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MADRAS RECORD OFFICE

GOVERNMENT OF MADRAS

Revenue DEPARTMENT

G.O. No. / B.P. No.	716	Press / Mis.
Dated	Revenue. 3 - 5	1872 196 .

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No. 19. Read the following Proceedings of the Board of Revenue, dated 22nd May 1869, No. 3,614 :—

Read the following letter from the Collector of Tinnevelly, to the Acting Secretary to the Board of Revenue, dated 11th September 1868.

I HAVE the honour to submit for approval a scheme for the settlement of the river-irrigated villages of the Tinnevelly District.

2. The preparation of data for the settlement of these villages at once, without waiting for the classification of the rest of the district, was sanctioned by the Board of Revenue in consideration of the peculiar circumstances of these villages, and their dissimilarity to any other part of the district.

Proceedings No. 4,923, dated 19th July 1866.

3. GENERAL DESCRIPTION OF THE DISTRICT.—The district of Tinnevelly includes the country between the Madura frontier and Cape Comorin and between the Gulf of Manaar and the Western Ghauts. It is 120 miles in length by a maximum of 75 miles in breadth, and has a population of a million and a half. Its total area is 5,145 square miles, of which 1,648 square miles are zemindari and inam, and 3,497 square miles are ryotwari. The settlement about to be made will affect the latter only, the zemindari and inam villages being already permanently settled. In the ryotwari villages 2,035 square miles are cultivated, 1,241 square miles are occupied by hills, roads, streams, tanks, village sites, etc., and 221 square miles are waste, but fit for cultivation.

The actual boundary is about 8 miles north of Cape Comorin, the Cape itself being in Travancore territory.

1,287 square miles of zemindari and 361 square miles of inam (rent free or favourably assessed).

4. In general appearance Tinnevelly is not picturesque, the north-eastern portion being a level plain of black cotton ground, and the south-eastern portion a mere stretch of sand; but at the foot of the western mountains and along the river valley the country is wild and beautiful, and the cultivation is as rich as in any part of the Carnatic.

5. MODE IN WHICH THE DISTRICT HAS BEEN LAID OUT FOR SETTLEMENT.—Though the river valley, as I have here styled the river-irrigated villages, differs so materially from any other part of the district, it must not be supposed that the remaining villages can be lumped together and treated in one uniform manner; for the district contains four tracts of country so entirely distinct from each other in soil, situation, and produce that each should be treated separately, and have its own peculiar settlement.

No. of Ryotwari villages.	Area in square miles.
345.	798.
* The Jambunadi.	Arudakannirar.
Ramanadi.	Varanadi.
Karupanadi.	Iluppiar.
Anumanadi.	Gatananadi.
Hariharanadi.	Manimuktanadi.
Bandanadiswaranadi.	Koriar.
Aindaruvinadi.	Pachiar.
Sittar.	

6. *The river valley.*—The river valley comprises the whole country watered by the Tambrapurni and its affluents,* 15 in number. In many respects it is like the Cauvery valley, but it has some characteristics of its own. The subsoil generally is clay instead of sand; the lands are mostly irrigated from

channel-fed* tanks instead of from the river direct, and the care bestowed upon the land, and the pitch of excellence attained in cultivating it, is in pleasing contrast to the careless system of husbandry pursued in the Cauvery Districts. Some of the principal towns of Tinnevelly are situated in this valley. Tinnevelly, the capital of the district and the Military Cantonment of Palamcottah are within 3 miles of each other, though on opposite sides of the river. Veeravanellur, 15 miles, and Kalladakurichi, 20 miles west of Palamcottah, not only supply Travancore with much of the cloth worn by the people, but are the granaries from whence vast quantities of rice are exported both to the north and south. Besides these, there is the sanitarium of Courtallum which, unlike other places resorted to for their climate in India, is at the foot of, and not on the hills, and is cool and pleasant from June till October, or during the prevalence of the south-west monsoon.

* There are 580 agaput or channel-fed tanks in the river valley.

7. *The Palmyra Forest.*—The palmyra forest includes the coast line south of the river, and is some 50 miles in length by from 5 to 10 miles in breadth. The palmyra palm here takes the place of cereal grains, and is cultivated by a large population, who live almost entirely on the fruit and juice of the palm. The country is all deep sand, nearly impassable for wheeled conveyances; water is by no means abundant, though it is to be found in some places, while grain, fruit, and vegetables can hardly be had at all. The barren aspect of this region and the scarcity of all necessaries of life have hitherto deterred the higher classes from attempting to settle in it, so the Shanars or palmyra climbers are almost the only occupants. The palmyras are estimated to number a million and a half, besides many millions of young trees that have not yet come to maturity, and are as yet free from tax. The full-grown trees, taxed at a few pies each, yield a revenue of 60,000 Rs. per annum, and, as it is part of the scheme of settlement to allow of the redemption of the tax on trees growing on any land paying land-tax, it is hoped that the great bulk of these trees will soon become tax-free.

No. of Ryotwari villages.	Area in square miles.
101.	303.

The aggregate tax on palmyras throughout the district is 1,15,657 Rs., but the figures here given apply only to the palmyra forest.

Vide paragraphs 78—80.

8. *The Red-soil Tract.*—The tract of red soil at the foot of the hills on the western frontier of the district much resembles parts of Salem, and, is similarly intersected by small streams and diversified by hill and hollow. On the higher levels the soil is poor, and hardly worth cultivating, but in the hollows and along the course of the streams the soil is excellent, and a good deal of rice is grown. As is commonly the case in districts partly zemindari, the richest villages are held by Zemindars; the Settur, Sivagiri, and Chockampatti Zemindars occupying a large tract of country immediately at the foot of the hills. There are, however, many ryotwari villages to the north and east of these Zemindaries, besides a large number clustered together to the south of the river valley. There are only two large* towns in this division, and these are more famous for their pagodas than for their manufactures or trade.

No. of Ryotwari villages.	Area in square miles.
403.	1,251.

* Strivilliputtur.
Sankaranainarkovil.

9. *The Black Cotton Plain.*—The black cotton plain lies north of the river and between the red-soil tract and the sea. A considerable portion of it is held by the Ettiapuram Zemindar, who pays a tribute of nearly a lakh of Rupees per annum. There are also minor Zemindaries, besides the Ryotwari villages. The soil is deep alluvial deposit, over-lying a substratum of lime-stone, and is cultivated to the very utmost. In fact, from the Madura border to the Sittar river, a distance of 50 miles, there is hardly a waste field to be seen, the dry land being prized as highly in this locality as ordinary irrigated land is elsewhere. This dry land grows two crops in the year, generally, cotton and cholum. An immense quantity of tobacco is also grown here, Virdupatti and Sivakasi being centres of the tobacco and cotton trade. A line of railway from Tuticorin is projected to pass through this part of the country to bring cotton down to the coast and carry back salt in return. The old Dutch Settlement of Tuticorin has a natural harbour for native craft, which ply continually in the Gulf of Manaar between the main land and Ceylon. The European merchants of Tuticorin have several cotton screws, and 32 ships, with an aggregate of 18,448 tons burden, were loaded last year for England.

No. of Ryotwari villages.	Area in square miles.
144.	559.

10. Resources of the District.—The exports of Tinnevelly are cotton cloth, coffee, rice, tobacco, senna, and palmyra-jaggery, and the imports are piece-goods from Europe, and cocoanuts, salt-fish, and spices from Ceylon and Travancore. The exports are so vastly in excess of the imports in value that the flow of money is always into the district, and if the value of the cloth, rice, coffee, tobacco, senna, and palmyra-jaggery exported aggregates half that of the cotton shipped at Tuticorin, we have nearly a million sterling received annually against only a trifle out-going.

Eighty thousand bales of cotton are annually shipped from Tuticorin, which, at 6*d.* a lb., the price *now* paid to the cultivator, are worth £600,000. Those, however, who are best able to form an opinion on the subject, assure me that upwards of nine millions sterling have been paid at Tuticorin for cotton during the last 7 years. The value of the cloth carried into Travancore by land during the last year of the frontier customs was £34,000, and the value of the coffee and senna shipped last year was £30,000. We have no reliable return of the exports of rice, tobacco, and palmyra-jaggery, as these are carried by land mostly northwards; but, as the traffic on the main line of road through the district aggregates 200,000 tons per annum, the trade in these staples must be very considerable.

11. As far as food grains are concerned, the district is self-supporting. In the north, more than enough dry grain is grown for home consumption, and the deficiency of rice is made up by imports from the river valley. In the centre rice is over-abundant, and some dry grain is grown for the food of the poorer classes. In the south, the people live on their palmyras, and on what little grain they grow, eked out in times of scarcity by imports from the river valley.

12. The total revenue last year was Rs. 41,59,550, namely:—

	Rs.
Land Revenue	30,49,820
Salt	7,13,846
Stamps	2,26,233
Abkari	81,502
Sea Customs...	71,122
License-tax	17,027
Total...	41,59,550

13. Tinnevelly comes next to Tanjore in average assessment, each ryot holding a puttah paying upwards of 21 Rs., and each man, woman, and child in the district contributing yearly 10½ Annas towards miscellaneous items of Revenue.*

* Salt, Stamps, and Abkari.

District.	Ryots paying 1,000 Rs. and upwards.	From 500 to 1,000.	From 250 to 500.	From 100 to 250.	From 50 to 100.	From 30 to 50.	From 10 to 30.	Under 10 Rs.	Total.	Average Assessment per head.
North Arcot ...	1	2	24	506	2,191	4,932	24,878	89,205	1,21,739	9¼
South Arcot ...	6	51	217	2,170	7,388	12,488	54,251	1,53,938	2,30,509	10½
Salem	0	4	12	250	1,225	3,988	34,531	1,10,331	1,50,342	8½
Coimbatore ...	1	18	72	590	2,290	4,731	26,196	83,087	1,16,988	10¾
Tanjore	187	358	1,770	6,230	9,343	10,981	28,666	59,294	1,17,124	34½
Trichinopoly ...	26	65	216	1,358	2,312	4,229	21,066	92,010	1,21,277	10
Madura	1	14	76	821	2,936	5,511	25,378	88,059	1,22,796	10½
Tinnevelly ...	98	395	949	3,728	6,971	8,510	30,774	85,341	1,36,666	21½

14. The resources of the district were severely tested during the past few years of scarcity, when, although current prices were actually higher than in some of the famine districts, no signs of distress were visible and no assistance was asked for.

In 1866 the price of paddy rose to 13½ Rs. per Cottah of 110 Madras Measures, which is equivalent to 4 Annas a measure for husked rice.

15. Population.—There are very few north country Mussulmen in Tinnevelly, though there are numbers of Lubbies who are mostly merchants and weavers. In the north, there are Reddies and Naiks, both of Telugu origin, and some few families of Reddies have found their way as far south as Nanguneri. The Reddies are a hard-working race, who lay out all they can get on the soil, and are thus most useful agriculturists. The Naiks are the descendants of the soldiers who overran the kingdom of Madura some 400 years ago; as a race they are very improvident, but here they seem to have imitated the Reddies, and in many instances have become considerable landed proprietors.

16. Siva Brahmins are numerous throughout the richer parts of the district, but Vishnu Brahmins mostly congregate near their large pagodas at Strivilliputtur, Nanguneri, and Alwartirunagari.

17. The Vellalahs are the most numerous and influential class in Tinnevelly. They are to be found everywhere, and, as their name implies, were originally cultivators of the soil. They do not now confine their attention to agriculture, but wherever money is to be made, or power is to be had, the Vellalahs are sure to be foremost. Astute calculators and enterprising tradesmen, they are well adapted for managers, brokers, and agents, and as Government servants they fill the Courts and Cutcherries, and have almost monopolized the office of Village Accountant.

18. The Maravars are of the same family as the Kullers of Madura and Tanjore, and were no doubt the lords of the country under the old Pandiyan rule. Their caste name is Tevan, the Kullers being known as Tevan, Shervakaran, and Vunnian; they are a very fine race of men, active and athletic, with a greater degree of manliness than any other race in Southern India. They took a prominent part in the wars of the last century, and held their own successfully against the Mahomedan Government. The Zemindars of Ramnad, Sivaganga, Settur, Sivagiri, Chockampatti, Utumalei, Urkad, Maniachi, and Singampatti are all Maravars, and in the early days of British rule, the southern part of Madura and all Tinnevelly was known as the Maravar country.

"The Colleries inhabit the woods between Trichinopoly and Cape Comorin. The name in their own language signifies thieves (Kallar mis-called Kalleri or Collery) and justly describes their general character. Their weapon is a pike 18 feet long, with which they creep along the ground and use with great address in ambuscades. They are so far from thinking it a disgrace to be accounted thieves that they value themselves for excelling in their profession, and relate to strangers stories of desperate and successful thefts with as much complaisance as other people commemorate the heroic actions of their ancestors, and indeed, when booty is their object, they regard danger and death with indifference. They sally in the night from their recesses and strongholds to plunder the inhabitants of the neighbouring villages of their cattle, which, if they cannot bring away alive, they kill with their long spears." *Orme's history.*

The Ramnad and Sivaganga Zemindaries were attached to Tinnevelly when the country came under our rule.

19. The Tanjore Kallars are now in a transition state, and some of them do manual labour, but the Tinnevelly Maravar will not labour for hire. A great change has, however, come over them of late; they are no longer open freebooters, but mostly confine themselves to their occupation as village-watchmen, and many of those not thus employed have settled down to agriculture, and have abandoned their predatory habits.

20. The Shanars or palmyra climbers are thus described by Dr. Caldwell, who has spent many years among them: "Their hereditary occupation is that of cultivating and climbing the palmyra palm, the juice of which they boil into a coarse sugar. The majority of the Shanars confine themselves to the hard and weary labour appointed to their race; but a considerable number have become cultivators of the soil, as landowners or farmers, or are engaged in trade. There is reason to suppose that the Shanars are immigrants from the northern coast of Ceylon, as it is traditionally reported that the Shanars who inhabit Tinnevelly came from the neighbourhood of Jaffna. A Shanar will climb a palmyra almost

Lectures on the Tinnevelly Mission.

as rapidly as a man will walk the same length, and most of them are accustomed thus to climb fifty trees twice a day or even three times a day for eight months in the year. Taking 60 feet as the average height of a palmyra, and the climbing of 50 palmyra trees twice a day as the average work of an able-bodied Shanar, we shall form a clear idea of the amount of his work if we suppose him every day for the greater part of every year to climb a perpendicular pole 3,000 feet in height, and then to descend the same pole the same day ascending and descending without any apparatus, and supporting the entire weight of his body by his strength of limb alone."

21. "The chief peculiarity of the Shanars, prior to their reception of Christianity, was the prevalence amongst them of demonolatry or the worship of evil spirits. No where does it prevail to a greater extent than in Tinnevelly, where it constitutes the religion of the Shanars and of the whole of the lower classes, and enters very largely into the religion of the middle classes. The objects of worship are neither gods nor heroes, but demons, which are supposed to have got the actual administration of the affairs of the world into their hands, and those demons are so numerous and cunning, so capricious and malicious and powerful, that it is necessary to worship them very sedulously to keep them from doing mischief.

Many thousands of the Shanars are Christians and four of our principal mission stations are in the palmyra forest.

22. "The most important and essential feature in the worship of all demonolators is the devil-dance. The officiating priest or devil-dancer who wishes to represent the demon, sings and dances himself into a state of wild frenzy and leads the people to suppose that the demon they are worshipping has taken possesion of him, after which he communicates to those who consult him the information he has received. The fanatical excitement which the devil-dancer awakens constitutes the chief strength and charm of the system, and is peculiarly attractive to the dull perceptions of illiterate half-civilized tribes. The votaries of this system are the most sincerely superstitious people in India. There is much ceremony but little sincerity in the more plausible religion of the higher classes, but the demonolators literally believe and tremble. In times of sickness, especially during the prevalence of cholera, it is astonishing with what eagerness, earnestness, and anxiety the lower classes worship their demons."

23. The Pullers were lately slaves, but are now agricultural labourers. They are never found north of the Coleroon, or far away from the rice lands, and are peculiar to the Trichinopoly, Tanjore, Madura, and Tinnevelly Districts. They receive annual wages in kind, and seem to have but one object in view, and that is to do as little as they can for their wages. Some few have land of their own, but none have yet acquired any considerable amount of property.

24. There are no Brinjaries, Lumbadies, Wudders, Salt Koravers, or other roving tribes in Tinnevelly. The Pariars are not numerous, but they are found in various parts of the district.

Proceedings of the Madras Government, Revenue Department, 3rd May 1872.

REVENUE HISTORY—THE HINDU SYSTEM.

25. Under the Hindu dynasty the wet lands were lightly assessed, and payment was taken both in kind and money. From 4 to 5 Cottahs of grain, together with from 8½ to 10½ Rs. in money, is stated to have been the limit of assessment for the Cottah of land.

Paragraph 4 of Board's Proceedings No. 1,546, dated 6th May 1857.

The Cottah of grain is equal to 5¼ bushels.

The Cottah of land is equal to 16·2 Acres.

Converting the grain into money at the Ulungu price of Rs. 2-11-4½ per Cottah, a fair commutation rate even for that early period.

This fact probably gave rise to the early prejudice against ryotwari, which was supposed to involve a rental in kind.

This was equivalent to from 12 Rs. to 15½ Rs. an acre, or about half of our maximum now. The dry lands paid a money rent, though, if the ryot had any difficulty in raising money, his assessment was taken in kind.

MAHOMEDAN SYSTEM.—26. The revenue system of the Mahomedans, if system it can be called, was on the contrary a mere trial of how much the district could bear by the exaction of the utmost that the ryots could pay. The grain assessment of the Hindus was raised to 8 and 4 Cottahs for river-irrigated and tank-irrigated lands respectively, with the addition of a Yavanah, or fee, of Rs. 4-10-6 per seed cottah. So far no harm was done, the aggregate assessment being much the same as before; but the grain-rent was soon after abolished in favour of a money rent, the grain being commuted into money at current selling prices, while the fee was raised to Rs. 8-4-9 per seed cottah. No one scale of assesment however lasted for any time. Changes were made according to the fancy of each renter, or on the occurrence of any pressing emergency. One year a Nazzar was added, another year the fee was reduced, but the landlord's share of the produce was raised. The fee was then raised again till the ryots were unable to pay. At one time the commutation rate was fixed at the market price, and at another at a little above it.

A. D. 1750.

1758.

1770.

1770.
1774.
1784.

1791.

All this was changed again for a division of the net produce, one-half being taken by Government, *plus* fees and nazzars and a certain extra allowance of grain. Next, 60 per cent. of the gross produce was taken as the Government share, and during the last few years of Mahomedan rule, an equal division of the net produce was again reverted to, but the fees of all kinds were raised.

27. ENGLISH SYSTEM.— When the country came under British rule in 1801 the first Collector endeavoured to impress on the ryots "a sense of the moderation and justice of the Company, and of the stability of their Government, by advances to the extent that might be actually required for the repair of the tanks and water-courses that had been falling uninterruptedly into decay since the extinction of the Hindu Government." Some of the fees and all the Nazzars

A straw tax, channel merah, desacaval or black mail to the Poligars, Curnum's russoom etc., continued for some time, and were abolished at a much later period.

were abolished, and, deducting cultivation expenses, the net produce was divided equally between the Government and the ryot. The people were naturally suspicious, and "unwilling to accept the responsibility of a money rent," for a division of the produce with the renter was the only security they had lately had for the safety of life and property, and it had been customary for all those who could to run away after harvest till re-assured by advances of grain to sow with and by specious promises of some better terms of rent.

28. AMANI.— For some time the district was under Amani, that is, the crop was grown and shared under the immediate supervision of the Revenue Officers, and the Government share was taken in kind. This arrangement was thought to place "the market at the command of Government so that no combination could be made to undervalue the grain," but it was soon found to encourage all kinds of peculation and fraud on the part of subordinates, and to throw half the grain in the country on the hands of Government, who could only sell at a loss. Much uncertainty was felt as to the best system to introduce in supersession of Amani. An assessment in money was absolutely necessary, but the Government had seen the impolicy of placing power in the hands of the Poligars, and were unwilling to add to the class of large landowners, while the villagers refused to rent their villages on the joint tenure system.

Jummahbundy Report of 1802.

29. Thus Amani continued till 1807, when Mr. Hodgson represented that there was no longer any objection to rent out the district in large farms, as "the Government had established Courts of Justice, and the Poligars had been deprived of civil and criminal jurisdiction and power over the lives and services of their people;" and, as to the alternative systems proposed, he thought that a village rent was impracticable, owing to the difficulty of disposing of the produce for money, and that ryotwari was altogether unsafe, as "under a ryotwari rent there was no demand for the labour of a ryot who cultivates only what he pleases, and the inducement for him to extend his cultivation must depend on the success of the past year."

That the ryot when left to himself does extend his cultivation under a ryotwari tenure may be seen from the following Statement:—

Description.	Cultivation of 1808. Acres.	Cultivation of 1868. Acres.
Wet	149,262	173,466
Dry	407,018	1,128,864
Total ...	556,280	1,302,330

30. TRIENNIAL LEASE.—The result was a sort of mixed system of rental, the villages being rented to the villagers if they would take them, and if not, to Moottadars, or large farmers, on a triennial lease, the terms of which were fixed on the average assessment of the past six years; but the rents soon fell in arrears, and Amani was again reverted to.

1808.

31. DECENNIAL LEASE.—A decennial lease was next tried, but with much the same result; for the commutation rate was fixed at a figure so dangerously near the selling price that it allowed no margin for an adverse state of the market; and, as the market happened to be greatly depressed soon after this rate was fixed,

the average price of grain throughout these 10 years was actually 11 per cent. below the commutation rate.

32. ULUNGU.—It was next proposed to reduce the term of the fixed commutation rate from 10 to 5 years, but the ryots refused to accept any rate for a longer period than one year. An annual valuation of the Government share of the produce was accordingly determined on, and this system, under the name of Ulungu, continued in force from 1822 till 1859.

33. Though the Ulungu system was simple in practice, it is somewhat difficult of explanation. The prices of grain during 9 years of the decennial lease were collected to form an average, and after striking out the prices of the two highest years, and one lowest year, and after making some discretionary remissions, the average of the remainder was fixed on as the Ulungu standard. This amounted to Rupees 2-11-4½ per grain cottah for both Kar and Peshanam, and the commutation rate of each subsequent year was adjusted with reference to this standard as under.

Equivalent to 9 Annas 6 Pice per Harris cullum.

The average price of November, December, and January for Kar, and of March and April for Peshanam, was compared with the standard for each group of villages affected by any particular market. Thus if the average selling price of the current year was more than 10 per cent. in excess of the Ulungu standard, 10 per cent. of the standard was struck off the average selling price, and the remainder was adopted as the commutation rate for that year. If the average selling price was within 10 per per cent. above, or 5 per cent. below the standard, the standard itself was adopted; but if the average selling price was more than 5 per cent. below the standard, 5 per cent. of the standard was added to the selling price as the commutation rate for that year.

The Ulungu standard of price was thus modified to suit each separate group, and it varied from Rupees 2-1-11 to Rupees 3-9-8 per seed cottah, according to locality.

34. FIELD ASSESSMENT.—For some time it was left to the people to settle among themselves the proportion of assessment to be borne by each field, but in 1825 the Board ordered the introduction of a field assessment. This was to be effected in theory by a valuation of all the lands in the district with reference to situation, irrigation, etc., but it resulted in practice in a mere arbitrary distribution of money rates in only 15 villages.

These rates were too numerous, and were imposed without much reference to the soil, or the real capabilities of the fields. The subject however gave rise to a long correspondence, but the result was insignificant, and nothing was done after Mr. Kindersley quitted the district.

35. The original standard of yield (to which the Ulungu commutation rate was applied) was probably much underrated, as it was based on data collected when the district was under Amani, and when it was much to the interest both of the ryots and subordinate revenue officers to return the yield at as low a figure as possible. The Ulungu system therefore was not felt to be very oppres-

Board's Proceedings No. 1,548, dated 6th May 1857.

Had Ulungu continued till now, the revenue drawn from this district would have been out of all proportion to that drawn from neighbouring districts. It would have doubled and trebled on the same area within a very few years, and the district instead of progressing, as it has done under a different system, must have retrograded till only the very best lands remained in cultivation.

sive, while prices were low and tolerably steady always; but when prices began to rise rapidly, as they have risen of late years, the Ulungu system broke down, and a change became a necessity.

36. MOTAFYSAL.—The change effected was merely applying the standard Ulungu price to the fixed standard yield of each village as a permanent commutation rate. This is known as Motafysal, or lump assessment, and by it in theory all lands are charged alike. In practice, however, the lands are occasionally charged with some regard to circumstances, the assessment being on the Poravu or area under any particular tank or channel; or on the chey or block; or on the average of the lease or puttah. These deviations from the system are virtually attempts to obviate the injustice of applying the same rate to good and bad land alike, but they have only partial success, and are restricted to certain localities, and it is not till a settlement based on the productive qualities of soil is introduced, that the inferior lands will be treated with due regard to the circumstances that cause their inferiority.

37. DRY LAND ASSESSMENT.—The dry lands were originally assessed by Mr. Lushington in 1802 by fixing on each chain of land a percentage proportion of the total dry land assessment of the village. This assessment was better apportioned soon after by a rough survey and classification of the fields, and, on the expiration of the decennial lease, a comparison was made "with the former accounts, and the proportion which they showed the cultivation of the higher classes of land to have borne to the whole extent of the village, was entered in the Jummahbundy of that village as the cultivated area of those classes of land, for that Fasli, without any actual examination of the land." This was, as the Collector acknowledges, a somewhat arbitrary proceeding, but it was accepted by the ryots without objection, as their dry land assessment had never been high, and a very large percentage of area was classed in the lower tarams. No changes have been made since then, and the dry land assessment still continues low, though the system under which it is charged is confused and in an unsatisfactory state.

The Chain is equivalent to 3·64 acres.

Jummahbundy Report of Fusly 1235.

38. The foregoing paragraphs contain a general description of the district and its past revenue history, but the various processes by which the settlement is arrived at have yet to be explained. These are—

1.—The classification or division of the soil into classes.

2.—Ascertaining the produce of each of these classes.

3.—The conversion of the produce into money.

4.—The deduction of cultivation expenses from the money values.

5.—The adoption of half the remainder as a standard scale of assessment.

6.—The modification of this standard scale to groups of villages formed according to relative advantages of irrigation, situation, etc.

39. CLASSIFICATION.—The tables used in Trichinopoly and Salem have been considerably altered to suit the requirements of the irrigated lands of this district, for, though the same number of tarams of classes finally appears in the table, the number of grades of distinction made use of in valuing soils in the field are more numerous, and the classification has been made with a greater degree of nicety

than was ever before attained. Particulars of the change in the table were put before the Board with my letter of 6th November last; but, as the Board deferred all comment till acquainted with the results, I will merely rep at my explanation, and remark that I have had the new table in use for a year, and have found it to answer perfectly. The principal difference between it and the old table is the division of the* 5 soils into 5 sorts each instead of into three. There are thus 25 varieties of soil instead of 15 as formerly, but many of these yield alike, and all are finally merged in 7 tarams or classes. The relative valuation of soils is far more perfectly arranged in the new table than in the old, and slight differences of fertility of soil in the same class are dealt with without making those marked distinctions in assessment that were unavoidable formerly. How this is managed may be seen by a glance at the table, in which the first class comprizes the best black loam alone, the second class the best red loam with the second sort of black loam, and the third class the best sort of black clay, black sand and red sand with the second sort of red loam and the third sort of black loam. The best sorts of all the soils (with the second and third of one and the second sort of another) thus form the first three classes, and the inferior sorts are all exhausted in the course of four classes more.

* Black Clay.
,, Loam.
,, Sand.
Red Loam.
,, Sand.

Excluding on both sides the "permanently improved series."

40. Experience has shown that classification by tracts is infinitely preferable to classification by fields, and the introduction of the former system here has met with the Board's approval. The former table did not provide for the nice distinctions requisite to classify by tracts. There was too great a difference in the values assigned to the various sorts of the same class. Loam is the soil most commonly met with under irrigation, and the wide separation of ordinary and inferior loams in the old table occasioned too marked a difference in the assessment of fields that perhaps only slightly varied from each other in fertility, situation, irrigation, etc. Thus the assessment of an acre of ordinary black loam at the standard rates in Trichinopoly was 6 Rs., while the assessment of an acre of somewhat similar soil which from any of the causes above mentioned was less favourably circumstanced, and so styled inferior black loam, was only Rs. 3, there being no medium between. As may be supposed there was not a difference of 50 per cent in the circumstances of two fields thus classified, and a variation of a Rupee an acre in some cases would have sufficiently marked the difference. The new table supplies intermediate grades, and so provides for the best, good, ordinary, inferior, and worst sorts of soil, instead of for good, ordinary, and worst only.

Proceedings No. 7,723, dated 25th October 1866.

4.2.

4.3.

41. The classification of dry lands is simple. The area irrigated by small rain-fed tanks, or by baling from channels is classed as "best permanently improved" 2.1, and that watered by baling from wells as "ordinary permanently improved" 2.2. The wells are few in number, and are but little used, as labour is

scarce in the valley. There are no black alluvial dry lands scattered among the rice fields, as in Trichinopoly, nor any rich red loams in the hollows, as in Salem, the bulk of the dry lands being gravelly sides of the valley which are so uniformly poor and barren that one rate of assessment might be applied to all. I have however picked out the better lands here and there, and for the sake of uniformity have divided the soil into five sorts each as was done for the irrigated lands.

42. The classification table is given below :—

Wet.				Dry.			
Soil.	Classification. Class.	Classification. Sort.	Assessment class.	Soil.	Classification. Class.	Classification. Sort.	Assessment class.
Best black loam	4	1	1	Best permanently improved Ordinary permanently improved	2 2	1 2	1 2

Wet.				Dry.			
Soil.	Classification. Class.	Classification. Sort.	Assessment class.	Soil.	Classification. Class.	Classification. Sort.	Assessment class.
Good black loam	4	2	2	Best black loam	4	1	3
Best red loam	7	1		Best black clay	3	1	
Best black clay	3	1		Good black loam	4	2	4
Ordinary black loam	4	3		Best red loam	7	1	
Best black sand	5	1	3	Good black clay	3	2	
Good red loam	7	2		Ordinary black loam	4	3	
Best red sand	8	1		Best black sand	5	1	5
Good black clay	3	2		Good red loam	7	2	
Inferior black loam	4	4	4	Best red sand	8	1	
Good black sand	5	2		Ordinary black clay	3	3	
Ordinary red loam	7	3		Inferior black loam	4	4	
Good red sand	8	2		Good black sand	5	2	6
Ordinary black clay	3	3		Ordinary red loam	7	3	
Worst black loam	4	5		Good red sand	8	2	
Ordinary black sand	5	3	5	Inferior black clay	3	4	
Inferior red loam	7	4		Worst black loam	4	5	
Ordinary red sand	8	3		Ordinary black sand	5	3	7
Inferior black clay	3	4		Inferior red loam	7	4	
Inferior black sand	5	4	6	Ordinary red sand	8	3	
Worst red loam	7	5		Worst black clay	3	5	
Inferior red sand	8	4		Inferior black sand	5	4	8
Worst black clay	3	5		Worst red loam	7	5	
Worst black sand	5	5	7	Inferior red sand	8	4	
Worst red sand	8	5		Worst black sand	5	5	9
				Worst red sand	8	5	

43. I have been able to classify the Tenkasi, Ambasamudrum, and Tenkarei Taluqs myself, and to supervise field work generally in the Tinnevelly Taluq.

Mr. Symonds classified the Nanguneri Taluq. No field work was ever done more carefully, or accurately, or more completely under the eye of the European Officers. No opening was left for fraud; all doubtful points were discussed and settled on the ground, and there are very few villages that need be looked at again before Settlement.

The results are given below :—

Soil.	Classification. Class.	Classification. Sort.	Assessment class.	Area.	Single crop Assessment.	Percentage.
Best black loam	4	1	1	23,073	193,872	23
Good black loam	4	2		20,341	142,099	
Best red loam	7	1		6,278	41,036	
			2	26,619	183,135	27
Best black clay	3	1		228	1,436	
Ordinary black loam	4	3		10,475	57,005	
Good red loam	7	2		9,823	54,705	
Best red sand	8	1		728	3,830	
Best black sand	5	1		2,065	12,298	
			3	23,319	129,274	23
Good black clay	3	2		211	922	
Inferior black loam	4	4		3,673	14,385	
Ordinary red loam	7	3		10,503	45,381	
Good red sand	8	2		2,720	11,386	
Good black sand	5	2		871	3,728	
			4	17,978	75,802	18
Ordinary black clay	3	3		13	65	
Worst black loam	4	5		2,247	7,802	
Inferior red loam	7	4		3,875	14,424	
Ordinary red sand	8	3		1,672	5,858	
Ordinary black sand	5	3		60	180	
			5	7,867	28,329	8
Worst red loam	7	5		371	1,224	
Inferior red sand	8	4		69	207	
			6	440	1,431	½
Worst black sand	5	5		44	88	
Worst red sand	8	5		532	1,619	
			7	576	1,707	½
				99,872	613,550	100

44. The high standard attained by this classification is unparalleled in any district. Seventy-three per cent. of the irrigated area falls in the first 3 classes; 18 per cent. in the fourth; 8 per cent. in the 5th; and only one per cent. in the two last classes. The reverse is the case with the dry lands. Three per cent. of the entire area is classed as permanently improved in the first 2 classes, and this includes the lands under small rain-fed tanks transferred to the head of dry. Of the remaining *bona fide* dry land I have picked out the best patches for the higher classes, but there is only 28 per cent. that falls between the third and seventh classes inclusive, while 19 per cent. is in the 8th class and 50 per cent. in the last class.

45. Gross Produce.—Two hundred and fifty-six experiments have been made to test the yield of irrigated lands. These experiments have all been made in* Peshanum, which I have accepted as the first crop in preference to Kar, though the yield of the latter is larger; for Peshanum is the staple everywhere from Madras to Cape Comorin, and is *the* crop in single crop lands, whereas Kar is only grown in those lands that have water sufficiently for two crops. These 256 experiments were conducted by European Officers, Taluq Tahsildars, and others, and consisted of reaping and threshing ½ of an acre in every case. The tendency as usual has been to test the yield of the better rather than that of the inferior lands; but this could hardly be helped, for the river valley consists mainly of black and red loam much above the average, and there is only a small percentage of area classed as inferior soil. It is, moreover, of the first importance in making a settlement to ascertain the relative values of the superior soils, as the yield of the others can easily be adjusted to these. In this district, though we have a fair proportion of experiments made in inferior soils, the result throughout is satisfactory.

* The 5 months' crop sown in October and reaped in February.

The 3 months' crop sown in June and reaped in September.

Ninety-seven experiments were made in the best black loam, 65 experiments in good black loam, 2 experiments in ordinary black loam, and 19 experiments in inferior black loam. Twenty experiments were made in the best red loam, 16 experiments in good red loam, and 20 experiments in ordinary red loam, leaving only 17 experiments made in the inferior soils.

Proportion of area of inferior soils, 9 per cent.
Proportion of experiments made in these soils, 7 per cent.

46. The ryots have been consulted in all the taluqs, and, though unaccustomed to draw fine distinctions, they have their valuation of good, ordinary, and indifferent soils. Thus they state the yield of a good crop of paddy to be 52 cullums in best black loam: our experiments make it 47 cullums. I have, therefore, fixed 50 cullums as the settlement standard. The ryots pass over the intermediate grade, and give 38 cullums as the average yield of ordinary black loam. Our experiments make it 41 cullums, and I have fixed 40 cullums as the settlement standard. Halving the difference between the value assigned to best and ordinary gives 45 cullums for good black loam, which is ascertained by experiments to yield 44 cullums. I have, therefore, fixed 45 cullums as the settlement standard. The

The ryots give their figures in cottahs, the local grain measures here, but I have shown the equivalent in Harris cullums to admit of comparison with other districts. The Harris cullum contains 24 Madras measures and 4½ cullums go to the cottah.

ryots value the worst black loam at 28 cullums: our experiments give 28 cullums. I have fixed the settlement standard at 30 cullums. Halving the difference between the value assigned by the ryots to ordinary and worst black loam gives 33 cullums for inferior black loam: our experiments make it 34 cullums, and I have fixed 35 cullums as the settlement standard. Black clay is seldom found in the river valley, and it is sufficient to mention here that the best sort is valued with ordinary black loam at 40 cullums. Black sand is found more frequently; the ryots value the best sort at 38 cullums. Our experiments make it 41 cullums, and I have fixed 40 cullums as the settlement standard. No experiments were made in good and ordinary black sand, but the ryots value the latter at 27 cullums, and I have taken 30 cullums as the settlement standard. Halving the difference between the ryots' valuation of best and ordinary gives 32½ cullums as the value of good black sand, and I have taken 35 cullums as the settlement standard. Inferior and worst black sands are hardly found, but are valued at 25 and 20 cullums respectively. In like manner with the red series, the best red loam is not rightly understood by the ryots who would rather class it in the black series, the surface having become nearly black by manure and cultivation, but good red loam they value at 38 cullums. Our experiments make it 41 cullums, and I have fixed the settlement standard at 40 cullums. Ordinary red loam they value at 34 cullums: our experiments make it 35 cullums, which I have fixed on as the settlement standard. The ryots pass over inferior red loam, and give 25 cullums as the value of the worst red loam. No experiments were made in this sort. I have accepted the ryots' valuation as the settlement standard. Halving the difference between the ryots' valuation of ordinary and worst gives 29½ cullums for inferior red loam. Our experiments make it 31 cullums, and I have fixed on 30 cullums as the settlement standard. In red sand the ryots value best red sand at 37 cullums. Our experiments make it 42 cullums, and I have fixed the settlement standard at 40 cullums. The ryots pass over good red sand, and give 27 cullums as the value of ordinary red sand. No experiments were made in this sort, but I have fixed 30 cullums as the settlement standard. Halving the difference between the ryots' valuation of best and ordinary gives 32 cullums for good red sand. Our experiments make it 35 cullums, and this I have fixed as the settlement standard. Inferior and worst red sand scarcely exist in the river valley, but they were nominally valued at 25 and 20 cullums respectively.

47. The following statement exhibits these figures in juxta-position:—

Soil.	Yield as estimated by the ryots in Harris cullums.	Yield as per experiments of produce in Harris cullums.	Settlement valuation in Harris. cullums.
Best black loam	52	47	50
Good black loam	...	44	45
Ordinary black loam	38	41	40
Inferior black loam	...	34	35
Worst black loam	28	28	30
Best black clay	38	42	40
Good black clay	...	...	35

Soil.	Yield as estimated by the ryots in Harris cullums.	Yield as per experiment of produce in Harris cullums.	Settlement valuation in Harris cullums.
Ordinary black clay	31	...	30
Inferior black clay	...	...	25
Worst black clay	19	...	20
Best black sand	38	41	40
Good black sand	...	...	35
Ordinary black sand	27	...	30
Inferior black sand	...	...	25
Worst black sand	18	...	20
Best red loam	...	46	45
Good red loam	38	41	40
Ordinary red loam	34	35	35
Inferior red loam	...	31	30
Worst red loam	25	...	25
Best red sand	37	42	40
Good red sand	..	35	35
Ordinary red sand	27	...	30
Inferior red sand	...	...	25
Worst red sand	17	...	20
Average...	31	39	33

48. The standard measurement of area is the seed cottah, and this takes one cottah of grain to sow. The cottah is divided into 21 mercals of 8 seers each, and the people are accustomed to frame all their calculation of produce and agricultural requirements on the cottah and mercal. Thus a full crop is 21 cottahs, or 21 times the seed sown; the yield of straw is a double bundle per mercal or 42 bundles per cottah, and the land requires a bandy-load of manure for each mercal, or 21 loads per cottah. Again, the rental of land is often 21 cottahs per cottah (first and second crop inclusive), but all these calculations are based on a maximum standard for the best lands only, and vary in proportion to the circumstances of the inferior lands. There are certain very poor lands that yield as little as sixfold, but such are rare, the average yield under river-irrigation being acknowledged to be twelvefold, and this I find to have been its valuation by Mr. J. Cochrane in 1805. Twelvefold is 2,016 seers or 1,320 Madras measures or 55 Harris cullums per cottah, equivalent to 34 Harris cullums per acre. This is 3 cullums more than the average of the ryots' estimates, and one cullum more than the average arrived at by the settlement processes.

The equivalent of 1·62 acres.

The equivalent of 168 seers or quarts or 5¼ bushels.

49. In 1866, Mr. Banbury made 179 experiments in the yield of Peshanam paddy, but the result he arrived at was beyond all reason excessive, as he assumed the average yield of the 5 river-irrigated taluqs to be eighteenfold, or 1,194 Madras measures an acre. I doubt if any large tract of country in India ever yielded such an average, and here I feel sure that the average is not very much above twelvefold, 744 Madras measures according to the ryots' estimate, and 792 measures according to the settlement processes. What is called a full crop in the best land is twenty-onefold, though there are lands which high farming will make to yield

twenty-fivefold, but these are very exceptional, and are farmed at a cost far beyond my allowance for cultivation expenses. Mr. Banbury's calculations are no doubt excessive throughout, for besides assuming the average yield to be within 6 measures an acre of the 1,200 measures I have fixed on here as the maximum, and which Mr. Master thought "to be the highest grain value that it was prudent to fix for the Godavery," a district richer than Tinnevelly, even in minor matters, his calculations are far in excess of mine. For instance, he estimates each mercal of land to yield 3 bundles of straw worth 3 Annas a bundle, and so to pay its assessment by straw alone; whereas, in reality, a mercal of land yields but two bundles of straw, and these are not worth more than two Annas each on the threshing floor. Straw is high-priced near a town, and will no doubt pay the assessment of some lands, but there are places where straw is not saleable, and my estimate of 2 Annas a bundle, or 5¼ Rs. for the straw grown on each cottah of land, is quite high enough for an average.

At the time Mr. Banbury wrote there was great scarcity in the northern taluqs, and hundreds of carts laden with grain and straw were travelling northwards daily.

50. I am fully satisfied with the fairness and approximate accuracy of my estimate of yield throughout, and feel sure that it cannot be safely increased. It averages 792 Madras measures an acre, whereas in Trichinopoly it was 648 and in the lower taluqs of Salem 642 measures an acre.

Soil.	Estimate of the yield of irrigated land in		
	Trichinopoly.	Salem.	Tinnevelly.
	Harris cullums.	Harris cullums.	Harris cullums.
Best permanently improved	45	45	...
Ordinary permanently improved	40	40	...
Best black loam	40	40	50
Good black loam	...	...	45
Ordinary black loam	35	35	40
Inferior black loam	...	...	35
Worst black loam	24	15	30
Best black clay	35	30	40
Good black clay	...	...	35
Ordinary black clay	30	25	30
Inferior black clay	...	...	25
Worst black clay	18	12	20
Best black sand	30	30	40
Good black sand	...	...	35
Ordinary black sand	25	25	30
Inferior black sand	...	...	25
Worst black sand	18	15	20
Best red loam	30	35	45
Good red loam	...	...	40
Ordinary red loam	23	30	35
Inferior red loam	...	...	30
Worst red loam	13	15	25
Best red sand	23	30	40
Good red sand	...	...	35
Ordinary red sand	18	20	30
Inferior red sand	...	...	25
Worst red sand	13	12	20
Average...	27	26¼	33

51. No experiments worth recording were made in dry land, for no staple crops are grown on the dry lands of the river valley, but merely Samei and Gram, and not very much of these. Half of the area held on puttah is never cultivated at all, and the other half is only ploughed once in two, three, or four years. With such soil to deal with, it would be a mere farce to go through the Settlement processes, and work out data for a table of rates, when sufficient data have been already worked out three times over for Trichinopoly, and for the upper and lower taluqs of Salem. The rates already accepted in any one of these districts are quite sufficient for practical purposes, and, if we apply the rates for the inferior and worst soil in Salem, we shall assess 68 per cent. of the dry lands here at 6 and 4 Annas an acre.

52. Commutation Rates.—The price of grain has been recorded for nearly 100 years in this district, and there is only a break of three years in the series of price lists from 1770 to 1868.

The figures obtainable are thus fully sufficient for all purposes of calculation, and admit of averages being struck on several series of years.

	Rs.	A.	P.	Average during each period of 10 years.	Rs.	A.	P.
Average per Harris cullum of 24 Madras measures during 30 years of the last century... ...	0	12	9	1771 to 1780	0	9	4
				1781 to 1790	0	12	8
				1791 to 1800	0	13	4
During the past 30 years of the present century ...	0	11	9	1801 to 1810	0	11	6
				1811 to 1820	0	12	11
				1821 to 1830	0	10	8
During the last 38 years of the present century ...	0	14	10	1831 to 1840	0	10	8
				1841 to 1850	0	10	3
				1851 to 1860	1	0	3
				1861 to 1868	1	11	5
Total for the whole period...	0	13	5				

53. On comparing the averages it will be seen that the prices were an Anna a cullum higher during the last 30 years of the last century than during the first 30 years of this century, and 2 Annas a cullum lower than during the last 38 years of this century; with such very even averages, it is quite fair to take an average of the whole, and I have based my calculations accordingly on the total average of 13 Annas 5 Pies a cullum. These figures are the town-selling prices collected from the periodical returns and price currents submitted by the taluq officials and by all the large dealers in grain. Since I have been in this district, I have found the ryots' selling prices to be usually a Rupee a cottah less than the retail price in the towns, and, as paddy is now selling at seven Rupees a cottah in Tinnevelly, a Rupee abatement on this is equivalent to 14 per cent., and 13 Annas 5 pies a cullum *minus* 14 per cent. is very nearly what I propose.

54. A cart will convey 4 cottahs at 2 Annas a mile. The cost of cartage is thus 1 Anna 1 Pie a cullum for 10 miles, the average distance of the villages from a market town. Merchants' profits at $7\frac{1}{2}$ per cent. amount to an Anna more, and, throwing off the remaining 4 Pies for wastage, the 13 Annas 5 Pies are reduced to 11 Annas, at which rate I propose to convert the grain into money. This is undoubtedly high, 16 per cent. higher than the Ulungu standard rate of 9 Annas 6 Pies a cullum, under which the district has flourished for nine years, and, were it to be applied indiscriminately to good and bad lands alike on the motafysal system at present in force, the district must suffer by it. It is, therefore, only in consideration of the allowance to be made by the settlement for cultivation expenses and unprofitable areas, and by grouping the inferior villages, that I am emboldened to propose a rate that may some day possibly be in excess of the market price.

Twenty-one bushels weighing 1,093 lbs. or nearly half a ton. The seer of paddy weighs 1 lb. 10 oz.

55. Elven Annas a cullum is 92 Rs. a garce, and considerably higher rate than any proposed for any district south of Madras. In Trichinopoly it was Rs. 66-10-8, in South Arcot Rs. 71-12-8, in the upper taluqs of Salem Rs. 75, and in the lower taluqs Rs. 83-5-4 per grace. Tinnevelly is better off no doubt than any one of these districts, but at the same time it is higher assessed and its prosperity is mainly owing to a river that never fails, and to cotton fields that produce the staple so much in demand just now.

A garce contains 3,200 Madras measures or $133\frac{1}{3}$ Harris cullums.

56. Though the assessment is paid with ease, the system under which it is levied is excessively rough and imperfect, and a very few years of low prices would throw out of cultivation nearly all the inferior lands. Prices fell last year from Rs. $13\frac{1}{2}$ to Rs. $4\frac{3}{4}$ a cottah, and, had they declined as expected, another Rupee, or to about a pagoda a cottah, they would have almost touched the rate which I propose to adopt for this district.

Rs. 3-2-5 a Cottah.

57. Mr. Master recently showed how likely it was that the commutation rate for the Godavery would have been reached two years ago had it not been for scarcity elsewhere, and the Godavery rate is 72 Rupees a garce, or 20 Rs. less than the rate I propose here. But, as before explained, it is the *mode* of applying the assessment to the lands that makes the new settlement easy, and prevents it from being oppressive even when prices fall.

Vide Board's Proceedings of 26th October 1866.

58. The following table shows the money value of the yield of each description of soil :—

Soil.	Estimated Yield.		Value at 11 Annas a cullum.	
	In Madras measures.	In Harris cullums.		
			Rs.	A.
Best black loam ...	1,200	50	34	6
Good black loam ...	1,080	45	30	15
Ordinary black loam ...	960	40	27	8
Inferior black loam ...	840	35	24	1
Worst black loam ...	720	30	20	10
Best black clay ...	960	40	27	8
Good black clay ...	840	35	24	1
Ordinary black clay ...	720	30	20	10
Inferior black clay ...	600	20	17	3
Worst black clay ...	480	25	13	12
Best black sand ...	960	40	27	8
Good black sand ...	840	35	24	1
Ordinary black sand ...	720	30	20	10
Inferior black sand ...	600	25	17	3
Worst black sand ...	480	20	13	12
Best red loam ...	1,080	45	30	15
Good red loam ...	960	40	27	8
Ordinary red loam ...	840	35	24	1
Inferior red loam ...	720	30	20	10
Worst red loam ...	600	25	17	3
Best red sand ...	960	40	27	8
Good red sand ...	840	35	24	1
Ordinary red sand ...	720	30	20	10
Inferior red sand ...	600	25	17	3
Worst red sand ...	480	20	13	12
Average...	792	33	22	11

59. Cultivation expenses.—The usual practice in the Carnatic is either to sow rice in seed beds so as to have the plants ready to put out directly the country is flooded, or to sow broadcast on ground ploughed after it has been flooded. Planting out saves time, perhaps six weeks, a great consideration in the case of double crop land, but sowing in the water is less expensive and answers sufficiently well for single crop land.

60. Planting and sowing as above are both practised in Tinnevelly, but the more usual treatment of light soil for the Kar crop is to sow the seed *dry* under these channels that can be depended on to furnish a water supply on a certain day every year. The ground is first well ploughed and highly manured, and then smoothed and pulverized till the surface is as fine as a garden bed. The seed is sown on this dry surface, and the fields are green some weeks before they get a drop of water. The stiffer soils and higher levels cannot be treated thus, but are sown or planted in the ordinary manner; but however rice is grown in Tinnevelly, whether planted or sown, in wet or dry soil, the quantity of seed used is enormous, and manure is applied with a liberality unknown in other districts.

61. The seed for an acre at the commutation rate arrived at above is worth 1 Rupee, 15 Annas, 3 Pies. The ploughing may be set off against the straw. Manure is a heavy item. Twelve bandy-loads of ashes and sweepings at 5 Annas a bandy, and one bandy-load of leaves and weeds from the jungle at 3 Rs. 4 Annas,

total 7 Rs., is no unusual allowance for an acre of the best land. In the Cauvery Districts manure is not used at all, as the river brings down silt sufficient, but here the water is pure and clear in the upper channels after the heaviest rains, and there is hardly any sediment. Sowing is a simple process, and need not be taken into account. Weeding is more important, and must be repeated twice. Fourteen women at 2 Annas each cost 1 Rupee 12 Annas. Reaping is usually performed on contract, half a cottah of grain, or 55 Madras measures, being given for reaping an acre. This at 11 Annas a cullum is worth 1 Rupee, 9 Annas, 3 Pies. Threshing, or rather treading out the grain by cattle, is also done on contract at the rate of 30 Madras measures per acre. Thirty measures are worth 13 Annas 9 Pies; stacking, carrying, kaval, fees, etc., cost another 30 measures, worth 13 Annas 9 Pies; total cost of cultivating an acre of the best land Rs. 14, and proportionately less for inferior lands, which notably get less manure. The items are as under :—

	Rs.	A.	P.
Seed ...	1	15	3
Manure ...	7	0	0
Weeding ...	1	12	0
Reaping ...	1	9	3
Threshing ...	0	13	9
Stacking, etc...	0	13	9
Total...	14	0	0

62. Net produce.—Deducting cultivation expenses from the value of the yield, gives the net produce as under :—

Soil.	Yield in Harris cullums.	Value at 11 Annas a cullum.		Deduct cultivation expenses.		Value of the net produce.	
		Rs.	A.	Rs.	A.	Rs.	A.
Best black loam ...	50	34	6	14	0	20	6
Good black loam ...	45	30	15	13	0	17	15
Ordinary black loam ...	40	27	8	12	0	15	8
Inferior black loam ...	35	24	1	11	0	13	1
Worst black loam ...	30	20	10	10	0	10	10
Best black clay ...	40	27	8	12	0	15	8
Good black clay ...	35	24	1	11	0	13	1
Ordinary black clay ...	30	20	10	10	0	10	10
Inferior black clay ...	25	17	3	8	0	9	3
Worst black clay ...	20	13	12	6	0	7	12
Best black sand ...	40	27	8	12	0	15	8
Good black sand ...	35	24	1	11	0	13	1
Ordinary black sand ...	30	20	10	10	0	10	10
Inferior black sand ...	25	17	3	8	0	9	3
Worst black sand ...	20	13	12	6	0	7	12
Best red loam ...	45	30	15	13	0	17	15
Good red loam ...	40	27	8	12	0	15	8
Ordinary red loam ...	35	24	1	11	0	13	1
Inferior red loam ...	30	20	10	10	0	10	10
Worst red loam ...	25	17	3	8	0	9	3
Best red sand ...	40	27	8	12	0	15	8
Good red sand ...	35	24	1	11	0	13	1
Ordinary red sand ...	30	20	10	10	0	10	10
Inferior red sand ...	25	17	3	8	0	9	3
Worst red sand ...	20	13	12	6	0	7	12

63. STANDARD RATES OF ASSESSMENT. — Half of this net produce is taken as the Government share, after deducting 10 per cent. for unprofitable areas now measured into fields by the survey, and which have never been charged for before. Ten per cent. was allowed elsewhere, and there is no reason for altering the proportion sanctioned for other districts. Thus the standard rates of assessment represent in round figures half the net produce diminished by 10 per cent.

Soil.	Value of half net produce.	Deduct 10 per cent.	Remainder.	Standard rates of assessment.
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Best black loam	10 3 0	1 0 4	9 2 8	9 0 0
Good black loam	8 15 6	0 14 4	8 1 2	8 0 0
Ordinary black loam	7 12 0	0 12 5	6 15 7	7 0 0
Inferior black loam	6 8 6	0 10 5	5 14 1	6 0 0
Worst black loam	5 5 0	0 8 6	4 12 6	5 0 0
Best black clay	7 12 0	0 12 5	6 15 7	7 0 0
Good black clay	6 8 6	0 10 5	5 14 1	6 0 0
Ordinary black clay	5 5 0	0 8 6	4 12 6	5 0 0
Inferior black clay	4 9 6	0 7 4	4 2 2	4 0 0
Worst black clay	3 14 0	0 6 2	3 7 10	3 8 0
Best black sand	7 12 0	0 12 5	6 15 7	7 0 0
Good black sand	6 8 6	0 10 5	5 14 1	6 0 0
Ordinary black sand	5 5 0	0 8 6	4 12 6	5 0 0
Inferior black sand	4 9 6	0 7 4	4 2 2	4 0 0
Worst black sand	3 14 0	0 6 2	3 7 10	3 8 0
Best red loam	8 15 6	0 14 4	8 1 2	8 0 0
Good red loam	7 12 0	0 12 5	6 15 7	7 0 0
Ordinary red loam	6 8 6	0 10 5	5 14 1	6 0 0
Inferior red loam	5 5 0	0 8 6	4 12 6	5 0 0
Worst red loam	4 9 6	0 7 4	4 2 2	4 0 0
Best red sand	7 12 0	0 12 5	6 15 7	7 0 0
Good red sand	6 8 6	0 10 5	5 14 1	6 0 0
Ordinary red sand	5 5 0	0 8 6	4 12 6	5 0 0
Inferior red sand	4 9 6	0 7 4	4 2 2	4 0 0
Worst red sand	3 14 0	0 6 2	3 7 10	3 8 0

64. GROUPING OF VILLAGES.— As the forgeoing estimates have been framed on a high standard of yield, some deduction is necessary for unfavourable seasons or failure of crop. The villages have, therefore, been formed into groups and the standard rates have been modified to suit the circumstances of those groups that are most likely to suffer from a deficiency of water supply. Thus the full rates are applied to the best villages centrally situated and well-irrigated, but are slightly modified for the villages rather less favourably situated and less certain of irrigation, and are still further modified for the outlying villages at the end of the channels and along the foot of the hills.

65. Sixty-four of the choicest villages form the first group; 127 ordinary villages form the second group; 131 outlying and inferior villages form the third group; and 19 very poor villages, some under the two worst chanels in the Manur and Pullikottei. district and others near the sea, form the fourth group.

66. The details of each group are as follows. Commencing from the head of the valley, 10 outlying villages in the Tenkasi Taluq irrigated by small streams and disadvantageously situated to the north of the Shenkottah territory are placedin the third group; and 10 villages round the town of Tenkasi, south of the Shenkottha territory and well-irrigated, are placed in the second group. East of Tenkasi, 10 villages, less freely irrigated and further away from the market, fallin the third group; and 14 poor villages both in Tenkasi and Tinnevelly, under the Manur and Pullikottei channels which carry but little water, are placed in the fourth group. The remaining 9 villages on the Sittar, from Nettur inclusive to the mouth of the river, are placed in the third group. Fifteen villages at the foot of the hills in Ambasamudram, tolerably well-irrigated, but much exposed to the ravages of wild animals, are also placed in the third group; while 14 others better situated along the main lines of road, and under the Varanadi and Gatananadi rivers and the first two Anicuts in the Tambrapurni, are placed in the second group. Four villages north-east of these, round Papagudi, towards the end of the Gatana irrigation, are placed in the third group. From Ambasamudram to Sevval, 23 villages under the Nadiyuni and Canadiyan channels form the first group. These are well situated, well irrigated, and highly cultivated. The outskirts of this group and all the villages east of Sevval to the end of the taluq, 10 in all, are placed in the second group. The first two villages under the Kodagan channel, on the north bank of the river, are also placed in the second group; and from these up to Tachanellur, 23 villages under the Kodagankal and Sutamali channels are placed in the first group. Twelve villages under the Sutamali channel and one under the Kodagan channel are placed in the second group; and 5 villages at the end of the irrigation from the Sutamali Anicut are placed in the third group. South of the river, the most westerly village in the Tinnevelly Taluq, falls in the second group, and 19 villages under the Palayan channel, centrally situated near Palamcottah, are placed in the first group. From thence to the end of the taluq, skirting the river, 12 villages under the Palayan and Marudur Melagal channels are placed in the second group; and 7 villages at the end of the Palayan channel irrigation are placed in the third group, and 2 poor villages at the end of the Pachayar irrigation are also placed in the third group. In Tenkarei, 27 villages from Karungulam to Tentiriperi on one side, and from Valnad to Arumugamangalam on the other side of the river, are placed in the second group. Twenty-five villages on the outskirts of these are placed in the third group, and 5 very poor villages near the sea are placed in the fourth group. In

A.
B.
C.
D.
E.
F.
G.
H.
I.
J.
K. Sangantiradu and Melakallur.
L.
M. Chuttrum-pudukolam.
N.
O. Turuvai.
P.
Q.
R.
S. Tadyur and Shenkolam.
T.
U.
V.
W.
X.

Nanguneri there are but two groups. Thirty-eight villages near the foot of the hills, well-irrigated and fairly situated, are placed in the second group, and 44 villages further from the source of irrigation are placed in the third group.

67. There is no grouping for dry lands, for all are poor alike, with the exception of a narrow belt at the foot of the hills that receives occasional showers from the south-west monsoon; but what these lands gain in fertility they lose in position, so no distinction has been made in their favour.

68. To illustrate the effect of this grouping, an acre of the best black loam in Shermadevi will be charged Rs. 9 and an acre of the same soil in Tenkasi Rs. 8, in Sundrapandiyam Rs. 7, and in Mayamankurichi Rs. 6, these villages representing the first, second, third, and fourth groups respectively.

69. RATES OF ASSESSMENT ARRIVED AT.—The following are the rates arrived at:—

Taram or Class.	Standard rates for the 1st group.	Modified rates for the 2nd group.	Modified rates for the 3rd group.	Modified rates for the 4th group.
	RS. A.	RS. A.	RS. A.	RS. A.
1	9 0	8 0	7 0	6 0
2	8 0	7 0	6 0	5 0
3	7 0	6 0	5 0	4 0
4	6 0	5 0	4 0	3 8
5	5 0	4 0	3 8	3 0
6	4 0	3 8	3 0	2 8
7	3 8	3 0	2 8	2 0

70. These rates when applied to the classified area show 10 per cent. of it to be charged Rs. 9, 17 per cent. Rs. 8, 15 per cent. Rs. 7, 19 per cent. Rs. 6, 15 per cent. Rs. 5, 15 per cent. Rs. 4, and only 9 per cent. to be charged at less than Rs. 4, an acre, the average assessment for the 1st group being Rs. 8 Annas 6 an acre, for the second group Rs. 6 Annas 11, for the third group Rs. 4 Annas 11, and for the fourth group Rs. 3 Annas 9 an acre, total average Rs. 6 Annas 2 an acre.

71. INCREASE OF AREA BY SURVEY.—These rates are, however, virtually increased by the increased area to be charged for. It is true that this increase of area is nothing considerable as compared with other districts, but it is still sufficient to add Rs. 92,789 to my Settlement. The increase is 10 per cent. or just about the area of the channels, banks, paths, etc., measured into fields by the survey. A large extent of concealed cultivation was brought to account in the pymaish of 1802, and as the measuring rod since used was a trifle under its nominal length, as a natural consequence there is very little to bring to account now in villages that were fully cultivated at the time that the pymaish was made. This additional 10 per cent., however, will raise the average to Rs. 9-3-0 for the first group, Rs. 7-6-0 for the second group, Rs. 5-3-0 for the third group, and Rs. 3-15-0 for the fourth group, and make the single crop average Rs. 6-12-0 an acre.

72. SECOND CROP.—This is the only district in the Presidency in which two full assessments are charged for two crops grown on the same land in one year. It is true that the full charge for the second crop only applies to the limited area classed as double crop in the original cultivation accounts, and that all other lands are charged but half assessment additional for a second crop, as is customary

in other districts, but this limited area is so highly assessed that, settle it as we will, there must be a large loss of revenue. Thirty-four thousand five hundred and ninety-five acres, as per survey, are charged a double assessment, and 24,620 acres 1½ assessment. The second crop charge on the former amounts to Rs. 2,66,006 and on the latter to Rs. 1,04,963, total Rs. 3,70,969. In Trichinopoly the second crop was compounded for at ⅓ and ¼ additional to the single crop assessment, and even if we double these rates for the first and second groups here, and charge ⅔ and ½ additional for the two higher groups, and ½ and ⅓ additional for the two lower groups, we shall still fail to account for Rs. 1,30,280 of the present assessment.

73. There is no reason whatever why the maximum of the present assessment should be twice that of other districts, or why the minimum should be equal to the maximum of other districts. It was quite accidental that the Ulungu system was introduced at all, and it was only because the Ulungu standard of yield was fixed on Kar and Peshanam separately, that two separate assessments were charged. Had there been no Ulungu, there would have been no full assessment for two crops, and it is very unfortunate for my settlement scheme that this obstacle should stand in the way, and that, for the sake of expediency, I should have to deviate from what has been done elsewhere, and recommend rates that will some day contrast unfavourably with those of other districts, when the whole Presidency comes to be settled.

74. It is not, however, likely that the people will merely compound for what grows a second crop now. As in Trichinopoly they will compound for a large area of single crop land on the chance of growing a second crop. There is much land that would grow a second crop of cholum or raggy when the water is insufficient for paddy, were not cultivation restricted by the present excessive assessment. Perhaps 20,000 acres will be thus compounded for if charged ⅓ in the two higher groups and ¼ in the two lower groups. This will add Rs. 30,000 to the revenue, and will make the total reduction on second crop Rs. 1,02,080.

75. RAIN-FED TANKS.—On either side of the river valley there are extensive tracts of high, dry, gravelly soil included in the limits of villages whose lower lands are irrigated from the river. These high lands are held on puttah, and are mostly used for grazing ground, though partially cultivated here and there. Small tanks have been constructed to irrigate 5, 10, 15, or 20 acres, but such irrigation is precarious, the tanks being dependent on falling rain, and seldom holding more than a few days' water-supply, while the area irrigated is invariably of the poorest description; but, even with these disadvantages, the assessment is usually the village average and is seldom much below it.

76. *The Board have accorded a general assent to my proposal to assess such lands as dry, and to grant permission to the ryots to cultivate them as they like, with or without irrigation, on the understanding that Government will no longer keep up the tanks. The ryots will readily assent to this, and will improve the tanks, and sink wells under them till what is now a poor barren soil will be turned into well-kept gardens.

* Board's Proceedings, dated 12th November 1866, No. 8,132.

77. There are 147 of these small tanks in 54 of the 345 villages now reported on. The aggregate area irrigated by these tanks is 1,658 acres assessed at

At 3½ Rupees an acre.

8,736 Rupees. This assessment will be reduced by settlement to 2,933 Rupees if the lands are classed as dry, and to very nearly the same figure if the lands are classed as wet. Classing them as dry, however, has the advantage of getting rid of Maramut and constant demands for remission, and the relief thus afforded to Government will more than compensate for the loss of 2,933 Rupees of revenue which after all represents but an annual outlay on repairs, or remission of 20 Rupees a tank.

No. of rain-fed tanks irrigating less than 20 acres each.	Area irrigated as per Carnams' Accounts.	Assessment as per Carnams' Account.	Assessment as per settlement if classed as dry.	Reduction by settlement.
	Acres.	RS.	RS.	RS.
147	1,658	8,736	5,803	2,933

78. PALMYRA TREES.—The Palmyras scattered about the fields are now charged for separately in addition to the assessment on the land. No tree is taxed till pruned and climbed, when it is charged as "leaf-bearing" at 2½ Pies per annum. When tapped a few years later, it is charged 5 Pies if a male tree yielding only juice, or 10 Pies if a female tree yielding both fruit and juice. These are the usual rates, but they vary in some localities from a fraction of a Pie to two Annas a tree. Any one who cuts down a tree without leave is liable to a fine of 20 years' assessment, but this rule is seldom enforced, as the village officers say nothing about trees being cut if gratified with a small fee for themselves. Every th[illegible] years the trees are inspected, and the Carnam is required to prepare a fresh "[illegible]airedupu" or detailed account of them. This inspection is really nominal, as it is beyond human power to count the trees, class them, and decide whom they belong to, within the few weeks allowed for this purpose, just before the Jummahbundy, at the very time too when the Carnam is busily engaged in preparing his other accounts. I lately had occasion to prepare a correct account of the trees for two zemin villages, at the cost of some months of labour, and the account could only be prepared at all by demarking the ground in blocks, and so sub-dividing the masses of trees; but, even when the trees are all counted and classed, the registration of ownership is as difficult as any part of the process. A man's trees may be scattered all over the village, and it does not follow that he owns a single foot of land in the village. Trees have been transferred by mortgage and sale apart from, and irrespective of, the land they stand on, and the landholders have very generally added to this complication by allowing the climbers a certain percentage of trees to keep the rest in order. Some change of system is needed, and, when the settlement is introduced, the simplest expedient will be to allow of the redemption of tree-tax at 20 years' purchase, and to tax the trees not thus redeemed at three uniform rates of 3, 6, and 12 Pies each according to class. This would enable me to enter in the Settlement Register "tree-tax redeemed" for a large percentage of the fields, and, when once the tree tax is redeemed, the ryots may cut down the trees in their fields, or plant any number they like without any additional charge.

They will naturally rather plant than cut, as palmyras are profitable, and will grow in the poorest soil. Those fields that have no trees on them now should also be entered as "tree-tax redeemed," leaving it optional to the ryots to plant, and, as there are many thousand acres of hard, gravelly soil held on puttah, which are only fit to grow palmyras, it is probable that planting will be carried on on a large scale, and that the country will be greatly benefited by the protection thus afforded from the wind, which now blows the very soil off the uplands during the prevalence of the south-west monsoon. Much of the cultivated area will thus be freed from tree-tax, but there will still remain some trees in cultivated fields that do not belong to the landholder, and a very large number on tank banks, road sides, etc., which cannot be sold, but may be taxed at uniform rates. The landholder and treeholder are unlikely to come to terms, and so cannot redeem the tax, while the sale of trees on tank banks or road sides would interfere with repairs and might be inconvenient.

79. I have worked out this scheme of purchase for each field in the Tenkasi Taluq with the following results:—

No. of fields containing palmyras held by the landholder.	Carnams' area of these fields in acres.	Land-tax of these fields in Rupees.	No. of palmyras in these fields.	Tax of these trees in Rupees.	Amount for which the Tree-tax can be redeemed at 20 years' purchase in Rupees.	Average cost of redemption per tree.
2,882	9,715	8,276	1,68,074	3,490-3-6	69,803 2-0	0-6-9

80. The other taluqs are merely estimated for, as it takes a long time to procure details for every field, but the estimate is pretty accurate. There are 1,899,940 palmyras in the river valley, assessed at 41,568 Rupees. One half of this assessment, say 20,000 Rupees, is likely to be redeemed for 4 lakhs of Rupees, and the other half is capable of being raised very considerably by the introduction of uniform rates, and by the abolition of Tree Cowle, Chatturbagam, Paller maniyam, etc., at settlement.

81. SAMUDAYAM OR COMMON LANDS.—No less than 209 villages in the river valley contain samudayam, or land held in common by shareholders. Formerly all lands in these villages were thus held, and in the earliest report on this district, it is mentioned that "the greater part of the cultivators of the fertile villages on the banks of the Tambrapurni were at one time driven out to make room for colonies of Brahmins." The Visabadi system of the north was then introduced, and for some time these colonists were contented to live as one family, sharing the produce in common. Precautions were adopted to prevent any shareholder from claiming any land as his own by obliging each man to occupy good and bad land in turn. As might be expected under such a system, no one would lay out capital even to save the land from exhaustion, and, seeing that there was every chance of the land becoming poorer and poorer annually, some communities agreed to a permanent division, some divided nearly all (the undivided portion being termed samudayam), and only a very few have made no division as yet.

Jummahbundy Report of 1802.

82. It is worthwhile trying to divide the small residue of common lands now, for, however small the samudayam may be, it still retains all the evils of the sharing system. The larger shareholders have managed to usurp more than their shares. The necessities of others have induced them to sell or mortgage shares which have fallen into the hands of strangers, who have got puttahs in their names for *lands* instead of for *shares*. Puttahs too have been granted to palmyra climbers for the trees they climb, and occasionally for the lands on which the trees are situated. Thus all is confusion; the struggle is not only between the shareholders and strangers, but among the shareholders themselves. No one can identify his share in any particular field; the weaker have lost their shares entirely, while the more powerful have extended their possessions at the expense of their neighbours. I hope to divide every village, with the exception of those in which law suits are pending, before the settlement begins, as the majority of the shareholders are glad of a chance to divide, and the abolition of this sharing system will be one of the greatest benefits that the Settlement will confer on the district.

One hundred and two have been divided lately, and many of the others are in course of division.

83. Village Service Cess.—With the exception of the Carnams or Accountants, the village servants receive hardly any emolument from the State in the villages now reported on. The Munsifs, Mirassidars, and Kavalgars mostly render public service gratuitously, the sum total paid them per annum being but 7,000 Rupees. The Carnams receive an aggregate of 20,599 Rupees annually. The Mirassidars correspond to the Manigars, Maniyams, or Natamigars of other districts, and are employed to collect the revenue and remit it to the Taluq Treasury. As they are generally the principal landholders and often resident at a distance from the village in which they hold office, they keep private goomastahs, Seti Maniyams as they are called, to perform the chief part of their duty. There is, moreover, usually a Kudi Maniyam, or representative of the people, who watches his client's interests, and conducts the business of the village generally. There are Head Kavalgars in each village who employ cooly Kavalgars under them. These, with few exceptions, are Maravers, and were no doubt originally subsidized to protect the crops from injury. To this day the Kavalgars take the crops under their sole protection, and will not allow the cultivators to watch their own crops, or even to walk through the fields after nightfall. The Kaval fees paid by the villagers are enormous, upwards of 1,000 Rupees in some villages, and, though the Kavalgars are useful as messengers and attendants on the village officers, they are more feared than loved by the people, who find their grain robbed in the ear at night, and their property constantly pilfered. It is true that an allowance was made for village service when calculating the Government share of the crop under the Ulungu system, but that system passes away when the settlement is introduced, and there will be nothing tangible left.

Vide page 830 of correspondence relating to Village Establishment.

84. A cess of $6\frac{1}{4}$ per cent. on the new assessment will provide a *bona fide* working establishment of one Munsif, one Manigar, one Carnam, and two Taliaries for each village, and will yield 63,791 Rupees for 345 villages, or 173 Rupees annually, or Rs. 15 a month for each village. The village service cess was insufficient in Trichinopoly to pay the establishment, as the emoluments were already considerable. Here, on the contrary, the emoluments are very small, and the new cess will raise them by 36,192 Rupees.

85. Road Cess.—The road cess amounts to Rs. 31,896 at $3\frac{1}{8}$ per cent. on the new assessment. This does not include the zemin lands and inams which have been separately assessed for a term of 3 years on an estimated yield of 5, 4, or 3 cottahs of grain for each cottah of wet land under the Tambrapurni, minor rivers, and rain-fed tanks respectively, and on the ascertained rent of the dry lands. A general scheme for the roads of the district lately submitted is now under consideration, and a commencement has been made with several important lines.

Board's Proceedings No. 5,781, dated 10th August 1868.

Vide my letter to the Board, No. 257, dated 8th June 1868.

86. Irrigation Cess.—An irrigation cess of 6 Pies in the Rupee, or $3\frac{1}{8}$ per cent. on the wet land assessment, will give Rs. 28,613. Some such cess is urgently needed, as the tanks and channels are falling into rapid decay. The minor arrangements on which the success of irrigation depends have been much overlooked of late years, and the establishment for the distribution of water must be largely increased in some places. Cowle Maniyams are granted for the repair of tanks or channels, and in the Tenkarei Taluq there is Pullur Maniyam, that is, the usufruct of the scattered palmyras is granted free of tax to the Pullers or agricultural labourers, to keep the channels in order; as may be supposed, these grants have degenerated into mere personal inams, and nothing has been spent on repair. This neglect is not the fault of the people, who are liberal to a degree and will pay anything to get water, but arises from divided authority and from the want of direct supervision. If the Engineer and Collector work together to lay out the money to the best of their ability and judgment, the irrigation cess is likely to develope the resources of this district to an almost incredible extent, as I calculate that the area under irrigation may be increased by 50 per cent.

Three hundred and eight shutters for the sluices were lately found wanting in one taluq.

Within the last 2 years the parties concerned have subscribed 40,000 Rupees for the Pudukudi channel, 12,000 Rupees for the Virdupatti tank, 5,000 Rupees for the Tinnevelly tank, and 2,000 Rupees for the Chintamani channel; and, as I write, the people of Kilanattum have brought 1,500 Rupees, and begged me to aid in improving their tank.

Vide my letter to the Board, No. 108, dated 6th March 1868.

87. Existing Rates of Assessment.—The Motafysal system prevails in 279 of the 345 villages now reported on; 3 pay on the quality of the Poravu or area under each tank; 10 pay according to the quality of the chey or block; 34 pay on an average struck on each puttah; 15 are taram villages, and 4 are dry, but, being intermixed with the irrigated villages, they cannot be separated from them. The assessment varies from Rs. 12-6-0 to Rs. 1-10-3 an acre for single crop wet land, and from Rs. 1-8-0 to 11 Pies an acre for dry land. The highest rates are in

the poorest taluq, Nanguneri, where some lands are charged as high as Rs. 26-10-0 for two crops, but the total average of the river valley is Rs. 8-3-0 for single crop wet land, Rs. 12 for double crop wet land, and 9 Annas an acre for dry land.

88. Available Assets of Revenue.—There is no waste, properly so-called, the whole of the culturable area being held on puttah and paid for. There is, therefore, no possibility of making up any reduction of revenue, except by the extension of irrigation; fortunately there are great facilities for this. There is no anicut on the river for the last 30 miles of its course, and the proposed works at Strivycuntam alone will increase the revenue by Rs. 1,15,716. Branches thrown off from the upper channels will perhaps add as much more to the revenue, but it is not the larger works that are always the most remunerative. A very small expenditure will increase the irrigable area under many a tank and channel, or at all events reduce the chance of failure of crop to a minimum. The people spare no pains on their part, and will cut down high levels several feet to adapt them for irrigation, but, before any alteration in the mode of distributing water is made, I think it highly necessary that the Government right to the water should be adjudicated, as any one can now bar improvement by bringing a suit in Court, and proving that his water-supply is diminished by some new work undertaken by Government.

89. Financial Results of the Settlement.—All the processes of this Settlement have been worked out at the highest figure possible. The classification brings 73 per cent. of the area into the 3 upper classes; the yield of the land is estimated at 25 per cent. higher, and the rate of conversion into money at 38 per cent higher than in Trichinopoly; the second crop charge is double that of Trichinopoly, and the road cess is not included in the money rates as it was in Trichinopoly. Take it all in all, the Settlement here will be as high as a Settlement can be made, the single crop average without cesses being Rs. 6-12-0, or only an Anna an acre less than in the Godavery. The highest assesment is Rs. 15 an acre, at which rate 10,000 acres will be charged. (The highest assessment in Trichinopoly is Rs. 10-8-0 an acre, and less than 1,000 acres are charged at that rate.) To these very high averages we must add two Annas in the Rupee for cesses, and this will increase the maximum rate to Rs. 16-14-0, and the average single crop charge to Rs. 7-9-6 an acre. The assessment of the *bona fide* dry land will hardly be affected by Settlement, for, though a large area is now held at less than the Settlement mininum of 4 Annas an acre, the assessment of the whole averages 9 Annas an acre now, and will average by Settlement 8 Annas one Pie an acre, or, with Road and Village Service Cesses, 8 Annas 10 Pies an acre.

90. The revenue to be affected by Settlement is Rs. 13,60,337 including road cess: the proposed assessment is Rs. 11,44,974 including road, irrigation, and village service cesses. The reduction is therefore Rs. 2,15,363, namely, Rs. 94,364 in single crop, Rs. 1,11,787 in second crop, and Rs. 9,212 in dry land; but from this reduction Rs. 27,599 now paid by Government for village establishment, and Rs. 2,000 of tree-tax now remitted as Puller Maniyam must be subtracted, and the net reduction by Settlement will be Rs. 1,85,764, or 13½ per cent of the present assessment.

A.

Statement comparing the proposed assessment of single crop in the valley of the Tambrapurni of the Tinnevelly District with the present assessment based on Carnams' areas.

Taluqs.	Group.	Area as per Carnams' accounts.	Assessment, Comparison, Percentage, and Average.					
			Assessment.		Decrease.	Per-centage.	Average per acre.	
			Present.	Proposed.			Present.	Proposed.
1	2	3	4	5	6	7	8	9
		Acs.	Rs.	Rs.	Rs.		Rs. A. P.	Rs. A. P.
Tenkasi	2	3,348	25,918	20,098	5,820	22	7 12 0	6 0 0
	3	13,231	82,974	58,721	24,253	29	6 4 0	4 7 0
	4	271	1,361	889	472	34	5 0 0	3 4 0
	Total.	16,850	1,10,253	79,708	30,545	28	6 9 0	4 12 0
Ambasamudram.	1	9,461	1,03,997	78,879	25,118	24	11 0 0	8 5 0
	2	8,819	72,880	55,150	17,730	24	8 4 0	6 4 0
	3	6,010	38,375	26,933	11,442	30	6 6 0	4 8 0
	Total.	24,290	2,15,252	1,60,962	54,290	25	8 14 0	6 10 0
Tinnevelly ...	1	8,113	86,176	68,583	17,593	20	10 10 0	8 7 0
	2	6,741	62,934	48,429	14,505	23	9 5 0	7 3 0
	3	5,777	36,345	28,215	8,130	22	6 4 0	4 14 0
	4	2,474	13,609	9,016	4,593	34	5 8 0	3 10 0
	Total.	23,105	1,99,064	1,54,243	44,821	23	8 10 0	6 11 0
Tenkarai... ...	2	17,479	1,57,432	1,23,055	34,377	22	9 0 0	7 1 0
	3	6,878	44,836	35,297	9,539	21	6 8 0	5 2 0
	4	770	2,606	2,601	5	...	3 6 0	3 6 0
	Total.	25,127	2,04,874	1,60,953	43,921	21	8 2 0	6 7 0
Nanguneri ...	2	5,584	57,625	33,334	24,291	42	10 5 0	5 12 0
	3	4,916	40,696	24,350	16,346	40	8 4 0	4 15 0
	Total.	10,500	98,321	57,684	40,637	41	9 6 0	5 6 0
Total...	1	17,574	1,90,173	1,47,462	42,711	22	10 13 0	8 6 0
	2	41,971	3,76,789	2,80,066	96,723	26	9 0 0	6 11 0
	3	36,812	2,43,226	1,73,516	69,710	29	6 10 0	4 11 0
	4	3,515	17,576	12,506	5,070	29	5 0 0	3 9 0
	Total.	99,872	8,27,764	6,13,550	2,14,214	26	8 5 0	6 2 0

B.

STATEMENT comparing the proposed assessment of second crop in the valley of the Tambrapurni of the Tinnevelly District with the present assessment based on Carnams' areas.

Taluqs.	Group.	Area as per Carnams' accounts.	Assessment, Comparison, Percentage, and Average.					
			Assessment.		Decrease.	Per centage.	Average per acre.	
			Present.	Proposed.			Present.	Proposed.
1	2	3	4	5	6	7	8	9
		ACS.	RS.	RS.	RS.		RS. A. P.	RS. A. P.
Tenkasi	2	1,355	7,560	5,229	2,331	31	5 9 0	3 14 0
	3	3,220	13,735	5,946	7,789	56	4 4 0	1 3 0
	4	124	449	159	290	64	3 10 0	1 4 0
	Total.	4,699	21,744	11,334	10,410	48	4 10 0	2 6 0
Ambasamudram.	1	8,484	71,381	44,863	26,518	37	8 7 0	5 5 0
	2	6,251	39,105	24,904	14,201	36	6 4 0	4 0 0
	3	2,230	9,493	4,340	5,153	54	4 4 0	1 15 0
	Total.	16,965	1,19,979	74,107	45,872	38	7 1 0	4 6 0
Tinnevelly ...	1	6,902	60,146	36,361	23,785	40	8 11 0	5 4 0
	2	4,363	39,347	18,857	11,490	38	6 15 0	4 5 0
	3	1,789	6,803	3,459	3,344	49	3 13 0	1 15 0
	4	711	2,825	1,219	1,606	57	4 0 0	1 11 0
	Total.	13,765	1,00,121	59,896	40,225	40	7 4 0	4 6 0
Tenkarai	2	11,894	88,874	54,921	33,953	38	7 7 0	4 10 0
	3	3,170	16,546	8,122	8,424	51	5 3 0	2 9 0
	Total.	15,064	1,05,420	63,043	42,377	40	7 0 0	4 3 0
Nanguneri ...	2	2,309	17,450	8,168	9,282	53	7 9 0	3 9 0
	3	1,030	6,255	2,260	3,995	64	6 1 0	2 0 0
	Total.	3,339	23,705	10,428	13,277	56	7 1 0	3 2 0
Total...	1	15,386	1,31,527	81,224	50,303	38	8 9 0	5 4 0
	2	26,172	1,83,336	1,12,079	71,257	39	7 0 0	4 5 0
	3	11,439	52,832	24,127	28,705	54	4 10 0	2 2 0
	4	835	3,274	1,378	1,896	58	3 15 0	1 10 0
	Total.	53,832	3,70,969	2,18,808	1,52,161	41	6 14 0	4 1 0

C.

STATEMENT comparing the proposed assessment of all irrigated lands (single and double crop inclusive) in the valley of the Tambrapurni of the Tinnevelly District with the present assessment based on Carnams' areas.

Taluqs.	Group.	Area as per Carnams, accounts.	Assessment, comparison, percentage, and average.					
			Assessment.		Decrease.	Per-centage.	Average per acre.	
			Present.	Proposed.			Present.	Proposed.
1	2	3	4	5	6	7	8	9
		ACS.	RS.	RS.	RS.		RS. A. P.	RS.
Tenkasi	2	3,348	33,478	25,327	8,151	24	9 15 0	7 9 0
	3	13,231	96,709	64,667	32,042	33	7 5 0	4 14 0
	4	271	1,810	1,048	762	42	6 11 0	3 14 0
	Total.	16,850	1,31,997	91,042	40,955	31	7 13 0	5 6 0
Ambasamudram.	1	9,461	1,75,378	1,23,742	51,636	29	18 9 0	13 1 0
	2	8,819	1,11,985	80,054	31,931	29	12 11 0	9 1 0
	3	6,010	47,868	31,273	16,595	35	7 15 0	5 3 0
	Total.	24,290	3,35,231	2,35,069	1,00,162	30	13 13 0	9 11 0
Tinnevelly ...	1	8,113	1,46,322	1,04,944	41,378	28	18 1 0	12 15 0
	2	6,741	93,281	67,286	25,995	28	13 13 0	9 15 0
	3	5,777	43,148	31,674	11,474	27	7 7 0	5 8 0
	4	2,474	16,434	10,235	6,199	38	6 10 0	4 2 0
	Total.	23,105	2,99,185	2,14,139	85,046	28	12 15 0	9 4 0
Tenkarai	2	17,479	2,46,306	1,77,976	68,330	28	14 1 0	10 3 0
	3	6,878	61,382	43,419	17,963	29	8 15 0	6 5 0
	4	770	2,606	2,601	5	...	3 6 0	3 6 0
	Total.	25,127	3,10,294	2,23,996	86,298	28	12 5 0	8 14 0
Nanguneri ...	2	5,584	75,075	41,502	33,573	45	13 7 0	7 7 0
	3	4,916	46,951	26,610	20,341	43	9 9 0	5 7 0
	Total.	10,500	1,22,026	68,112	53,914	44	11 10	
Total...	1	17,574	3,21,700	2,28,686	93,014	29	18 5 0	13 0 0
	2	41,971	5,60,125	3,92,145	1,67,980	30	13 5 0	9 5 0
	3	36,812	2,96,058	1,97,643	98,415	33	8 1 0	5 6 0
	4	3,515	20,850	13,884	6,966	33	5 15 0	3 15 0
	Total.	99,872	11,98,733	8,32,358	3,66,375	31	12 0 0	8 5 0

D.

STATEMENT comparing the proposed assessment of dry lands in the irrigated villages of the valley of the Tambrapurni of the Tinnevelly District with the present assessment based on Carnams' areas.

Taluqs.	Total area as per Carnams' accounts.	ASSESSMENT, COMPARISON, PERCENTAGE, AND AVERAGE.					
		Assessment.		Decrease.	Percentage.	Average rate of assessment per acre.	
		Present.	Proposed.			Present.	Proposed.
1	2	3	4	5	6	7	8
	ACS.	RS.	RS.	RS.		RS. A. P.	RS. A. P.
Tenkasi	47,7-2	44,846	32,713	12,133	27	0 15 0	0 11 0
Ambasamudram.....	43,745	19,105	16,202	2,903	14	0 7 0	0 6 0
Tinnevelly	51,385	22,697	17,665	5,032	22	0 7 0	0 6 0
Tenkarai.....	31,688	22,745	19,234	3,511	15	0 11 0	0 10 0
Nanguneri	33,676	10,988	9,713	1,275	12	0 5 0	0 5 0
Total...	2,08,216	1,20,381	95,527	24,854	21	0 9 0	0 7 0

E.

Taluqwar Statement of the proposed second crop assessment based on Carnams' areas.

Taluqs.	At ⅓.		At ½.		At ⅓.		Total.	
	Extent in Acres.	Second crop assessment in Rupees.	Extent in Acres.	Second crop assessment in Rupees.	Extent in Acres.	Second crop assessment in Rupees.	Extent in Acres.	Second crop assessment in Rupees.
1	2	3	4	5	6	7	8	9
Tenkasi	639	3,073	1,635	4,628	2,425	3,633	4,699	11,334
Ambasamudram.	9,404	51,467	6,077	20,417	1,484	2,223	16,965	74,107
Tinnevelly	6,552	36,948	5,455	20,201	1,758	2,747	13,765	59,896
Tenkarai.....	9,105	45,184	4,988	16,208	971	1,651	15,064	63,043
Nanguneri	670	3,074	2,113	6,428	556	926	3,339	10,428
Total...	26,370	1,39,746	20,268	67,882	7,194	11,180	53,832	2,18,808

F.

STATEMENT exhibiting the Carnams' area and proposed assessment of the irrigated and dry lands of the Tambrapurni valley under each money rate.

Irrigated or dry lands.	Rate per acre.	TENKASI.		AMBASAMUDRAM.		TINNEVELLY.		TENKARAI.		NANGUNERI.		TOTAL.	
		Extent in Acres.	Assessment in Rupees.	Extent in Acres	Assessment in Rupees.	Extent in Acres.	Assessment in Rupees.	Extent in Acres.	Assessment in Rupees.	Extent in Acres.	Assessment in Rupees.	Extent in Acres.	Assessment in Rupees.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	R. A.												
Irrigated lands.	9 0	...	...	4,740	42,660	5,528	49,752	...	...	...	...	10,268	92,412
	8 0	256	2,048	5,462	43,696	4,412	35,296	6,930	55,440	...	...	17,060	1,36,480
	7 0	854	5,978	3,636	25,452	3,424	23,968	5,818	40,726	1,697	11,879	15,429	1,08,003
	6 0	3,040	18,240	2,868	17,208	2,601	15,606	7,113	42,678	3,771	22,626	19,393	1,16,358
	5 0	4,260	21,300	2,957	14,785	2,359	11,795	1,864	9,320	3,125	15,625	14,565	72,825
	4 0	5,323	21,292	2,581	10,324	2,691	10,764	2,200	8,800	1,779	7,116	14,574	58,296
	3 8	2,998	10,493	1,434	5,019	1,585	5,547	854	2,989	107	375	6,978	24,423
	3 0	119	357	575	1,725	505	1,515	304	912	21	63	1,524	4,572
	2 8	...	...	37	93	...	...	...	...	...	...	37	93
	2 0	...	...	...	...	...	...	44	88	...	...	44	88
	/	16,850	79,708	24,290	1,60,962	23,105	1,54,243	25,127	1,60,953	10,500	57,684	99,872	6,13,550
Dry lands.	3 8	1,172	4,102	904	3,164	562	1,967	1,520	5,320	236	826	4,394	15,379
	2 8	357	893	21	52	198	495	718	1,795	24	60	1,318	3,295
	1 8	...	...	...	..	...	...	46	69	...	...	46	69
	1 0	4,167	4,167	...	...	...	...	211	211	...	...	4,378	4,378
	0 12	12,292	9,219	...	...	2,276	1,707	3,232	2,424	...	...	17,800	13,350
	0 8	25,461	12,730	...	...	3,725	1,863	5,760	2,880	1,654	827	36,600	18,300
	0 6	4,273	1,602	18,247	6,843	3,822	1,433	11,874	4,453	468	176	38,684	14,507
	0 4	...	...	24,573	6,143	40,802	10,200	8,327	2,082	31,294	7,824	104,996	26,249
		47,722	32,713	43,745	16,202	51,385	17,665	31,688	19,234	33,676	9,713	208,216	95,527

G.

STATEMENT comparing the proposed assessment inclusive of Cesses with the present assessment in the irrigated villages in the valley of the Tambrapurni of the Tinnevelly District.

Irrigated or dry.	Particulars.	Area.			Assessment.			Other Cesses.	Total including Road Cess.	Road Cess.	Total of all cesses.	Total assessment inclusive of all cesses.	Percentage.			Average rate of assessment per acre.		
		As per Cur-nams account.	Add 10 per cent. for increase by survey.	Total.	As per calculation.	Add 10 per cent. for increase by survey.	Total.	Village Cesses.					As per calculation.	Inclusive of 10 per cent. and Road Cess.	Inclusive of 10 per cent. and all cesses.	As per calculation.	Inclusive of 10 per cent. and Road Cess.	Inclusive of 10 per cent. and all cesses.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
		Acs.	Acs.	Acs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.				Rs. A. P.	Rs. A. P.	
Irrigated.	Present ...	99,872	9,987	109,859	8,27,764	.....	8,27,764	.....	8,53,632	25,868	.....	8,53,632	.....	.....	.....	6 2 8	6 15 6	.....
1st crop.	Proposed ...	.....	.....	.....	6,13,550	61,355	6,74,905	42,181	6,95,996	21,091	63,272	84,363	.....	.....	.....	.....	.....	.....
	Decrease ...	.....	.....	.....	2,14,214	.....	1,52,859	.....	1,57,636	4,777	.....	.....	26	18	11	.....	.....	.....
Irrigated.	Present ...	53,832	5,383	59,215	3,70,969	.....	3,70,969	.....	3,82,562	11,593	.....	3,82,562	.....	.....	.....	4 1 0	4 9 9	.....
2nd crop.	Proposed ...	.....	.....	.....	2,18,808	21,881	2,40,689	7,321	2,48,210	7,521	22,565	2,70,775	.....	.....	.....	.....	.....	.....
	Decrease ...	.....	.....	.....	1,52,161	.....	1,30,280	.....	1,34,353	4,072	.....	1,11,787	41	35	29	.....	.....	.....
Total.	Present ...	99,872	9,987	109,859	11,98,733	.....	11,98,733	.....	12,36,194	37,461	.....	12,36,194	.....	.....	.....	8 5 4	9 7 3	.....
	Proposed ...	.....	.....	.....	8,32,358	83,236	9,15,594	57,324	9,44,206	28,612	85,837	10,30,043	31	23	17	.....	.....	.....
	Decrease ...	.....	.....	.....	3,66,375	.....	2,83,139	.....	2,91,988	8,849	.....	2,96,151	.....	.....	.....	.....	.....	.....
Dry.	Present ...	2,08,216	20,822	229,038	1,20,381	.....	1,20,381	.....	1,24,143	3,762	.....	1,24,143	.....	.....	.....	0 7 4	0 8 4	0 8 10
	Proposed ...	.....	.....	.....	95,527	9,553	1,05,080	6,567	1,08,364	3,284	9,851	1,14,931	.....	.....	.....	.....	.....	.....
	Decrease ...	.....	.....	.....	24,854	.....	15,301	.....	15,779	478	.....	9,212	21	12	7	.....	.....	.....
Total.	Present ...	3,08,088	30,809	338,897	13,19,114	.....	13,19,114	.....	13,60,337	41,223	.....	13,60,337	.....	.....	.....	3 0 2	3 6 8	3 11 5
	Proposed ...	.....	.....	.....	9,27,885	92,789	10,20,674	63,791	10,52,570	31,896	92,404	11,44,974	.....	.....	.....	.....	.....	.....
	Decrease ...	.....	.....	.....	3,91,229	.....	2,98,440	.....	3,07,767	9,327	.....	2,15,363	30	23	16	.....	.....	.....

(Signed) R. K. PUCKLE,
Collector.

IN this report Mr. Puckle explains the scheme of settlement for the portion of the Tinnevelly District, watered by the Tambrapoorny river. The classification and settlement of Tinnevelly have, as the Government are aware, been under consideration since 1866, and the results, as will be seen from the present report, evidence great care and attention on the part of the officer who has matured the scheme.

2. Mr. Puckle's report opens with a sketch history of the district, setting forth its physical features and productions, its varied population, and its revenue treatment under successive systems. It is not necessary to recapitulate, or even to summarize the whole of the useful information here given; those points only will be selected for notice which bear upon the merits of the scheme.

3. Foremost among these is the cause which renders it necessary to treat this portion of the district exceptionally. Tinnevelly comprises four tracts of country, distinguished from each other by characteristics the most opposite: a sandy desert forms the south-eastern portion of the district covered with Palmyra forest and producing little else; to the north-west of this lies the highly cultivated valley of the Tambrapoorny river whose waters rarely fail. The black soil cotton tract, devoted chiefly to that species of cultivation and to tobacco and cholum occupies the north-eastern section, and to the west of this lies that portion of the district which consists almost entirely of different varieties of red soils, and enjoys no special advantages of irrigation. This brief description sufficiently explains the necessity for dealing specially with the assessment of each of these tracts.

4. Tinnevelly is the most highly assessed district in the Madras territories; the real incidence of its land-tax is far heavier than in Tanjore, where, although the amount of revenue paid by individuals averages a higher sum than elsewhere, as shown in the table given by Mr. Puckle, the rate per acre is lower than in almost any other district; besides which every family of four persons in Tinnevelly pays Rs. 2-10-0 per annum in Salt, Stamp, and Abkari taxes.

5. The comparison of the rates of taxation in Tinnevelly with those of neighbouring districts, such as Trichinopoly where revised rates are in force, or Tanjore where existing rates have been declared to need no revision, is of much importance; for whatever course be pursued in determining by classification of the soil, by test of yield, and by choice of rates of conversion, the assessment which the land shall bear, it is clearly impossible to disregard the rates of settlement already approved by the Government in districts, the conditions of which, though not corresponding with precision to those of the province in course of settlement, so

far approximate to them as to leave but a narrow margin for inequalities of assessment. There should be, the Board submit, in the revision of assessment now in progress throughout the Presidency a certain uniformity and consistency, qualified only by the consideration of the natural and artificial advantages or drawbacks observable in different districts. Thus in considering the Tinnevelly settlement, regard must necessarily be had to what has been done to the six districts* already treated by the Settlement Department.

* Godavery.	Salem.
Kistna.	Trichinopoly.
Kurnool.	South Arcot.

6. The admission of this necessary condition (for such the Board regard it to be), coupled with the instructions of the Secretary of State which define the proportion of the proceeds which is to constitute the assessment, render it unnecessary to test the result of settlement operations by a comparison with what is termed the "true rent" or the "available rent" of the land, or with its "rateable value." Indeed, under any circumstances, the Board are of opinion that these terms cannot be applied to the assessment of land in India with accuracy or propriety, because that assessment represents simply the value of the Government co-proprietary interest in the land—a strictly limited right which carries with it no authority to govern the disposal of the land by sale, mortgage, or bequest, nor even to determine the uses to which it shall be put; this authority goes with the true landlord right, and in India is vested in the ryot as the real proprietor. Practically also this condition will be found to narrow the limits within which a rate of conversion can be selected.

Under the Hindoo system private property existed till the Mahomedan Era.

"Over the whole extent of this country (Dravedu) as in every other in which the authority of the Shastres was acknowledged, one-sixth was the legitimate share of the crop payable to the sovereign. Before and after the period at which we have arrived the evidence of private property in land is so abundant that I will spare the reader the ample detail which might easily be presented to him of public recorded gifts of land from individuals to the temples, and of the constant transfer of lands by sale and mortgage in spite of all the oppressions, which the proprietors had sustained, even after that period when the pestilent doctrine of the sovereign being the actual instead of the figurative proprietor of the soil began to be promulgated by the British Government.

"The taxes of various kinds which may be levied by the King are detailed by Menu with great minuteness. Of the produce of the land* a sixth is the largest share which can be taken in ordinary circumstances, and a fourth† in times of urgent distress, but the whole term of the Institute and the Digest show that the sixth part of the crop is the King's share, which is constantly in the contemplation of all Hindoo Lawyers."

"A tenth is the traditional share paid in "India" before the institution of the sixth; it is the portion paid in (1810) the little principality of Coorg at this day, and the Dutch found and continued that tax in Ceylon."

"The commencement of the first fixed Mahomedan Government ("in Dravedu)" may be dated about the year 1691. * * * The whole financial plan of a Mahomedan Government exercised over infidels is comprised in the following short extract from their most celebrated law tract, (Hedaya Bk. 9, Ch. 7.")

"The learned in the law allege that the utmost extent of tribute is one-half of the actual product, nor is it allowable to exact more, but the taking of a half is no more than strict justice, and is not tyrannical; because as it is lawful to take the whole of the persons and property of infidels, and to distribute them among the Mussulmen, it follows that taking half their incomes is lawful a portion." * * * Those who contend for the proprietary right of the sovereign will, at this stage of oppression, certainly find him to possess one-half of the produce as a barbarous remuneration for not having murdered the original proprietor; but I will not insult my countrymen by supposing that an individual can be found among them who, knowing the nature of the right, if right it may be called, would desire to succeed to it."—Col. Wilks' "South of India," published in 1810.

* Menu, Ch. 7, V. 127—132.

† Menu, Ch. 10, V. 118.

7. Before quitting the question of comparisons, the Board think it useful to note here that, in point of natural advantages, the delta irrigated lands of Tanjore and Trichinopoly are more favoured than the valley of the Tambrapoorny. The Tambrapoorny is filled by rain which falls to the east of western ghauts, and is, therefore, less certain and less abundant than rivers, such as the Cauvery and Coleroon, which have their sources in localities where the south-west monsoon prevails in full force. The waters of this river are clear, and deposit none of that fertilizing silt which supersedes the use of manure in the lands under the Cauvery and Coleroon channels; the fertility of the valley lands is the result of exceptionally careful tillage and heavy manuring assisted by an irrigation which contributes only the condition of moisture.

8. As regards the variety of its productions and the extent and value of its export trade, the district of Tinnevelly is favourably circumstanced, and has profited largely by the prices obtained for its cotton since the American war.

9. The Board now proceed to notice briefly the revenue history of the district. Tinnevelly, like all the other districts of the Presidency, passed through the exhausting influences of Mahomedan exaction. Mr. Puckle states the Hindoo rates, which preceded that period, at a maximum of about one-half of those at present in force, but in speaking of the Hindoo system it should be remembered that the earliest historical records of India give one-sixth of the gross produce, and in time of war one-fourth of the gross produce as the limits of the sovereign's demand; whereas that system, of which the Zemindari estates throughout the country still afford us examples, shows that the original limits of the demand had been set aside by the power and cupidity of the governing authority till one-half the gross produce was taken from the occupant and real owner of the land, and though this practice fell short of the Mahomedan spoliation, it has proved sufficiently onerous (where it has been still maintained) to prevent the accumulation of wealth in the hands of the actual cultivator, whose condition under this system rises little above pauperism.

10. On the assumption of this province by the British Government, although the people were relieved from the grievous burdens laid upon them by their Mahomedan rulers, the demand of one-half the gross produce was still taken to represent the right of Government. This demand was for a while realized in kind, and when that cumbrous system became intolerable, attempts were made to farm the Government share on leases, first of three, and then of ten years' term; the value of the share being commuted at rates approximating the market-price of the day. Both these attempts signally failed, apparently from the adoption of rates of conversion which gave the grain assessment at its full value, and a yearly adjustment was then adopted by which, under the name of Ulungu, the rates of conversion varied with current prices within limits, resulting from an arbitrary but partial adjustment to a fixed standard price. All increase of price above 10 per cent. of the standard was included in the demand, while all decrease below 5 per cent. of the standard was remitted to the ryot, the Government rent thus accommodated itself to the rise and fall of the market-rates—a principle apparently sound,

but in its practical application in the form observed, of injurious tendency, not only because the adjustment of price being annual, rendered annual interference necessary a most grave evil, but because it draws too largely on the land-holder in seasons of high prices when produce is generally short, the Government alone having the benefit of all increase in price above 10 per cent. of the standard rate. Thus, supposing the increase above the standard to be 70 per cent., as has occurred frequently of late, the land-holder enjoys only 10 per cent., the remaining 60 per cent. being paid by him to Government.

11. This expedient, however, was not proof against sudden rises of the market, and as it was found that an adherence to the system during periods of high prices raised the assessment to an impossible amount, it was abandoned in favour of a very moderate permanent commutation rate, under which system the district still continues; and though, in the absence of any equitable classification of land or apportionment of assessment, gross inequalities disfigure the present arrangement, and some of its rates are exceptionally high, general contentment and prosperity have dated from the change. The abandonment of the Ulungu system was also found necessary in Tanjore. The moral of these experiments is that one-half of the gross produce, converted into money at current prices, constitutes a burden quite beyond the capacity of the land. Proof is also afforded of the extreme difficulty of maintaining equitable conversion rates, if they are governed by the fluctuation of prices.*

* Note.—Prices fell last year 29 per cent.

12. The definite abandonment by the British Government of this system was tantamount to a deliberate relinquishment of the Mahomedan claim to one-half of the gross yield taken at its market-value, and for many years past, in the modified assessments, the Government demand has never approached this limit in any part of the country; it will be found, in fact, to approach more nearly to the demand of one-fourth, sanctioned in time of war by the ancient Hindoo Institutes. From these preliminary remarks the Board proceed to follow the process by which Mr. Puckle arrives at the conclusions which are now laid before the Government, and which the majority of the Board on the whole approve and would support.

13. Mr. Puckle's scheme of classification has the entire concurrence of the Board. He has approached this task with the advantage of the experience gained in Salem and Trichinopoly, using the tables framed for those districts, but introducing the alterations which local peculiarities rendered necessary, and which his working experience approved. The classification was made over tracts instead of by fields, and although the recognition of essential differences in this mode of classification is more minute, and shows more numerous varieties of soil in the tables, there is no consequent increase of classes or "tarums" for assessment purposes; greater completeness is, therefore, gained without any accompanying inconvenience. The preponderance of lands of the better sort in the table of irrigated lands is worthy of remark, and is in striking contrast with the results of dry land classification, which show that the bulk of the dry land of the valley is of a very inferior description and incapable of bearing any but the lightest assessment.

14. The majority of the Board regard with equal confidence the result of the experiments undertaken in order to ascertain the actual yield of each class of land in the valley. It is true that the Trichinopoly experiments gave, in some cases, a higher average of production; but, on the whole, Mr. Puckle's estimates average higher than those adopted in the Trichinopoly settlement. The method followed by Mr. Puckle and his officers is one that cannot fail to furnish reliable data, provided the operations are carefully watched and results fairly recorded, and on these points no room for distrust appears; the value of the result is confirmed in a remarkable manner by the agricultural experience of the district, for the ordinary estimation of yield accepted among the ryots differ little from the results at which the settlement officers arrived.

15. These results give a range of production varying from a rare minimum of six-fold to a full crop maximum of twenty-one-fold, and it is not denied that there are a few highly favoured lands capable of producing still heavier crops; but bearing in mind vicissitudes of season and recent remissions, the Board think that Mr. Puckle, taking an average between a minimum of six-fold and an ordinary maximum of eighteen-fold, has fairly stated the mean ratio of produce at twelve-fold.

The calculation of increase stated in the Shastre is twelve-fold.

Note.—It is the practice to put down about twice as much seed in Tinnevelly as is sown in Trichinopoly and Tanjore, consequently a yield of twenty-fold on Tinnevelly seed would be forty-fold on the quantity sown in Tanjore and elsewhere.

Over three lakhs of Rupees were remitted in 1866.

16. The next two steps in the process of settlement, namely, commutation and calculation of net proceeds, must be taken together, as the Board will proceed to show. It has been already observed that the assessment of Tinnevelly is exceptionally high, being double that which obtains in the more favoured districts of Tanjore and Trichinopoly, and in excess also of the delta assessment in the Godavery District. It follows that the revision now proposed implies such an amount of reduction in the rates as will at least bring them nearer to those of these districts.

17. In Trichinopoly the Government and the Secretary of State, to whom a special reference was made, assented to a reduction of four lakhs of Rupees, and if the rates of that district were applied to the Tambrapoorny lands a still greater abandonment of revenue would result. The Board gather, however, from the remarks of Government on the settlement proposed by them for the Salem District that such a course would not have their approval or assent, and Mr. Puckle has apparently framed his settlement to meet the limits to which these considerations reduce him.

18. Most of the conditions which rule the settlement being matters of fact are of a stable character, and admit of no departure from their requirements; the quality of the soil, its average yield, the conditions which regulate the grouping of villages, the deductions which reduce gross produce to net proceeds, are all treated in this sense by Mr. Puckle, and the one remaining condition, whose fluctuations are available to modify the final result, is that of conversion price.

19. This then he has of necessity dealt with so as to reach a foregone conclusion. His commutation rate of 11 Annas the Cullum gives a net reduction on

Extract from a despatch of the Home Government No. 17 of 1856, paragraph 18.

"The fact that the holdings are generally of very small extent, that the labour is performed in most cases by the ryot and his family, and that the agricultural capital employed is usually of very small amount, does not, we apprehend, interfere with the operation of the principles to which we have adverted. The produce of the land must at least be sufficient to feed and clothe the labourer and his family and to replace the cattle and agricultural instruments as they become worn out, and besides this, a surplus must remain for the payment of the assessment imposed by the State."

ryot, nor does it satisfy the views expressed by the Home Government.

Extract describing the foundation of the Vizianuggur Dynasty in 1336.

"This share he was desirous of converting from a grain into a money-payment and established fixed rules for the conversion founded on the quantity of land, the requisite seed, the average increase, and the value of grain, the result literally conforms to the law of the Digest (Menu), namely, one-sixth to the King, one-thirteenth to the Brahmins, one-twentieth to the gods, the rest to the proprietor. * * * *

Thirty is the whole number on which the distribution is made, of which it is calculated *that fifteen or one-half is consumed in the expenses of agriculture and the maintenance of the former family*. The distribution *of the remaining fifteen stands thus* :—

(Net.)

To the sovereign ($\frac{1}{4}$th of the gross P)	5
To the Brahmin ($\frac{1}{20}$th do. do.)	$1\frac{1}{2}$
To the gods ($\frac{1}{10}$th do. do.)	$17\frac{1}{2}$
To the proprietor.....	$7\frac{1}{2}$
	15

It appears by the statement above that $7\frac{1}{2}$ parts out of 30, including the portions devoted to the gods and to the Brahmins, passed through the hands of the sovereign, this is $\frac{1}{4}$th of the gross. Fifteen out of 30 parts, or one-half the gross are deducted on account of maintenance and agriculture before dealing with the other half (which represents the net) and the proprietor and the sovereign equally divide this net residue. This is in exact conformity with the theory we are desired to carry out.

If one-half of 50 Cullums taken by Mr. Puckle as the highest gross be deducted for maintenance and expenses, and the remaining 25 Cullums divided between the ryot and the State, the assessment is $12\frac{1}{2}$ Cullums, which, commuted at the average of a century, gives Rs. 10-2-0, or nearly the same result as that exhibited in the calculation made by the Board.—(See paragraph 21.)

the existing assessment of about two lakhs of Rupees—a result which, though it places the river valley on nearly the same footing as the more favoured delta lands of the Godavery, and leaves it more highly taxed than those of the delta of the Cauvery and Coleroon, will probably meet the views of Government, as the Board apprehend them from the Salem papers. The Board cannot, however, regard the process by which Mr. Puckle deduces the net from the gross yield as complete or just to the

20. Had these deductions included the items which the Board will presently specify, the net residue commuted at the average of prices taken over an entire century instead of at the arbitrary rate of 11 Annas per Cullum, to which Mr. Puckle has been driven, would have given the same financial results as Mr. Puckle has already reached for the higher classes of land. His list of deductions includes only the ordinary charges of casual labour in cultivating and harvesting, but though these charges are commonly paid in grain, he has commuted them before deduction from the gross at the rate he has selected. The charge for manure alone should have been expressed in money and reserved for final deduction, and the others should have been deducted in grain from the yield. Mr. Puckle sets the value of straw against ploughing and keep of stock which is fair enough, but he allows nothing for subsistence and nothing for the ryot's legitimate interest on the money sunk in buildings, stock, implements, and in maintaining or renewing them, all which the Home Government have recognized as fair deductions. The proper cultivation of the land depends

Weeding.
Reaping.
Threshing.
Stacking.
Seed.
Manure.

on the constant residence of the ryot within reach of his holding, and he must feed and house himself, his family, and his stock.

Statement of Deductions to be made from the gross Yield per Acre as proposed by the Board.

Items.	Commutation Price at average of 100 years, namely, 13 Annas the Cullum.	
	Value in Grain.	Value in Money.
	Cullums. Ms.	Rs. A. P.
Subsistence for one family for one year at 40 cullums divided over an average holding of 6 to 7 acres	Say 6 Cullums.	
Ms.		
Seed for one acre 70		
Reaping 55	Ms. 245 = C. 10, M. 5	
Threshing and stacking ... 60		
Weeding 60		
	10 Culs. 5 Ms.	
Total...	16 (fractions dropped for convenience.)	
Ploughing and keep of cattle—Set off against straw.		
Manure		7 0 0
Interest on value and maintenance expenses of house, sheds, implements, cattle, etc., at 5 per cent. on Rupees 150 = 7-8, which distributed over six acres gives		1 4 0
Total...	16 Total...	8 4 0
Take gross yield in grain at	50	
Deduct as above, dropping fractional part	16	
Remainder..	34	
Commute at average of 100 years, namely, Annas 13 the Cullum		27 10 0
Deduct in money as above for manure and interest ...		8 4 0
Value of net residue		19 6 0
Half value of do.		9 11 0

Note.—Forty Cullums of paddy gives to a family of four persons of all ages $2\frac{1}{2}$ seers of rice daily or thereabouts.

21. Now the lowest estimate of the grain required for the food of a family of four persons would be at least 40 Cullums of paddy for the year, or about $2\frac{1}{2}$ seers of rice daily (a bare subsistence), and taking the average of a small holding at six to seven acres of land, both wet and dry, the 40 Cullums chargeable for subsistence may be stated at 6 Cullums the acre.

Observing still the same moderation the Board estimate the value of house, back-yard, sheds, cart, plough, live stock at 150 Rs., the interest on this at 5 per cent is Rs. 7-8-0, and this, divided over six acres, gives a charge of Rupee 1-4-0 per acre. The table in the margin shows the result of these deductions (together with those already enumerated) from the gross yield; commuted at the average of the century, which is 13 Annas per Cullum, Rs. 19-6-0 represents the net produce against Mr. Puckle's calculation of Rs. 20-6-0; and as he admits a deduction of 10 per cent. from the half net which seems needlessly high to represent unprofitable area, the same figure (Rs. 9), which he takes as his assessment rate, may fairly be deduced from a total net of Rs. 19-6-0.

22. This calculation has been applied only to the details which Mr. Puckle has given, and which belong to the highest class of land, for the lower classes the money result alone is given; but, in fact, if the same process were applied throughout, the result in the three upper classes would differ little from Mr. Puckle's figures, while in the six following there would be an increasing reduction of the net, occasioned by the subtraction of an unvarying quantity from a yield diminishing in every successive class. As regards the incidence of ryots' subsistence, etc., on holdings of double and treble the size of the average here taken (six acres), it is sufficient to observe, first, that it would be impossible to adjust the calculation to areas of every size; and, secondly, that with extending area larger numbers and increased capital have to be provided for. For this reason an extreme minimum is taken in the Board's illustration both as regards food and capital sunk in buildings, implements, etc.; 40 Cullums of paddy are, in fact, inadequate to the yearly support of two adults and two children if rice is the food consumed; but among the poorer classes the rice would be to a great extent converted into a greater bulk of dry grains.

23. The Board have dwelt thus far on these details, because they believe that deductions from gross yield on the principle here explained are necessary to the attainment of such a settlement as the Home Government contemplated. Nevertheless, it is not their intention to press its adoption upon this occasion, or to substitute its conclusions for Mr. Puckle's rates, first, because a different method of calculation has been adopted in the settlements already concluded and approved in other districts; and, secondly, because it is believed that the Government are not prepared to assent to the further reduction of assessment which would result. If, however, that consideration must henceforth govern the adoption of settlements the processes by which they are computed lose much of their importance, though still valuable in adjusting the relative incidence of rates.

24. The cost of settlement operations in this Presidency, and the time over which they have already extended, give much importance to this consideration, and the case of Tinnevelly illustrates in a striking manner the present position of the settlement question. The Board have now under their consideration a Memorandum submitted by Mr. Puckle, in which he calls special attention to this subject.

25. The incidence of the rate arrived at by Mr. Puckle is modified by the system of village grouping by which he redresses the inequalities which would follow the application of the highest rates to lands which are liable to them according to their place in the table of soils, but which, whatever their quality, are less favourably circumstanced in respect of position or irrigation, and should on this ground bear a lighter assessment. The several groups, therefore, take their rateable gradation under considerations of this nature; this avoids any violation of the consistent system followed in estimating the quality of soil, and has the approval of the Board as a necessary expedient to meet the difficulties of a formal classification.

26. It will be seen from paragraph 71 that an increase of area brought to account under survey adds Rs. 92,789 or 10 per cent. to the proposed assessment,

and in the following paragraph Mr. Puckle shows that Rs. 1,30,000 of the existing assessment is due to the practice (elsewhere unknown) of levying two full assessments on 34,595 acres of double crop land instead of, as he now proposes, one full assessment, and from half to one-third of an assessment on the second crop. A diminution of revenue drawn from exactions so heavy and exceptional is unavoidable. It is, however, expected that Rs. 30,000 will be recovered by the extensive adoption of composition for second crop at the reduced rates now proposed on lands where this is optional.

27. The Board approve of the proposal to transfer so-called wet lands under small rain-fed tanks to the head of Dry, with the proviso that these lands should in most cases be placed in the higher dry classes. These lands will hereafter be nearly in the position of improved or garden land under well irrigation, and which is now classed at the higest dry rates. It is clear that the production of a nunjah crop under such uncertain sources of irrigation must in many seasons be impossible, the repair at Government expense of mere ponds is little better than waste of money, and the change will be generally beneficial.

28. The tax on the Palmyra trees, which are to be found in great numbers on lands already cultivated and assessed, is obviously a very embarrassing sort of revenue. Every tree has not only its charge, but that charge varies with the age and sex of the palms, and the task of counting them could only be achieved by a methodical division of the tracts, where they are to be found in regularly demarcated blocks. Mr. Puckle's proposed remedy may in time get rid of the difficulty thus created. He suggests that the tree-tax which is now paid separately should be made redeemable at twenty years' purchase, so that the tax may in time disappear; the trees after redemption being dealt with at pleasure by their owners, and those that are not so redeemed being charged at quarter half and one Anna each according to class instead of at the present prevalent rates of $2\frac{1}{2}$, 5, and 10 Pies each; the experiment does not appear open to objection, and if it succeeds a great simplification will be effected.

29. The attempt to divide the common lands among village share-holders is recommended by the prospect which it offers of terminating the dissensions which now attend the system; this question, however, has no immediate bearing on the settlement.

30. In regard to the introduction of a Village Service Cess in the valley there will no longer, the Board observe, be any remuneration for village servants when the settlement takes effect, as the whole of the fees are absorbed in the disposal of gross produce here recommended, and there would remain only the Rs. 30,000 paid by the Government to the Curnums. It is proposed that a cess of $6\frac{1}{4}$ per cent. on the new assessment should provide for payments of all kinds, relieving the Government of the Curnums' wages; the sum raised will be 63,791, and, as before observed, there seems no course open but to approve its introduction.

31. The Road Cess calls for no remark at present; its assessment on the tract under settlement is Rs. 31,896, being $3\frac{1}{8}$ per cent. on the new assessment.

32. The irrigation cess advocated in paragraph 86 can scarcely be brought in, the Board think, as an item of the proposed new assessment, as this subject must

be treated uniformly throughout the country on whatever footing the Commission now sitting may decide with the approval of Government to adopt. Mr. Puckle gives some remarkable instances of large contributions by ryots for the prosecution of works in which they were interested, and the Board entertain little doubt that the increasing value of land under moderate assessment, with the prospect of permanence, will in time induce the ryots generally to spontaneous action in maintaining the efficiency of minor works to the great benefit of the revenue, as well as of private interests.

33. Prospective additions to the revenue of the valley are looked to from the extension of irrigation, and when the system has been completed as now contemplated, Mr. Puckle counts on an ultimate gain of Rs. 2,30,000. In the last paragraph Mr. Puckle sums up the results of this scheme in comparison with the existing assessment after balancing additions and reductions; he states the entire amount of revenue given up at 1,85,764; but this takes into assessment Rs. 28,613 on account of irrigation cess, which must remain in abeyance at present; the reduction on the present settlement will, therefore, be Rs. 2,14,377. The majority of the Board recommend the adoption of the scheme and its rates on grounds which, as will have already appeared, have reference to settlements already approved, and to financial considerations; it is better, they think, to give the district the benefit of the equitable incidence of rates which this settlement effects, than to contend for the literal operation of principles which would occasion an abandonment of revenue to which the Government would not assent.

34. The Acting Third Member has recorded his dissent in a separate Minute.

No. 20. ORDER THEREON, 3rd May 1872, No. 716.

Land Revenue.

THE Government proceed to dispose of Mr. Puckle's proposals for revision of the assessment on the river-irrigated lands of the Tinnevelly District, comprising in the valleys watered by the Tambrapoorny and its affluents an area of 798 square-miles, in which are situated 345 Ryotwari villages and some of the principal towns of the district, including Tinnevelly itself and the adjacent Military Cantonment of Palamcottah. The papers have been for some time before Government, but several circumstances have hitherto prevented their disposal. The classification of the rest of the district is in progress.

2. It is unnecessary for Government to go into the details of the several processes involved in the revision. The system of settlement of the Government demand was prescribed by Government after full consideration. The work has been entrusted by them to Mr. Puckle as an able, experienced, and liberal Revenue-officer. He has devoted himself to the duty with uncommon labour and pains. On the technical questions of classification of soil, expenses of cultivation, amount of produce, deduction on account of unprofitable areas or risk of season, and such like matters, the Government are satisfied that the right course is to accept Mr. Puckle's conclusions which they proceed briefly to record.

3. The wet lands have been divided into seven classes, and the dry into nine, with the following result:—

Wet land.	Per Cent. of Area.
Class 1	23
,, 2	27
,, 3	23
,, 4	18
,, 5	8
,, 6	½
,, 7	½
	100

the total area classed being close upon 100,000 acres.

Dry lands.	Per Cent.
Class 1, ,, 2	3
,, 3, ,, 4, ,, 5, ,, 6, ,, 7	28
,, 8	19
,, 9	50
	100

The total area of dry land is not stated. The highest class includes the area dependant on small rain-fed tanks.

4. The wet land produce estimates are based on the Peshanum or five-month crop, which is sown in October and reaped in February, and is grown on all lands, and were deduced from experiments carefully supervised, coupled with systematic inquiries among those competent to form an accurate opinion on the subject.

5. The result is an average valuation of 792 Madras Measures per acre as compared with 648 Madras Measures in Trichinopoly and 642 Madras Measures in the lower taluqs of Salem.

6. In the dry land no staple crops are grown, and half the area held on puttah is never cultivated at all, while the remainder is ploughed only once in two, three, or four years. Mr. Puckle considers it useless to go through elaborate valuation processes with such land, and proposes to adopt the rates arrived at in Salem for the inferior soils, which will result in assessing 68 per cent. of the area at Annas 6 and Annas 4 per acre.

7. The cultivation expenses in wet land are estimated at Rs. 14 per acre, but as several of the items are paid in kind, the amount depends on the commutation rate, in regard to which alone the Government are unable to accept Mr. Puckle's conclusions as will be more fully stated further on. The cost of cultivation will therefore have to be revised.

8. The value of the net produce and of the Government half-share and the adjusted standard rates of assessment will all equally need to be revised for the same reason.

9. The standard rate is arrived at by taking half the net produce, less 10 per cent. deducted on account of unprofitable areas included in the field survey.

10. The standard rate is modified by grouping the villages with reference to water-supply with the following result:—

1st	group	64 villages.
2nd	,, ...	127 ,,
3rd	,, ...	131 ,,
4th	,, ...	19 ,,

11. The actual demand on the holder of individual fields will be further affected by the increase found by survey beyond the area for which he was hitherto charged, and this on the average of the tract is 10 per cent. in area.

12. As regards second crops, the exceptional system hitherto in force in Tinnevelly has been to charge full assessment on each crop on all land classed as double crop, a burden on the land which exists in no other district in the Presidency. On other lands the usual practice of charging half assessment on the occasional second crop is followed in Tinnevelly.

13. Mr Puckle proposes to adopt the system which was followed in Trichinopoly, and to allow a permanent composition for a second crop at the rate of one-third additional assessment per acre in the two higher groups of villages, and one-fourth in the two lower groups.

14. There are certain high tracts of dry gravelly soil included in the limits of the villages on either bank of the river, whose lower lands are watered from it. These high lands are mostly used for grazing, but are now and then partially cultivated by the aid of small rain-fed tanks, holding seldom more than a few days' supply for irrigation. Mr. Puckle proposes to class all these lands as "dry," on the understanding that the future repair and maintenance of the tanks will be left entirely to the ryots.

15. As regards all the foregoing processes for settlement of the Government demand, the Government confidently accept Mr. Puckle's conclusions, but there remains the very important one of the commutation rate on which so much depends, and here the Government are compelled to refer the proposals back for revision.

16. At paragraph 52 of his report Mr. Puckle states that, with the exception of three years in the series, there is a complete record of the town selling-price of grain in the district for nearly 100 years from 1770 to 1868. He gives the average in decades for the whole of this period and for three groups of 30, 30 and 38 years, respectively, and takes the average of the whole or Annas 13-5 per Harris Cullum as the basis of his calculations of the commutation rate.

17. Deducting from this town selling-price, the cost of cartage at Annas 1-1 per Cullum for ten miles as the average distance of the village from the market, merchant's profits at 7½ per cent., and allowing 4 Pies for wastage, he arrives at a commutation rate of Annas 11 per Harris Cullum at which to convert grain-values into money. He observes that this is 16 per cent. higher than the Ulungu standard

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rate of Annas 9-6 per Cullum, and that as representing Rs. 92 per garce, it compares unfavourably with those of—

	Rs.	A.	P.
Trichinopoly	66	10	8
South Arcot	71	12	8
Salem, upper taluqs	75	0	0
Do. lower do.	83	5	4

but while admitting that Tinnevelly is better off than any of these districts, he points out that the rate is Rs. 20 per garce higher than that adopted in the Godavery of Rs. 72 per garce, to which not long ago there was reason to think that the market-price in that district would have fallen but for scarcity elsewhere.

18. He points out that the village service cess at 6¼ per cent. has to be added to it, and that a further addition for Road Cess at 6 Pies in the Rupee or 3¾ per cent. will be thrown on the land (which it is to be remarked has since been increased to a Local Fund rate of 9 Pies). He proposes to add a cess in commutation of Kudi Maramut, or customary labour on irrigation works maintenance; and in summing up the financial results of his proposals at the close of his report, he contrasts them with those of other districts, and shows that the average is only one Anna an acre less than in the Godavery, that the highest rate is nearly 50 per cent. higher than that of Trichinopoly, and applying to a far larger area while the Trichinopoly rate included the Road Cess, which in Tinnevelly would be additional. But he concludes by showing that the ultimate result will be a reduction of Rs. 1,85,764 in the Government demand, or 13½ per cent. of the present assessment.

NOTE.—It is to be observed that the village service cess is *in lieu* of customary grain fees.

19 The Board of Revenue raised, but did not press, certain objections to parts of the detailed operations, but, on the whole, the majority recommended the adoption of Mr. Puckle's proposals. They do not, however, notice the particular point in which the Government consider that the scheme fails, and must be revised, namely, the extremely protracted series of years from which the commutation rate is deduced.

20. The Government are satisfied that results deduced from the price lists of the past century must be fallacious when accepted as the measure of the Government dues from the land at the present day. This is a matter in regard to which, though opinion may differ, the judgment does not depend on considerations with which the Government are not competent to deal, and it is obvious to remark that the remoter portion of the series which Mr. Puckle has employed for his calculations has no more real bearing on the present circumstances of the country than the prices of a century further back.

21. The Home Government have decided, on reference to them in a similar case, that in future revisions of the assessment of land-revenue the commutation rate should be deduced from the average of the prices of the twenty years ending 1864-65, and the Government resolve to refer back this portion of the settlement

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to Mr. Puckle, through the Board of Revenue, with instructions to revise his proposals on this basis, which will affect several of the details, and to resubmit his table of rates with a short statement of the financial results with as little delay as possible.

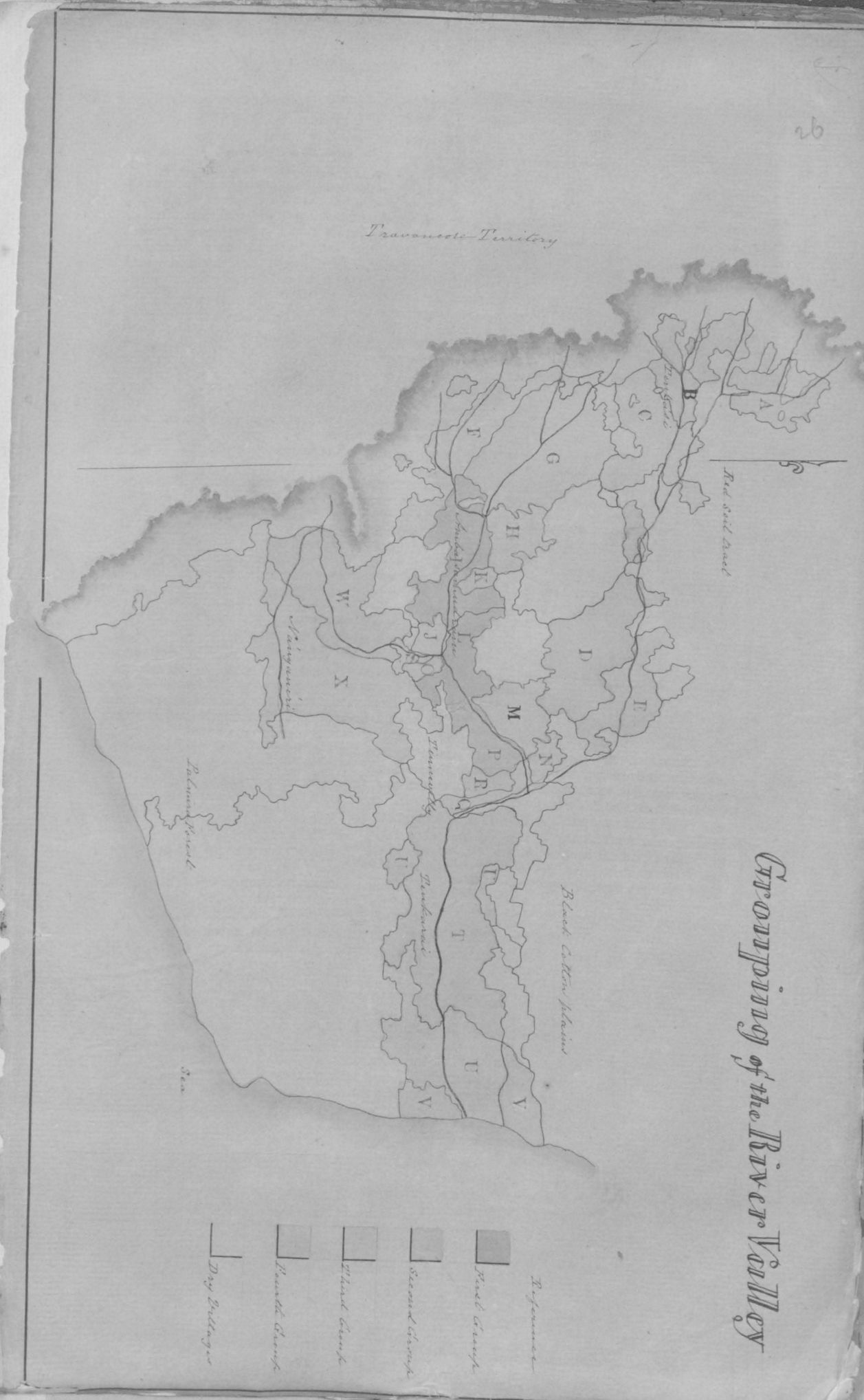
22. The question of the Palmyra revenue will form the subject of separate orders. The revision of the village service establishment will also be dealt with separately.

(True Extract.)

Signed W. HUDLESTON,
Officiating Chief Secretary.

26

Sketching of the River Vaigay



C No 1701 27

Revl. Department

27 | 1

Memo: on the proposed Tinnevelly Settlement.

1 Mr. Puckle ex:plains in his report that the Tinnevelly District na:turally devides itself into four portions for the purposes of assessment (1) The River valley con:sisting of 798 square miles (2) The Palmyra Forest 303 square miles in extent (3) The Red soil tract of 1251 square miles and (4) The Black Cotton Plain of 559 square miles.

Mr. Le

2 Mr. Luckle's present report only applies to the first division.

3. The classification of the soil was made by tracts instead of by fields, but owing to an increase in the number of classes used, the operation has been conducted with a greater degree of nicety than has ever before been attempted. The whole of the work has been performed under the eye of the European officers, Mr. Luckle having supervised the operations in four taluks and

Mr. Symonds

Classification

Mr. Symonds in one. The result is that 50 per cent of the irrigated land falls into the 1st two classes for assessment consisting of Best black loam, Good black loam and best red loam. Of the remaining 50 per cent, 41 per cent falls into the next two classes consisting of the best sorts of the clay and sandy soils and the inferior loams, and only 9 per cent is found to be of inferior quality and is classed for assessment as Rs. 5, & 4.

4. In no other District is the proportion of irrigated land placed in the

the highest classes so large, but the reverse is the case as regards the unirrigated lands, half of which fall into the 9th or lowest class, 19 per cent in the eight, and 28 per cent between the third and seventh classes.

Grain valuation or gross produce.

5 To test the gross produce of the wet land 256 experiments were made of the five months' rice crop, in each case on half an acre of land. Of this 181 were conducted on lands falling into the first two classes. The rates of produce arrived

arrived at were compared with the ryots' valuations & what was considered a fair average was struck. It appears however that the ryots have given grain values for only the best of the three descriptions of land on which these 181 experiments were made, which they estimate will produce 52 cullums or 1248 Madras measures of paddy. The 97 experiments by the Settlement officers on this quality of land gave the produce as 47 cullums, or 1128 measures, and finally 50 cullums or 1200 measures, was fixed as the valuation of this land. The other two classes were rated at 45 cullums or 1080 measures. In the remaining

remaining classes of the land, the rate of produce finally determined upon is usually slightly in excess of the ryots' estimate, and in most cases a little below the result of Mr. Luckle's experiments. 80 experiments were made on the dry land, as those already undertaken in other Districts may be accepted as sufficiently accurate

Commutation - 6. The prices of grain between 1770 and 1868 except for 3 years are available, and Mr. Luckle has adopted the mean of three periods, two of thirty years each and the last of thirty-eight, and his commutation rate is thus as p 13. 5. per Garce cullum -

of paddy. This rate is, however reduced to 11 annas a cullum or Rs 92 per garce to cover merchants' profits and the difference between town and village prices. This rate of commutation applied to the grain values already arrived at gives money values of gross produce of from Rs 34-6 an acre to Rs 13-12 per acre.

7. The quantity of seed used in Tinnevelly is large, and heavy manuring

Cultivation expenses.

Rates.

Groupings of villages.

manuring is customary and the cost of cultivation of the best lands is fixed at Rs 14 an acre. The net produce is thus arrived at ranging from Rs 20-6 on the best lands to Rs 7-12 on the most inferior.

8. From this net produce the rates are deducted by dividing it by one half and deducting ten per cent from the result to cover unprofitable areas.

9. To cover risks from unfavorable seasons and failure of crops, the villages have again been grouped into four classes according to their situation and capabilities, the rates being proportionately reduced; for instance, the rates on the three descriptions of soil which form the first three assessment classes and of which 50 per cent of the land under settlement is composed, while standing at the rates of Rs 9-8 in the first group are reduced to Rs 8-4 in the second

second group, to Rs 7-6 in the third group, and to Rs 6-5 in the fourth group. Thus, instead of 50 per cent of the land being rated at Rs 9-8 per acre, we find that only 27 per cent is so classed, the remaining 23 per cent of the best land having fallen into the lower groups of villages.

Financial results

10. After proposing to deal on certain terms with the second crop assessment, the tree-taxes and the Inundation lands which may conveniently be considered hereafter, and to impose cesses for roads, village service & irrigation amounting in all to 2 per cent Mr. Buckle gives the financial results of his proposals which are in effect to reduce the existing land revenue of the 345 villages of the valley from about 13 lacs Rupees to Rs 11/4 lacs or about 21 per cent.

11. The only process of Mr. Buckle's scheme which has undergone the adverse criticism of the Board is his deduction from the gross production account of cultivation expenses. They observe that he has omitted to allow for the subsistence of the cultivator & his family and for the interest of the capital sunk in buildings, implements and stock. They consider that an allowance of 6 cultivators per acre should be made for the former and Rs 1-4 per acre for the latter; but as they would commute at 13 annas instead of 11 annas the cultivator, this would only place the net produce value of the land at Rs 19-6 the acre instead of Rs 20-6. As they consider that the deduction made by Mr. Buckle for the half net produce on account of unprofitable years is too high

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his proposals would still result in his highest rate of Rs 90-0 per acre. The Board however do not press the adoption of this proposals and are in favour of accepting Mr. Buckle's report as it stands. They allow, however, to be sensible that the proposed large reduction of the revenue in face of the well known prosperity of the district demands some arguments in support of it. They accordingly urge the necessity of assimilating the assessment of this District with that of Trichinopoly & Tanjore & of the other districts which have lately been settled by the Department. They state that the Delta taluks of the two former districts are more favourably situated than the valley of the Tambraparny and they quote the dissent of the Secy. of State to a reduction of 4 lacs of rupees in the revaluation of

Govt

of Trichinopoly as making it allowable to propose a reduction of assessment in Tinnevelly.

12. Mr. Robinson the third member of the Board in a separate minute takes general objections to Mr. Buckle's proposa

proposals on the grounds that the District is well known to be a prosperous and fertile one, and that both double crop and single crop, realises

realises very high prices in the market. He points out that the results arrived at by Mr. Preble are in reality artificial, owing (i.) partly to a low valuation of the crops upon the "Peshamum" or five months' crop being taken as the Standard instead of the "Kar" or three months' crop; and partly to a general under valuation of the average crop realised; (2) to an incorrect estimate of the cost of cultivation; (3) to an incorrect commutation rate being adopted & (4) to the deduction made on account of uncultivable portion of fields being too large. Mr. Robinson also sees objection to the course proposed by Mr. Preble for dealing with the dry land & the double crop land, & with the village servants.

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13. Mr. Robinson would however accept Mr. Puckle's classification of land & cultivation expenses, but he would refer back to him for reconsideration the estimates of produce & the grouping of the villages. He would adopt the Ulunga standard commutation rate $^{a}_{9}$-$^{b}_{6}$ the Cullum (Rs. 28.7.0.9 per garce) instead of that proposed by Mr. Puckle viz: 11 as. the cullum (Rs. 92 per garce), & would inform Mr. Puckle that the demand must be so adjusted as not to cause any loss of revenue but an increase to cover the cost of the operations of Survey & Settlement.

Mr. Robinson would also have full details placed before the Board in regard to the dry lands before determining their assessment.

14. It will ~~thus~~ be observed that while the proposals (majority) of the Board are in favor on the grounds stated of adopting Mr. Puckle's proposals as submitted by them, Mr. Robinson is not prepared to recommend any sacrifice of revenue, & though he would adopt a lower rate of commutation than that proposed by Mr. Puckle, he would require him so to revise his grain values as to ~~e~~ bring the assessment considerably above that now proposed by him.

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to question that no reduction in the present rate of taxation on land should be permitted – If this be admitted it only remains to determine by what process

the

Since writing this Memo: I have ascertained from Mr. Master that the application of the Govt. proposal to fix the commutation rate on the average prices of the 20 years ending in 1864-65 would result in a rate of 14 as. the cullum as estimated in the previous para, & this commutation would give money rates varying from Rs 12-8 per acre to Rs 3-8, and would produce a total assessment of about Rs 12,28,741 being about Rs 25,000 in excess of the existing assessment. Under these circumstances I would submit that all Mr. Puckle's proposals may be accepted with the modifications of the commutation as was done in the Salem District.

the rates proposed by Mr. Puckle are to be raised so as to meet this object, and perhaps the simplest mode of doing so would be to adopt the commutation rate alluded to in the preceding para with such an adjustment of allowance for unproductive areas, and the classification into groups of villages as would insure this result.

17. Such a course, however, though perhaps expedient cannot be viewed as really satisfactory, for, looking at Mr Banbury's estimates of produce together with Mr Robinson's

remarks

made in the same District after several experiments only a few years back

remarks, it is impossible to arrive at any other conclusion than that Mr Buckle's estimates are far too low. At the same time were they to be revised and the commutation rate of the 20 year series adopted, an assessment far in excess of the existing revenue would probably be the result.—

18.— It is impossible to take into consideration this report of Mr Buckle's with the Board's Prog.s upon it and Mr Robinson's remarks, without being struck with the utter empiricism which characterizes all the processes of the Settlement Dept.

Dept by which, after the classification of the land, the money rates are arrived at. It will have been observed that the Board while altogether objecting to the deduction made for cultivation expenses and proposing figures which would still further reduce the assessment, would cover this reduction by an increase in the commutation rate, and a reduction of the allowance for unprofitable areas. Mr Robinson on the other hand would increase the estimates of produce, but would guard against the large increase of assessment which

which this would involve by reducing the commutation rate, but he would inform Mr Pickle that such rates must be arrived at as would not involve a reduction of the existing assessment.-

19 It will be seen too that the processes by which the money rates have been worked out and applied to the classified land have varied in nearly every revision of settlement hitherto made, and that the estimates of produce on which all the future processes are dependant have almost invariably been acknowledged to be defective. In one District

district we have no special allowance for variations of season and unprofitable areas, all these having been allowed for in grouping of villages into four classes, with deductions from the gross produce of 15, 20, 25 & 30 per cent. In another District 25 per cent is deducted to cover risks of season alone, and the villages are also grouped. In another third 15¼ per cent is allowed for

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vicissitude of season
and unprofitable c
:
areas, and in a
fourth no allowance
is made to cover
such nicks in the
irrigated lands c.

Under these
circumstances it
seems worthy of
consideration whether
it is worthwhile any
longer to attempt to
carry

carry out processes which
cannot be relied on as by
any means accurate, and
whether it would not be
a more satisfactory sys-
tem to classify the lands
under the existing rules
and at once to apply
money rates to each
class with reference
partly to existing rates
and partly to the rates
imposed on lands of a
similar quality in other
Districts, the assessment
of which have been
revised on the so-called
scientific system. There
is much force in the
remarks made by Mr
Robinson in para
of his minute that

steady advance in prices
has made it impossible
to base our assessments
any longer upon half
the net produce of the
land, and it remains for
the Govt to determine
whether this state of
things should be represented
to the Secy: of State and
permission requested to adopt
new arrangements, or whether
the difficulty shall continue
to be got over by the expe-
dient of adopting a com-
mutation rate bearing
no relation to existing
prices or making deduc-
tions from the gross produce
on various accounts far
in excess of the real re-
quirements of the case
. It is true that the
really expensive part of the
settlement operations is
the Survey & Classification
& that even were the
plan

place alluded to in
the preceding para
adopted there would
be no perceptible re-
duction in the cost
of the Departt beyond
possibly a slight di-
minution in the scrip-
tory establishments
of the Dy Directors and
Directors. It may not
therefore be considered
worthwhile to raise this
somewhat complicated
question, as the Govt
have it always in their
power to adopt such
rates as they think
proper by modifying
any portion of the
complicated process
by which they are
arrived at, in any
ma[illegible]

[illegible] Division [illegible] by juggling with the figures.
A J A

manner they plead=
22. Should this rule
be taken, it is sub=
=mitted that Wm Buckle's
report may be refer=
to the Director of Rev=
=enue Settlement with
a few general remarks
to the effect that the
Govt are not to pre=
=clude on any divi=
=sion of assessment
involving a loss of
revenue, and requesting
him to report the result
of adopting a commu=
=tation rate deriv=
from the prices of the
8 years ending with
1864/65 with, if neces=
=ary a revision of Wm
Buckle's allowances
where unprofitable on
the
lands

lands and possibly
a slight modification
of the village groupings.
23 In this case it
is submitted that Wm
Buckle's proposals for
dealing with the Govt
waste lands, the Palmy=
=ra trees, and the Za=
=mindary lands may
be approved & accepted.
24. It is also sub=
=mitted that the operation
now being conducted
in Tinnivelly may well
be placed at any rate
for the present under
the Director's orders
as Wm Longley has
no special knowledge
of the work, & it is
very desirable that
it should be careful=
=ly supervised. Should
the Govt concur in
this suggestion it
might be as well
to direct Wm Master
himself

himself to proceed to
Limerick to take charge
of the party & to submit a brief
report to Govt on the
amount of work done
& remaining to be done
in the District -

Memo
On the proposed
Tinnevelly Settlement

44

Notes of the Members of Government on the proposed revision of the Settlement of a portion of the Tinnevelly District.

Mr. Puckle's report relates only to the portion of the Tinnevelly District, which is watered by the Tambrapurny river and its fifteen affluents, and comprises 345 ryotwary villages, with a gross area of 798 square-miles.

2. The irrigated area (99,872 acres) in this tract is of exceptional fertility; an unusually large proportion of the soil being of a superior description and the standard of culture high. The irrigation is excellent, but inferior to that of the Godavery and Kistna deltas, inasmuch as the Tambrapurny brings down no fertilizing silt. The unirrigated land, on the contrary, is of very inferior quality.

3. The survey has brought out an excess in the area of about 10 per cent. only.

4. The various processes of the re-assessment have been carried out with great care, and under constant and experienced supervision. I would accept them without hesitation. The yield, it is true, is considerably less than Mr. Banbury arrived at; but it is still very much higher than in either Trichinopoly or Salem, and, as our assessment must be based on the average of a series of years, it would not, in my judgment, be safe for us to meddle with Mr. Puckle's calculations.

5. The only points needing our decision are—

(1.) The commutation rate. The present rate, the standard of the Oolungu Settlement, is 9 Annas and 6 Pies per Harris cullum, or nearly 80 Rs. per garce. Mr. Puckle and the Board propose to raise the rate to 11 Annas the cullum, or 92 Rs. per garce. This is the average of the century ending in 1868; after deduction for carriage, etc., the prices returned being town-prices. I conceive that the Secretary of State's recent orders leave us no option but to adopt a rate as nearly approximating the average of the twenty years preceding the settlement as circumstances permit. The process of settlement is so slow that I do not think the Secretary of State could have intended that the average of the twenty years, ending with 1864-65, should be the invariable standard. This rate would have the advantage, of course, of placing all districts on a footing of equality as respects this element of the revision; but it would, in fact, be adopting, as a basis of settlement, a state of things which had long passed away. It would be anomalous, for instance, to assess Coimbatore some four or five years hence by a standard of prices which ruled ten years before. I cannot make out from the papers what the average of the twenty years, ending with 1868, would be. Mr. Dalyell calculated it at 14 Annas; but I fear 1 Rupee will be nearer the mark. Tinnevelly, from its being so much a cotton-growing district, benefited greatly by the high price of cotton during, and for some time after, the American War, and the price of every commodity rose in proportion. The price of cotton has again fallen, and with it there has been a marked declension in the price of grain. The prices of the district have been thus abnormally affected to a degree not experienced in districts where cotton is not so important a staple; and we must be very cautious, therefore, in accepting the experience of the past few years as an infallible guide for the future. In fact, prices are now falling, and we

have no reason to suppose that they will again reach the high pitch they attained under the very exceptional circumstances of the past twenty years. Assuming that 14 Annas will, as Mr. Dalyell calculated, be about the rate chargeable under the Secretary of State's decision, the half net produce (less 10 per cent. for unprofitable areas, etc.) of the first class of land will be just about 14 Rs. per acre; the highest rate proposed by Mr. Puckle and the Board being 9 Rs. I believe 10 or 10½ Rs. are the highest nunjah assessments we have yet imposed anywhere, and though, I believe, lands here and there in Tinnevelly, as elsewhere, could quite pay 14 Rs., and even more, I should view with alarm any attempt to raise Mr. Puckle's rates in this degree. The classification is too general to admit of this being done. For instance, the 23,000 acres of "best black loam" in the first class, rated at 50 cullums per acre, no doubt contains land which yields more as well as some which yields less. I think the most *practical* course now will be to instruct Mr. Puckle to revise the rates of the good land; all that are rated as yielding, say, more than 30 or 35 cullums,—the most fertile lands in fact,—with 12 Rs. per acre as the maximum. His classification will probably enable him to do this in the course of the settlement. I think we might justify this mode of action, in preference to a rigid commutation rate, by urging that the Secretary of State's decision arrived too late, that the cultivation expenses have been under-estimated in the manner indicated by the Board, that prices have very materially fallen, etc., etc.

(2.) The double crop assessment. The usual course, where a consolidated net assessment prevails is for the second crop to pay half the first crop assessment; where the water-cess prevails, the second crop pays for the water, but not for the land. In Tinnevelly, however, the second crop pays the same as the first, the *land* being thus charged for twice over. I do not see how we can now perpetuate this anomaly. There are some 35,000 acres paying this double charge,—in all Rs. 2,66,000. The mere rectifying of this anomaly will cost a lakh of rupees, supposing the assessment to be raised either as I have proposed or by enhancing the commutation rate.

(3.) The composition for water where land is not rated as double crop. This is *generally* a very desirable arrangement; but as we have large projects on hand for the improvement of the irrigation of this tract, the compositions should be made with caution, and be contingent on such improvements.

(4.) Mr. Puckle's proposal regarding palmyra trees seems to me good. The land will pay its assessment, and we shall get the value of the trees once for all.

(5.) The service-cess must, of course, be introduced. The Collector must submit to the Board a scheme for a complete village establishment on the Kurnool and Trichinopoly models. Especial care will be necessary in the grouping of the villages or the Maraver Cavilgars will retain their ascendancy.

(6.) Irrigation-cess. This would be a very useful institution; but if we raise the assessment proposed, I fear we must forego it. This may, however, be left to Mr. Puckle's judgment.

6. When the extra cesses are taken into consideration, and also the necessary correction of anomalies, I do not think we shall have cause to consider the new assessment in any way a "sacrifice" of revenue; in fact, my fear is rather the other way!

7. It will be necessary to give Mr. Puckle a Special Sub-Collector to relieve him of all ordinary work, while he devotes himself to introducing the settlement and other important matters.

8. I find I have omitted to notice the dry land. Mr. Puckle's information regarding this is very meagre indeed. Judging from his description, the soil is very poor; but no reason has been assigned for a reduction of Rs. 24,000. Its value, I fancy, is as pasturage chiefly. I think he should send in more definite proposals.—J. D. S.

The Government selected Mr. Puckle to conduct the settlement of Tinnevelly as an able, experienced, and literal Revenue-officer. He has devoted himself to the duty with uncommon labour and pains. Under these circumstances, I do not see how the Government can go behind his conclusions with reference to questions of classification of soils, expenses of cultivation, amounts of produce, deductions on account of unprofitable area, deductions on account of bad seasons, etc., etc. These are technical and local questions in which Mr. Puckle *may* possibly have committed errors; but they are questions in which the Government and the Board are *sure* to commit errors if they attempt to overturn Mr. Puckle's deductions and *establish others*. We took the best man we had. He has done his duty to the best of his ability. I think to dismiss his work *here, ex cathedra*, would really be preposterous. But Mr. Puckle has settled a commutation rate on an average of prices extending over a series of years, the remoter portion of which has no more reference to the present circumstances of the country than the prices of the middle ages. Here the Government are as good judges as Mr. Puckle. There is no local question involved at all. We have determined to calculate our averages in future on thep rices of the last twenty years,—of the twenty years ending in 1864-65. I would direct the Board or the Director of Revenue Settlement simply to inform us what the results of this calculation would be, accepting all the other features of Mr. Puckle's scheme, and direct the settlement to be made on that basis. I regret it is not likely to increase the land-revenue of Tinnevelly in a greater degree than will apparently be the case; but that cannot be helped: we shall gain something.

2. It may, however, be worthy of consideration whether the commutation rate should be calculated on the twenty years ending with 1864-65. The Government intended that, in all future settlements, the commutation rate should be calculated on the twenty years *immediately preceding the year* in which the new settlement is made. We ought, therefore, to take the twenty years ending in 1869-70: that might give us results rather more favourable.—N.

It appears to me that Mr. Puckle's settlement of the river-irrigated villages in the Tinnevelly District may be adopted, subject to a revision of the commutation rate in conformity with the recent decision of the Home Government. The settlement, when carried out on this principle, will apparently result in a moderate increase to the land-revenue, and not in the excessive increase which Mr. Robinson seems to apprehend.

2. I am disposed to think that the settlement operations in Tinnevelly should be placed under the immediate supervision of the Director of Revenue Settlement, and that the Acting Collector, who has no experience in settlement operations, should be relieved from the duty. In this case, it will probably be necessary to appoint a Deputy-Director; but this is a point on which the opinion of the Director will have to be taken.—A. J. A.

Ed. F. R. Bantleman.

Mr. Puckle's report relates only to the portion of the Tinnevelly District which is watered by the Tambraparny River and its 15 Affluents – and comprises 345 ryotwary villages with a gross area of 798 sq: m:

The irrigated area – 99872 acres – in this tract is of exceptional fertility – ~~irrigation the~~ are exceptionally large portion of the soil being of a superior description and the standard of cultivation higher. The irrigation is Excellent – but inferior to that of the Godavery & Kistna Deltas – inasmuch as the Tambraparny brings down no fertilizing silt. The unirrigated land on the contrary

is of a very inferior quality -

The survey has brought out an excess in the area of about 10 p.c. only.

The various processes of the re-assessment have been carried out with great care and under constant & experienced supervision - I would accept them without hesitation. The yield - it is true - is considerably less than Mr Bunbury arrived at. But it is still very much higher than in either Trichinopoly or Salem - and as our assessment must be based on the average of a series of years, it would not in my judgment be safe for us

to meddle with Mr Puckle's calculations.

The only points needing our decision are.

I. The commutation rate. The present rate - the standard of the Oolungur settlement - is 9 a. 6 p. per Madras Cullum or nearly 80 Rs per Garce - Mr Puckle proposes to raise the rate to 11 as. the Cullum or 92 Rs per Garce - This is the average of the century ending in 1868 - after deduction for carriage &c, the prices returned being town prices - I conceive that the Secy of State's recent orders leave us no option but to adopt a rate as nearly approximating the

average of the 20 yrs preceding the settle-
ment as circumstances permit. The
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47

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of land will be put about 14 Rs per
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Packle and the Board being of Rs - I

49 49

believe 10 or 10½ Rs and the highest Municipal
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and they I believe lands here & there
in Trinevelly - or elsewhere - could
quite pay 14 Rs & even more - I should
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II. The double crop assessment – The usual course where a consolidated wet assessment prevails, is for the second crop

3/ crop to pay half the first crop assess-ment – where the water cess prevails the second crop pays for the water – but not for the land. In Tinnevelly however the second crop pays the same as the first – the land having been charged for twice over. I do not see how we can now pro-tect this anomaly. There are some 35000 acres paying this double charge – in all Rs 266,000 – The mere rectifying of this anomaly will cost a loss of Rupees – Supposing the assessment be raised either as I have proposed or by enhancing the commutation rate –

III. The composition for water – where land is not rated as double-crop. This is generally a very desirable arrangement. But as we have

large projects on hand for the im-
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III. Mr. Buckle's proposal regarding
Palmyra trees seems to me good -
The land will bear its assessment
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the trees once for all -

IV. The Service cess must of course
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Especial care will be necessary in

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5 5

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able experienced & liberal Revenue
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questions of classification of soils,
expenses of cultivation, amounts of
produce, deductions on account of
unprofitable area, deductions on
account of bad seasons &. &.
These are technical and local questions

in which Mr Puckle may possibly
have committed errors - but they are
questions in which the Govt & the
Board are sure to commit errors if
they attempt to overturn Mr Puckles
deductions & settled others. Mr
Puckle is the best man we had. He has done
his duty to the best of his ability. I think
to dismiss his work here - on cathedra
would really be preposterous. But Mr
Puckle has settled a commutation rate
on an average of prices extending over
a series of years the center portion
of which has no some reference to the
present circumstances of the country

that the prices of the middle ages. —
Here the Govt are as good judges as Mr.
Puckle. There is no local question
involved at all. If we determined to
calculate our averages in future on
the prices of the last 20 years, of the
20 years ending in 1864-65. I would
direct the Board to or the Director
of Revenue & Settlements simply to
inform us what the results of this
calculation would be, excepting all
the other features of Mr. Puckles
Scheme, and direct the settlement
to be made on that basis. I regret
it is not likely to increase the land
Revenue generally in a greater degree
than will apparently be the case but

that cannot be helped. We shall gain something. —

It may however be worthy of consideration whether the commutation rate should be calculated on the 20 years ending with 64.65. The Govt. intended that in all future settlements the commutation rate should be calculated on the 20 years immediately preceding the year in which the new settlement is made. — We ought therefore to take the 20 years ending in 69.70. — that might give us results rather more favorable.

N

Settled in former
20 years ending 64-65

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It appears to me that the Punjab settlement of the new irrigated villages in the Dinanagar District may be adopted subject to a revision of the commutation rate in conformity with the recent decision of the Home Government. The settlement thus revised and on this principle will apparently result in a moderate increase to the land revenue, and not in the excessive increase ~~apparent~~ to which the Director seems to be opposed.

I am disposed to think that the Settlement operations in Dinanagar should be placed under the immediate supervision of the Director of Revenue Settlement and

[illegible] that the Acting Collector who has no experience in Settlement operations should be relieved from the duty. In this case it will probably be necessary to appoint a Deputy Director but this is a point on which the opinion of the Director will have to be taken.

[illegible]

Rev: Dept.

No. 716.

Proceedings of the Madras Govt.

Under date the 3rd May 1872

Read the following Pro. of the Board of Revenue

Submitting with remarks Collector's scheme for Settlement of river-irrigated villages in Tinnevelly D.

W.E. 22d May 1869, No. 3614

The Govt. proceed to dispose of Mr. Puckle's proposals for revision of the assessment on the river-irrigated lands of the Tinnevelly district comprising in the valleys watered by the Tambrapurni and its affluents an area of 798 sq: miles in which are situated 395 Ryotwari villages and some of the

[illegible]

[illegible]

[illegible]

Mr. Robinson [illegible] in the [illegible]

Yes [illegible]

the principal towns of the district including Trincomalee itself and the adjacent Military cantonment of Palamcottah. The papers have been for some time before Govt, but several circumstances have hitherto prevented their disposal. The classification of the rest of the District is in progress.

2. It is unnecessary for Govt to go into the details of the several processes involved in the revision. The system of settlement of the Govt demand was prescribed by Govt after full consideration. The work has been entrusted by them to Mr Puckle as an able experienced and liberal Revenue officer. He has devoted himself to the duty with uncommon labor and pains. On the technical questions of classification of soil, sources of cultivation, amount of produce, deduction on account of unprofitable areas or risk of season, and such like matters, the Govt are satisfied that the right course

to to accept Mr Puckle's conclusions which they proceed briefly to record.

3. The wet lands have been divided into 7 classes, and the Dry into 9, with the following result.—

Wetland	Per cent of area.
Class. 1.	23.
2.	27.
3.	23.
4.	18.
5.	8.
6.	½.
7.	½.
	100

the total area classed being close upon 10000 acres.

Dry

Drylands	Percent.
Class 1 }	
2 }	3
3 }	
4 }	
5 }	28
6 }	
7 }	
8	19
9	50
	100

The total area of dry land is not stated. The highest class includes the area dependant on swallow rain fed tanks

The wet land produce estimates are based on the Pethanum or 5 months crop which is sown in October and reaped in February and is grown on all lands and were devised from experiments carefully supervised coupled with systematic enquiries among those competent to form an accurate opinion

opinion on the subject.

The result is an average valuation of 792 Madras Measures per acre as compared with 648 Madras measures in Trichinopoly and 642 Madras measures in the lower taluks of Salem.

In the dry land no staple crops are grown and half the area held on pattah is never cultivated at all while the remainder is ploughed only once in two, three, or four years. Mr Puckle considers it useless to go through elaborate valuation processes with such land and proposes to adopt the rates arrived at in Salem for the inferior soils which will result in assessing

68 % of the area at Annas 6 and Annas 4 per acre.

The cultivation expenses in Wet land are estimated at Rs 14 per acre but as several of the items are paid in Kind. the Amount depends on the commutation rate in regard to which alone, the Govt are enable to except Mr Puckle's conclusions as will be more fully stated further on. The cost of cultivation will therefore have to be revised.

The value of the net produce and of the

the Govt. half share
and the adjusted standard
rates of Assessment
will all equally need
to be revised for the
same reason.

The standard
rate is arrived at
by taking half the
net produce less
10% deducted on
account of unprofitable
areas included in the
field survey.

The standard rate
is modified by grouping
the villages with reference to
water supply with the following
result.

1st	Group	64 villages
2d	"	127
3d	"	131
4th	"	19

The

The actual demand on
the holders of individual fields
will be further affected by the
increase found by Survey beyond
the area for which he was hitherto
= to charged and this on the av=
verage of the tract is 10
per cent in area.

As regards Second Crops
the exceptional system hitherto
has been
in force in Tinnevelly has been
to charge full assessment on
each Crop on all land class=
=ed as double crop a burden
on the land which exists in no
other district in the Presidency.
- On other lands the usual
practice of charging half
assessment on the occasional
Second Crop is followed in
Tinnevelly.

Mr. Puckle proposes to adopt the system which was followed in Trichinopoly and to allow a permanent Composition for a second Crop at the rate of 1/3 additional assessment per acre in the two higher groups of Villages and 1/4 in the two lower groups.

There are certain high tracts of dry gravelly soil included in the limits of the Villages on either bank of the river, whose lower lands are watered from it.

These high lands are mostly used for grazing, but are now and then partially cultivated by the aid of small rain fed tanks holding seldom more

more than a few days supply for irrigation. Mr. Puckle proposes to class all these lands as "Dry" on the understanding that the future repair and maintenance of the tanks will be left entirely to the Ryots.

As regards all the foregoing processes for settlement of the Govt. demand, the Govt. confidently accept Mr. Puckle's conclusions but there remains the very important one of the commutation rate on which so much depends and here the Government are compelled to refer the proposals back for re-

At para 52 of his report Mr. Puckle states that with the exception of 3 years in the series there is a complete record of the town selling price of grain in the district for nearly 100 years from 1770 to 1868- He gives the average in decades for the whole of this period and for three groups of 30. 30 and 38 years respectively and takes the average of the whole or Annas 13-5 per Harris Cullum as the basis of his calculations of the commutation rate.

Deducting from this grain selling price, the cost of

carriage at Annas 1-1 per Cullum for 10 miles as the average distance of the villages from the market, merchants' profits at 7½ per Cent, and allowing 4 pies for wastage, he arrives at a commutation rate of Annas 11 per Harris Cullum at which to convert grain values into money. He observes that this is 16% higher than the Mungeo standard rate of Annas 9. 6 per Cullum and that as representing Rs 92 per jarcee it compares unfavorably with those of

Trichinopoly ——— Rs 66. 10. 8
Salem ——— 71. 12. 8
Salem. Upper Taluks. 75-0-0
—Do— Lower —Do. 83. 8. 4

but while admitting that Tinnevelly is better off than any of these districts, he points out that the rate is Rs 20 per jarcee higher than that adopted in the Godavery Rs 72 per jarcee, to which we may add that there was reason to believe that the market price in that District would have fallen

for scarcity elsewhere.

The points out that the village Service Cess at 6½ per Cent has to be added to it and that a further addition for Road Cess at 1 3/8 % will be thrown on the land which it is to be remarked has since been increased to a local fund rate of 9 Pies in the Rupee. He proposes to add a Cess in commutation of Kuti Maramut, or customary labour on irrigation works maintenance, and in summing up the financial results of his proposals at the close of his report he contrasts them with those of other districts and shows that the average is only one Anna an acre less than in the Godavery, that the highest rate is nearly 50% higher than that of Trichinopoly, and applying to a far larger area while the Trichinopoly rate includes the road Cess which in Tinnevelly would be additional.

But he concludes by showing that the ultimate result will be a reduction of Rs 185764 in the Government demand or 13½% of the present assessment.

Note. It is the object that the Village Service Cess is in lieu of Customary Service fees.

The Board of Revenue passed but did not press certain objections to parts of the detailed operations but on the whole the majority recommended the adoption of Mr Nicholls proposals.

They do not however notice the particular point in which the Govt considers that the scheme of Mr Nicholls must be revised viz the extremely protracted series of years from which the commutation rate is deduced.

The Govt are satisfied that results deduced from the price lists of the past century must be fallacious when accepted as the measure of the Govt dues from the land at the present day. This is a matter in regard to which the opinion may differ

differ, the judgment does not depend on consider-ations with which the Govt are not competent to deal. and it is obvious to remark that the remoter portion of the series which Mr Puckle has employed for his calculations has no more real bearing on the present circumstances of the country than the prices of a century further back.

The Home Govt have decided in reference to these in a similar [in future revisions of the assessment of land revenue] case that the commutation rate should be deduced from the average of the prices of the 20 years ending 1864-65 - and the Govt resolve to refer back this portion of the settlement to Mr Puckle through the Board of Revenue with instructions to revise his proposals on

this

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this basis which will affect several of the details - and to resubmit his table of rates with a short statement of the financial results with as little delay as possible.

The question of the Palmira Revenue will form the subject of separate orders.

The revision of the Village Service Estabt. will also be dealt with separately.

14 Board of Revenue Des 4 May 1872

G. O.

Settlement of [illegible]
[illegible]gated villages in
[illegible]eville Dt

Special
Circ

Dispatch
Some

Proof for [illegible]

No 166

[illegible] 22 April 72 R 30 April

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26-1-05
5-6-07
18-8-09.

20/12/10

River-irrigated villages in Tinnevelly District.—Proceedings Board of Revenue, submitting the Collector's scheme for their settlement, with orders thereon.

25/1-05

716 Rev
3/5/1872

To

Dated 3rd May.

Rect.

G. O. 3rd May 1872. N. 715

Govt. of Madras.

REVENUE.

THE BOARD OF REVENUE.

&c., &c., &c.

Rect.