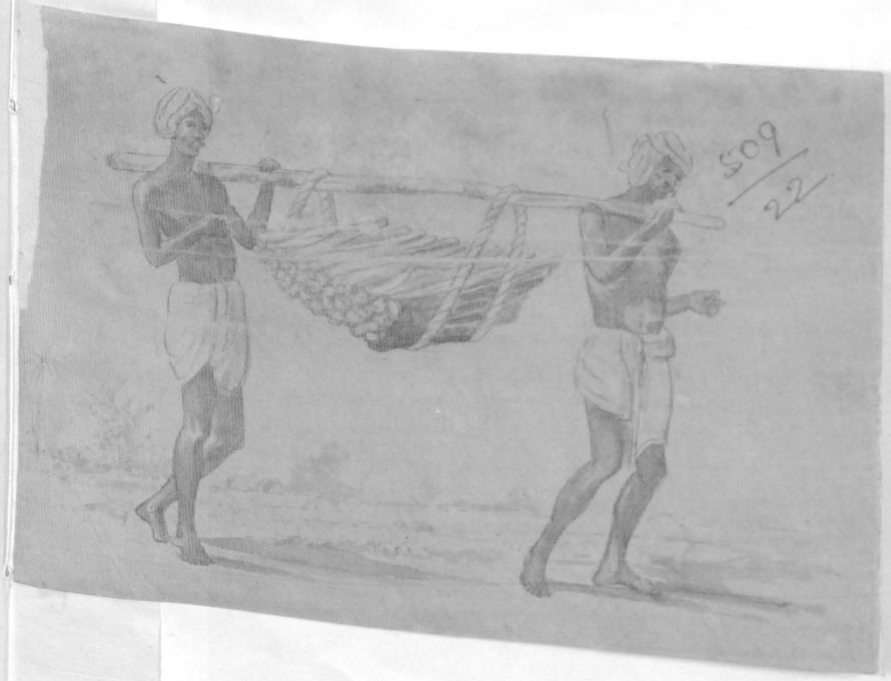
The Palmyra Palm grows spontaneously in great abundance along the narrow strip of land between the Pulicat Lake and the Sea. Other trees begin to appear at some distance beyond Covercandel, where the tract of jungle under consideration increases in breadth. But the trees are nowhere of large size, and there is no part which can be designated Forest, - it generally presents the appearance of a dense scrubby jungle. The length of this belt is under 50 miles, varying in width from half to nearly eight miles, but

it has not been accurately surveyed, and it not is (I think) so broad as it has been usual to represent it, or else the area of Jungle is lately diminished in extent.

The fine loose sand blown with the wind along the flats has a tendency to collect round every obstacle, even a blade of grass, and a succession of mounds are formed along the Coast generally of the shape and appearance indicated in the Windward.

The subsoil is indurated clay, and at the edge where there is a considerable depth of loose sand, the Calderabush (Pandanus) grows in abundance, and fringes the line of Sandhills. There are some lower portions, in which the waters of the monsoon have collected, and given to the sand an admixture of mould which so far fertilises the soil that millets may be cultivated. I only saw one or two small patches of Paddy. The prospect of converting this waste tract into cultivated land is very distant, and for reasons submitted, I think it would be preferable to allow it to remain as at present a Jungle tract bearing underwood for Firewood and beams for native house building, and thereby of most extensive and important use to the community.

From the necessity of a large town like Madras, without River communication, requiring much Fuel for daily consumption, the sources of supply cannot be exclusively confined to mounds



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waves or uncultivable land. Difficulty is now experienced in supplying the market with timber and firewood, and the scarcity of fuel in Madras has long induced the poorer inhabitants to resort to Sterkarricottah, where in addition to stunted trees, underground roots and stems running along the loose sand are pulled up with great care; and according to the statement of the Military Board at least one half of the fires in Madras are fed from this source. The different sizes of firewood (i.e. whether faggots of whole sticks, or billets split into 2 or 4 pieces according to the diameter) are given in Mr. Williams' report, and the simple method of carrying the fuel from the jungle to the Cargo Boats as practised in this place is shown in the accompanying sketch.

However convenient this supply of firewood is to the Madras traders, as well as the poor Residents, the destruction of the shrubs, roots &c will become hereafter a serious inconvenience to the public and a source of detriment to the Canal, as the Isthmus will revert to its desert state, and the dry and loose sand be drifted into the Canal, and overspread the adjacent country. If an opposite system be pursued, and the growth of trees and shrubs encouraged, the belt of wood will protect the soil from sweeping winds and afford fodder for Cattle. It appears to me, therefore that while not neglecting Sterkarricottah, it would be most important to commence a systematic

matic mode of pleating and reclaiming the sandy flats or downs which lie along the South Coast Canal between the Canal and the Sea. There is no apparent obstacle to this being effected. What has been done by nature at Streeharricottah indicates the process by which similar waste tracts may be made productive. Low undulating surface must first be formed and then a few clumps of bushes may be laid down. This is the beginning of a jungle. When a belt of trees or bushes is once established in such a situation, it should be kept undisturbed, as long as it will serve the purpose of protecting the trees within, though it may be of no other value. I can myself remember Pulicat 15 years ago, when the old Dutch station was almost without any thing save a Portia tree, but now there are lines of trees and ornamental shrubs all round the Fort and on both sides of the backwater.

The kinds of trees suitable for planting may at present admit of some doubt, and may perhaps be best learned from some of the practical men who have resided at Cuncor and Coromandel. The Casuarina is a useful wood and thrives well, but it does not answer for firewood as it does not split easily and yields little wood after pollarding. Besides it is not desirable that hardwood should be used for this purpose; it would be better to plant for fuel soft quick growing woods. Madras offers a permanent market for all the soft wood which can be brought to it.

The question of firewood supply is becoming one of great moment in various parts of the Presidency, and it is one of no small difficulty, because the vegetations found suitable in the moist climate of Mangalore, will not suit the dry climate of Madras - and rules entirely different are required for Ootacamund, where the consumption of firewood for cooking and for producing artificial temperature is so much greater.

There are numerous and excellent works* on planting and all the operations connected with it, as the growth of trees for timber - for tannic effect, &c., but I know of no work in England, or even in Germany (where the Forests are looked after under an organized system of management) affording information on the statistics of Wood Fuel. I am not aware of any statistical records although such are not wanting with regard to Peat and Coal which constitute the principal fuel of Great Britain where the raising of trees for firewood does not constitute any part of their crops.

As to one question involved in these papers, viz the Area necessary to produce a continual supply of firewood for 700000 people, it does not admit of calculation from any available data, and as to another point, viz the number of years necessary for the reproduction of the jungle, it seems to me that although the period of rest, 7 years is found to be sufficient in the Western Coast, yet it is too short

*Loudon's Arboretum Brittanicum
Brown's Forester.
Pontey Forest Planter
Monteath Forester
Guide -
Walkers on Arboriculture -

for the renewal of hard wood in the Eastern Coast.

The best kinds of wood to grow merely for fuel are the quickest growers of the Country, such as the firs in Scotland, the poplar and willow in England, the Beech in Germany and the Casuarinas, Ficuses &c. in India which grow very rapidly and sow or extend themselves. As a general rule indigenous will answer much better than introduced trees (Oats. cammund is an exception to this rule) for the Native Hill trees (so far as known) are much slower in growth than the native Australians. All that is wanted is conservancy, so as to prevent tracts being quite cleared, to hinder persons from injuring the roots, and to arrange for the renewal of trees cut down. One part of this scheme would be to leave a certain number of stumps per Acre say 30 or 40 for shade and for seed, instead of shaving off every thing to the root. By this means both the medicinal products as well as the larger fuel will gradually but certainly disappear.

If the foregoing suggestions meet with the approval of Government, the measures to be adopted for increasing and extending the growth of tree plantations are next to be considered, and I would now offer the following remarks upon the subject.

1st. The Superintendents of both the North and South Canals, the Overseers and employées of the

509/9411 to be sold in bundles for firewood.

5th. I do not think it would be profitable to plant these lands (as a Government scheme) with a view to establishment for the exclusive purpose of raising Timber, but a resident cultivator, holding a lease of these waste lands rent free for a certain number of years and planting Palmyra palms for shelter close together, so as to encourage the growth of Coppice within, would receive a fair return for his labour, and little or no professional skill would be required.

H. Cleghorn
Conservator of Forests

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the Department Public Works who have already commenced planting on the newly thrown up earth along the Banks of these Canals might set a good example by extending their plantations. The successive rows of Trees will lie better and better protected, and each stronger than the preceding, until they attain the full height. They would I imagine, be of great value in preserving the bank of the Canal, as well as the water in it. Whilst the toppings and pruning would probably repay the cost of planting. A considerable revenue has been derived from the culture of trees on the banks and cuttings of the great Ganges Canal.

*Vide Colonel Baird Smith's Report.

Moreover, the embankments would be rendered beautiful and interesting. Mr. Rohde mentions that when at Masulipatam he planted along the edge of the Backwaters Mangrove seeds at Captain Buckle's request, the total cost exclusive of Convict labour was 25 Rupees and he understands that Revenue is now being derived from them - the only care taken was to drive off cattle.

2d. The Collector might also encourage the heads of Villages to take an interest in planting topes by holding out the promise of a reduction on land-rent, whenever he is shown so many hundred trees in a flourishing state. This permission should

depend solely upon the ryots carefully watering (if necessary) and keeping up their topes or avenues. This course has been adopted in Mysore, and in some parts of Bengal and has been attended with considerable success.

3rd. Of course, the Officials of the Department Public Works could only be expected to plant close to the Canal, and the Ryots in the immediate neighbourhood of their Villages. Many failures in the plants put down the first year must be expected, but the ultimate result with perseverance would be a large supply of wood near Madras with water Carriage to bring it to Market.

4th At the close of the present lease, it will be well to consider whether it be advisable to continue the system of renting out an eighth portion of the Forest to be cut down to the ground - the trees were headed down to 6 or 8 feet and allowed to produce lateral shoots, these would become very numerous and produce a greater supply of branches

Con. Gen. Public Dept. 1856 No. 61

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Memorandum on the Maddanaickdah Jungles and the Fuel supply of Madras

R. D

509/28

No. 509

Extract from the Minutes of Consultation
Under date the 21 ~~March~~ April 1858.

Read the following letter
from the Conservator of Forests.

(Hereunto 20th February 1858 No. 278)

A

W.M.

P. The Conservator of
forests submits a report by
his Assistant Mr. Williams,
and a Memo: by himself on
the Streekaricottah Jungles,
and the firewood supply
of Madras.

2. Mr. Cleghorn after
alluding to the nature of
the soil and to the description
of trees and shrubs to be
found in these Jungles, re-
adverts to the growing want
of fuel in the Madras Market

thereby
necessitating the poorer in-
habitants to [illegible]
streche to ta for their
supplies. He says however
Commencement this supply of
firewood is to the Madras
traders, as well as the poor
residents, the destruction of
the stumps, roots &c will
become hereafter a serious
inconvenience to the public,
and a source of detriment
to the Canal, as the isthmus
will revert to its desert state
and the dry and loose sand
be drifted into the Canal,
and overspread the adjacent
country." He recommends
therefore that the growth of
trees and shrubs should
be encouraged, and a syste-
matic plan of Conservancy
established, by which means
the

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the soil will be protected
from the sweeping winds,
and the Jungles besides provid-
ing fodder for cattle will be
in a condition to meet the wants
of the Madras Market.

3 The measures which
Dr Cleghorn
suggests for this purpose
are contained in the last
para of his [illegible]
Memo. are to the following
effect,

1st That the Superintendents of the North
and South Canals, the Overseers
and employees of the Depart.t
of Public Works, be encouraged
to extend their plantations
on the banks of these Canals.

2d That the Collector should encourage
the heads of Villages to plant
topes by a promise of reduction
of Jamabrent on a certain a-
mount of success being
attained.

3. That the system of renting out one-eighth of the Jungles to be cut down to the ground, should be reconsidered at the close of the present lease.

4th. That the growth of Jungle should be encouraged in the Lame en neighbourhood, by a remission of the assessment, instead of the Government coming forward to plant.

As regards the 2 and 4th suggestions, the Government would refer Dr. Cleghorn to Rule IV of the Sopa rules, published at page 44th of Vol: I of the Circular Orders of the Board of Revenue. That rule, he will observe, allows that land used for Sopas, including plantations for fire-wood, shall be held rent free for 20 years, and then

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to be charged with the assessment, which, on such a soil as is described in Dr. Cleghorn's reports, must be almost nominal.

5 In the 3d of the measures proposed, Dr. Cleghorn objects to the Renters being allowed to cut down the Jungle to the ground, and thinks that, if the trees were headed down to 6 or 8 feet, and allowed to produce lateral shoots, they would furnish a better supply of fuel. It is observed that the course to which Dr. Cleghorn latter exception is the one contemplated and intended by Government, for in para 6 of Extract of Minutes Consultation 17th June 1856, N. 303, they expressly declared that the Renter of each

each lot would be entitled to clear it of every thing above ground, but not to touch the roots. This is in conformity with the plan pursued in English plantations, where wood of this description is cut close, so nothing but a stump being left, from which shoots will spring. If this plan exposes the plant too much in this country, a different system must of course be adopted, and as Dr Bleyhorn maintains that without some shade the forest will not be reproduced, the Government are willing to reconsider the matter prior to the close of the existing lease, which it is believed will expire on the 30th June ensuing.

But I object the Holland tree Bellevue & placed

The

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6 ... The Govt accordingly request that Dr Bleyhorn will, at an early date, submit for their approval, the rules under which he would propose to treat the Mechanicsville and other similar jungles. Dr Bleyhorn must however bear in mind that there are precautions in this country of keeping out cattle & protecting the young shoots of the stumps from destruction. If any means of protecting the

7 In respect to the system now pursued in the Government parts of the Mechanicsville Jungles, Dr Bleyhorn will consider whether the term of years allowed for the reproduction of the Jungles

Every body pays cattle should be kept out of Dr Bleyhorn he will be so good as to communicate these to Govt.

jungles is sufficient, as
if not, a longer term will
be introduced. It is desir-
able that any provis-
ion that he may make
should reach the Govt.
in time for communica-
tion to the Collector
before the commencement
of the next year, and the
Board will instruct the
Shikarie not to put up any
portion of the jungle to
auction until further
orders are given.

8. Mr Williams' report
has mainly reference to the
loss of revenue entailed by
the adoption of the planting
system, but this, it need
not be remarked, was
foreseen at the time, and
it was on other grounds

that the change was
introduced. There is how-
ever one part of Mr
Williams' report which
calls for special notice,
and that is the effect of
the lease on the rights
of the Villagers. It is
stated in para 7 that they
cannot cut wood for a yoke
stick, or for fencing their
cultivation without a
complaint being preferred
by the Renter of an invas-
ion of his rights, while
in the other hand, it is pre-
pared and pursued by
the Villagers without
impunity by the Renter
under the terms of his
lease. The Govt think
that the Villagers should be
allowed to retain their rights

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of taking wood for domestic
and agricultural purposes,
and that the Collector
should have interfered
to prevent the Renter
cutting down the grove
of trees leading to the
Village pagoda, planted
and reared by the people.
The Board of Revenue to
whom the Telegram will be
communicated,
will be requested to call
for a report on these
points, and also to request
Mr Sturmbruch to state whether
the tribe of Yanadies
have been or are likely
to be injuriously affected
by the introduction of the rent-
system, with a view gradually
to reclaim these people
from their nomadic

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habits, and to introduce
them to civilized life,
must be considered de-
sirable, but at the same
time, any violent and
sudden change, which will
deprive them of shelter
and occupation before they
have got rid of their distaste
for the habits of civilized
man, and have acquired
to some extent a settled
means of livelihood, would
lead to much distress-

DG

4 Copies to Bd. of Rev. Disp.ch 22
5 — Conservator of Forests.
1 — Chief Engr. Disp.ch 7 June 69.

10th March/58 - 29 V30
8th February/57 - £ 772.

Copy with a Letter to Govt.
1st January 1858 No 24.

509/34

Revenue 1858 Departt.
Dy to Govt. 27th April 6

No 509

Extract Mins of Govt.
Dated 21st April/58.

Read 13th of Rule 27th May/58 Ct. No 83
in Coun 15th June - 1619 -

From the Conservator of Forests
No 604
Dated 15th April/58
Recd 10th June - 1617.

Reviewing and praising orders on the Report of the Assistant Conservator of Forests, (Mr Williams) and actions by the Conservator himself, on the Sreeharicottah Jungles, and the Teakwood supply of Madras.

No 142.