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SELECTIONS FROM THE RECORDS OF THE BOMBAY
GOVERNMENT.

No. CLVI., NEW SERIES.

PAPERS.

RELATING TO THE.

REVISION OF THE RATES OF ASSESSMENT ON THE
EXPIRATION OF THE FIRST SETTLEMENT

IN THE

OLD HÁNGAL TÁLUKA AND THE OLD TADAS MAHÁL
OF THE HUBLI TÁLUKA

OF THE

DHÁRWÁR COLLECTORATE.

Bombay:
PRINTED AT THE GOVERNMENT CENTRAL PRESS.

1881.

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**INDEX TO THE CORRESPONDENCE ON THE REVISION SETTLEMENT
OF 215 VILLAGES FORMERLY COMPRISED IN THE OLD HA'NGAL
TA'LUKA AND THE OLD TADAS MAHA'L OR SUB-DIVISION OF
THE HUBLI TA'LUKA, DHA'RWA'R COLLECTORATE.**

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No. 178 OF 1877.

FROM

COLONEL W. C. ANDERSON,
SURVEY AND SETTLEMENT COMMISSIONER, S. D. ;

TO

THE CHIEF SECRETARY TO GOVERNMENT,
REVENUE DEPARTMENT.

*Survey Commissioner's Office,
Poona, 3rd February 1877.*

SIR,

I have the honour to forward the following proposals for the revision of the assessment of two hundred and fifteen (215) villages formerly comprised in the old Hángal Táluka and the old Tadas Mahál or sub-division of the Hubli Táluka of the Dhárwár Collee- torate. The original settlement of these villages was reported on by Captain Wingate in his letter No. 15, of 26th January 1848, and his proposals received the sanction of Government by Mr. Secretary Goldsmid's letter No. 2773, of the 16th May 1848. A copy of all the correspondence relating to the original settlement is appended to this letter. The original settlement was introduced by Captain Wingate in the commencement of 1848, and took effect in 1847-48; consequently in the current year, 1876-77, the thirty years to which the original settlement extended expired.

2. These villages are now distributed among the following tálukas :—

Hángal, one hundred and nineteen	...	...	119
Bankápur, sixty-five	...	...	65
Karajgi, twelve	...	...	12
Hubli, twelve	...	...	12
Kalghatgi, seven	...	...	7
			<hr/>
	Two hundred and fifteen	...	215
			<hr/>

3. These villages have been re-measured on the system described in paragraph 6 of my letter No. 141, of the 29th January 1874, regarding the Hubli and Navalgund villages, which comprised the first part of the Dhárwár Collectorate coming under revision ; which system has been applied to the Dhárwár Collectorate as portions of it have successively come under revision. For convenience sake I quote here from para.3 of my report on the old Bankápur Táluka, No. 7, of 4th January last, as to the main features of the system adopted in re-measurement :—

“Every separate occupancy already recognized in the Government accounts is made into a separate survey number. Similarly, every separately recognized share of inám land is made into a separate survey field, in accordance with the orders contained in Government Resolution No. 4248, dated 24th July 1873. This will entirely save, in future, the difficulties which have hitherto frequently occurred in the collection of judi from the land being entered in the name of one person and being actually held by another, who was, moreover, frequently responsible in the accounts for his quota of judi on the whole watan, without any sub-division of the land being correspondingly recorded against his name. Survey numbers containing inám and Government land are also divided into separate numbers according to boundaries laid down under the Mámlatdár's orders. All survey fields of excessive area are divided into survey fields of about 20 acres each.”

4. In addition to the above, unoccupied rice-lands, of which there were more than (1,000) one thousand acres, have been subdivided into small numbers of about two (2) to three (3) acres each. A good deal of inconvenience has been felt in this tract from the large size of the numbers into which the rice-lands were made in the original survey, many running up to ten (10) acres and even more. In the descriptions of this kind of land—which are, in the main, dependent on rainfall, either direct or from drainage from higher land—the cultivation is somewhat precarious : ryots neither like to take up large numbers, nor to hold to them in bad seasons. Their convenience and the interests of the Government revenue, which are inseparable, are greatly furthered by the division of such lands into small survey numbers ; one acre of rice-land may be considered as equal to four or five acres of dry-crop land in the cultivating power required to be applied to it.

5. The remarks regarding the reasons which induced me to consider entire re-measurement necessary at paras. 5 and 6 of my report, regarding the revision of the old Bankápur Táluka, No. 7, of the 4th of January 1876, apply equally to the tract under report but with additional force—in that, with the exception of a few of the extreme eastern villages, this tract is essentially a rice and

garden country, and very considerable changes have taken place in the lapse of thirty years in the areas under irrigation, not so much in the total area as in the irrigated areas in individual instances of survey numbers, which are very commonly both less and more than formerly. This partly arises, beyond doubt, from the contraction or extension of irrigation, but to some extent from imperfect definition of the irrigated area in the original survey in which this was the first rice tract dealt with, and experience had not taught the best mode of defining the irrigated and unirrigated area comprised in one survey field.

6. Re-classification was, as regards soil, only partially resorted to. In the first instance about 15 per cent. of the lands in each village were re-classed to ascertain the standard of the original classification, an additional quantity being afterwards re-done if need appeared. When the present and formerly recorded areas in one survey number of rice and dry-crop land, respectively, did not differ more than one-fifth, the old classification of soil was applied to the respective areas now ascertained to exist; when the difference was more than one-fifth, it was considered necessary to re-class; the classification of the supply of water was re-done in every case; even if the changes which have occurred in water-supply in the lapse of time had not rendered this necessary, it would have been called for by the fact that no regular systematic water-classification was introduced till the year following the original survey of this tract of country. Of the whole 215 villages, sixty-nine (69) were entirely and one hundred and forty-three (143) partially re-classed.

7. As heretofore in Dhárwár revisions, statements were supplied to me, showing the old classification and new classification of every survey number re-classed; on these I fixed the amount of adjustment to be applied to the old classification in each village to bring it into conformity with the standard now adopted. I also reduced, by an amount not exceeding one class or two annas, the new classification of every re-classed survey field which showed a considerable increase over the old classification, so as to obviate the possibility of any accidental error in the new classification, putting that field on a higher rate than similar fields in the same village. As a general rule we found the old classification to be, as usual heretofore, low in the superior dry-crop soils and high in the inferior soils.

8. According to the old survey the total area of this tract was acres 254,343; according to the present survey it is acres 255,656—a difference of acres 1,313, or 0.05 per cent. The areas of the present survey and that of the past are shown below in contrast under each head:—

			Present Survey.	Former Survey.
			Acres.	Acres.
Arable dry-crop ...	...	...	142,575	140,245
Rice-land ...	...	...	50,921	52,957
Garden-land ...	...	...	1,101	807
Unarable, forest, &c. ...	...	...	61,059	60,334
		Total ...	255,656	254,343

9. The small increase of total area may be easily accounted for in more careful measurement on roads, streams, and of village-sites. Rice-land shows a decrease in total area compared to that of the former survey. This decrease is by no means equally diffused: in many villages there is, in fact, a considerable increase, even of 20 per cent: and upwards, attained by the appropriation of land to rice cultivation where the water-supply admitted of this being done; in many other instances there is a decrease, to an equal or greater amount, from the water-supply having failed; for no other reason would land once devoted to rice-cultivation, by regular terracing to retain the water, again revert permanently to dry-crop cultivation. The people assert that the rainfall is not what it used to be: this I doubt generally, for it does not appear to me, on my own observation, that there has been any material general change in the climate during the last thirty to forty years; but as regards localities there has been, I doubt not, a considerable change from the gradual denudation of the jungles. No one who has been in this tract of country in June, and has seen how the showers coming up from the south-west will cling to a line of wooded hills, and be, as it were, repelled by the barer elevations, can doubt that the clearing of wooded tracts projecting from the great mass of the Kánara jungle to the west and south-west of this tract must unfavourably affect the rainfall of villages in their vicinity.

10. The tract of country forming the old Hángal Táluka and the Tadas Mahál of the old Hubli Táluka, of which a map is appended, contains 399.45 square miles, is about forty-two (42) miles from north to south. The narrower strip to the north as far south as the town of Dhundshi about comprises the old Tadas Mahál, and the block of country to the south of that point, the old Hángal Táluka; the villages of the two old divisions were, however, near the line of division somewhat intermixed. The old Tadas Mahál was, except to a small extent to the south, immediately bounded on the west by part of the old Hubli Táluka con-

Villages of the Savanur Jaghir included in this Map are left uncolored and marked S. Other villages left uncolored are Incum. or not for Settlement, and those which are underlined have had the Revised Settlement introduced in previous years in them.

MAP OF 215 VILLAGES
of the
HANGAL, BANKAPUR, KARAJGI,
HUBLI & KALGHATGI TALUKAS
of the
DHARWAR COLLECTORATE
for Settlement in 1877-78

Scale, 3 Miles to an Inch.



Maximum Rates

	Dry crop	Rice	
Class 1	2.4	none	
" 2	2.0	8	
" 3	1.12	8	
" 4	1.8	8	
" 5	1.4	8	
" 6	1.0	7	

— Roads —
 — Provincial constructed, bridged & moorimed
 — Local fund do do do
 - - - - Lined & Formed, partly moorimed, some culverts built
 - - - - In progress or proposed.

sisting for some miles of open country ; but the old Hángal Táluka was bounded on the west by the jungly country in North Kánara, which at the time of the last settlement was in the Madras Presidency.

11. East and west the width of the tract under report varies greatly : in the north, in the old Tadas Mahál, it is as little in parts as from six to eight miles ; in the old Hángal Táluka it attains to twenty miles.

12. Between the eastern and western villages there is a very great diversity of climate and products. The eastern villages of the old Tadas Mahál and also of Hángal may be considered to be dry-crop villages of the most favoured kind as regards natural advantages ; they have a large proportion of excellent soil producing jowári, cotton, and all the other better class of dry-crop produce, and enjoy also a most excellent and certain rainfall. I know of no tract in the southern half of the Presidency which can be looked upon as better off in this respect than the eastern margin of the tract under report. The kharif or early rains predominate throughout this tract, and are most depended on. Still the later or October rain is seldom wanting, and thus a double chance is afforded.

13. The change on proceeding westward is exceedingly rapid. While the eastern villages may be considered pure dry-crop villages, the extreme south-western in the old Hángal Táluka are certainly pure rice villages. The parallel of a line drawn from Hubli to Bankápur about represents the line of equal climate as regards rainfall, which on proceeding to the west increases, it may be said, with every mile. In the south of Hángal the climate is moister than in the same parallel to the northward, from the influence of the heavy jungles in Kánara and Mysore on the west and south. While the eastern margin comprises prime dry-crop country and the south-western pure rice villages in which rági, otherwise called náchni, is the staple dry-crop, every intermediate gradation of climate and character of cultivation is passed through in the villages intervening between the eastern and western extremes, the cultivation becoming more and more of the character accompanying rice cultivation with every few miles of westerly progress. The rapid change in the character of the cultivation is most marked in the old Tadas Mahál, where six or seven miles only separate pure and excellent dry-crop country from that in which rice and dry-crop appear in competition. This sharply-defined line of separation is common in the north of the Dhárwár Collectorate, and is probably to some extent due to the fact that the water-shed of this part of India is here—Dhárwár, Hubli, and Tadas being places situated within a mile of the culminating point of the ridge dividing the water-sheds of the western and eastern

seas, on the western slope of which the climate is certainly much moister than on the reverse slope, and, therefore, more favourable to rice and less so to dry-crop cultivation.

14. The old Hángal Táluka differs from any other part of the Presidency in being a country of tanks where cocoanut and areca or supári cultivation flourishes,—not, perhaps, to the same extent as in Kánara and the west of Mysore, where the still moister climate admits of the cultivation of spices, cardamoms, and pepper being added; but still with the aid of tank irrigation both cocoanut and supári cultivation thrive well. The south-western half of Hángal, in fact, is more akin to Kánara above the gháts and the north-west of Mysore than to the country to the northward in which rice and sugar-cane cultivation only obtains in the western parts, and the cultivation of the cocoanut and areca tree is almost unknown.

15. This tract* is exceedingly well provided with roads. The main road from Hubli to the port of Kumta, *vid* Sirsi, passes through the Tadas villages; another main line of communication between the Dhárwár plains and Kumta leads from Bankápur by Hángal to Sirsi. From Bankápur a main line of road proceeds due west to Mundgod in Kánara, thence there being the choice of going *vid* Sirsi to Kumta or *vid* Yellápur and the Arbail Ghát to either Kumta or Kárwár. The extreme south of Hángal is intersected from east to west by a main line of road coming up from the Mysore districts through Harihar and leading to Sirsi. A fifth line of road runs from south to north from the Mysore frontier, beyond which it is being brought into connection with the system of roads in western Mysore, up, through Hángal, Dhundshi, and Tadas to Hubli. These are the five main lines of communication, and all carry a very heavy traffic during the fair season. Of minor lines and cross lines of communication there is no want.

16. As regards markets, this tract is very well provided. Dhundshi, in the north, is an entrepôt of trade between the country to the east and the coast, and is a market of considerable importance. In the south, Alur is considered the largest market. There are many other minor markets scattered over this tract, and the number of made roads also afford free communication with large markets at no great distance outside, such as Hayeri, Bankápur and Hubli. Of ample means for the disposal of produce there is no want whatever in any of the villages under report; and their staple productions—rice, sugar, cocoanuts, and supári—are of such

* A sketch map is appended showing the general position of the tract under report with reference to the coast and the lines of traffic.



SKETCH MAP
 SHOWING MAIN LINES OF ROAD FROM
 DHARWAR AND THE ADJACENT COUNTRY
 TO THE COAST.



Photocircographed. Civ. Office, Poona, 1930.

a nature, as to always command a ready sale. In the villages on the eastern margin cotton grows well, and the New Orleans variety is much cultivated.

17. All the made roads have been constructed within the last thirty years. Some may possibly have been planned at the time of the last settlement; but even the connection from Hángal to Pála, seven miles, with the main road to the coast from Hubli was not made for some few years afterwards: what traffic there was, found its way by country tracks, which in some directions were fairly passable in the fair season. The road to the coast from Hubli by Sirsi, which passes for some distance within two to four miles of the western frontier of the old Hángal Táluka and parallel to it, was only opened within a year before the last settlement, and before that there was absolutely no communication with the coast except by pack bullocks, as no made road down the gháts existed. The Nilkund Ghát, considerably to the south of Sirsi, was the first ghát lined out and made to a narrow width about thirty years ago; it was not for some few years after that the Devimani Ghát was made, which ghát is now the chief approach to Kumta. At the time of the first settlement, thirty years ago, the tract of country under report was not opened up at all, and any traffic with the coast was carried on under extreme difficulties. Now, both to the coast and inland, through all the fair season, the country is thoroughly opened up, and produce can be taken in whatever direction the best market for it is obtainable.

18. The general line of export of produce is both to the coast and to the north and east. Rice goes both to the coast and to the north to Hubli; sugar, cocoanuts, supári or areca nut, and pánvel—the leaf eaten with that nut, a valuable garden product—go principally to Hubli, but some go to the plain districts to the east. The cotton of the eastern villages, as a matter of course, goes to the western coast.

19. From holding an intermediate position between the coast and the districts inland, and from being intersected by so many main lines of communication, there is a great demand for fodder during the fair season, and all the surplus above that required for domestic wants can be sold at a good price.

20. There are no manufactures of any importance whatever: some weavers are scattered among these villages. The total number of looms is stated to amount to 351, of which about one fifth are employed in making kambliis, the coarse woollen blankets used universally by the people of this country; the remainder being employed on the fabrication of coarse cotton cloth, which is entirely devoted to internal use.

21. At paras. 9 to 13 of the extract from the report by Captain Godfrey, the Survey Officer, under whom the re-classification of this tract was conducted, gives an account of the principal irrigation works, above the rank of simple catch-water tanks, in these villages; all these are in the old Hángal Táluka, the southern part of the whole tract under report. The chief of these is the "Shringeri Wud," or dam, which is thrown across the small river Dharma at the inám village of Shringeri, about six (6) miles south-west of the town of Hángal. This dam is of most trifling dimensions; speaking from recollection, I should say the total masonry work cannot exceed 60 to 80 yards in length, and not more than 7 to 8 feet high in the highest part. I know not when this dam was made; it is, I believe, of unknown antiquity. The channel below this dam runs from some twelve (12) miles, filling many tanks on the way. A second dam, about thirteen miles lower down on the same river, exists near the village of Kenchi Neglur, about seven miles north-east of the town of Hángal, and extends as far as the large tank at Naregal, which it feeds. There are also two minor dams on tributaries of the Dharma River.

22. In proportion to any sum which could have been the cost of the above works the returns from them must be beyond all measure remunerative. What the precise returns are, it is impossible to say, as it would take too much time—even if it were possible—to eliminate from the general irrigated lands the proportion affected by these works and the precise amount of their irrigation due to these channels; for hardly any tank fed is solely supplied by them, and in a moist country, like the parts affected by these works, hardly an acre deriving some benefit from them does not also derive some part of its irrigation from drainage or some other source. But at a rough estimate I am probably within the mark in stating that a revenue, under the revised settlement now about to be proposed, of Rs. 20,000 will be due to these works, the success of which is not due to any great engineering feats, but to the happy selection of favourable natural facilities which the irrigation engineers of ancient times were so prompt to make use of, that I believe—in the Southern Marátha Country at any rate—no favourable situation exists which does not either show an existing work, or traces of one, having been in existence or attempted in ancient times.

23. As regards any further turning to account of the Dharma River, Colonel Playfair, who was Executive Engineer at Dhárwár some fifteen years ago, informed me that he had examined it carefully with that view, and was of opinion that nothing could be done farther as regards the river itself; but there has been, doubtless, room for improvement in the distribution channels, for im-

provements have been constantly made even up to as recently as three years ago, and even now more are in contemplation by the Irrigation Department. Ten years after the first settlement, or about (20) twenty years ago, a considerable additional area being found to have been brought under irrigation, or to have acquired improved irrigation, was brought under water-assessment, and only five years ago I was requested by the Collector to take measures for ascertaining the amount of irrigation from these works, as there was reason to believe it had again much increased. As this would have been a very lengthy business to carry out, involving an examination of all areas formerly and then irrigated in some thousands of survey fields, and as the revision was drawing near, the investigation was, on my suggestion, postponed till it could be systematically undertaken, as has been the case now.

24. In the 29th para. of Captain Godfrey's report, appended, it is stated that there are now 1,179 tanks used for irrigation and 107 tanks used for drinking water only in these villages, against 1,106 and 102, respectively, thirty years ago. Small tanks of an area under one acre are excluded from these numbers. Some part of this difference in the past and present numbers of tanks may certainly have occurred from some, either just above or just below the area of one acre, having been excluded from the past or present numbering; a further part of the difference may be accounted for by tanks formerly disused, and cultivated in their beds, having been again by some repairs fitted for affording irrigation. Of entirely newly-constructed tanks there can be few or none; for, as a rule, all available sites were occupied in ancient times, and very many so occupied are now still disused. Some, perhaps, are susceptible of repair, but it is probably hardly remunerative, and many are silted up.

25. The following statement, compiled from the returns made up at the time of the classification, shows the comparative statistics of thirty years ago and the present time:—

	At the time of previous Settlement.	1876.	Increase.	Decrease.	Percentage Increase or Decrease.
Population	73,698	80,373	6,765	..	9.19
Houses { Flat-roofed	1,888	4,422	2,734	..	162
{ Thatched	2,285	3,679	1,385	..	69
{	11,228	6,892	2,886	..	29
Agricultural Cattle	27,541	27,789	248	..	0.98
Cows, Buffaloes, and their Young	56,401	42,000	..	13,401	24
Sheep and Goats	10,339	7,962	..	2,377	23
Ploughs	No record.	11,385	..	..	..
Carts	1,615	*4,258	2,638	..	169 3
Horses and Ponies	889	557	..	328	36
Wells .. { Irrigation	No record.	344	..	..	..
{ Drinking .. .. .	..	494	..	..	..
{ Out-of-repair .. .. .	..	623	..	..	..

* These figures are slightly in excess of those shown in Statistical Statement No. VI. attached to the extracts of Captain Godfrey's report appended. The above are, however, correct, being the result of careful check of the village detailed statements.

26. The present population gives an average rate of 201·2 to the square mile against 184·2 to the square mile thirty years ago. The average rate is not as large as might at first sight be expected in a tract of country in which there is so much irrigated land, which is always accompanied by a much heavier population than in plain tracts. But the explanation of this is to be found in the extensive jungles which fringe the west of the southern part of the old Tadas Mahál and the whole west and south of the old Hángal Táluka, and form, in fact, about one-fifth of the whole area. The population of the eastern half of old Hángal, where rice and good dry-crop cultivation both flourish, I find, gives an average of 217 to the square mile; while that of the western part, which includes all the jungle, only shows an average of 182, notwithstanding that the predominance of irrigated cultivation is great, and that it includes the town of Hángal. Of the total population, 56·13 per cent. is returned as purely agricultural, 14·89 as partly agricultural, and 28·98 as non-agricultural. I do not place very much faith in the accuracy of these figures, in which I consider the proportion of the agricultural population to be understated.

27. The increase of population—9·19 per cent.—shown in the above statement is considerably less than we have hitherto found in the revision settlements in the Dhárwár Collectorate. This is, I apprehend, due in some degree to the prevalence of fever, a few years back, in the western part of the tract bordering on Kánara. In irrigated districts like this more fever will from time to time prevail than in open plain districts; but between 1860 and 1865 the fever, which was then so excessively prevalent in Kánara, extended over the border into the Dhárwár Collectorate. This special outbreak, together with the general tendency to fever in this tract arising from the nature of its cultivation, has certainly been one, if not the main, cause for a lower rate of increase in the last thirty years than we have met with elsewhere. There may, too, have been some loss of population by emigration into the contiguous parts of Kánara, where population has certainly much increased in the past thirty years.

28. The increase in the better class of houses, the flat-roofed and tiled, and the decrease in the thatched habitations, is one of the most marked proofs of the improved condition of the people.

29. In these villages we find, for the first time in the Dhárwár revisions, an increase, though small, in the number of agricultural cattle; this is due to the quantity of grazing afforded to many villages in the west by the jungles in the vicinity, and, I fear, also to the abundance of that grazing encouraging the keeping of worthless cattle which in the plain country, where the feed of every beast costs money, would be got rid of. In these western

districts of Dhárwár, where grazing is everywhere abundant, the cattle are very inferior on the average to those of the plains, where stall-feeding is from necessity the general practice. I should have expected the present number of cattle to be greater than appears in the statement above; and as these returns were made out in the fair season, when many carts and cattle are absent, employed in the carrying trade, I think it probable that many of both have escaped enumeration now.

30. The number of cows, buffaloes, &c., shows a considerable decrease as has occurred in every part of Dhárwár heretofore revised. This is probably due partly to the decrease in the number of worthless cattle now kept, and also certainly to the fact that it is not a cattle-breeding country. No one wanting to obtain a good pair of bullocks, or a good buffalo, would purchase a Dhárwár-bred one of either kind, the indigenous breed being decidedly inferior. The demand for good cattle is almost entirely supplied from Mysore and from the Bellary country. The number of sheep and goats has also here, as everywhere, decreased; these do not thrive in the western villages near the jungle, and in the eastern or plain villages. The amount of grazing has by the extension of cultivation much decreased.

31. The increase in the number of carts—163·3 per cent.—is much the same as we found in Bankápur, the settlement of which was revised last year, and I am inclined to believe that in both cases the present existing number is somewhat under-stated from the omission of many absent in the carrying trade at the time of the enumeration.

32. Very few of the animals returned under the head of "horses" are more than ponies of an inferior description. The relative numbers show a considerable decrease at present compared with the past, which I am unable to account for, as the people are generally much better off than formerly, and going to and fro prevails to a much greater extent. The Kánaresé people have always been in the habit of riding bullocks—a thing rarely, if ever, seen in the Deccan; they do not, however, ride bullocks more now than formerly. I am inclined to believe that the increase in made roads and wheeled vehicles of sorts has induced increased travelling by that mode, and decreased travelling on ponies and bullocks—formerly, from the badness of the roads, the usual and only practicable alternative to going on foot.

33. Irrigation from wells alone prevails to a very small extent, channels from tanks being much more used; what irrigation wells there are, exist mostly in the low land below tanks, and water is drawn from them for supplementary irrigation after the tank channel has ceased to run.

34. Appended to the extracts from Captain Godfrey's report is a lengthy statement compiled from the records of the Registration Office relating to the sales, leases, and mortgages of land, which have occurred in the last (4) four years. From the original statement I have removed many items which were of no value from the transactions not being confined to land alone, but complicated by the inclusion of houses, &c., of unknown value. The figures given convey a very high idea of the value attached to land in these villages, and of the extent to which dealings in it take place. Sales at 20 to 30 years the assessment may be freely met with, and some at much higher proportions. Regarding all these cases of sale, there is, of course, doubt if the whole transaction from first to last is recorded, or only the final closing up of a series of previous dealings. The cases of lease and mortgage are much more numerous than those of absolute sale, indicating a desire not to relinquish all hold on the land. A common form of lease appears to be to pay a sum down for the use of land for a term of years, the Government assessment in the case of Government land, or the judi, or other payments due on inám land to be paid generally by the owner of the land, but sometimes by the lessee. In some cases the land is let for an indefinite time, a certain rate of interest on the sum lent being agreed for; three (3) and four (4) pies per rupee a month, equal to $18\frac{3}{4}$ and 25 per cent., appear as common rates, though lower and higher rates are to be met with. A not uncommon arrangement appears to be for the mortgagee to take the produce of the land in payment of the interest at the stipulated rate, any surplus over the interest going to reduce the principal sum.

35. The terms of leasing are somewhat complicated, and it is difficult to at once see from them the proportion which the assessment bears to rent procurable, of which I will give one or two instances. Case No. 62 in Appendix A. shows that acres 9-36 of Government land, assessed at Rs. 27-4-0, were leased in 1872 for five (5) years for Rs. 350 paid down, the owner or "occupant" of the land to pay the Government dues. Now the simple sum paid down amounts to Rs. 70 a year for the five years; and if the quota due to the rent of each year is deducted and excluded at the commencement of each of the five years, and interest on the unappropriated balance calculated at the very moderate rate of 10 per cent. for the time till it requires to be appropriated to rent, a farther sum of Rs. 70 or Rs. 14 a year will require to be added to the above Rs. 70, making the total Rs. 84 a year, rent obtained for land the Government assessment of which was Rs. 27-4-0, making the assessment under 33 per cent. of the rent. In the above calculation interest has been taken at 10 per cent., which, on inspection of the terms commonly registered, is

the very lowest rate occurring in any case. One survey number of the three in this case is rice-land, the remainder dry-crop.

36. In the next case, No. 63, acres 31-38, assessed at Rs. 17, are sub-let for Rs. 200 down; the lessee to pay the Government dues: Calculated in the same manner as the case above, the owner or "occupant" of the land will receive a clear Rs. 41-8-0 a year, and the lessee will pay rent Rs. 41-8-0 + Rs. 17 Government assessment, or a total of Rs. 58-8-0 for land assessed at Rs. 17. In this case the assessment rent will equal 29 per cent. of the gross rent. In this case the land referred to is evidently dry-crop land of very moderate quality.

37. The above two cases I have taken as the first which occur of Government land leased out by a payment down in advance. Many others might be brought forward showing lower proportions of assessment to rent. Case 75 shows 4 survey fields containing acres 18-32, partly rice-land bearing assessment or rather valuation Rs. 38, for the land is inám, sub-let for 10 years for a payment down of Rs. 250; and in the very next case, No. 76, acres 7-11 inám land, assessed or valued by the survey at Rs. 24, are leased for 12 years for Rs. 1,500 down, which, by the mode of calculation above adopted and at the same rate of interest, 10 per cent., will give Rs. 193-8-0 a year as the rent of land assumed at Rs. 24. In this case the assessment is $12\frac{1}{2}$ per cent. of the rent. In all these cases, however, we may be sure that the minimum rent or equivalent payment is alone recorded; uncertainty must always remain as to whether the transaction is an entirely new one, or whether it is the close of a previous series by the circumstances of which the final transaction may have been materially modified.

38. In para. 15 of the appended extract from Captain Godfrey's reports it is stated, from information recorded at the time of classification, that survey numbers 8,990 are cultivated by the "occupant" under Government or his relations, 333 numbers by the occupant in partnership with others, 2,104 numbers by sub-tenants on money rents, and 1,441 numbers on grain rents or on a share of the produce. This relates solely to the Government land; excluding inám land this gives the following percentage distribution of the occupied Government land :---

	Per cent.
Cultivated by occupants themselves or other relations ...	69.81
By occupants in partnership with others	2.59
By sub-tenants on money rents	16.38
By sub-tenants on grain rents or on share of produce ...	11.22
Total ...	<u>100.00</u>

Here, as everywhere in this part of the country, the ordinary terms of sub-letting on grain rents or share of the produce are half the gross produce, the owner of the land paying the Government demands. But special circumstances will modify these terms a little either way.

39. Regarding prices of produce in past times, I have experienced even greater difficulty than usual, which is saying a good deal, in obtaining consistent and trustworthy information. Captain Godfrey sent in lists of prices in the chief markets for a long series of past years, but they were quite inconsistent with one another, and also with all probability; after many fruitless attempts to reconcile discrepancies, I have been obliged to reject these returns entirely. There have been several changes in the ser in use during the past fifty years, which is one fruitful cause of error; and in rice, which may be called the staple product of the greater part of the tract under report, it is sometimes customary to record in "bhát" or rice in the husk, and sometimes in "tándul" or clean rice. Entering the price of one for the other, is another evident cause of discrepancies.

40. In 1864 and again in 1870 I obtained, as far as possible, for all tálukas in the Southern Marátha Country, price-lists up to date for as far back as any record was procurable. The time of revision of assessment was then at some distance, and there was, at any rate, less fear of these lists containing prices wilfully misrepresented than would be the case in lists obtained at the very time of revision. I have had the lists, thus obtained through the Collector for the Hángal market, brought up to date, reduced to sers of 80 tolas, and made into one statement, which is subjoined to this letter as Appendix A. After careful examination and inquiry and collation with other price-lists, this list is, I think, in the main, fairly trustworthy, though the figures in some few years are of exceedingly doubtful correctness. For instance, the prices of 1853 are shown as 178 sers of paddy, 160 of jowári, and 88 of wheat for one rupee. It is very suggestive of an error in the ser that these quantities are about double those of the year before and after; if, in fact, these quantities are halved, the prices of this year would fairly fit in with those of the years before and after. A similar doubt arises regarding the prices shown to 1850. In calculating the averages I have, therefore, taken the halves of the prices shown in 1850 and 1853 for the doubtful items, rice, jowári, and wheat.

41. The following are, dropping fractions, the average prices in the Hángal market of each ten years commencing with 1817, of the staple products of this tract—rice in husk, jowári, jágri or

coarse sugar, supári or areca nut, and cocoanuts—abstracted from the statement Appendix A. ; the average price of the past three years is also shown separately in another statement in a following para. :—

Period.	Rice in huak	Jowári.	Rági <i>alias</i> Náchni.	Jágrí.	Areca Nut.	Cocoanuts per 100.
	Sers.	Sers.	Sers.	Sers.	Sers.	Rs. a p.
10 years, 1817 to 1826 ...	128	77	98	20	7	2 7 7
Do. 1827 to 1836 ...	75	65	82	18	7	2 10 10
Do. 1837 to 1846 ..	109	99	122	17	11	1 12 1
Do. 1847 to 1856 .	86	77	112	14	14	1 9 5
Do. 1857 to 1866 ..	*38	37	42	7	4	4 8 11
Do. 1867 to 1876 ...	38	35	51	8	3	4 8 5

* The earlier years of the period 1857 to 1866 partook of the lower range of prices prevailing in the preceding ten years ; the general average of these ten years is raised by the much higher prices of the later years, but, on the whole, the average of 1857 to 1866 does not exceed the average obtained from the steadier prices of the ten years from 1867 to 1876.

42. The prices of 1857 to 1866 are much and suddenly increased from that period, including most of the years of highest prices resulting from the American War, or from 1863 to 1866, which continued in a modified degree up till 1867, as will be seen on reference to the detailed statement Appendix A. The above figures are abstracted from the returns relating to the Hángal market, as shown in the statement Appendix A. I have pointed out above some evident inconsistencies and errors which I have corrected. The abstract statement above may, perhaps, give some fairly correct idea of the past prices. They certainly appear very low, comparatively, in the earlier decennial periods; but it must be remembered that in those days the country was, comparatively, closed to external trade, and most of these villages were especially removed from communications and the general lines of traffic. The prices of the last few years are of more importance for accurate ascertainment. I do not place entire faith in the statements received from the Hángal Mámlatdár, even for recent times, as some inconsistencies occur. I, therefore, in the statement below show the prices for the past three years as recorded in the *Government Gazette* for Hubli, and as entered in the Mámlatdár's returns for Hángal, which differ somewhat for recent years; I have, however, taken the average of differing statements for each of recent years, so as to reduce the chance of material error as much as possible :—

Source of Information.	Year.	Sers of 80 tolas for one (1) Rupee.					Cocoanuts per 100.
		Rice in husk	Jowári.	Rági <i>alias</i> Náchni.	Jágrí.	Areca Nut.	
Government Gazette Returns for Hubli.	1874	32	28	32	7½	4	Rs. a. p. 4 1 4
	1875	34	25	33½	7½	2½	4 6 8
	1876	25	18½	22½	7½	2½	4 1 4
	Average ...	29½	23½	28½	7½	3	4 2 9
Hángal Mámálat-dár's Returns.	1874	44½	32	48	10	5½	4 1 0
	1875	54	29	44	7½	3½	4 12 0
	1876	43½	30½	40	8½	3	3 15 0
	9 months ...	47½	30½	44	8½	3½	4 4 0

43. It is easy to understand that prices at Hubli must range higher than at Hángal, the former being itself a place of some 40,000 inhabitants, and also a great centre of trade between the populous plains to the eastward and the coast and the rice-growing tract to the west; but considering that Hángal is not more than (3) three days' journey from Hubli by a good cart-road, the difference between Hubli and Hángal prices is greater than should be expected. Something is, perhaps, due to Hubli prices as quoted in the *Gazette* being shop—that is retail—prices; while those in Hángal may be the prices dealers would pay to the ryots, or wholesale prices. But for the present purpose, I will contrast the Hángal prices as stated for 1874 to 1876 with those for the same place quoted above for the decennial period 1847 to 1856, immediately following the introduction of the expiring settlement. The prices in the northern part of the tract under report as regards grain would be intermediate between those of Hubli and Hángal; but the following comparison based on Hángal returns alone will suffice for the present purpose:—

	Sers of 80 tolas for one Rupee.		
	Period of ten years 1847 to 1856.	Average of three years 1874 to 1876.	Increase per cent.
Rice in husk	86	47½	82
Jowári	77	30½	153
Rági <i>alias</i> Náchni	112	44	154
Jágrí	14	8½	61
Areca nut	14	3½	261
Cocoanuts per 100	Rs. 1-9-5	Rs. 4-4-0	167

44. The great increase in the price of the cheaper food-grains, jowári and náchni, is to a great extent the result of the improvement in communications: formerly it did not pay to convey these grains to any distance, and, as a general rule, the production in agricultural tracts, like that under report, was not much more than was necessary for home consumption. The price in the local markets was formerly not only low, but from difficulties in the way of export any large quantity thrown on a local market was unsaleable except at a heavy sacrifice. "Náchni in particular was, I believe, in former times, from its bulk in comparison to value, quite unexportable remuneratively; it is the common food of the lower classes in the western districts, and generally all through Mysore, in few parts of which does jowári grow, and now it is traded in just as any other grain is.

45. The great rise in price in cocoanuts and areca nut or supári is partly due, of course, to the decrease in the value of money, but partly to improved communications and to the generally improved circumstances of the people throughout India, both being decidedly articles of luxury. The tract of country extending from Hángal south for about one hundred miles into Mysore, on and within forty miles or so of the gháts, and below the gháts in North and South Kánara, almost down to the sea-shore, produces more supári, I imagine, than all the rest of India together. There is a large trade in supári between Hubli and the country to the north, where little is grown. I have often met long droves of pack bullocks in former years between Hubli and Sholápur which had come down from Berar for supári; trade by this route still exists, though reduced somewhat by the improvement in the steamer communication with Bombay and rail thence inland.

46. Statement B., appended, gives the past revenue history of these 215 villages for ten years before the last settlement, which took effect in 1847-48, and for every year since, of which the following is an abstract:—

YEARS.	Government occupied Land.	Government arable assessed unoccupied Land.	Collections on Government Land.	Remissions.	Outstanding Balances at end of year.
	Acres.	Acres.	Rs.	Rs.	Rs.
1837-38 to 1846-47	54,071	114,128	83,106	11,152	4,684
1847-48 to 1856-57	81,169	52,120	92,954	1,166	5,185
1857-58 to 1866-67	123,646	16,006	1,27,751	...	...
1867-68 to 1875-76	125,171	13,584	1,29,434	4	...

In the first decennial period before the expiring settlement, the statement, Appendix B., shows large annual remissions and

considerable outstandings at the end of each year. Excepting in the year in which the settlement took effect, 1847-48, in which the remissions are considerable, from the difference between the new and old assessment being as usual remitted in that year when the former was more than the latter, remissions of insignificant amount appear up till 1855-56, never amounting to Rs. 20, except in 1848-49, when they amounted to Rs. 109. After 1853-54, outstanding balances, which had only been of material amount in one year, 1850-51, disappear entirely. During the last twenty years, with the exception of a single sum of Rs. 33 remitted in 1874-75, the columns for both remissions and outstandings show an entire blank, and the area of Government unoccupied waste, which was close on three quarters of the whole in 1846-47, has fallen to one-eleventh in 1875-76.

47. In the years before the last settlement the occupied area varied from acres 59,241 to acres 45,916, and the realized revenue from Rs. 91,491 to Rs. 75,691. During the last five years antecedent to the last settlement, the occupied area and the revenue had been year by year steadily declining. The following extract of statement, Appendix B., shows the figures of the most important years for contrast—the last year before the settlement, the first year after its introduction, and those of last year :—

YEAR.	Government occupied Land.		Government arable unoccupied Waste.		Total Collections under all heads of Land Revenue, Government Lands, Judi on Inám Lands, and Grazing Farm.
	Acres.	Collections.	Acres.	Assessment.	
		Rs.		Rs.	Rs.
1846-47	45,916	75,691	126,499	No record	1,23,731
1847-48	52,576	69,933	75,523	55,343	1,14,612
1875-76	123,137	1,27,704	12,770	8,156	1,73,261

48. The increase of the occupied area and of the collections after the last settlement in 1847-48 was steady and rapid. The year 1862-63 shows the highest amount attained in area, and the year 1867-68 in collections. After those years a small decline occurs down to 1875-76. I think this may be partially accounted for by the resignation of land taken up during the preceding five years, when the great rise in prices, resulting from the American War, threw so much money into the country that the people literally did not know what to do with it, and indulged in every

kind of reckless extravagance, the least harmful of which probably was taking up land which they did not absolutely require, which was never cultivated, and was resigned again when prices fell and money began to acquire the value it had lost during the last few years. The small decrease in occupied area and collections between 1867-68 and 1875-76 may also be partly accounted for by a decrease in the actual area available. The total occupied and waste of 1870-71 is acres 140,108, bearing a total survey assessment of Rs. 1,37,951, while the same totals for 1875-76 are acres 135,907 and Rs. 1,35,860—a decrease of acres 4,201 in area and Rs. 2,091 in assessment. It will be observed that there is no increase in the area of inám land, but rather a small decrease, and, therefore, the above amount shown as decrease has entirely disappeared from the arable area. It has, in fact, principally been made over to the Forest Department mostly out of arable assessed waste.

49. The land at present appearing under the head of unoccupied waste is principally in the western half of the tract under report, in which there is a good deal of undulating land of medium and inferior quality, which, till the population increases, will only be used for grazing. In the western villages, *rági* *alias* *náchni* is the common dry-crop cultivation, for which in such climates manure must be either applied or fallows given every second or third year. If the population is sparse and land plentiful, fallows will be resorted to in preference to manuring, the land being resigned for the time of fallow and other land taken up; when land is in demand, manuring will be resorted to in preference to fallowing. The western villages have but a sparse population, and there is abundance of land, moreover, procurable in the adjacent villages of Kánara.

50. The returns from land sold annually by auction for grazing purposes only differ exceedingly in different parts of these villages: In the eastern villages, where nearly all the land is cultivated, and also in the vicinity of large places, some lands specially reserved from cultivation and sold for grazing annually brings very large auction prices, even up to four and five rupees, and even more per acre. In the western villages, where waste lands are abundant and the means of giving free grazing liberally from the unarable lands and jungles existed at the first settlement, those sold by auction frequently only bring one or two annas per acre.

51. The following statement shows the extent to which it has been necessary to issue notices in default of payment of revenue punctually during the past three years, and the number of

cases in which it became necessary to resort to sales of land in default of eventual paying up :—

YEAR.	Notices issued in default of timely payment.	Resort to actual sale.
1873-74	322	3
1874-75	131	4
1875-76.	186	...

The decrease in the number of notices issued in 1874-75 is concurrent with the prompter procedure ordered in that year in cases of default of payment within the time allowed, and the substitution of a fine of one-fourth of the amount due, instead of one pie on every rupee for every day after the specified date. Here, as everywhere, the change has been most conducive to the punctual realization of the revenue.

52. The husbandry and condition of the people is generally good; but the western villages in proximity to the jungle are decidedly inferior in both respects—due, doubtless, in some degree, to the extent to which these villages suffered from the aggravated Kánara fever so very prevalent from fifteen to ten years ago, as well as to the general inferior healthiness of rainy jungly tracts compared with more open country. The present condition of every part is, however, very much better, and it may be said better in equal proportions throughout than it was in former times. The great increase of cultivation cannot but have been attended with some sanitary advantages, and the opening up of the country by improvement in the communications has certainly much added to the wealth of the people, and rendered them more able to bear with the disadvantages of climate affecting some parts.

53. After the above remarks on the past and present circumstances of the tract of country I now come to the question of the revision of the assessment. Here, as elsewhere, especially in Dhárwár, it is not so much a question of what would be the just proportion in which Government would be entitled to share in the increased value of land and produce, as the amount of increase which it is expedient to impose.

54. Captain Wingate, in the original settlement of these villages, divided them, north and south, into four groups for dry-crop with maximum rates, respectively, of Rs. 1-8-0, Rs. 1-3-6, Re. 0-15-0, and Re. 0-10-6. The highest maximum rate applies to

the eastern villages, where the best dry-crop cultivation flourishes, and then descends on each group in proceeding to the west, till Re. 0-10-6 was the dry-crop rate adopted for the extreme western villages. These are the maximum rates applied in practically carrying out the different scales of assessment described in para. 52 of Captain Wingate's letter No. 15, of 26th January 1848, on the original settlement of these villages, copy of which is appended.

55. As regards the rice-lands, Captain Wingate, as stated in paras. 66 and 93 of the letter above referred to, adopted maximum rates of Rs. 5 for Hángal and Rs. 5-8-0 for the Tadas villages.

56. As regards the garden lands in Hángal, those in the Tadas villages were of insignificant extent and of minor value. Captain Wingate, as stated in the 73rd para. of the letter above referred to, adopted a maximum rate of Rs. 20 for the best gardens in Hángal.

57. In para. 43 of his letter, above quoted, Captain Wingate alludes to his change of view regarding excess of rain being an advantage in dry-crop husbandry, and states that he had, after reporting, modified and reduced the rate originally proposed by him for some of the extreme western villages of the old Bankápur Táluka; this is alluded to in para. 50 of my letter No. 7, of the 4th January 1876, regarding the revision of the old Bankápur Táluka. He afterwards saw reason, also, to change his views regarding the productive value of the better descriptions of rice-lands, those which bear sugar-cane in triennial or occasional rotation, and second crops of grain or pulse in other years, and attach a higher value to those lands; this is alluded to in para. 86 of his report on the original settlement of the Dhárwár Táluka, No. 235, of the 21st December 1848, adopting a maximum rate of Rs. 8 for the rice-lands of the largest portion.

58. I propose to divide these villages into (6) six groups or classes as follows, commencing to the east, and reducing the maximum dry-crop rate in proceeding to the west.

59. The following is a brief description of each group of villages which will be found clearly indicated in the accompanying map. It will be seen that I have, in the main, adhered to Captain Wingate's grouping, except that his 1st group I have sub-divided into three groups:—

- 1st.—Six (6) villages detached to the east, or on the extreme eastern margin of the mass of the remaining villages. All of these are situated in contiguity to other villages settled last year in the old Bankápur Táluka at the dry-crop rate now proposed for these six, namely, Rs. 2-4-0. These six villages were all included by Captain Wingate

in his 1st group with a maximum dry-crop rate of Rs. 1-8-0, excepting one village—Hanmarhali—which, by an evident error, was put in Captain Wingate's 3rd group. This will be referred to again hereafter.

2nd.—Thirty-two (32) villages situated on the eastern margin of the old Hángal Táluka and Tadas sub-division of Hubli. These villages are very well situated for the best dry-crop cultivation, both cotton and jowári thriving well, though somewhat inferior, both in climate and in vicinity to great lines of communication, to the preceding group. For these villages I propose a maximum dry-crop rate of Rs. 2. These also formed part of Captain Wingate's 1st group, on which he imposed a maximum dry-crop rate of Rs. 1-8-0.

3rd.—Thirty-two (32) villages, immediately to the west of the preceding group, where the climate begins to become somewhat overmoist for the best dry-crop cultivation. For these I propose a dry-crop maximum of Rs. 1-12-0. They formed the western part of Captain Wingate's 1st group, assessed at a maximum dry-crop rate of Rs. 1-8-0.

4th.—Thirty-seven (37) villages, again, to the west of the above, with a still more moist climate. For these I propose a dry-crop maximum rate of Rs. 1-8-0. These villages formed Captain Wingate's 2nd group, for which Rs. 1-3-6 maximum dry-crop rate was adopted by him.

5th.—Fifty-seven (57) villages, again, to the west of the preceding class. Here the character of the dry-crop cultivation has decidedly changed, jowári being less rarely seen, and rági being the common dry-crop grain. For these I propose a maximum dry-crop rate of Rs. 1-4-0. These villages formed Captain Wingate's 3rd group, assessed at Re. 0-15-0 maximum.

6th.—Fifty-one (51) villages on the western border in and on the margin of the jungles. Here rági is, as a rule, the only dry-crop grain, and dry-crop land, unless freely manured, requires to be fallowed about every third year. The town of Hángal would from position alone fall into this group, but on account of its size and importance I have placed it in the preceding group. For this group I propose a maximum dry-crop rate of Re. 1. These villages formed Captain Wingate's 4th group, assessed at Re. 0-10-6 maximum dry-crop rate.

60. In the 1st group, consisting of plain villages, there is no rice-land. For the rice-lands of all the other groups one maxi-

imum rate of Rs. 8, the same as was adopted in the adjacent part of the Bankápur Táluka settled last year, will suffice for all but the 6th, or most westerly class, which borders on the jungles, for which I propose to adopt a maximum rate of Rs. 7. The rice-lands in these villages are not less productive than in groups further to the east;—in fact, as regards rainfall, the lands solely dependent on it are somewhat better off as the rainfall is more certain; but this group comprises the least healthy part of the táluka, and, therefore, some reduction is just. Regarding the mode of assessing the rice-land, I shall make some further remarks presently.

61. For the garden land I propose a maximum rate of Rs. 15. Captain Wingate in the original settlement adopted an actual rate of Rs. 20 for some of the gardens in the best condition, and other gardens with equally good soil and water advantages he assessed considerably lower, on account of their deteriorated condition rendering a low assessment absolutely necessary to encourage their restoration. The assessment on many of these gardens antecedent to the last settlement was most oppressive, in some cases in the village of Naregal amounting to as much as from Rs. 30 to Rs. 43 per acre, as stated in the 72nd para. of Captain Wingate's report (appended). The assessment, moreover, which was found in force at the time of the last settlement had been reduced to what it was from a still higher rate in 1842. I know from personal communication with Captain Wingate that he considered the rate of Rs. 20 on the best gardens in Hángal a very high one, but he was restrained in a great measure in his proceedings by financial considerations: the settlement he was proposing involved some immediate sacrifice of revenue, and he naturally felt bound to remit no more than was absolutely necessary when a heavy reduction was given and when the assessment fixed by him could be paid. The higher rates imposed in some cases of flourishing gardens enabled lower rates to be granted to those which were deteriorated, and their recovering thus be accelerated. I have now fixed uniform rates on all gardens with similar advantages of soil and water, after examination of the classification papers of every garden survey field; and while justice is secured in a uniform rate according to productive capacity, I feel assured that in no case is the rate fixed above the ability of the land affected, and at the same time the revenue will, on the whole, gain considerably from the bringing up the gardens held on abnormally low rates to the uniform rates in proportion to soil and water proposed, and by the bringing under assessment new garden land. In the adjacent old Bankápur Táluka I adopted a maximum, for the gardens, of Rs. 12, last year, which was sanctioned by Government. The

Hánga! gardens are very superior to those of Bankápur, and were higher assessed in the first settlement.

62. The gardens of Hánga! are decidedly inferior to those of the closely adjacent parts of North Kánara, where not only do the cocoanut and supári flourish to even a greater degree than in Hánga! from the moister climate, but the pepper, vine, and cardamoms are found growing in combination with the cocoanut and supári tree. In Kánara, where special circumstances call for decidedly low rates, we have as yet nowhere on the best gardens imposed a higher rate than Rs. 14 per acre, and I do not anticipate when we get nearer to the gháts—where the pepper, vine, and cardamom plant flourishes most—going higher than Rs. 15. These and the Hánga! gardens all represent considerable capital sunk in their formation, and some years of comparatively small return while the trees are arriving at maturity, after which the returns are great; but the care and labour requiring to be bestowed on the gardens are great also, any relaxation in which will be followed by rapid deterioration. An assessment of Rs. 15 per acre represents a water-rate of between Rs. 13 and 14 per acre, which is surely sufficiently high. It must be noted, though, that no amount of water alone would suffice to keep up gardens like those of Hánga! and Kánara. Moisture in the atmosphere is as necessary as moisture in the soil.

63. The total area of the garden lands, Government and inám, included at the old settlement amounted to acres 807, assessed at Rs. 9,258. The total area now is acres 1,101, assessed at Rs. 12,421; of these the Government lands amounted at the old settlement to acres 535, bearing assessment Rs. 6,347, or an average all over of Rs. 11-13-10 per acre. Now the Government garden lands amount to acres 725; the total assessment on the rates I propose is Rs. 8,324, giving an average of Rs. 11-7-9 per acre.

64. I must now revert to the assessment of the dry-crop and rice lands. Regarding the dry-crop there is little to be said beyond that I have paid particular attention to keeping down the classification valuation of the dry-crop lands in the western half of this tract so as to obviate their assessment being raised in the same proportion as the maximum assessment. This I effected by reducing by about 12 to 15 per cent. the classification valuation of all the lands of medium and inferior quality in which the examination of the old classification did not show that the original valuation was lower than the general run. Before the first settlement it was not the practice in the western parts of Dhárwár, in what is called the "Mulnad," or rain country, for dry-crop land to bear any assessment, if held, as it usually was, in connec-

tion with rice land, which alone bore assessment. The placing assessment at the first settlement generally on dry-crop land was an innovation, and a very low rate was therefore adopted. In another point of view the good policy of this was evident, in that in the western villages it was the old practice for a cultivator to shift his dry-crop cultivation to different spots almost annually without attaching himself to one particular plot. This practice was subversive of any improvement of land. To reconcile him to being restricted to within the limits of one or more complete survey fields, a very low assessment was a necessity, and the very low dry-crop maximum rate of Re. 0-10-6 per acre was adopted by Captain Wingate; and as the dry-crop land itself was, in these western villages, generally of low quality, this resulted in an average rate of Re. 0-3-10 per acre on the whole occupied area of dry-crop land, as stated in Captain Wingate's 47th para. The following statement shows the total area of Government land in each of the six groups and the average old and new assessment under the proposed rates in each group:—

Group.	Villages.	UNDER PRESENT OR FIRST SETTLEMENT			PROPOSED OR REVISION SETTLEMENT		
		Acres.	Assessment.		Acres	Assessment	
			Rs.	Rs. a p.		Rs.	Rs. a p.
1	6	3,542	3,823	1 1 3	3,568	6,318	1 12 4
2	32	26,443	24,973	0 15 1	26,821	37,226	1 6 2
3	32	18,085	12,440	0 11 1	18,901	17,044	0 14 5
4	37	17,000	9,924	0 9 5	17,099	12,937	0 12 1
5	57	18,248	8,323	0 7 4	18,903	10,593	0 9 0
6	51	9,200	3,067	0 5 4	9,556	4,189	0 7 0
Total ...	215	92,518	62,570	0 10 10	94,848	88,327	0 15 0

65. It will be observed from the above that in the 5th and 6th groups, in which the maximum dry-crop rate is increased, respectively, from Re. 0-10-6 to Re. 1, the average rate per acre has, owing to the classification having been kept down in the medium and lower soils, only increased from Re. 0-7-4 to Re. 0-9-0 in the 5th class, and from Re. 0-5-4 to Re. 0-7-0 in the 6th class, and on the 1st and 2nd groups alone is there any large increase on the dry-crop land which in those groups is adapted for very superior cultivation.

66. Regarding the rice-land and the mode of treatment adopted in the assessment of it, I refer to paras. 53 to 56 of my letter No. 7, of the 4th January 1876, in the revision of the old

Bankápur Táluka, and will, for convenience sake, here quote those paras :—

“ 53. Water has a greater effect upon the value of irrigated land than soil. There are in use in the Southern Marátha Country Survey, in tank districts, six classes of water, an abstract of the characteristics of which is here given as laid down by Captain Wingate in 1847, when for the first time a systematic classification of water was introduced in the Southern Marátha Country Survey :—

1st.—A perennial supply from tank or stream, admitting of better kinds of sugarcane being grown every second or third year.

2nd.—Supply from same source as above, but not so good, admitting a second-rate crop of sugarcane.

3rd.—Supply of water from same sources as in 1st and 2nd classes, but from land being situated high, or when the water does not run till the end of December or January, and, consequently, in either case sugarcane can only be grown when the rains have been very favourable.

Secondly, when water is not derived from a tank or stream ; but, in consequence of the land being in a low situation, sugarcane can be grown when the rains are favourable.

4th.—When there is not a supply of water, or advantages of situation, admitting of sugarcane being grown, but the supply of moisture is sufficient to admit of a rice and an after-grain crop being grown in one season ; or if an after-crop cannot, from some defect in the soil, be grown, yet the moisture suffices to produce an excellent rice crop.

5th.—Supply same as in preceding class, but no after-crop can be raised, and in consequence of the water-supply being drawn from a small tank or from channels led from higher ground, pretty frequent rainfall is required to give one middling rice crop.

6th.—Water-supply derived from pure rainfall.

Intermediate or half classes occur from striking the average of water-classification in the several “ shares,” or portions of a field separately classed, in order to obtain the water-classification average for the whole field or the whole rice-land in a field.

‘ 54. The two highest classes, and even the third class also, contemplate something better than what might be called mere rice-land. In fact, the greater part of the sugarcane grown in the Dhárwár Collectorate is grown in

what is ordinarily called rice-land, being cultivated with rice followed by an after-crop two years out of three, and in the third year with sugarcane. It is not till we come to the 4th and 5th classes of water that pure rice-land in the ordinary acceptation of the term is met with.

“55. We have to guard against assessing that rice-land extra, and especially as such which comes under the definition of an improvement. Of course, if an excess of area was found now to be rice-land above that recorded at the first survey, the presumption would be that the excess was the result of an improvement. This would, however, be by no means a certainty, as we know that it was not till a later period in the progress of the Southern Marátha Country Survey that a systematic mode of dealing with the rice-land, either in measurement or classification, was adopted; and though the total area has not very materially increased above that recorded at the first survey, about 8 per cent. only, yet owing to rice-land having been in places disused as such, and converted into dry-crop land, the newly-made rice-land must be something more than the difference between the old and new total areas. A survey field might show an increase of a fourth in the rice-land now in it compared with that recorded formerly; the water class in each third of the field would certainly differ much—part might be watered from a tank and part by mere rainfall. It would require a long and troublesome investigation, possibly coming to nothing in the end, to ascertain which part was the new rice-land and which the old, and to what precise extent the water-supply applied to the new rice-land was fairly exempt from taxation.

“56. I have endeavoured to meet, and I think effectually, any possibility of touching improvements by adjusting the assessment on all rice-land in the following manner:—

Land coming under 6th water class, or pure rainfall, is put at the simple dry-crop rate. Land coming under 5th water class is put at the assessment of dry-crop land of the same quality, fairly well situated as regards accidental flooding; that is, with 1½ class added to its ordinary dry-soil valuation: above the 5th water class only does the assessment commence to differ from that imposed on dry-crop land. Rice-land *now* above that class, which was placed at a lower rating in the previous assessment, must owe its increased valuation either to

the appropriation of external advantages, or to faulty valuation of advantages existing at the time of the first classification. Improvements of land so as to raise their water-supply above that described as 5th class are, as a general rule, far beyond the scope of private capital; but should such be shown to have been made, they must, of course, be duly respected. By putting the new assessment of 5th class rice-land at that on favourably situated dry-crop land, and that on 6th class rice-land at the simple dry-crop rate, whether the rice-land in question is old or new, we effectually provide against putting any extra assessment on what may be fairly called untaxable improvements. And, further, to obviate any difficulty of the score of the soil classification having been improved by the conversion of dry-crop land into rice, I have, in all cases where the present area of rice-land materially exceeded that formerly recorded, reduced the present soil classification from half a class to a whole class, if it exceeded the old.

As an explanation of the bearing of the combined water and soil classification I give in the

Water Classification	Soil Classification, Annas.	
	16	12
1	8	6-12
1-6	7	5-14
2	6	5-0
2-6	5	4-4
3	4-4	3-9
3-6	3-8	2-15
4	3	2-7
4-6	2-10	2-2
5	2-6	1-13
5-6	2-2	1-10
6	2-0	1-8

margin an extract from the table used for the villages of the taluka under report, for which a maximum dry-crop assessment of Rs. 2 is proposed. This extract shows the bearing of water-classification on 16-anna or first class soil and on 12-anna soil, which sufficiently explains the mode of working out the combined assessment, and shows the operation of the water classes. It will be observed that in the upper classes

the assessment does not descend in precisely the same ratio as the simple soil valuation, water having more to do with the value for assessment purposes than soil. The difference in the assessment in the higher classes in each step up is considerable; but the difference between the productive power of the first three classes is most marked, they being severally represented by 1st class sugarcane, middling sugarcane, inferior or uncertain sugarcane."

67. I have precisely adopted the plan above described in the revision now proposed, making the lowest rate on

rice-land having only 6th class water, or that derived purely from direct fall of rain, the same as it would be if the land was simple dry-crop land, and gradually leading that rate up through the successive higher classes until the 3rd class of water is reached, land falling under which is in some degree capable of bearing sugarcane. The effect of the above mode of assessment will undoubtedly be to keep the rates on the lowest class of rice, whether old or new; that is, whether existing at the time of the last settlement or converted into rice-land since, very low—a result to be desired, as the returns of rice land depending on rainfall only are precarious, depending not only on a sufficient rainfall, but also quite as much on its occurring at the proper time.

68. The total rice-lands of these villages, Government and inám, as ascertained by the last survey, were acres 52,957, assessed at Rs. 1,04,822. Under the present survey and the proposed rates they amount to acres 50,921, assessed at Rs. 1,54,335. Of these there were, of Government land under the last survey and assessment, acres 30,084, assessed at Rs. 58,787, giving an average of Rs. 1-15-3 per acre, and there are under the present survey acres 29,985, assessed at Rs. 89,854, giving an average of Rs. 3 per acre. The decrease in the Tari area is due to the transfer of some land to the dry-crop head, it having been disused as Tari, probably from the failure of the water-supply, or from it being found more advantageous to cultivate rice-land, in the main dependent on rainfall, as dry-crop land—a change hardly to be deprecated, as such land in a climate like Hángal might generally be depended upon as dry-crop; while, if cultivated as rice-land, the returns would be very uncertain, and would vary greatly in different years. The decrease in rice cultivation is by no means general; in many villages there is an increase of as much as 20 per cent. The decrease will, I apprehend, be chiefly found in that dependent on rainfall, and the increase in that with superior means of irrigation.

69. Well gardens have been generally treated in the mode described in Government Resolution No. 1028, of the 25th February 1874, the well bágáit recorded as existing at the time of the first settlement being within the highest dry-crop rate, and the area since converted into bágáit at the simple dry-crop rate. Some cases were met with in which the well was situated below a tank, drawing its water from it by percolation; such lands have been assessed at a rate not exceeding twice the dry-crop rate.

70. The following statement shows the general result of the imposition of the rates above described on each group or class of villages and on the whole conjointly :—

Class.	Number of Villages in each class.	Maximum Dry-crop Rate.	By former Survey.		By Revision Survey.						Increase of Assessment per cent.
			Government Occupied Land.		Government Occupied Land.		Government Unoccupied assessed Waste.		Total.		
			Acres.	Assessment.	Acres.	Assessment.	Acres.	Assessment.	Acres.	Assessment.	
			Rs. a. p.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
1st	6	2 4 0	5,542	2,823	2,562	6,319	62	25	3,630	6,943	65 3
2nd	32	2 0 0	28,355	31,557	28,593	46,656	283	412	23,976	47,068	47 8
3rd	32	1 12 0	20,508	17,322	21,326	34,971	484	188	21,810	25,159	44 2
4th	37	1 8 0	23,397	34,250	23,696	35,133	3,466	1,735	25,762	36,968	40 6
5th	57	1 4 0	29,338	30,388	30,927	44,583	5,627	2,856	35,664	48,539	46 7
6th	51	1 0 0	18,097	20,364	18,348	28,644	1,897	1,310	20,245	30,154	41 6
Total ..	215	..	123,137	1,27,704	125,656	1,86,305	10,419	7,626	135,977	1,94,131	46 1

71. The total increase thus estimated at 46 per cent., a little less than was estimated for the old Bankápur Talúka last year, 49·5 per cent., which again was somewhat less than was easily obtained in the plain districts of this Collectorate. This increase is, in the main, obtained on the irrigated land, and on the better descriptions of that land with superior irrigation. Owing to the transfer of land from the head of Rice to that of Garden, and from Rice to Dry-crop, and *vice versá*, it is impossible to strike an exact comparison showing the amount of increase falling on each kind of land; but the statement at para. 64 shows that the increase on dry-crop land alone is very much below the average total increase on each group, except on the 1st and 2nd groups, which comprise villages mostly consisting of dry-crop land and that of the best kind.

72. Statement C., appended, gives full detail regarding the present and past area of every description of land in each village, and of the present and proposed assessment and rate of increase for each. In the 1st group of villages there is one with a very large amount of increase. No. 3 of the list, Hanmarhali, shows an increase of 143 per cent. This village was by some mistake placed in the original settlement in Captain Wingate's 3rd group, assessed at a dry-crop maximum of Re. 0-15-0, when it should clearly and beyond doubt have been placed, with the villages by which it is surrounded, in the 1st class and on a Rs. 1-8-0 dry-crop maximum; a reference to the map will show this. The village in question is about three miles east of Shiggaon on the road to Savanúr. It is more than probable that this mistake arose from the similarity of name, especially in Maráthi writing, with Hanñanhali, No. 112 of the statement, which was rightly placed in Captain Wingate's 3rd group, and is now placed in the corresponding 5th group. Be it as it may, there is no doubt whatever regarding the error made in the original settlement, and that the

people of this village have for the last thirty years enjoyed an assessment about 55 per cent. lower than was intended. The village is most admirably situated on a much-frequented high road. I can see no reason whatever now for placing it on a lower rate than the surrounding villages, notwithstanding that it does give so large an increase through the rectification of the error made in the first settlement.

73. Regarding other villages, there are no very remarkable amounts of increase: in the rare cases where increases run high,—that is, at 60 or 70 per cent.—the rice-land in increase of area or in improved water-supply will generally account for the extra amount of the increase. Kuntanhoshali, No. 136 of the list, shows an increase of 91 per cent.; there is an increase of rice-land from acres 161, bearing assessment Rs. 276, to acres 202, bearing assessment Rs. 667. In this village the means of irrigation from the Dharma River have been much improved recently; but, were it not for the increase of area in the rice-land, the increase of assessment would only be 57 per cent. In the villages of Hawangi, No. 89 of the list, the increase attains to 81·4 per cent. The papers of this village have not been finally made up, as some farther examination of the water-classification has to be made in a week or two hence. But it is not probable that the result of this examination will be any material decrease in the proposed assessment, the cause of the increase in which is the increase of the rice-land from acres 659, bearing old assessment Rs. 1,285, to acres 873, bearing new assessment Rs. 3,059, and the increase of the garden land from acres 10 assessed at Rs. 72 to acres 17 assessed at Rs. 198. This village is also one of those drawing irrigation from the Dharma Canal, and there has evidently been a large increase in the means of irrigation and the extent to which it is made use of.

74. The following statement shows the total area and assessment of this tract under every head:—

Land.	By former Survey.		By Revision Survey.		Collection of Judd on Ináms.
	Acres.	Assessment	Acres.	Assessment.	
		Rs.		Rs.	
Government occupied land ..	123,137	1,27,704	125,558	1,86,505	...
Do. unoccupied arable waste	12,770	8,156	10,419	7,626	...
Ináms	58,102	74,511	58,620	1,07,931	42,888
Government unarable unassessed waste	60,334	...	61,059	...	...
Total ..	254,343	2,10,371	255,656	3,02,062	42,888

75. There is still, as shown above, some considerable area of Government unoccupied assessed waste land in these villages, of which the following is the detail :—

	BY OLD SURVEY.		BY NEW OR REVISION SURVEY.	
	Area.	Assessment.	Area.	Assessment.
	Acres.	Rs.	Acres.	Rs.
Dry-crop... ..	10,916	5,195	9,302	5,482
Rice-land	1,846	2,911	1,117	2,144
Garden Land	8	50	.....	.....
Total	12,770	8,156	10,419	7,626

76. The difference in the respective areas of each kind of land under the old and new survey is to some extent due to the transfer of land from one head to the other; the difference in the total area is due, in the main, to the entire entry now by the survey of land transferred to the Forest Department as unassessed while it still bore in the old accounts the assessment placed on it at the first survey.

77. Three-fourths of the waste land shown in the settlement at para. 75 above, including nine-tenths of the waste rice-land, is in the 5th and 6th groups, where the population is least thick, and the fallowing of dry-crop land is the common practice. Some of the waste rice-land there was, I know, in inconveniently large survey fields; this has been remedied as stated in para. 4 above. I think it is probable that some of this waste land will be soon taken up.

78. The general revenue result is an estimated increase of revenue from Rs. 1,27,704 to Rs. 1,86,505,—a net increase of Rs. 58,801. The old average rate per acre over all the Government land of every description, dry and irrigated, was Rs. 1-0-3; the proposed assessment gives an average of Rs. 1-7-9.

79. I estimate that the entire revision survey and settlement of this tract will have cost Rs. 63,914, for which an annual increase of revenue of Rs. 58,801 will be obtained. This is the first revision settlement in Dhárwár, the expense of which has not been completed at an expense very much less than one year's increase of revenue. This is due to the difficulties connected with the execution of the work in a country in which garden and rice-land prevails to a great extent, and the small area of the survey fields in such land causes much extra time to be taken up in dealing with them.

80. It may not be out of place to allude to the crop experiments which have been made during the last few years under the Collector's orders, in reference to the relation of the increase of assessment to the gross produce of the land. In the villages in the tract under report we have eighteen cases of experiments on rice-lands, and eight cases of experiments on dry-crop lands cultivated with rági. The abstract results of these experiments are tabulated below :—

Land.	Number of Experiments	Assessment per Acre.			Gross Produce per Acre.			Percentage Rates of Assessment to Gross Produce.		
		Highest	Lowest	Average	Highest.	Lowest.	Average.	Highest	Lowest.	Average
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.			
Rice lands	18	3 3 6	0 5 6	1 6 4	61 6 0	12 2 0	30 2 8	16.1	2.2	5.8
Dry-crop rági lands ..	8	0 15 0	0 4 0	0 9 2	45 4 0	3 3 0	17 4 0	26.4	1.03	6.8

81. It is to be noted that the above experiments in rice-lands were made on the single rice crop and do not include the second crop of grain or pulse which is grown in the same season after the rice is cut where irrigation is available or the soil is situated in a low moist locality, some lands of which character were among those experimented on. Crops of all kinds were taken for experiment—good, indifferent, and bad, as is evident from the great difference between the highest and lowest returns. The highest return in rice, Rs. 61-6-0, is, of course, that of a very good crop, but crops in excess of the value of Rs. 61 per acre were met with in two different villages. The average of all the experiments in rice—Rs. 30-2-8—gives, I believe, a very fair and moderate idea of the average gross produce per acre in this part of the country, and when there is a second crop of grain or pulse we may safely put the average produce at Rs. 36 per acre. There is another point to be noted with reference to these experiments. The price of the straw was all taken at the market value at the time the experiment was made : of course straw is cheapest at harvest time. In the fair season, when traffic begins to pass to the coast, the price of all fodder rises quadruply. Some of these lands, subjected to experiment, are capable of growing sugarcane in triennial rotation, the gross returns of which are on the average fully Rs. 200 per acre—an amount which, if included, will enormously swell the average returns on the three years. The same remarks apply to rági, called náchni in the Deccan. The case in which produce worth Rs. 45 per acre was returned by the Assistant Collector is an exceptional one ; I have not observed such a high return before in any experiment on this grain. The average return showing Rs. 17-4-0 per acre is very near what I have observed to be a usual return in rági cultivation, which is about Rs. 15 to Rs. 16 per acre.

82. The average percentage of assessment to produce will probably excite surprise among those who have never had the opportunity of going into statistics of this nature, and have, perhaps, heard something of Native assertions on the subject; we often hear it said that the Government assessment comprises nearer a half than a third of the gross produce, and even more startling assertions than this are made. Cases of excessively bad cultivation or in exceptional bad years might certainly be adduced showing returns lower than in the cases above detailed; but with fair cultivation, and on the ordinary run of years, the results given may be, on the average, considered certain.

83. It must be remembered that these experiments were not conducted by the Survey Officers; they were conducted by the Assistant Collectors, acting under the orders of the Collector. Fields of all qualities of crop were taken for experiment, a quarter of an acre in each case, often in different parts of the same field, to secure a fair average; the crop was cut and secured entirely in the presence of the officer conducting the experiments, which did not occur in one year only, but extended over three years, none of which were more than ordinary average years. The prices are the prices of the spot at harvest time when they are always lowest. Thus, as far as is possible, the experiments were conducted so as to give an impartial result.

84. It has been frequently discussed whether the enhancement of assessment on revision should not be gradually introduced instead of at one stroke, and a recommendation to this effect was among the proposals of the late Deccan Ryots Commission, in conformity with the practice in the North-West Provinces, where any increase over 25 per cent. is gradually imposed. But it appears to me that those who support this proposal can hardly have considered how far the Government assessment *here* touches the means of the ryot, or the increase of it disturbs his calculations of ways and means compared to other causes tending to the same end. Take the average gross produce of the rice experiments, referred to in the 80th para. above, shown to be Rs. 30-2-8: a fluctuation in price of 10 per cent. occurs more than once in any year; a rise to that degree would give the ryots Rs. 3 more for his produce and a fall Rs. 3 less. Were the assessment on the highest assessed rice field, referred to in the table at para. 80 above, assessed now at Rs. 3-3-6, even increased 100 per cent., it would but about equal 5 per cent. on the gross produce,—a variation in price which may and does occur in any ordinary year and almost from month to month up and down. This does not apply to rice-land only; it may be shown to be equally applicable, and more so, even to *rāgi* from the results obtained and shown in

the table above at para. 80. It will also equally apply to the great staple of the plain country in Dhárwár cotton. At present prices, about Rs. 200 per candy in Bombay, the gross produce of an acre of cotton will be worth on the spot from Rs. 16 to Rs. 18; it was probably Rs. 2 less a year ago. The assessment before revision of an acre of good cotton land in the plains of Dhárwár would be from Re. 0-12-0 to Rs. 1-4-0; even supposing that assessment to be doubled, which it has not been, the increase of assessment would not amount to near half the fluctuation in price of a single year. As in fact the assessment of the best cotton lands have not been increased more than about 60 per cent., the increase of assessment has not amounted to more than about one-third of the ordinary fluctuations of prices, and, as regards the ryot's means, has not a greater effect on him than a fall in price of $3\frac{1}{2}$ per cent.,—a variation either way which may occur in cotton from day to day.

85. The supporters of the gradual enhancement plan, it appears to me, overlook the fact that our land assessment is nothing but a tax, and in no way partakes of the nature of a rent in amount or in any other way. It more resembles a very light tax, far within the amount authorized by the ancient custom of the country, which allows of the appropriation of land with the reservation to Government of a right to a certain share of the produce, which authorized share we are very far from exacting. We have never heard of gradually introducing a tax with progressively increasing rates; such an argument was never heard when the income-tax was newly introduced, or when it was more than trebled in a single year. In the present case it may be argued that to look on the land assessment as a tax is also an error, for Government is only taking less than its own share of produce, as sanctioned by the custom of the country. Much might be said against even this if the dues of Government were so suddenly and to such a degree increased and exacted as to disturb the economical condition of the people; but this I have, I trust, above shown must be an entire fallacy, based on a mistaken idea of how the land-tax, as at present imposed here, does press on the people. Under different conditions and much higher assessments the argument in favour of gradual enhancement would hold stronger ground.

86. Under any circumstances a change in the land-tax in this country among a very ignorant and easily-misled people is an operation requiring very great care to obviate the abuses attaching to any change of the system of taxation in India; it is not an advisable thing to be too often meddling with a taxation which touches, however lightly, such a large component of the population as that connected with land. Do what we may, a good deal of worry and interference with the people, which is what they

detest more than anything, is inseparable from the operation ; and it is most advisable that what has to be done should be done once for all, and that there then should be rest for a generation, always supposing that this is feasible without a sudden change producing an undue, though temporary, pressure—an idea which I have, I hope, refuted. It has been no secret that revisions of assessment would be made at the end of the thirty-years' settlement ; and the people were familiar with the idea that a very considerable increase would occur, even much more than has occurred. Causes, apart from the change of assessment, produced an unhappy state of things soon after the revision in some of the Deccan districts ; that these causes had no connection with the total addition to the assessment, is shown by the troubles equally occurring in districts not coming under revision for some years to come, and notoriously among the most lowly-assessed tracts in the Presidency. Of course, the people would prefer to remain as they have been for the past thirty years in land assessment ; but that any revision to the general amount of increase imposed hitherto, and fairly and carefully distributed, would sensibly disturb the economical condition of the people, must, I think, on the facts submitted above, be impossible. The additional burden on the people, if fairly distributed, is practically insensible, or, at any rate, as much so as any of those resulting from the monthly fluctuations in prices. To the Government the case is different ; the difference between one rate of revision increase or another, or between final imposition and gradual enhancement would make a difference which might be reckoned by tens of lakhs of rupees of revenue.

87. It only now remains to request the sanction of Government to the above proposals and the issue of the usual guarantee of the settlement for thirty years.

88. Appended to this letter are the usual statistical returns and copy of the original settlement report by Captain Wingate. There are also appended extracts of reports from Captain Godfrey, the officer under whom the revision classification was executed.

89. I have been somewhat later than usual in sending in this settlement report. The classification papers were only completed in November last, and a very great amount of work was entailed in checking the statistical returns and in examining the papers of every village included in the proposed revision,—an operation the more laborious on account of the great admixture of irrigated land.

Your obedient Servant,

W. C. ANDERSON,

Survey and Settlement Commissioner, S. D.

Forwarded through the Collector of Dhárwár and the Revenue Commissioner, Kánarese Districts.

APPENDIX A.

Statement showing the average yearly price of grain sold in Hangal Market of the Dhârwar Collectorate for the last sixty years from 1817 to 1866 made out from the returns received from the Collector.

Year.	IN SERS OF 80 TOLAS PER RUPEE.							Cocoanut per 100.	Year.	IN SERS OF 80 TOLAS PER RUPEE.							Cocoanut per 100.
	Rice in husk.	Jowâri.	Nâchni.	Wheat.	Linseed.	Jâgree.	Araca-nut.			Rice in husk.	Jowâri.	Nâchni.	Wheat.	Linseed.	Jâgree.	Araca-nut.	
	Ra. a.									Ra. a.							
1817	138	75	100½	51	27	26	83	2 8	1847	96	90	120	60	30	14½	14½	1 8
1818	144	81½	106½	54½	26½	20½	71	2 8	1848	100	96	122	46	26	14½	13	1 10
1819	141½	83½	102½	40½	24	17½	64	2 8	1849	104	66	88	40	22	14½	11½	1 12
1820	162	80	97½	52½	26½	23	63	2 8	1850	180	178	152	100	28	20½	11½	1 12
1821	149½	76½	96	49½	24	17½	71	2 8	1851	100	86	100	46	32	13½	10½	2 0
1822	184½	67½	102½	44½	22½	19	71	2 8	1852	106	88	104	40	26	13	10½	2 0
1823	129½	68½	88	48	20½	17½	8	2 8	1853	178	160	190	18	28	10½	14½	1 4
1824	96	76½	89½	61½	26½	20½	7½	2 4	1854	68	72	92	40	24	11½	17½	1 4
1825	112	89½	102½	44½	22½	19	7½	2 4	1855	52	60	76	86	24	13	20½	1 4
1826	66	78½	102½	48	19½	17½	6½	2 12	1856	66	52	72	80	30	11½	17½	1 6
1827	89½	72	76½	41½	19½	20½	6½	2 12	1857	52	56	60	30	22	8½	13	1 6
1828	85	84	80	38	20½	20½	20½	2 12	1858	50	48	58	28	24	10½	3½	4 10
1829	22	89½	102½	44½	22½	19	71	2 8	1859	44	50	58	34	26	10½	3	8 15
1830	108½	92½	96	48	20½	24	6½	2 4	1860	54	56	66	18	22	9½	3½	6 0
1831	104	84½	99½	41½	24	19	6½	2 4	1861	52	50	86	16	20	6	3½	6 0
1832	24	11½	24½	12½	11½	8½	6½	5 0	1862	32	24	38	14	12	4½	5½	6 0
1833	56	48	70½	28½	17½	17½	6½	5 0	1863	32	22	36	16	12	4½	5½	5 0
1834	64	52½	86½	35½	20½	17½	7½	2 12	1864	18	20	22	13	14	8½	2½	5 0
1835	64	54½	88	36½	22½	17½	7½	2 12	1865	24	22	28	8	16	4½	4½	2 8
1836	121½	81½	96	60½	20½	19	7½	2 12	1866	24	24	24	6	20	4½	2½	6 0
1837	126½	78½	102½	56	19½	20½	8½	2 8	1867	24	28	30	12	20	4½	3½	5 8
1838	129	84½	105½	62½	24	17½	8½	2 12	1868	40	50	42	12	22	7½	3½	5 0
1839	91½	108½	147	34½	27½	17½	8½	1 10	1869	42	52	40	20	16	5½	6½	4 12
1840	89½	90	114	36½	25½	17½	10½	1 8	1870	40	48	40	12	18	5½	5½	5 0
1841	90	86½	125	40½	27½	17½	9	1 8	1871	34	32	64	10	30	10	5	4 8
1842	101	89	121	44	26½	17½	9	1 8	1872	24½	24	72	9	26	10	5	4 0
1843	112	117½	110½	42½	23½	14½	14½	1 6	1873	26½	28	96	12	28	12½	5½	3 12
1844	141½	119½	143½	46	27½	17½	13	2 9	1874	49½	32	48	16	26	10	6½	4 1
1845	100	114	138	70	28	14½	11½	1 8	1875	60	28	44	20	25	7½	3½	4 12
1846	112	96	118	44	24	14½	14½	1 8	1876	42½	30½	40	12½	15½	8½	5	5 15

W. C. ANDERSON,
Survey and Settlement Commissioner, S. D.

APPENDIX B.

Revenue Statement for 161 and 54 villages situated in the old Hángal Táluka and the old Tadas Mahál of the Dhárwar Collectorate in which the Survey Settlement was introduced in 1847-48. The years above the upper horizontal line are those antecedent to the Survey Settlement, which was for thirty years, at the expiration of which a revision of assessment took place, the result of which is shown below the lower horizontal line.

YEAR.	OCCUPIED LAND PAYING ASSESSMENT TO GOVERNMENT.						UNOCCUPIED ASSESSED HABITABLE GOVERNMENT LAND.			LAND THE REVENUE OF WHICH IS ALIENATED ENTIRELY OR PARTIALLY (INA M.)			TOTAL LAND—GOVERNMENT, OCCUPIED AND UNOCCUPIED, AND INA M.			Balance outstanding at close of year.
	Occupied Acres.	Full Standard Assessment	Remissions.			Balance for Collection.	Acres.	Full Assessment.	Realisations from auction sale of grazing.	Acres.	Full Standard Assessment.	Collections, Quit-rent, &c.	Total of Cols. 2, 8 & 11.	Full Assessment, total of Cols. 3, 9 & 12.	Collections, total of Cols. 7, 10 & 13.	
			Perman-ent.	Casual.	Total.											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
		Rs.	Rs.	Rs.	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.
1837-38	59,030	1,02,358	..	27,608	27,608	75,350	104,536		367	71,625		47,175	235,181		1,32,792	26,346
1838-39	59,241	1,06,664	..	32,724	32,724	73,930	105,186		172	70,747		44,069	235,174		1,18,168	7,081
1839-40	57,968	1,00,442	..	14,487	14,487	85,955	108,480		411	69,204		47,324	235,447		1,33,688	1,384
1840-41	57,128	98,822	..	7,175	7,175	89,647	109,224		653	69,069		43,626	238,421		1,38,026	907
1841-42	57,315	96,901	..	8,420	8,420	88,481	110,134		456	68,688		47,713	236,197		1,36,650	2,193
1842-43	55,312	90,761	..	5,270	5,270	85,491	113,601		1,447	67,339		47,002	236,269		1,39,940	3,720
1843-44	53,594	84,771	..	4,326	4,326	80,445	115,981		1,212	66,805		43,521	236,490		1,40,178	4,257
1844-45	48,900	86,769	..	3,265	3,265	83,518	122,048		851	65,555		44,668	236,498		1,29,097	61
1845-46	46,317	80,158	..	3,502	3,502	76,651	126,839		4,066	64,322		41,233	240,478		1,21,969	159
1846-47	45,916	80,442	..	4,751	4,751	75,691	126,499		4,591	64,070		43,449	236,485		1,23,731	742
1847-48	52,576	81,412	..	11,479	11,479	69,933	75,523	55,348	3,995	70,330	84,071	40,684	199,429	2,20,826	1,14,612	20,938
1848-49	53,669	77,902	..	1,09	1,09	77,793	66,493	49,113	19,926	69,366	85,550	36,361	198,528	2,12,565	1,34,080	308

1846-50	77,916	90,451	..	..	6	90,445	54,827	37,218	13,509	66,071	83,516	98,202	198,514	2,11,185	1,40,150	5
1850-51	77,887	89,874	..	12	12	89,962	26,009	39,445	11,268	46,424	83,887	36,711	198,311	2,11,190	1,36,935	30,582
1851-52	81,916	93,692	..	8	8	98,224	51,405	34,986	10,611	64,997	82,489	95,550	198,318	2,11,187	1,39,985	
1852-53	82,787	94,855	..	15	15	94,840	51,018	34,414	9,860	64,538	81,918	95,279	198,318	2,11,187	1,39,979	
1853-54	82,975	94,612	..	13	13	94,599	51,740	35,747	10,964	63,590	80,828	98,943	198,314	2,11,187	1,44,506	19
1854-55	86,584	98,200	..	7	7	99,202	49,250	32,254	10,276	62,430	79,690	98,638	198,274	2,11,153	1,47,116	
1855-56	97,133	1,05,898	..	18	18	1,05,880	39,252	26,200	9,520	61,664	78,983	88,604	198,249	2,11,141	1,54,004	
1856-57	108,259	1,14,164	..	..	..	1,14,164	28,192	18,083	6,784	61,795	78,894	39,003	198,246	2,11,141	1,56,951	
1857-58	113,864	1,19,058	..	..	..	1,19,058	23,596	14,424	5,930	60,780	77,662	40,048	198,240	2,11,139	1,65,081	
1858-59	116,811	1,22,986	..	..	..	1,22,986	22,366	13,517	5,831	69,065	76,586	38,890	198,240	2,11,139	1,66,857	
1859-60	121,385	1,25,243	..	..	..	1,25,243	18,997	10,661	4,793	58,765	74,769	38,786	198,247	2,10,873	1,68,824	
1860-61	124,821	1,28,800	..	..	..	1,28,800	14,859	8,138	4,288	58,552	75,087	40,400	198,232	2,10,985	1,73,488	
1861-62	125,367	1,29,462	..	..	..	1,29,462	14,729	8,183	4,777	58,324	74,866	42,208	198,420	2,10,511	1,76,447	
1862-63	127,187	1,30,077	..	..	..	1,30,077	12,927	7,628	5,666	58,253	74,789	42,228	198,367	2,12,494	1,77,963	
1863-64	126,960	1,30,869	..	..	..	1,30,869	13,200	7,009	5,758	58,207	74,616	44,203	198,367	2,12,494	1,78,830	
1864-65	126,638	1,30,594	..	..	..	1,30,594	13,555	7,313	6,452	58,174	74,587	42,857	198,367	2,12,494	1,80,103	
1865-66	126,550	1,30,517	..	..	..	1,30,517	13,614	7,308	6,268	58,199	74,657	43,399	198,362	2,12,482	1,80,184	
1866-67	126,379	1,30,379	..	..	..	1,30,357	13,119	6,938	6,919	58,355	74,778	43,338	198,358	2,12,473	1,81,109	
1867-68	127,003	1,30,976	..	..	..	1,30,976	12,981	6,697	6,067	58,369	74,800	43,153	198,353	2,12,473	1,80,196	
1868-69	127,921	1,30,926	..	..	..	1,30,926	12,970	6,758	4,825	58,319	74,791	44,142	198,310	2,12,456	1,79,993	
1869-70	128,594	1,30,454	..	..	..	1,30,454	13,437	7,299	4,245	58,272	74,891	43,207	198,310	2,12,486	1,77,906	
1870-71	128,059	1,30,279	..	..	..	1,30,279	14,049	7,672	4,480	58,160	74,461	43,169	198,288	2,12,412	1,77,938	
1871-72	126,273	1,29,594	..	..	..	1,29,594	14,818	8,256	4,413	58,166	74,573	42,956	198,252	2,12,395	1,76,933	
1872-73	124,245	1,28,682	..	..	..	1,28,682	16,771	9,077	4,398	58,151	74,566	42,960	198,167	2,12,325	1,76,025	
1873-74	123,630	1,28,254	..	..	..	1,28,254	12,964	8,012	3,471	58,136	74,532	42,895	194,730	2,10,798	1,74,620	
1874-75	123,579	1,28,103	..	33	33	1,28,070	12,501	7,915	3,093	58,130	74,526	42,894	194,210	2,10,544	1,74,057	
1875-76	123,137	1,27,704	..	..	..	1,27,704	12,770	8,156	2,669	58,102	74,511	42,888	194,009	2,10,371	1,73,361	
1876-77	123,029	1,27,597	..	56	56	1,27,531	12,973	8,287	2,378	58,098	74,625	42,886	194,000	2,10,479	1,72,980	12
1877-78	123,728	1,28,271	..	..	..	1,28,271	13,293	8,457	3,911	57,988	73,948	42,821	194,419	2,10,676	1,76,108	328
1878-79	125,273	1,37,996	..	..	..	1,37,986	11,088	9,171	2,517	57,716	1,09,476	49,872	194,022	3,06,588	2,40,325	628
1879-80	124,294	1,36,561	..	..	..	1,36,561	12,088	10,955	2,252	55,863	1,09,042	49,939	192,245	3,06,558	2,46,752	815

Note—The outstanding revenue appearing in column 17 subsequent to 1876-77 is the consequence of the famine, and comprises portions of the revenue due according to columns 7, 10 and 18, of the amount of the outstandings shown in column 17 eventually collected, no record is available at hand.

W. C. ANDERSON,
Survey and Settlement Commissioner, S. D.

Statement referred to in Para. 72 of the Survey

Former Taluka.			BY FORMER SURVEY.													
1	2	3	4	5	6	7	GOVERNMENT OCCUPIED LAND.								14	15
							Dry-crop.		Rice.		Garden.		Total.			
							Acres.	Assessment.	Acres.	Assessment.	Acres.	Assessment.	Acres.	Assessment.		
Old Tadas Mahal.			1st Class													
Barkapur			Rs. a.													
1			Bk. Tarigatta	2,054	100	904	1,077	..	..	..	..	904	1,077
2			Bisanhali	537	34	347	378	..	..	..	..	347	378
3			Hanmarhali	467	32	247	134	..	..	..	..	247	134
4			Tewarmelthali	2,214	116	1,587	1,755	..	..	..	..	1,587	1,755
5			Budihal	224	27	180	148	..	..	..	..	180	148
6			Sulihal	596	65	327	331	..	..	..	..	327	331
Total of the 1st Class			6,092	374	3,542	3,823	..	..	..	..	3,542	3,823	
Old Hāngal.			2nd Class													
Karajgi			Rs. a.													
7			Mitalgatti	817	31	375	420	20	28	..	..	605	449	
8			Aradi	2,172	77	1,497	1,326	24	36	..	..	1,491	1,362	
9			Paia	948	44	617	299	50	78	..	..	667	377	
10			Bk. Arlikatti	1,226	89	596	335	92	117	..	..	698	512	
11			Bhingskop	350	8	227	125	6	9	..	..	233	134	
12			Cheba	3,018	251	1,861	1,132	237	778	2	10	2,100	1,920			
13			Bad	1,660	189	866	595	174	235	1	2	1,041	692			
14			Kundūr	1,794	108	1,020	1,155	..	..	..	..	1,020	1,155
15			Halsūr	729	78	492	539	..	..	..	..	492	539
16			Kodi Yellapūr	681	21	528	643	6	12	..	..	534	655	
17			Kudal	924	161	666	750	..	..	..	..	666	750
18			Shighali	946	122	451	534	32	55	..	..	483	587	
19			Nalegal	3,356	575	1,982	2,244	413	1,761	124	2,015	2,519	6,010			
20			Halsapur	382	17	255	276	..	..	..	..	255	276
21			Harvi	1,072	46	622	760	..	..	..	..	622	760
22			Hadargeri	737	51	368	401	..	..	..	..	368	401
23			Chik Hūllāl	594	67	493	307	16	26	..	..	419	338	
24			Ward	1,018	118	572	658	24	35	..	..	598	724	
25			Gonapūr	330	33	178	220	20	70	..	..	198	260	
26			Shingapūr	321	106	474	608	19	38	..	..	499	641	
27			Nruga	2,416	158	1,587	1,699	37	234	..	..	1,674	1,933	
28			Venktapur	1,164	55	703	713	..	..	..	..	703	713
29			Hoshali	970	28	756	520	35	46	..	..	791	569	
30			Didgur	1,226	251	629	579	50	94	..	..	678	673	
31			Sanpūr	1,624	311	1,134	1,224	43	30	..	..	1,177	1,304	
32			Dev. Hosūr	4,750	352	2,323	3,083	109	369	..	..	3,031	3,452	
33			Hūlenūr	1,596	263	1,033	935	105	197	..	..	1,143	832	
34			Nagnūr	2,551	219	1,362	1,333	..	..	..	..	1,362	1,332
35			Gawrapūr	941	223	754	514	57	73	..	..	811	587	
36			Benchihali	738	131	382	404	5	8	..	..	387	412	
37			Timapūr	633	134	313	241	61	98	..	..	374	339	
38			Bidargadi	341	69	244	219	..	..	..	..	244	219
Total of the 2nd Class			42,490	4,377	26,443	24,973	1,685	4,557	127	2,027	28,255	31,557				

DIX C.

Commissioner's Report No. 173 of 3rd February 1877.

BY REVISION SURVEY														
Total arable acres, including Inam.	Total unarable acres.	GOVERNMENT OCCUPIED LAND.								Unoccupied waste.		Average assessment on Government land per acre.	Increase of assessment per cent.	Decrease of assessment per cent.
		Dry-crop.		Rice.		Garden.		Total.		Acres.	Assessment.			
		Acres.	Assessment.	Acres.	Assessment.	Acres.	Assessment.	Acres.	Assessment.					
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs. a. p.			
2,080	70	901	1,701	..	..	..	..	901	1,701	44	11	1 13 0	57 9	..
547	34	350	547	..	..	..	..	350	547	..	..	1 9 0	44 7	..
475	42	254	325	..	..	..	..	254	325	..	..	1 4 5	143 3	..
2,213	123	1,591	2,950	..	..	..	..	1,591	2,950	5	7	1 13 8	69 1	..
234	27	131	243	..	..	..	..	131	243	..	..	1 13 8	64 2	..
602	70	341	551	..	..	..	..	341	551	13	7	1 9 2	66 5	..
4,141	309	3,568	6,318	..	..	..	..	3,568	6,318	63	25	1 11 11	65 3	..
840	45	630	674	27	60	..	..	707	734	7	4	1 0 6	63 8	..
2,210	73	1,490	2,192	29	69	..	..	1,510	2,261	..	..	1 7 10	65	..
976	41	621	560	64	146	1	2	686	646	..	..	0 15 1	71 9	..
1,218	103	569	470	74	218	8	28	671	716	..	..	1 1 1	39 8	..
347	11	218	172	13	35	..	..	231	307	..	..	0 14 4	54 4	..
2,025	240	1,820	1,734	215	1,036	57	223	2,092	2,993	..	..	1 6 11	55 9	..
1,704	195	953	4,010	118	245	..	..	1,071	1,265	..	..	1 2 9	52 7	..
1,310	111	1,056	1,714	..	..	..	..	1,056	1,714	..	..	1 9 11	48 4	..
733	60	495	606	..	..	..	..	495	606	10	10	1 9 10	49 5	..
680	21	532	832	..	..	..	..	532	832	..	..	1 10 6	25 5	..
942	126	699	1,144	..	..	..	..	699	1,144	..	..	1 10 2	52 5	..
965	167	456	728	26	79	..	..	482	807	16	20	1 10 6	37 6	..
3,369	527	2,042	3,438	391	2,318	137	2,028	2,570	3,234	48	62	3 3 0	27 3	..
333	11	255	360	1	2	..	..	256	362	74	58	1 7 2	31 2	..
1,085	43	635	1,052	..	..	..	..	635	1,052	..	..	1 10 6	38 4	..
775	33	381	538	..	..	..	..	381	538	..	..	1 6 7	34 2	..
603	54	415	408	17	37	..	..	432	445	..	..	1 0 6	33 6	..
1,035	109	597	1,002	24	158	..	..	621	1,160	29	42	1 13 7	60 4	..
327	39	178	318	13	129	..	..	196	447	..	..	2 4 6	54 1	..
840	118	487	656	27	125	..	..	514	931	30	50	1 14 4	53	..
2,299	164	1,568	2,372	74	385	..	..	1,642	2,757	..	..	1 10 10	42 6	..
1,178	49	709	1,078	2	9	1	..	712	1,091	..	..	1 8 3	51 6	..
954	41	725	740	52	102	..	..	777	842	..	..	1 1 4	48 3	..
1,246	233	665	844	28	69	..	..	693	913	..	..	1 5 4	35 7	..
1,070	254	1,166	1,700	33	133	..	..	1,199	1,838	45	72	1 11 6	40 6	..
4,726	864	2,898	4,434	143	720	5	45	3,034	5,249	..	..	1 11 9	52 2	..
1,637	225	1,068	832	105	323	..	..	1,137	1,160	..	..	0 15 9	39 4	..
2,376	164	1,698	3,042	..	..	..	..	1,698	3,042	9	14	1 12 7	66 4	..
933	234	755	858	39	91	..	..	805	947	..	..	1 2 9	61 3	..
743	63	390	608	7	19	..	..	397	627	46	72	1 9 2	52 2	..
639	124	346	362	31	87	4	8	351	457	..	..	1 3 2	34 5	..
263	53	246	310	1	2	..	..	247	312	9	3	1 4 0	42 5	..
42,937	4,075	28,321	37,226	1,559	7,095	213	2,325	22,593	4,665	389	412	1 10 1	47 3	..

DIX C.—continued.

BY REVISION SURVEY.														
Total arable acres, including them	Total unarable acres.	GOVERNMENT OCCUPIED LAND.								Unoccupied waste.		Average assessment on Government land per acre	Increase of assessment per cent.	Decrease of assessment per cent.
		Dry-crop.		Rice.		Garden.		Total.		Acres.	Assessment.			
		Acres.	Assessment.	Acres.	Assessment.	Acres.	Assessment.	Acres.	Assessment.					
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs. a p			
805	41	518	808					518	808			1 8 11	78.1	
2,171	144	1,470	614	250	.670	1	5	1,721	1,389	3	2	0 11 11	69.4	
1,310	60	720	1,080	5	8			725	1,068			1 7 6	65.3	
2,259	112	1,433	1,045	296	1,060			1,720	2,105			1 3 5	58.3	
535	9	4.6	648	2	4			438	532			1 7 9	66	
568	16	446	427	77	230			528	657			1 4 1	45.3	
971	49	481	666	1	182			437	532	4	2	1 3 4	36.4	
583	45	391	350	46	93			705	981			1 6 3	55.7	
1,170	117	613	676	93	74			529	560			1 0 7	53.2	
759	50	499	476	30	80			466	457			0 15 0	40.6	
779	74	397	269	59	198			168	249			1 9 2	39.1	
407	267	1.2	79	56	170			376	297			0 12 7	31.4	
856	126	332	215	44	82			708	758			1 1 1	21.7	
1,164	166	657	586	51	172			439	473			1 1 2	30.7	
973	98	289	119	159	354			261	300			1 3 1	61.5	
625	37	190	102	81	198			533	417			0 12 6	35.8	
993	43	448	147	85	270			607	569			0 15 0	64.2	
860	89	559	432	48	136			919	848			0 14 9	25.1	
1,814	145	836	612	83	236			919	752			0 13 1	42.4	
1,465	79	877	646	42	106			819	953	157	44	1 0 4	39.7	
1,466	135	672	909	147	454			829	860			1 0 7	30.4	
1,214	148	736	591	92	268	1	1	196	77	39	26	0 11 4	8.5	
317	128	88	65	8	12			1,554	2,401	117	29	1 7 2	33.8	
3,168	414	1,351	1,566	721	47	8	9	841	673	52	19	1 2 11	27.6	
889	87	626	245	79	236			446	481			1 1 3	43.2	
674	124	867	660	4	10			462	670			1 2 2	27.9	
580	26	458	680	4	10			510	596			1 2 8	45	
755	53	494	506	18	40			424	386			0 14 6	24.1	
639	134	395	381	23	46	6	9	1,275	1,349	37	14	1 0 7	43.4	
1,938	393	1,191	1,104	32	242	2	3	769	1,362	26	14	2 2 3	39.6	
1,021	318	527	410	181	1,138		14	316	346	49	41	1 0 11	37.8	
619	309	295	310	21	36									
22,846	4,011	18,901	17,044	2,469	7,886	16	41	21,326	24,971	484	185	1 9 5	44.2	-
3,513	385	1,638	1,029	837	3,130	1	3	2,476	4,163	557	358	1 7 10	69	
771	1,417	264	144	179	465			443	601	26	11	1 4 11	32.1	
517	28	249	152	96	251			345	408			1 2 8	41.4	
298	30	66	40	50	123			119	163			1 6 1	37	
876	143	157	90	302	898	16	198	475	1,186	45	22	2 5 2	17.5	
529	51	111	66	194	447	5	34	310	637	4	2	1 11 6	29.7	
828	60	373	153	122	312			495	465	18	7	0 14 9	42.6	
854	67	309	206	189	609	2	3	499	818	114	84	1 7 7	52.3	
1,541	908	818	468	348	1,174			1,166	1,642	22	11	1 6 8	61.8	
1,121	1,046	476	294	214	543			689	917	38	13	1 2 3	16.9	
429	43	210	104	43	124	2	14	255	242	81	30	0 15 4	26.7	
243	33	26	15	16	35			42	48			1 2 6	25.3	
393	211	165	93	39	84			204	177			0 13 11	37.2	
498	95	150	104	80	206			310	310	49	9	1 2 9	51.2	
489	134	300	229	83	193	5	49	388	475			1 2 7	51.6	
1,414	123	919	396	165	427			1,094	823			0 12 2	20.1	
1,002	396	354	360	294	962	5	29	693	1,371	190	224	1 15 0	64.6	
1,853	169	909	794	352	1,056	9	14	1,270	1,774	10	7	1 6 3	68.7	
3,143	292	1,813	1,190	873	3,063	17	108	2,503	4,447	7	1	1 12 4	81.4	
2,695	432	1,896	1,598	454	1,429			2,353	2,967	31	20	1 4 3	36.4	
693	60	430	285	107	337			537	622	19	21	1 2 6	47.4	
578	119	189	190	94	333			282	423	101	187	1 7 5	45.9	
1,077	224	491	497	193	659	2	13	686	1,169	74	55	1 9 9	50.1	

Formet Talika.	Present Talika.	Number.	Name of Village.	Maximum dry-crop rate.	BY FORMER SURVEY.										
					Total arable acres, including fish.	Total unarable acres.	GOVERNMENT OCCUPIED LAND.						Total		
							Dry-crop.		Rice.		Garden.		Acres.	Assessment.	
							Acres.	Assessment.	Acres.	Assessment.	Acres.	Assessment.			
															Rs.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
			<i>4th Class—contd.</i>	<i>4th Class</i>											
				Rs. a											
	Old Hángal.	Hángal.	04 Pariwarkop	1 8	312	8	14	7	2	..	..	..	16	9
			95 Somapur		649	89	481	398	35	40	..	..	484	438
			96 Wasma		798	94	598	487	63	75	..	..	648	542
			97 Kageswar		691	118	573	357	95	207	..	..	498	464
			98 Virapur		886	42	487	407	8	8	..	..	490	419
			99 Kurbankop		904	19	148	127	9	4	..	..	151	141
			Lakhmapur		769	78	480	405	63	91	..	..	495	498
			100 Basapur		208	159	116	88	12	21	..	..	127	109
			101 Domanhal		670	188	269	107	90	146	2	14	361	267	
			103 Somsagur		702	320	226	113	202	367	1	6	429	488	
			Hire Basur		881	880	296	124	248	478	1	4	540	604	
			Yatinhal		1,284	178	499	311	175	368	..	..	674	664
			Shadgopi		1,098	108	524	359	182	273	..	..	656	632
			Akur		1,066	243	387	184	179	320	106	1,410	622	2,884	
			Total of the 4th Class ..		85,298	9,087	17,000	9,924	6,238	12,688	159	1,738	23,497	24,260	
			<i>5th Class.</i>	<i>5th Class.</i>											
				Rs. a											
	Old Talas Bahal.	Bankapur.	108 Yedlabad	1 4	219	197	83	37	65	101	..	..	148	128
			109 Dasankop		216	283	195	62	10	14	..	..	205	76
			110 Hupsh Kumri		858	1,303	293	148	54	81	..	..	847	929
			111 Bk Narayanapur ..		268	631	107	25	76	110	..	..	189	145
			Hankanhali		969	101	291	147	328	513	..	..	617	690
			113 Rangund		1,113	212	966	188	352	576	9	111	727	819	
			114 Siddapur		882	56	181	66	108	151	..	..	289	217
			115 Matkatti		456	47	148	63	78	104	..	..	323	252
			116 Bk Konankeri		311	390	84	30	105	225	..	..	198	264
			117 Kd Konankeri		638	717	94	36	58	78	..	..	162	117
			118 Artal		958	354	186	36	113	168	..	..	248	222
			119 Artal		1,248	2,119	538	31	168	850	..	..	726	941
			120 Hoir		1,018	3,041	328	83	237	471	..	..	665	554
			121 Yatinhal		641	299	149	102	132	215	..	..	281	317
			122 Hanmapur		414	78	217	134	67	89	..	..	364	224
			Sunshetkop		986	208	451	210	237	539	..	..	698	749
			Bendalatti		1,077	1,505	460	144	309	428	..	..	709	574
			124 Talakhonihali		3,893	471	975	363	476	685	..	..	1,451	1,044
			Bk Yellapur		1,860	490	854	341	406	709	..	..	1,292	1,063
			Dewarkop		293	17	233	149	42	74	..	..	275	223
			Balmankhalkatti ..		1,206	117	604	195	113	179	..	..	717	874
			Parsapur		1,001	169	469	204	165	379	..	..	694	583
			129 Halekoti		3,627	661	1,141	493	731	1,549	41	687	1,914	2,709	
			131 Shirmapur		271	34	6	4	113	293	..	..	119	267
			132 Doloshwar		930	131	376	176	348	639	6	63	623	698	
			133 Malgar		577	99	350	132	110	217	..	..	360	349
			134 Arleshwar		1,165	170	350	224	493	1,147	1	8	814	1,272	
			135 Akkwall		764	101	186	87	336	412	..	..	432	499
			Kuntanhoshali		626	81	371	214	161	276	..	..	532	490
			137 Sawagl		1,153	89	437	261	188	327	..	..	623	584
			Nandkop		162	29	53	30	42	83	..	..	96	114
			138 Nagsangl		766	206	383	185	166	249	..	..	509	444
			140 Kargur		1,372	175	673	349	321	647	15	160	1,009	1,169	
			141 Algod		664	66	258	162	165	216	8	19	414	397	
			142 Moharaj Pat		32	29	30	18	..	..	..	..	39	28
			143 Hire Kawanshi		1,791	335	465	249	410	765	10	88	884	1,028	
			Gondi		1,207	178	410	209	394	796	12	92	818	1,065	
			145 Kondafl		1,408	192	639	249	319	599	..	..	949	749
			146 Makawall		2,082	238	342	396	315	634	7	56	1,194	2,062	
			Maw kop		481	460	362	111	93	164	..	..	355	283
			148 Dyamankop		295	144	100	..	35	56	..	..	166	161
			149 Nigankop		632	389	347	180	79	123	..	..	420	311
			150 Bamsanhal		418	93	82	49	124	241	..	..	210	200
			Talherkop		471	292	125	59	64	79	..	..	179	132

C.—continued.

BY REVISION SURVEY.													Average assessment on Govern- ment land per acre.	Increase of assessment per cent.	Decrease of assessment per cent.
Total arable acres, includ- ing linam.	Total unarable acres.	GOVERNMENT OCCUPIED LAND.								Unoccupied waste.					
		Dry-crop.		Rice		Garden.		Total.		Acres.	Assessment				
		Acres.	Assessment	Acres	Assessment.	Acres.	Assessment.	Acres.	Assessment.						
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
			Rs.		Rs.		Rs		Rs.		Rs	Rs. a. p			
119	202	15	9		2	..	..	16	11	50	74	1 4 7	22 2	..
682	76	473	615	28	65	1	1	502	681	6	6	1 5 0	55 5	..	
828	65	631	661	44	114	1	1	676	776	158	174	1 2 4	43 2	..	
681	125	817	868	62	264	..	..	899	647	5	23	1 7 9	39 4	..
568	65	484	573	6	14	..	..	490	587	15	3	1 3 4	43 2	..
208	7	147	164	2	6	..	..	149	170	8	3	1 2 0	29 8	..
770	70	481	599	52	124	..	..	583	723	202	213	1 4 5	45 8	..
210	165	108	106	17	45	..	..	125	159	..	..	1 3 2	37 6	..
579	142	279	144	79	188	6	..	364	383	..	..	1 0 10	43 4	..
717	806	288	172	152	527	3	81	443	730	..	..	1 10 4	50 2	..
845	897	355	152	192	427	3	24	550	803	..	..	1 7 4	32 9	..
1,306	168	541	429	187	498	..	..	718	917	40	60	1 4 5	36 1	..
1,060	112	480	1,408	145	414	..	..	625	822	182	106	1 2 5	30 1	..
7,088	268	344	186	184	560	94	1,315	623	2,061	25	10	3 3 2	10 6	..	
34,834	9,565	17,099	12,957	6,425	20,197	172	1,979	28,994	35,133	2,066	1,785	1 6 11	40 5	..	
230	193	92	38	64	175	..	..	156	203	86	15	1 2 2	68 6	..
241	236	196	65	8	22	..	..	204	67	26	11	0 6 10	14 5	..
856	1,875	902	186	49	140	..	..	351	326	5	4	0 14 10	42 4	..
291	625	113	45	74	99	..	..	187	144	66	37	0 11 6	6 7	..
985	101	348	198	283	659	2	7	633	864	137	194	1 6 0	30 9	..	
1,167	197	427	169	328	662	17	236	770	1,167	..	..	1 8 3	42 5	..
387	62	194	75	101	241	..	..	295	306	..	..	1 0 7	41	..
477	35	200	84	145	308	..	..	345	399	..	..	1 2 2	55 6	..
316	337	64	53	106	339	..	..	200	391	..	..	1 15 8	48 1	..
845	764	77	35	79	140	..	..	149	165	19	9	1 0 7	41	..
355	238	176	80	111	234	..	..	249	314	7	2	1 3 9	38 3	..
1,310	2,052	532	138	392	1,019	..	..	774	1,152	98	20	1 7 1	32 4	..
1,025	2,928	248	141	299	614	..	..	465	735	236	128	1 3 8	32 7	..
625	242	133	80	137	509	..	..	270	589	163	124	1 10 3	55 8	..
409	83	442	188	76	177	..	..	319	865	60	56	1 1 10	63 7	..
1,020	169	467	223	234	772	1	3	722	993	..	..	1 6 1	33 2	..
1,104	1,378	404	175	366	754	..	..	790	929	127	79	1 1 7	62 4	..
1,742	445	882	442	487	998	..	..	1,469	1,487	853	276	0 11 10	37 1	..
2,094	843	925	431	379	1,065	3	21	1,307	1,517	281	94	1 0 3	44 5	..	
297	19	245	139	42	121	..	..	277	280	..	..	1 11 2	25 6	..
1,269	79	636	262	127	287	..	..	763	549	40	14	0 1 3	46 8	..
1,694	146	453	254	206	821	..	..	679	1,075	36	17	1 9 3	44 4	..
3,796	624	1,140	624	767	2,356	68	918	1,965	3,898	520	381	1 10 10	43 7	..	
278	26	11	11	110	386	..	..	181	397	..	..	3 4 6	48 7	..
939	135	367	188	253	684	7	103	637	1,282	..	..	2 9 9	42 8	..
684	93	291	146	107	388	..	..	398	584	111	60	1 5 11	58	..
1,105	164	860	395	452	1,551	4	36	616	1,892	..	..	3 5 1	37 4	..
774	128	215	129	229	614	..	..	444	743	..	..	1 10 8	48 9	..
632	80	333	269	202	667	..	..	535	936	2	1	1 12 11	91	..
1,169	92	480	389	150	528	..	..	620	917	934	479	1 7 2	56	..
163	28	65	45	32	101	..	..	97	146	..	..	1 3 1	29 2	..
812	189	415	228	139	319	1	9	555	656	54	27	0 16 4	36 1	..	
1,341	188	668	470	305	1,270	22	326	908	2,068	24	17	2 9 9	78 7	..	
792	67	268	202	143	412	7	74	418	688	263	244	1 5 11	73 3	..	
33	24	28	20	3	4	..	..	81	24	..	..	0 12 6	38 3	..
1,840	188	551	361	406	1,377	13	122	968	1,860	470	393	1 3 11	68 8	..	
1,299	191	438	326	393	1,201	11	109	644	1,636	32	51	1 14 11	49 3	..	
1,435	197	637	250	338	743	1	8	971	1,001	189	74	0 15 1	33 6	..	
1,672	695	967	515	301	1,209	11	185	1,179	1,658	317	203	1 6 1	71 9	..	
431	456	230	168	88	231	..	..	353	588	43	20	1 0 2	46 8	..
615	136	111	40	46	124	..	..	159	179	35	17	2 0 2	11 2	..
627	609	812	245	107	263	..	..	423	508	38	73	1 4 1	63 2	..
434	103	103	64	120	368	1	5	234	417	24	39	1 13 6	43 6	..	
478	296	125	84	46	150	..	..	171	236	..	..	1 6 1	78 8	..

Former Taluka.	Present Taluka.	Number	Name of Village.	Maximum dry-crop rate.	BY FORMER SURVEY.																						
					Total arable acres, including Inhm.	Total unarable acres.	GOVERNMENT OCCUPIED LAND.								Total.												
							Dry-crop.		Rice.		Garden.		Acres.	Assessment.													
							Acres.	Assessment.	Acres.	Assessment.	Acres.	Assessment.															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15													
Old Hāngal.	Hāngal.	5th Class—continued.			5th Class Rs. a.	1	4	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.												
		152	Yelwati	861												253	127	60	983	747	8	69	518	875			
		153	Nellikop	678												92	237	122	144	264			381	396			
		154	Yellūr	950												134	103	57	208	369	2	14	813	440			
		155	Hospayti	422												66	201	92	89	130			290	222			
		156	Gāndūr	221												657	71	21	67	120			148	141			
		157	Jangundikop	439												348	204	75	75	110			279	185			
		158	Mūdūr	2,804												814	541	295	498	864	24	211	1,063	1,370			
		159	Sureshwar	1,512												192	777	400	270	742	1	12	1,048	1,154			
		160	Juglikop	764												85	338	180	194	419			532	569			
		161	Hotanahā	807												163	447	148	155	224			362	420			
		162	Shirmapūr	374												59	224	102	35	53			259	155			
		163	Hannapur	584												39	69	40	48	61			137	101			
		164	Wobapūr	288												14	141	53	27	43			168	96			
		Total of the 5th Class														50,032	18,625	18,248	8,323	10,052	20,479	138	1,586	29,338	30,388		
		Old Hāngal.	Hāngal.	6th Class.												6th Class Rs. a.	1	0	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
165	Makarwālī			957	112	402	98	282	429	5	39	699	665														
166	Gowrapūr			241	40	128	48	91	169			219	317														
167	Girsankop			518	63	328	92	87	105			425	257														
168	Satenahā			666	43	355	132	163	255			619	407														
169	Bachwālī			689	60	368	183	444	489			612	696														
170	Ramtrah			949	459	294	89	399	787	9	74	702	903														
171	Hāngānkop			574	55	292	83	73	121			365	294														
172	Hār			2,009	887	692	217	786	1,769	6	69	1,486	2,054														
173	Bahbah			888	1,363	308	108	215	371			523	474														
174	Hāralkop			495	332	263	82	126	219			389	810														
175	Mantgi			1,100	725	305	116	271	550			876	696														
176	Hire Kangī			1,356	695	270	102	373	692			843	794														
177	Kamanahā			616	770	216	95	129	264			445	329														
178	Chkers			332	82	55	15	87	185			142	200														
179	Hoshālī			809	68	424	131	179	298			603	419														
180	Chikāngī			910	65	325	91	408	699	2	23	745	613														
181	Kaparsankop			513	243	185	65	185	285			370	450														
182	Suwalī			188	270	62	28	53	92			115	120														
183	Shirgōd			2,081	1,487	836	211	597	1,120	18	178	1,351	1,569														
184	Chik Kawanshī			1,006	337	373	153	353	814	3	21	729	989														
185	Kyansūr			797	1,101	283	96	192	299			475	395														
186	Konsankop			411	323	65	23	175	391			240	414														
187	Gadiyentānahā			1,028	135	655	169	207	330	1	3	863	594														
188	Nidēluppī			627	118	61	80	415	768	32	258	609	1,061														
189	Wagunānkānkop			340	67	115	48	110	236	2	15	227	299														
190	Basapūr			397	62	99	45	94	177			183	282														
191	Kawalkop			275	99	53	22	78	151			131	173														
192	Dashratkop			287	794	35	11	99	171			134	182														
193	Bālwal			510	248	67	26	190	305			257	331														
194	Yelwāl			813	705	186	40	284	441			420	481														
195	Hannasagar			282	68	15	11	114	267			129	279														
196	Chenapur			240	914	20	6	36	59			56	65														
197	Tamsūr			147	285	42	14	25	36			67	50														
198	Hansabad	446	261	90	36	147	295	4	40	241	261																
199	Hātī	638	69	254	81	341	698	25	273	620	1,052																
200	Veuktapūr	424	247	66	25	121	192			287	217																
201	Gādgōndyellapūr	229	212	26	9	88	164			91	101																
202	Kōlmīyellapūr	213	712	31	5	69	101			28	30																
203	Murankop	89	615	6	1	80	96			369	499																
204	Shidgarwālī	575	1,076	96	24	272	474	1	1	70	107																
205	Yedīnahā	129	23			70	107																				

C.—continued.

BY REVISION SURVEY															Average assessment on Govern- ment land per acre.	Increase of assessment per cent.	Decrease of assessment per cent.
Total arable acres, includ- ing inam.	Total unarable acres.	GOVERNMENT OCCUPIED LAND.								Unoccupied waste.							
		Dry-crop.		Rice.		Garden.		Total.		Acres.	Assessment.						
		Acres.	Assessment.	Acres.	Assessment.	Acres.	Assessment.	Acres.	Assessment.								
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30			
			Rs	Rs.		Rs.		Rs.			Rs.	Rs a, p					
863	256	110	70	899	1,822	10	139	519	1,531	31	89	2 13 8	75	..			
875	100	275	143	140	376	..	..	375	519	..	..	1 6 2	34 5	..
981	130	140	108	181	349	2	15	323	472	224	207	1 3 10	7 3	..			
411	82	191	116	89	111	..	..	280	326	11	18	1 3 11	46 5	..	
223	852	75	29	63	141	..	..	188	170	..	..	1 3 9	20 6	..
438	864	200	104	80	154	..	..	280	253	..	..	0 14 9	39 6	..
2,799	817	670	321	508	1,206	21	235	1,099	1,822	735	579	1 4 11	33	..			
1,534	170	793	520	268	1,043	3	39	1,070	1,603	..	2	1 7 10	38 3	..			
765	92	830	221	201	634	3	16	584	771	..	..	1 7 1	23 7	..	
631	189	476	149	134	896	..	..	610	545	..	..	0 14 4	29 8	..
989	37	249	141	21	38	..	..	270	179	9	14	0 11 1	15 5	..	
812	305	102	50	38	65	..	..	140	115	45	30	0 13 6	13 9	..	
271	25	431	55	33	74	..	..	164	129	..	..	0 13 7	34 4	..
50,346	18,600	18,903	10,698	10,915	31,425	209	2,565	30,027	44,583	5,627	3,956	1 5 9	46 7	..			
960	123	418	131	270	620	5	36	693	777	..	..	1 1 11	37 5	..	
342	30	135	71	85	226	..	..	220	297	..	..	1 5 7	36 9	..
509	84	329	118	150	215	..	..	414	353	..	..	0 13 10	29 6	..
672	47	358	210	166	361	..	..	522	561	..	59	1 1 2	37 3	..	
690	62	330	208	275	305	9	8	606	1,019	..	..	1 10 11	60 2	..	
973	443	340	113	362	1,043	9	123	711	1,277	30	20	1 13 9	37 3	..			
693	53	308	93	88	102	..	..	376	195	65	66	0 9 6	..	..	
2,006	896	768	340	758	2,827	5	58	1,531	2,225	..	..	2 1 3	57	..	
827	1,011	293	113	224	546	2	14	519	678	2	1	1 4 10	43	..			
419	418	249	89	333	390	..	..	282	478	..	..	1 4 0	54 2	..
1,008	798	243	139	820	947	2	32	565	1,118	136	68	1 11 1	67 9	..			
1,127	872	247	124	392	880	2	16	641	1,018	146	86	1 6 5	28 2	..			
493	777	208	132	142	338	..	..	350	468	..	..	1 5 5	42 2	..
330	86	59	24	83	199	..	..	141	214	79	24	1 1 4	7	..	
805	63	426	167	173	334	..	..	599	501	100	43	0 12 5	16 8	..	
894	84	831	150	898	987	3	41	717	1,158	18	17	1 9 7	42 4	..			
514	329	174	77	198	475	..	..	372	559	21	10	1 6 11	57 7	..	
142	276	74	49	44	144	..	..	118	192	..	..	1 10 0	60	..
1,917	1,481	725	295	608	1,399	21	204	1,349	1,768	235	125	1 3 1	17 2	..			
1,067	356	384	191	373	1,081	3	84	780	1,306	63	29	1 9 11	32 1	..			
798	1,159	300	148	187	427	..	..	487	575	60	23	1 1 6	46 6	..	
441	335	103	47	165	541	2	..	270	606	53	34	1 15 2	46 4	..			
1,056	114	688	230	173	427	1	8	867	665	5	5	0 12 4	31 9	..			
634	118	169	108	343	1,239	29	392	631	1,789	35	70	3 3 2	65 5	..			
266	62	123	81	110	331	2	27	235	439	..	..	1 13 11	46 8	..	
401	69	107	78	125	408	..	..	232	486	15	36	2 1 10	118 9	..	
275	87	59	34	71	184	..	..	130	218	37	64	1 11 0	26	..	
288	988	39	19	96	184	..	..	185	203	..	..	1 8 1	11 5	..
507	260	70	33	185	427	..	..	255	460	130	37	1 11 11	39	..	
857	563	181	86	282	621	..	..	483	637	22	15	1 7 2	42 3	..	
288	67	18	12	112	306	..	..	130	315	..	..	2 7 2	14 4	..
84	900	26	9	39	58	..	..	55	67	..	..	1 3 6	37	..
149	293	42	16	25	96	..	..	67	52	64	81	1 0 3	4	..	
453	285	123	75	122	330	4	58	248	463	..	..	1 15 10	28 3	..	
892	323	263	109	345	1,267	38	325	621	1,701	47	67	3 10 4	61 7	..			
337	301	60	28	181	259	..	..	191	287	17	7	1 6 7	32 3	..	
331	286	35	15	69	198	..	..	123	208	27	19	1 8 3	30 2	..	
189	794	39	16	54	109	..	..	93	124	36	14	1 2 7	14 7	..	
56	654	10	4	19	35	..	..	29	39	37	28	1 0 3	..	..	
580	1,373	94	31	275	658	..	..	369	689	..	..	1 13 11	38 1	..
122	21	4	2	64	118	..	..	69	130	..	..	1 14 2	21 5	..

APPENDIX

1	2	3	4	5	BY FORMER SURVEY.											
					6	7	GOVERNMENT OCCUPIED LAND.								14	15
							Dry-crop.		Rice.		Garden.		Total.			
							8	9	10	11	12	13	14	15		
Former Taluka.		Present Taluka.		Maximum dry-crop rate.	Total arable acres, including khann.	Total unarable acres.	Acres.		Assessment.		Acres.		Assessment.			
Name of Village.		Number.					Rs. a.		Rs.		Rs.		Rs.			
Old Hangal		6th Class.—continued		6th Class												
		206	Galginkatti	Rs. a.	578	456	59	17	129	166	..	..	188	183
		207	Shabal		487	329	49	19	199	392	..	..	245	411
		208	Jondalgatti		96	1,104	9	8	18	82	..	..	27	35
		209	Kyatankeeri		260	61	115	55	59	90	..	..	169	125
		210	Halwataralgatta		835	1,032	230	90	59	101	..	..	289	191
		211	Gudgeri	1 0	288	1,741	101	43	70	111	..	..	171	154
		212	Malgon dankop .. .. .		..	587	..	..	..	..	..	..	..	..
		213	Karkikop .. .. .		..	935	..	..	..	..	..	..	..	..
		214	Mawakop .. .. .		..	234	..	..	..	..	..	..	..	..
		215	Sayagondankop.		41	826	41	18	..	..	..	..	41	18
			Total of the 6th Class	23,261	23,172	9,200	3,037	3,787	16,284	110	993	18,097	20,364	
			Grand Total of all Classes	194,009	60,334	81,518	62,570	30,084	53,787	535	6,347	123,137	1,27,704	

C.—concluded.

BY REVISION SURVEY.														Average assessment on Government land per acre.	Increase of assessment per cent.	Decrease of assessment per cent.
Total arable acres, including inams.	Total unarable acres.	GOVERNMENT OCCUPIED LAND.*								Unoccupied Waste.						
		Dry-crop.		Rice.		Garden.		Total		Acres.	Assessment.					
		Acres.	Assessment.	Acres.	Assessment.	Acres.	Assessment.	Acres.	Assessment.							
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
			Rs.		Rs.		Rs.		Rs.		Rs.	Rs. a p.				
577	465	70	24	121	211	..	..	191	235	255	138	0 13 5	28.4	..
482	829	58	24	190	674	..	..	246	698	..	..	2 13 0	69.8	..
94	1,131	11	4	16	25	..	..	27	29	32	24	1 1 1	..	17.1
269	76	125	55	52	100	..	..	477	155	72	38	0 12 1	24	..
848	1,068	204	85	92	176	..	..	290	261	52	17	0 12 9	36.6	..
810	1,700	125	47	56	106	..	..	181	153	69	50	0 13 0	..	0.6
..	721	..	..	..	..	..	..	..	..	..	..	..	..	..
..	937	..	..	..	..	..	..	..	..	..	..	..	..	..
..	261	..	..	..	..	..	..	..	..	..	..	..	..	..
42	302	34	18	8	14	..	..	42	32	..	..	0 12 4	77.8	..
27,493	21,319	9,556	4,189	8,677	23,251	115	1,404	18,348	28,844	1,897	1,810	1 7 10	41.6	..		
194,597	61,069	94,448	88,327	29,985	89,854	745	8,324	125,558	1,86,505	10,419	7,626	1 6 10	46.1	..		

(Signed) W. C. ANDERSON,
Survey and Settlement Commissioner, S. D.

EXTRACT from letter from Captain C. W. GODFREY, Deputy Superintendent, Southern Marátha Country Revenue Survey, No. 423 of 4th November 1876.

3. Four statistical returns were forwarded to you with my memorandum No. 420, dated 2nd instant, and regarding these I beg to offer the following remarks:—

Statistical Table No. III. gives the detail of cultivation, and is prepared from information obtained from the village records. A statement of crops is prepared by the village officers when making their yearly inspection of fields, and the crops grown in each field are entered, showing pretty accurately the area of the different kinds of cultivation. This statement for each village is examined, and the areas under each kind of cultivation is entered in a statement for each village; these are totalled up, and the percentage of each kind of crop made out for all the villages, in my office. In Statistical Table No. III. the whole of the crops are represented by 100, and the percentage of each particular kind of grain grown throughout the 215 villages under report, on an average of the last four years, is given. From this table it appears that, throughout the district under report, the crops are principally kharif or early crops, sown at the beginning of the rains, giving a total percentage of 60·71 as compared with 10·42 per cent. of rabi or late crops, and leaving 28·87 per cent. of the arable land as yearly left waste. The large amount of early crops grown may be accounted for by the large percentage—25·82 of rice—grown in these districts, and the fact that almost all the jowári grown is of the description sown in the early part of the rains. The large percentage of land fallow may be accounted for by the fact that in the western villages, where the rain is generally excessive, large areas of dry-crop soils are not cultivated yearly, and, when cultivated, only in small patches of minor crops.

4. Statistical Table No. IV., which gives the detail of population, is prepared from the old and new *Khánesumáris*, or census returns, written out by the classers of the Survey Department at time of classification. This table shows the population of

195 villages; the remaining 20 villages being now, as they were formerly, uninhabited. From this table I deduce the following general information regarding the population, past and present :—

Population of 195 Villages.	MALES.		FEMALES.		TOTAL.		General Total.
	Under 15 years.	Above 15 years.	Under 15 years.	Above 15 years.	Under 15 years.	Above 15 years.	
1846-47... ..	15,812	22,134	12,801	22,861	28,613	44,995	73,608
1876	17,993	24,413	12,774	25,193	30,767	49,606	80,373

5. In the Statistical Table No. IV. the detail of population is shown according to the principal castes. Detail of population. The increase in population, as a whole, for the 195 villages, and the respective increases in each caste, are shown in the following table :—

Castes.	Total Population of 1846-47.	Total Population of 1876.	Increase.	Decrease.	Increase or Decrease per cent.
Jains	2,752	2,799	47	...	1.71
Lingáyats	29,882	31,298	1,416	...	4.74
Musalmánas	8,384	10,369	1,985	...	23.68
Bráhmans	2,565	2,236	...	329	12.82
Low-castes	30,025	33,671	3,646	...	12.14
Total	73,608	80,373	6,765	...	9.19

The increase in population is mostly among the Musalmánas. I cannot account for the decrease in the Bráhmans except by supposing that it is owing to a large number having left their villages and gone to large stations where they obtain Government employ, and hence the number remaining in the districts has decreased considerably.

6. The present number of inhabitants of 215 villages, including 20 uninhabited villages; compared with the total area of land of the 215 villages, gives the following results :—

Villages.	Total Number of Inhabitants.	Total Area in Acres.	Number of Inhabitants per Square Mile.	Number of Acres to each Individual.
215 villages	80,373	255,688	201	3·18

7. Statistical Table No. V. is prepared from information recorded in our Khánesumáris. It contains information for all the 215 villages, 20 of which are uninhabited. From this statement—which gives the respective numbers of agricultural, partly agricultural, and non-agricultural persons—the percentage of each with reference to the total inhabitants is as follows :—

	No.
Agricultural	56·13
Partly agricultural	14·89
Non-agricultural	28·98
Total	<u>100·00</u>

8. Statistical Table No. VI. is prepared entirely from our old and new Khánesumáris for 195 villages. There is no record in the Khánesumáris regarding the wells in existence at time of first settlement, and, therefore, only the new wells are entered in this table; but I have had separate statements prepared from the old classing books and papers regarding the number of wells existing formerly, and this is noticed further on.

14. With regard to the value of land, I beg to forward a statement, marked A., showing the recent sales, mortgages, and leases of land obtained from the Sub-Registrar's records. This statement can be trusted as correct, the details shown of each transaction being copies of entries made in the Registration Office. From this it will be seen that land possesses a very high value. I have selected and tabulated below a few cases of sales where large sums were paid for land. In the cases of mortgages and leases the sum paid cannot be considered a just criterion of the value of the land in all cases,

as other circumstances, of which we know nothing, may, in some way, have influenced the transaction, and caused a larger or smaller sum to have been paid :—

Villages.	Survey Number.	Area.	Present Assessment.		Amount realized.		Remarks.
			A. g.	Rs. a.	Rs. a. p.		
Kundur	31	6 37	8 8	200 0 0	23 years' purchase.		
Gowrápur	21	8 32	15 0	500 0 0	33 ditto.		
Nagnur	5	25 1	32 0	1,000 0 0	31 ditto.		
Pursápur	102	2 1	1 8	500 0 0	350 ditto.		
Naregal	135	1 5	20 0	360 0 0	18 ditto.		
Halekoti	108	6 24	11 0	300 0 0	27 ditto.		
Hire-Kangi	10	1 35	5 4	200 0 0	38 ditto.		
Balambid	1	11 30	23 0	600 0 0	26 ditto.		
Balambid	107	5 11	11 0	204 0 0	18½ ditto.		
Háwangi	158	10 8	6 0	300 0 0	50 ditto.		

15. The following statement, prepared from information recorded during revision classification, gives a fair idea of the extent to which lands are sublet, and the proportion of fields cultivated by the owners themselves, or in partnership with others, or by sub-tenants, on money or grain rents :—

Total Survey Numbers of 15 Villages	Total Numbers cultivated by the Khátedárs or their Brotherhood.	Total Numbers cultivated by the Khátedár, in partnership with others.	Total Numbers cultivated by Sub-tenants on Money-rents	Total Numbers cultivated by Sub-tenants on part-produce, or Grain-rent.	Waste Numbers.	Parumpoka Numbers.
Government Numbers 15,254	8,990	333	2,104	1,441	1,045	1,341
Percentage	58 95	2 13	13 80	9 44	6 86	8 80
Inám Numbers 7,627	2,836	304	3,410	1,027	....	....
Percentage	37 94	3 98	44 75	13 33	....	....
Total Government and Inám Numbers 22,881	11,826	637	5,514	2,468	1,045	1,341
Percentage	51 60	2 79	24 10	10 81	4 10	6 30

From this statement it appears that 34·91 per cent. of the total numbers are sublet for money or grain rents, and that 54·69 per cent. of the total numbers are cultivated by the owners of the land, either alone or together with their brotherhood or partners. The greater proportion of land sublet is in the inám numbers, of which 58 08 per cent. is sublet for money or grain rents, only 23·24 per cent. of Government numbers being similarly sublet.

With regard to the total sublet numbers, the proportion of those sublet for money rents is 24·10 to 10·81 of numbers sublet for part produce or grain rents. For the reasons given in my Report of last year on the old Bankápur Táluka, I regret to say that both Mr. Wingate and I were unable to get any trustworthy information regarding the subletting of fields.

(True Extract)

(Signed) W. C. ANDERSON,
Survey and Settlement Commissioner, S.D.

EXTRACT from letter from Captain C. W. GODFREY, Deputy Superintendent, Revenue Survey, Southern Marátha Country, No. 437 of 14th November 1876.

* The rainfall in this part of the Dhárwár Districts is registered yearly at five places—Hubli, Kalghatgi, Shiggaon, Hángal, and Karajgi. I have obtained the following information regarding the quantity of rainfall registered in those places from the Hubli, Kalghatgi, Bankápur, Hángal, and Karajgi Mámldárs, which is tabulated below :—

Years.	Rainfall at Hubli.		Rainfall at Kalghatgi.		Rainfall at Shiggaon.		Rainfall at Hángal.		Rainfall at Karajgi.	
	Inches.	Cents.	Inches.	Cents.	Inches.	Cents.	Inches.	Cents.	Inches.	Cents.
1872	21	90	23	60	17	59	29	97	34	60
1874	48	55	42	95	26	92	54	64	29	46
1875	18	42	30	72	21	39	29	41	13	30
Average	27	96	32	45	21	98	38	..	36	75

In this year (1876), which is supposed to be the worst for scarcity of rain ever known within the memory of the present generation, the amount of rain registered at those different places is shown by the Mámldárs to be, up to 1st October 1876 :—

For Hubli	14·18 inches.
„ Kalghatgi	19·86 „
„ Shiggaon	15·23 „
„ Hángal	22·15 „
„ Karajgi	9·24 „

* *Note by Survey Commissioner.*—These returns of rainfall made by the Mámldárs are of very doubtful accuracy, especially those of Kalghatgi and Shiggaon, at both of which places the fall of rain must considerably exceed that of Hubli.

9. The Dharma River is dammed near the village Shringeri.

Dharma Canal. A solid masonry weir thrown across the stream raises the water a few feet, and a canal carries out the water on the right bank. This is the main Dharma Canal which continues through Sewhalli, Herrur, Gejihali, and Gowrápur, crosses Hángal and Tillwalli road under a masonry bridge, continues through lands of Sirmapur, Doleshwar, and Surleshwar, and fills the two large tanks of these two last villages. In Surleshwar the canal divides into two branches, one flowing east to A'dur, the other flowing due south to A'lur. The A'dur branch goes through lands of Akiwalli, Hotanhalli, Arleshwar, Kalweh-Yellápur, Kanchneglur, and on to the A'dur Tank, which it is supposed to fill. At the village of Kalweh-Yellápur a small branch is taken off to the south to irrigate lands of Balumbid, and about two miles further on another branch is taken north to irrigate the lands of Jekinaikankop. The A'lur branch, starting from the bifurcation above the Surleshwar Tank, enters the lands of Jiglikop, opposite which village a small branch is thrown out to the Hawangi Tank. The main branch from Jiglikop continues to A'lur, ending at the large tank of that village, which it fills. The main canal from Shringeri to Surleshwar is in fairly good order, a few outlets only requiring repairs or re-construction; but from Surleshwar the A'dur branch has either never been excavated to proper depth, or has greatly silted up; while, on the other hand, the A'lur branch has a rapid fall, and is in fairly good order. The consequence is, that very nearly the whole of the water reaching Surleshwar is carried on through the A'lur branch, and only in heavy floods does water find its way down the A'dur branch; this is said to be only twice a year, a few days at a time. This has been ascertained to be the case from levels having been recently taken and sections made. Mr. Palliser informs me that the attention of the Irrigation Department has been for some time given to the improvement of the Dharma Canal; that the engineering survey is just complete; and that it is hoped, very shortly, comprehensive plans may be drawn up so as to make the most of this important irrigation work. This Dharma Canal was partially repaired in 1872, 1873 and 1874, a little clearing having been done and a few outlets built; and at the time Rs. 3,200 were spent, out of which Rs. 1,300 were contributed by the villagers concerned.

10. The Dharma River is also dammed up close to the

Naregal Canal. eastern boundary of the village Kancheglur, opposite the lands of Kurbankop. A masonry weir is thrown across the stream, and a canal taken off at the right bank, passing through the lands of Jekinaikankop, Naregal and Kalweh-Yellápur, continuing through the lands of Naregal to the Naregal Tank, which it supplies. This canal is known as the

Naregal Canal. The weir was repaired in 1873 by the Irrigation Department. Formerly there were large leaks under it, by which much water was wasted. This was stopped, and the canal derives a larger supply and is now in fair repair. An additional outlet was built by which the lands of Jekinaikankop are now irrigated. The total amount which has been spent in repairs is, I am informed, Rs. 2,000—spent before Irrigation Department since 1833 to 1870; and by Irrigation Department since 1870, Rs. 2,000.

11. Besides the two most important irrigational works mentioned above, there are two minor ones. The first is for making use of the water of a stream running from Nidsingi Tank due south to the Dharma River at Kuntanhoshalli, and the other making use of the water flowing through the valley south of Konankeri, and by means of a channel, made to connect numerous tanks, to eventually carry on the surplus water to the large Belgal Tank.

12. With regard to the first work referred to above, I am informed that the stream passing near Bussapur was diverted off to the Kurgudri Tank by an embankment and deep cutting, south of Bussapur. The original stream continues south, and finally joins the Dharma River at Kuntanhoshalli. Between the two villages of Kurgudri and Satinhalli there is an ancient masonry weir across this nála which feeds a small channel on the right bank, irrigating the lands of Kuntanhoshalli. A mile below this weir stood an ancient bandhara from which the Sáwasgi lands were irrigated. This last bándhára was breached and ruined, it is said, about 40 years ago, and the Sáwasgi lands lost this supply of water. To provide a remedy, it was found more economical to re-arrange the Kuntanhoshalli Weir work so as to take off an irrigation channel from that weir on the left bank to the Sawasgi lands, than to re-construct the Sawasgi Weir itself. The work is now completed, and next monsoon the Sawasgi lands will obtain their old supply. The supply of water to the Kuntanhoshalli lands has also been improved by the new works.

13. Regarding the Belgal Kálva—as the channel is called which carries off the surplus water collected in a large valley south of Konankeri—I have not got very precise information. The kálva connects a number of tanks, from which, as each tank gets filled up, the surplus water flows into the next, until, eventually, it ends in the Belgal Tank. This kálva passes through the lands of Hankanhalli, Bamanhalli, Nellibid, Yelwatti, Talkerikop and Gundur, and finishes at the Belgal Tank. This water-channel has, in many places, masonry

outlets, whence rice land, lying between the tanks and not under them, are also irrigated. This water-channel was originally made, I am informed, to feed and fill the numerous tanks through which it passes, and that making outlets in other places was an after-thought. The villagers of Belgal, who are the last to benefit by this channel, complain that, in consequence of these outlets being made higher up, the water is taken for so many fields that the tanks do not fill as they used to, and the Belgal tank has, in consequence, lost a large supply of water. This channel was repaired, and the new outlets referred to, made some years ago at the expense of the villagers, who altogether subscribed certain sums—but how much was subscribed by each village, what total amount was expended in repairs and making outlets, and when this work was done, I was unable to ascertain—I believe it was done under the orders of the Collector of Dhárwár.

15. Rice crops are shown by the village crop-statements, from which Statistical Table No. III. is prepared, to be 25·82 per cent. of all the crops except garden, which is excluded in that statement; but, taking the whole area of rice-land—50,922 acres—as compared with the total arable acres 194,620, the percentage of rice grown is 26·16. In these rice fields a fair proportion of sugarcane is grown once every third year—wherever there is good, natural moisture in the soil, without irrigation; or, where water-supply is plentiful, with as much irrigation as may be necessary. But in one case the sugarcane is the small grass cane known as *kalka-oos*, and in the other large *punda-oos* which requires plenty of water. Second green crops of *mág*, *matki*, *powtá*, and a little gram is also grown after the rice crop wherever the soil is favourably situated in low damp places, where the retention of moisture enables it to be grown; but, generally speaking, in the red and light-coloured soils, which prevail in these districts, second crops cannot be grown except with irrigation.

16. Garden crops of the minor kinds are rare, and, generally, gardens are only found where good tanks enable the cultivator to grow the superior crops, such as *pánvel*, *supári*, cocoanuts and sugarcane. There are very few gardens irrigated merely from wells; and where water from tank or stream is available, it stands to reason that it pays the cultivator better to grow rice crops than to grow minor garden crops, such as vegetables and irrigated dry crops, which are found to exist only when sown in rotation with sugarcane, to give rest to the land previous to its being grown again. The garden crops may, therefore, be said to be all of the superior kinds, and in many villages they are very superior crops cultivated with much care

and labour. I may notice in particular the gardens of Naregal, Kargudri and A'lur, which are the best I have seen; although many other villages, such as Hángal, Sirgur, Hungund and Nid-singi, have also very good gardens. These supári gardens are irrigated generally by very fine large tanks which contain water the greater part of the year; and from percolation the natural moisture of the soil below the tanks is very good. Most of the gardens have small wells, or holes dug a few feet deep, where water is generally obtainable in even very dry seasons; as, for instance, the last, when the tanks dried up much sooner than is the case in usual seasons. The water from these small wells is only then made use of to irrigate the garden crops, which is done generally by means of a "soop," water being thrown up by two men to a level sufficiently high to enable it to run off thence into all the small channels of irrigation.

18. The state of husbandry is good throughout the district. The land appears to be cultivated with care and labour, and every effort is made by the cultivator to bring the land into good producing condition. The rice fields are especially well cultivated. Some few villages on the eastern side appeared to me to be less thoroughly cultivated and more neglected; but, taking the district as a whole, I have no hesitation in saying that the state of husbandry is good.

19. Manure is used freely, especially in the rice and garden lands, the latter getting as much manure as the cultivator can afford. In dry-crop lands the short depth, gravelly, red soil, in which the crop depends so much more on the amount of manure than in the better soils, are all well manured. The villagers seem to be well aware of the value of manure, and some time before preparing the soil for sowing operations, and becomes necessary the fields are seen covered with little heaps of manure, which is afterwards spread over the land and ploughed into the soil. The manure used is generally that obtained in the villages from the cattle, but I have also seen in some places alluvial soil from the beds of tanks brought up for the purpose of manuring and giving vigour to the natural soil.

Wells. 28. The number of wells now existent is shown in the following table:—

WELLS EXISTENT.				Total.
In Village Site, for drinking only.	Used for Irrigation.	In Survey Numbers not used for Irrigation.	Out of Repair.	
359	844	135	622	1,960

The number of wells now existent cannot be compared in detail with the number which were in existence thirty years ago. All we know of these is, that 1,508 wells are recorded as having been dug before the last settlement, and hence there has been an increase of 452 wells dug since that date.

29. The number of tanks in the 215 villages under report is shown in the following table. In this table Tanks. I have only entered all tanks above one acre in area, as there are numberless little ponds which are just large enough to retain water for a few days, either for drinking or irrigational purposes, and which it would be useless noticing as tanks. I took the limit of one acre as the smallest admissible in the statement which was prepared from our classing papers:—

215 Villages.	Tanks for drinking.	Tanks for Irrigation.	Total.
Before last settlement	102	1,106	1,208
Existing in 1876	107	1,179	1,286
Increase	5	73	78
* Decrease ... ..	.....	.....	.....

The tanks in general are in good repair, but a good many have silted up more or less. I observed the Hireh-Kangi and Hungund tanks as requiring the embankment to be repaired. It is a great pity that the large tank between Chikodi and the inám village Bharmapur cannot be repaired, owing to the Inámdár of Bharmapur refusing to allow the breach in the bank, which occurred many years ago before last settlement, within the boundary of his village, to be repaired, as it is a very large tank with good catchment, and used to be fed, I am informed, by a channel originating from the Pallah Tank, and, consequently, had a very good supply of water.

30. There are in all 43 schools in 34 villages; of these 14 Schools. boys' schools and 3 girls' schools are instituted by Government; the remaining 31 schools are private schools, established by the villagers themselves. The number of schools existing at the time of the former settlement does not appear to have been recorded anywhere; it is, therefore, impossible to compare the present number of schools with those existing formerly. The present state of schools and the average daily attendance is shown in the following table:—

GOVERNMENT SCHOOLS.				PRIVATE SCHOOLS.		TOTAL.	
Boys'.		Girls'.		No. of Schools.	Average Attendance.	No. of Schools.	Average Attendance.
No. of Schools.	Average Attendance.	No. of Schools.	Average Attendance.				
14	727	3	67	31	395	48	1,189

The largest boys' schools are at Dhunshi, A'lur, Tadas, Naregal, A'dur, Hanamsagar, Maharajpett and Hángal. The girls' schools are established at Hángal, A'lur and Dhunshi.

31. I have obtained from the Mámlatdárs statements showing forth the number of liquor distilleries, temples and tálimkhánás in the 215 villages under report, and this information is tabulated below:—

Liquor Distilleries.	Tálimkhánás.	TEMPLES.	
		Hindu.	Musalmán.
10	98	715	127

32. The general health of the district is good. Cholera had not been known in most of the villages for many years before last season, when there was a good deal of it in the district in general. Some villages had no cases, but most of them had some cases of cholera; and in a few villages, such as Husur, Yetinhalli and a few others, it caused many deaths. Small-pox has decreased very much. But what the people most suffer from, especially in the villages on the western side, is fever, which is sometimes better, sometimes worse, but does not seem to disappear entirely.

33. A record of the births and deaths in each village is kept by the villagers. From this I have deduced birth and death-rates on an average of the last four years. It appears from this record of births and deaths that the annual average rate of births is 2,365, and deaths 2,295,

which, on a total population of 195 inhabited villages of 80,373 souls, shows an annual increase of 2·94 per cent., and an annual decrease 2·86 per cent.: so that on an average of the last (4) four years the population appears to be increasing yearly at the rate of 0·08 per cent.

34. Vaccination has become quite an institution, and I am informed that generally the people do not object to it, and that now they are daily becoming more and more convinced of its beneficial effects. Resistance to or evading vaccination is not common, although some natives require to be persuaded before they allow their children to be vaccinated. It appears that, on an average of the last four years, in the 195 inhabited villages the total number vaccinated each year is 2,388.

35. The general condition of the people is good; they seem all to be well clothed, well fed, and contented. The cattle and implements of agriculture appear sufficient and good; and in most villages the houses are good and well built. A few villages named in the margin appeared poor, the houses indifferent—principally badly built—and the people, especially of some of the villages in or near the jungles, appeared poor; but, taking the district as a whole, the people are well off, and have nothing to complain of.

Hanmapur.	Timapur.
Obapur.	Sawasgi.
Bylwal.	Nandikop.
Balihalli.	Kalwé-Yellápur.
Hoshalli.	Kawalkop.
Sirmapur.	Jandalgatti.
Jangundikop.	Luxmikop.
Dushratkop.	Naikop.
Talkerikop.	

(True Extract.)

(Signed) W. C. ANDERSON,
Survey and Settlement Commissioner, S. D.

STATISTICAL TABLE No. III.
Details of Cultivation in A.D. 1875-76.

District.	Surveyed Villages.	Crops.	PERCENTAGE OF TOTAL CULTIVATION OF GOVERNMENT AND INAM LANDS.		
			Total	Kharif.	Rabi.
1	2	3	4	5	6
Old Hángal Táluka and old Tadas Mahál of the Dhár- wár Collectorate.	Khálsat 215 villages of the old Hángal Táluka and old Tadas Ma- hál of the Dhárwár Col- lectorate.	Jowári	19·58	19·58	...
		Rice	25·82	25·82	...
		Túr	1·96	1·96	...
		Múg	0·73	0·73	...
		Tíl and Karala	0·45	0·45	...
		Castor-oil seed	3·20	3·20	...
		Kulthi... ..	1·58	1·58	...
		Minor crops	8·33	7·39	0·94
		American cotton	4·35	...	4·35
		Country do.	4·77	...	4·77
		Wheat	0·18	...	0·18
		Gram	0·18	...	0·18
		Waste or fallow	28·87	...	28·87
		Total ...	100·00	60·71	39·29

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(Signed) C. W. GODFREY, Captain,
Deputy Superintendent, Revenue Survey, S. M. C.

STATISTICAL TABLE No. IV.

Detail of Population in A.D. 1875-76.

1	Tribes.	Caste.	Males.		Total Males	Females.		Total Females.	Total of Columns 5 and 8.	Can read.			
			Under 15 years of age.	Above 15 years of age.		Under 15 years of age.	Above 15 years of age.			Males.		Females.	
			3	4	5	6	7	8	9	10	11	12	13
105 villages of the old Mangal Taluk and old Tada Taluk of the District Coimbatore.	Hindus	Christians .. .. .	..	..	..	..	..	..	..	..	..	..	..
		Jews .. .. .	..	..	..	..	..	..	..	..	..	..	..
		Jains	639	831	1,470	585	944	1,329	2,799	99	6 73	..	..
			583	808	1,391	505	856	1,361	2,752	114	6 19	..	..
		Lingyats	6,906	9,689	16,595	4,671	10,922	14,793	31,298	1,410	8 49	25	0 17
			6,243	9,097	15,340	5,162	9,380	14,542	29,882	1,461	9 45	..	..
		Musalmans	2,470	3,058	5,528	1,391	2,955	4,346	10,889	96	1 78	30	0 41
			1,899	2,460	4,359	1,470	2,555	4,025	8,384	70	1 61	..	..
		Bráhmans	448	751	1,199	390	747	1,037	2,236	321	68 71	15	1 45
			480	853	1,333	352	890	1,232	2,565	984	73 82	..	..
Low-castes	7,580	10,089	17,669	5,587	10,615	16,202	33,971	290	1 65	..	..
	6,607	8,916	15,523	5,312	9,190	14,502	30,025	319	2 05	..	..
	Total ..	17,998	24,413	42,406	12,774	25,193	37,967	80,373	2,710	6 39	60	0 16	
		15,812	22,134	37,946	12,601	22,861	35,462	73,605	2,648	7 77	..	..

Note 1.—The lower line of figures are those of the previous settlement.
 Note 2.—The population shown in this statement is for 195 inhabited villages—20 villages out of the total 215 were formerly and now still are uninhabited.

(Signed) C. W. GODFREY, Captain,
 Deputy Superintendent, Revenue Survey, S. M. C.

STATISTICAL TABLE No. V.

Occupations of the People in A.D. 1875-76.

District.	Surveyed Villages.	Occupations.	Number.	Per cent.
1	2	3	4	5
Old Hángal Táluka and old Tadas Mahál of the Dhárwár Collectorate.	Khálsat 215 villages of the old Hángal Táluka and old Tadas Mahál of the Dhárwár Collectorate.	Agricultural	45,112	56.13
		Partly agricultural	11,969	14.89
		Non-agricultural	23,292	28.98
		Total ...	80,373	100.00

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(Signed) C. W. GODFREY, Captain,
Deputy Superintendent, Revenue Survey, S. M. C.

STATISTICAL TABLE No. VI.

Return of Houses, Chávdís, Wells, &c., and of Live and Dead Stock in A.D. 1875-76.

District.	Surveyed Villages.	Houses.					Wells.				Carts and Ploughs.		Live Stock														
		Chávdís.	Tiled.	Flat-roofed.	Thatched.	Total.	For irrigation.	Drinking.	Out of repair.	Total.	Carts.	Ploughs.	Horses and Ponies.			Female Buffaloes.			Cows.			Cart and Plough Oxen and Buffaloes.	Sheep, old and young.	Goats, old and young.	Donkeys, old and young.	Mules.	Camels.
													Old.	Young.	Total.	Old.	Young.	Total.	Old.	Young.	Total.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Old Hángal Táhnka and Old Tades Mahál of the Dháwár Collectorate.	Government 215 villages, of which 185 inhabited and 30 uninhabited villages.	20	4,402	8,670	8,892	16,904	344	494	622	1,600	4,128	11,385	360	201	557	6,980	6,928	12,565	13,763	16,682	29,435	27,789	3,619	4,343	201	6	.
		7	1,661	2,285	11,228	15,194	..	No record.	1,615	No record.	855	25	880	8,661	8,608	17,269	15,007	23,125	36,132	27,541	10,539	329	..	..	..	..	..

NOTE.—The lower line of figures are those of the previous Settlement.

(Signed) C. W. GODFREY, Captain,
Deputy Superintendent, Revenue Survey, S. M. C.

STATEMENT A.

Statement showing the Sales, Mortgages and Leases of Land in the Villages of the Old Hángal Táluka and Old Tadas Mahál of the Dháruvár Collectorate.

Number of trans- action	Villages.	Survey Numbers.	Land, Inám or Government.	Arable Acres.	Survey Assessment.	Amount of Debt realized.	Date of transac- tion.	Agreement entered into.	Informa- tion where obtained
1	2	3	4	5	6	7	8	9	
				A. g.	Rs. a. p.	Rs. a. p.			
1	Balambd	41	Government.	18 26	18 0 0	100 0 0	1872.	Sold.	
2	Virapúr	23	Inám.	21 3	20 0 0				
	Do.	26	Do.	8 39	9 0 0				
	Hawangi	197	Do.	12 31	33 0 0	110 0 0	"	Sold.	
	Do.	205	Do.	18 12	23 0 0				
				61 5	85 0 0				
3	Tewarmelihali	61	Government.	25 25	22 0 0	400 0 0	"	Sold.	
	Do.	96	Do.	8 20	10 8 0				
	Do.	100	Do.	3 32	3 8 0				
				37 37	36 0 0				
4	Tewarmelihali	60	Government.	20 2	16 0 0	200 0 0	"	Sold.	
5	Kúndúr	31	Do.	6 37	8 8 0	200 0 0	"	Sold.	
6	Do.	43	Do.	2 34	34 0 0	330 0 0	1873.	Sold.	
	Alár	138	Do.	14 28	5 0 0				
	Do.	139	Do.	17 28	28 0 0				
				35 10	67 0 0				
7	Gawrapur	21	Government.	8 32	15 0 0	500 0 0	"	Sold.	
8	Chanápúr	33	Do.	25 19	20 0 0	90 0 0	"	Sold.	
9	Naregal	234	Do.	4 23	5 0 0	60 0 0	"	Sold.	
10	Baichwáli	3	Do.	5 10	9 0 0	60 0 0	"	Sold.	
11	Balambd	120	Do.	10 28	13 0 0	84 0 0	"	Sold.	
12	Húlekatti	160	Do.	1 3	17 0 0	200 0 0	"	Sold.	
13	Hulattu	76	Do.	22 15	25 0 0	72 0 0	"	Sold.	

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14	Tarus	294	Inám.	9 9	21 0 0	260 0 0	"	Sold.
15	Do.	273	Do.	14 26	7 0 0	26 0 0	"	Sold.
16	Múthah	79	Do.	13 13	17 0 0	80 0 0	"	Sold.
17	Nagnúr	5	Government.	25 1	32 0 0	1,000 0 0	"	Sold.
18	Parapúr	102	Do.	2 1	1 8 0	500 0 0	"	Sold.
19	Naregal... ..	135	Do.	1 5	20 0 0	360 0 0	1874.	Sold by auction by decree of Court
20	Do.	127	Do.	2 25	31 0 0	100 0 0	"	Sold.
21	Balambd	109	Do.	6 29	18 0 0	200 0 0	"	Sold.
22	Hálekatt	108	Do.	6 24	11 0 0	300 0 0	"	Sold.
23	Do.	217	Do.	6 36	13 0 0	100 0 0	"	Sold.
24	Hotanhali	55	Do.	13 7	6 0 0	40 0 0	"	Sold.
25	Hirekang	10	Do.	1 35	5 4 0	200 0 0	"	Sold by auction by decree of Court
26	Hurúr	151	Inám.	6 34	12 0 0	80 0 0	"	Sold.
		5	Government.	11 3	10 0 0			
		6	Do.	18 19	20 0 0			
27	Chandrageri	23	Do.	18 20	20 0 0	300 0 0	"	Sold.
		32	Do.	9 2	11 0 0			
				57 4	61 0 0			
28	Jghkop	1	Government.	3 6	7 0 0			
	Do.	3	Do.	2 37	1 8 0	96 0 0	"	Sold.
				6 3	8 8 0			
29	Jghkop	68	Government.	6 36	21 0 0			
	Do.	70	Do.	4 22	9 0 0	300 0 0	"	Sold.
				11 18	30 0 0			
30	Bujruk Tarigat	60	Government.	16 1	18 0 0	300 0 0	"	Sold.
31	Nagnúr	58	Do.	21 19	25 0 0	100 0 0	"	Sold.
32	Chik Kamanshi	43	Do.	41 7	72 0 0	250 0 0	1875.	Sold.
33	Chandrageri	5	Do.	11 3	10 0 0	50 0 0	"	Sold.
34	Dolleshwar	106	Do.	12 17	4 0 0	48 0 0	"	Sold.
35	Balambd	2	Do.	8 22	19 0 0			
	Do.	3	Do.	13 15	10 0 0	400 0 0	"	Sold.
				21 37	29 0 0			
36	Shádgupi	56	Government.	32 2	26 0 0	256 0 0	"	Sold.
37	Surleshwar	11	Do.	4 9	8 0 0	98 0 0	"	Sold.
38	Hángal	31	Do.	19 39	36 0 0			
	Do.	95	Do.	17 1	3 8 0	100 0 0	"	Sold.
				37 0	39 8 0			

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STATEMENT A.—continued.

Number of transaction.	Villages.	Survey Numbers	Land, Inám or Government.	Arable Acres.	Survey Assessment.	Amount of Debt realized.	Date of transaction	Agreement entered into.	Information where obtained.
	1	2	3	4	5	6	7	8	9
				A. g.	Rs. a. p.	Rs. a. p.			
39	Hawangí	105	Government.	3 39	12 0 0	200 0 0	1875.	Sold.	
40	Tewarmelhalí	10	Do.	4 19	6 0 0	250 0 0	"	Sold.	
		48	Do.	7 32	10 0 0				
		53	Do.	12 15	11 0 0				
				24 26	27 0 0				
41	Nágnár	83	Government.	18 37	21 0 0	90 0 0	"	Sold.	
42	Do.	109	Do.	14 33	13 0 0	160 0 0	"	Sold.	
43	Balambud	1	Do.	11 30	23 0 0	600 0 0	"	Sold.	
44	Do.	107	Do.	5 11	11 0 0	204 0 0	"	Sold.	
45	Mantgi	110	Do.	10 12	14 0 0	190 0 0	"	Sold.	
46	Hángal	63	Do.	14 15	9 0 0	170 0 0	"	Sold.	
47	Hawangí	158	Do.	10 8	6 0 0	300 0 0	"	Sold.	
48	Tadas	46	Do.	4 19	4 15 0	218 0 0	"	Sold.	
	Do.	315	Do.	7 14	18 0 0				
				12 13	22 15 0				
49	Nágnár	81	Government.	17 13	17 0 0	200 0 0	"	Sold.	
50	Do.	33	Do.	14 19	19 0 0	500 0 0	1876.	Sold.	
	Do.	27	Do.	22 33	24 0 0				
				37 25	43 0 0				
51	Nágnár	80	Government.	19 18	19 0 0	125 0 0	"	Sold.	
52	Jíghkop... .. .	7	Inám.	2 30	3 0 0	100 0 0	1872.	Leased for 7 years for Rs. 100 paid in advance. Land free on expiration of term. Government assessment to be paid by lender.	

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53	Balambid	171	Do.	1 35	3 8 0	300 0 0	"	Mortgaged. Land free on payment of debt together with interest at Ra. 1-8-0 per cent. per month which should be paid in 6 months; if not, land to remain in possession of the lender in payment of interest; if the value of the produce of the land is greater than the amount of interest, the excess to be deducted from the original debt, to continue until the debt is liquidated. Government assessment to be paid by owner of land.
		106	Do.	4 13	5 8 0			
	Chenapur	4	Do.	8 8	8 8 0			
				14 16	17 8 0			
54	Virapur	27	Government.	23 31	20 0 0	200 0 0	"	Mortgaged. Land free on payment of debt without further interest. Government assessment to be paid by owner of land.
55	Hawangji	52	Inám.	4 30	9 0 0	400 0 0	"	Mortgaged. Land free on payment of debt without further interest. Government assessment to be paid by lender.
56	Do.	205	Do.	18 12	23 0 0	300 0 0	"	Mortgaged. Land free on payment of debt without further interest. Government assessment to be paid by owner of land.
57	Hire Kangi	50	Government.	8 4	15 0 0	500 0 0	"	Mortgaged. Land free on payment of debt together with interest at Ra. 1-12-0 per cent. per mensem, which should be paid in 3 years; if not the lender will sell the land in payment of debt; if the amount received by such sale will be less than debt and interest, the remaining amount will be made good by the owner of land. Government assessment to be paid by owner of land.
		51	Do.	4 24	9 0 0			
				12 28	24 0 0			
58	Artal	65	Inám.	8 24	17 0 0	200 0 0	"	Leased for 13 years for Ra. 200 paid in advance. Land free on expiration of term. Government assessment to be paid by lender.

STATEMENT A.—continued.

Number of transaction	Villages.	Survey Numbers	Land, Inám or Government.	Arable Acres.	Survey Assessment.	Amount of Debt realized.	Date of transaction.	Agreement entered into.	Information where obtained
	1	2	3	4	5	6	7	8	9
				A. g.	Rs. a. p.	Rs. a. p.			
59	Kunur	8	Government.	5 8	21 0 0	760 0 0	1872.	Mortgaged. Land free on payment of debt without further interest, which should be paid in 3 years. No information as to who should pay the Government assessment.	
		9	Do.	4 12	17 0 0				
		27	Do.	11 20	9 0 0				
60	Yedlabad Do. Gangelur Do. Makapur Do. Do. Do. Do. Do. Do.	23	Government.	21 0	47 0 0	1,000 0 0	"	Mortgaged for Rs. 1,000, to be re-paid in 5 years without further interest. Government assessment to be paid by owner of land.	
		24	Do.	5 18	8 0 0				
		84	Do.	9 0	13 0 0				
		85	Do.	8 38	29 0 0				
		53	Inám.	8 9	27 0 0				
		57	Do.	26 19	7 0 0				
		61	Do.	7 1	11 0 0				
		73	Do.	19 33	7 0 0				
		54	Do.	6 15	2 0 0				
		58	Do.	21 36	8 0 0				
		62	Do.	19 36	44 0 0				
61	Hoahall	24	Inám.	190 17	202 0 0	250 0 0	"	Leased for 7 years for Rs. 250 paid in advance. Land free on expiration of term; Government assessment to be paid by lender.	
				28 35	23 0 0				
62	Chebi Do. Do.	172	Government.	7 20	23 0 0	350 0 0	"	Leased for 5 years for Rs. 350 paid in advance. Land free on expiration of term. Government assessment to be paid by owner of land.	
		108	Do.	1 6	0 12 0				
		109	Do.	1 10	3 8 0				
				9 36	27 4 0				

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63	Minch Ramankop	20 22	Government. Do.	7 2	8 0 0	200 0 0	"	Leased for 6 years for Rs. 200 paid in advance. Land free on expiration of term. Government assessment to be paid by lender.
				24 36	9 0 0			
				31 38	17 0 0			
64	Naregal	127	Government.	2 25	31 0 0	400 0 0	1873	Mortgaged. Land free on payment of debt together with interest at Rs. 2 per cent. per month to be paid in 4 months, if not, land to lapse to lender. Government assessment to be paid by owner of land.
65	Kyasnur	1 48 19 36 40 51 53 56 58 62 66 70 75 77 80	Inám. Do. Do. Do. Do. Do. Do. Do. Do. Do. Do. Do. Do. Do. Do.	9 32	4 0 0	1,000 0 0	"	Mortgaged. Land free on payment of debt without further interest. Debt to be re-paid in 10 years. Government assessment to be paid by lender.
				6 37	10 0 0			
				16 28	6 0 0			
				25 9	23 0 0			
				6 31	2 8 0			
				4 28	12 0 0			
				21 32	40 0 0			
				14 24	15 0 0			
				7 19	9 0 0			
				2 34	0 8 0			
				2 14	7 0 0			
				2 15	5 0 0			
				3 19	8 0 0			
				1 35	3 8 0			
				6 33	10 0 0			
				133 30	155 8 0			
66	Nellibid... ..	42	Inám.	2 14	11 0 0	230 0 0	"	Mortgaged. Land free on payment of debt without further interest. Government assessment to be paid by owner of land.
67	Baichwali	42	Government.	17 39	18 0 0	150 0 0	"	Mortgaged. Land to be in possession of the lender in payment of interest at Rs. 3 per cent. per month. If the amount realized from the produce of the land be greater than the amount of interest, the excess to be deducted from the original debt, and this agreement to continue until the whole debt is liquidated. Government assessment to be paid by owner of land.

Sub-Registrar's Office

STATEMENT A.—continued.

No. of transaction	Villagea.	Survey Number.	Land, Inám or Government.	Arable Acrea.	Survey Assessment.	Amount of Debt realized.	Date of transac- tion.	Agreement entered into.	Informa- tion where obtained.
	1	2	3	4	5	6	7	8	9
68	Mantgi	110	Government.	A. g. 10 12	Rs. a. p. 14 0 0	Rs. a. p. 84 0 0	1873	Mortgaged. Land free on pay- ment of debt together with interest at 4 pies per rupee per mensem; if not paid within 6 months land to lapse to lender. Government assess- ment to be paid by owner of land.	Sub-Registrar's Office.
69	Surleshwar	47	Inám.	11 20	19 0 0	200 0 0	"	Leased for 8 years for Rs. 200 paid in advance; land free on expiration of term. Govern- ment assessment to be paid by owner of land.	
70	Hirur	175	Government.	2 5	4 0 0	91 11 0	"	Mortgaged. Land to be inpos- session of the lender in pay- ment of interest; if the value of the produce of land be greater than the amount of interest, the excess to be deducted from the original debt. Government assessment to be paid by owner of land.	
71	Háwangi	176	Inám.	8 8	18 0 0	250 0 0	"	Mortgaged. Land free on pay- ment of debt together with interest at annas 14 per cent. per month, which, if not paid, should be recovered by the sale of the produce of land. Gov- ernment assessment to be paid by owner of land.	

72	Hángal	17	Government.	23 7	29 0 0	400 0 0	..	Mortgaged. Land to be in possession of lender in payment of interest, at 4 pies per rupee per mensem. If the amount realized from the produce of land be greater than the amount of interest, the excess to be deducted from the original debt. Land free on payment of debt and interest. Government assessment to be paid by owner of land.
73	Hádargerí	26	Inám.	33 6	41 0 0	500 0 0	..	Mortgaged. Land free on payment of debt without further interest. Debt to be re-paid in 3 years, if not, land to lapse to lender. Government assessment to be paid by owner of land.
74	Hawangi	199	Do.	40 24	65 0 0	800 0 0	..	Mortgaged. Land free on payment of debt without further interest. If not paid in 3 years, land to lapse to lender; if the value of the land be less than the amount of debt, the remaining amount to be made good by the owner of land. Government assessment to be paid by lender.
75	Advi Somapúr	57	Do.	5 33	17 0 0	250 0 0	..	Leased for 10 years for Ra. 250 paid in advance. Land free on expiration of term. Government assessment to be paid by lender.
	Gúdgeri... ..	13	Do.	6 31	7 0 0			
	Kunur	125	Do.	0 19	1 0 0			
	Do.	126	Do.	5 29	13 0 0			
				18 32	38 0 0			
76	Kunur	121	Do.	7 11	24 0 0	1,500 0 0	..	Leased for 12 years for Rs 1,500 paid in advance. Land free on expiration of term. Government assessment to be paid by lender.
77	Budihal... ..	13	Government.	13 13	13 0 0	300 0 0	..	Mortgaged. Land free on payment of debt without further interest. Government assessment to be paid by lender.

STATEMENT A.—continued.

No. of transaction.	Villages.	Survey Number.	Land, Inám or Government.	Arable Acres.		Survey Assessment.	Amount of Debt realized.	Date of transaction.	Agreement entered into.	Information where obtained.
				A. g.	Rs. a. p.	Rs. a. p.				
1	2	3	4	5	6	7	8	9		
78	Makápúr	17 18 19 23 26 31	Government. Do. Do. Do. Do.	7 8	13 0 0	400 0 0	1873	Mortgaged. Land free on payment of debt without further interest. Government assessment to be paid by lender.		
				5 30	1 8 0					
				5 10	10 0 0					
				36 18	12 0 0					
				18 24	4 0 0					
				5 34	10 0 0					
79	Shudgarwali	45	Inám.	79 4	50 8 0	600 0 0	"	Mortgaged. Land free on payment of debt in instalments at 50 rupees per annum. Government assessment to be paid by owner of land.		
				14 0	14 0 0					
80	Timapúr	64 65	Government. Do.	12 3	14 0 0	230 0 0	"	Leased for 5 years for Rs. 230 paid in advance. Land free on expiration of term. Government assessment to be paid by lender.		
				1 36	2 0 0					
				13 39	16 0 0					
81	Bendalgati	112 113	Inám. Do.	20 13	20 0 0	175 0 0	"	Leased for 3 years for Rs. 175 paid in advance. Land free on expiration of term. Government assessment to be paid by lender.		
				1 10	2 0 0					
				21 23	22 0 0					
82	Chikeri	38	Government.	26 23	31 0 0	100 0 0	1874	Mortgaged. Land free on payment of debt together with interest at 4 pies per month, which, if not paid in 6 months, the lender should sell the land and get his claim liquidated. Government assessment to be paid by owner of land.		

Sub-Registrar's Office.

83	Doleshwar	46	Inám.	9 30	34 0 0	} 800 0 0	"	Mortgaged. Land free on payment of debt together with interest at 3 pies per rupee per month. If not paid in one year, the lender can sell the land in payment of debt. If the amount realized by sale be less than the amount of debt and interest, the remaining amount to be made good by the owner of land; meanwhile the Government assessment to be paid by owner of land.
	Akkiwah	1	Do.	12 32	28 0 0			
	Do.	50	Do.	9 34	14 0 0			
				32 16	74 0 0			
84	Doleshwar	37	Do.	5 29	17 0 0	96 0 0	"	Mortgaged. Land free on payment of debt without further interest; debt to be paid in 8 years, if not, the lender can sell the land in payment of debt; if the amount realized by sale be insufficient the remaining amount to be made good by the owner of land. Government assessment to be paid by lender.
85	Arleshwar	66	Government,	2 30	8 0 0	50 0 0	"	Mortgaged. Land free on payment of debt with interest at 4 pies per rupee per month. Government assessment to be paid by owner of land.
86	Chik Kangi	74	Inám.	10 20	16 0 0	96 0 0	"	Mortgaged for 2 years Land free on payment of debt together with interest at 4 pies per rupee per month. The produce of the land to be taken by the lender in payment of interest and the amount of Government assessment. If the value of the produce be greater than the amount of interest and Government assessment, the excess to be deducted from the original debt, and at the expiration of two years the remaining amount of original debt to be paid by owner of land.

Sub-Registrar's Office.

STATEMENT A.—continued.

No of transaction.	Villages.	Survey Number.	Land, Inám or Government.	Arable Acres.	Survey Assessment.	Amount of Debt realized.	Date of transaction.	Agreement entered into.	Information where obtained
	1	2	3	4	5	6.	7	8	9
				A. g.	Rs. a. p.	Rs. a. p.			
87	Naregal... ..	127	Government.	2 25	31 0 0	200 0 0	1874.	Mortgaged Land free on payment of debt together with interest at Rs 2 per cent. per mensem. If not paid in 2 years, the lender can sell the land in payment of debt; meanwhile Government assessment to be paid by owner	Sub-Registrar's Office.
88	Nagarwali	6	Do.	7 8	16 0 0	100 0 0	..	Mortgaged Land free on payment of debt without further interest. Government assessment to be paid by owner of land.	
89	Hulekatti	4	Do.	12 2	23 0 0	64 0 0	..	Mortgaged. Land free on payment together with interest at 4 pies per rupee per mensem. If not paid in one year, the lender can sell the land in payment of debt; if the amount realized by sale be insufficient, the remaining amount to be made good by the owner of land. Government assessment to be paid by owner of land.	
90	Do.	62	Do.	8 34	9 8 0	100 0 0	..	Mortgaged. Land free on payment of debt with interest at 4 pies per rupee per month to be paid in 6 months; if not, the amount of debt will be recovered by the lender by disposal of the land in any way he likes, and if land is sold and amount realized is insufficient, the remaining amount of debt will be made good by the owner of the land Government assessment to be paid by owner of land	

91	Do.	...	...	112	Do.	10 17	36 0 0	314 0 0	..	Mortgaged. Land free on payment of debt with interest at 3 pies per rupee per month; if not paid in 6 months, the lender can sell the land in payment of debt; if the amount realized by sale be insufficient the remaining amount to be made good by the owner of land. Government assessment to be paid by owner of land.
92	Hawangi	..	...	71	Inám.	6 38	16 0 0	200 0 0	..	Leased for 7 years for Rs. 200 paid in advance. Land free on expiration of term. Government assessment to be paid by owner of land.
				73	Do.	4 1	2 0 0			
93	Surleshwar	..	...	54	Do.	10 89	18 0 0	200 0 0	..	Mortgaged. Land free on payment of debt with interest at Rupee 1 per cent. per mensem. The produce of the land to be taken by lender in payment of interest and Government assessment, and if the value of the produce be greater than interest and Government assessment, the excess to be deducted from the original debt; the land to remain in possession of the lender until the whole debt and interest is liquidated.
94	Artal	...	...	47	Do.	2 19	12 0 0	200 0 0	..	Mortgaged. Land free on payment of debt without further interest. No information as to who should pay the Government assessment.
95	Do.	..	...	75	Do.	11 4	23 0 0	200 0 0	..	Mortgaged. Land free on payment of debt without further interest. No information as to who should pay the Government assessment.
96	Tirth	...	...	44	Do.	5 22	19 0 0	400 0 0	..	Mortgaged. Land free on payment of debt without further interest. No information as to who should pay the Government assessment.
97	Kúnur	...	...	3	Do.	3 27	5 0 0	1,400 0 0	..	Mortgaged. Land free on payment of debt without further interest. Government assessment to be paid by lender.
					Do.	4 32	10 0 0	225 0 0	..	Mortgaged. Land free on payment of debt without further interest. Government assessment to be paid by lender.

Sub-Registrar's Office.

STATEMENT A.—continued.

No of transaction.	Villages.	Survey Number.	Land, Inám or Government.	Arable Acres.	Survey Assessment.	Amount of Debt realized.	Date of transaction.	Agreement entered into.	Information where obtained.
	1	2	3	4	5	6	7	8	9
98	Tadas	171	Inám.	A. g. 18 8	Rs. a. p. 17 0 0	Rs. a. p. 100 0 0	1874.	Leased for 6 years for Rs. 100 paid in advance. Land free on expiration of term. Government assessment to be paid by owner of land.	Sub-Registrar's Office.
99	Bharamgatti	3	Do.	21 17	25 0 0	1,200 0 0	"	Mortgaged. Land free on payment of debt without further interest. Government assessment to be paid by lender.	
		4	Do.	9 35	7 0 0				
		10	Do.	33 35	59 0 0				
		12	Do.	3 23	3 0 0				
		14	Do.	14 36	5 0 0				
		16	Do.	24 35	21 8 0				
100	Hulsogi... ..	3	Do.	108 21	120 8 0	72 0 0	"	Mortgaged. Land free on payment of debt without further interest. No information as to who should pay the Government Judl.	
101	Bk, Arlikatti	94	Do.	17 31	12 0 0	200 0 0	"	Leased for 6 years for Rs. 200 paid in advance. Land free on expiration of term. Government assessment to be paid by owner of land.	
		14	Do.	1 12	0 4 0				
		18	Do.	1 1	1 8 0				
				20 4	14 12 0				
102	Bendalgatti	110	Do.	0 39	0 4 0	168 0 0	"	Leased for 12 years for Rs. 168 paid in advance Land free on expiration of term. Government assessment to be paid by owner of land.	
		112	Do.	20 13	20 0 0				
		113	Do.	1 10	2 0 0				
				22 22	22 4 0				
103	Konankop	23	Government and Inám.	3 3	9 0 0	80 0 0	1875.	Mortgaged. Land free on payment of debt without further interest. Debt to be re-paid in 4 years. Government assessment to be paid by owner of land.	

104	Gadyenkanhali	90	Government.	10 36	14 0 0	120 0 0	..	Mortgaged. Land free on payment of debt without further interest. Debt to be re-paid in 4 years. Government assessment to be paid by lender.
105	Chkeri... ..	38	Do.	26 23	31 0 0	260 0 0	..	Mortgaged. Land free on payment of debt with interest at 3 pies per rupee per month. If not paid in 4 months, the lender can sell the land in payment of debt. If the amount realized by sale will be insufficient, the remaining amount to be made good by the owner of land.
106	Doleshwar	24	Inám.	6 7	22 0 0	250 0 0	..	Mortgaged. Land free on payment of debt without further interest. Debt to be re-paid in 2 years. Government assessment to be paid by owner of land.
107	Shirgod... ..	90	Government.	3 31	6 0 0	200 0 0	..	Mortgaged. Land free on payment of debt, which is to be re-paid in 3 years. The produce of land will be taken by the lender in payment of interest at Rs. 16 per cent per annum. If the value of the produce be greater than the amount of interest, the excess to be deducted from the original debt Government assessment to be paid by owner of land.
		95	Do.	8 26	22 0 0			
				12 17	28 0 0			
108	Surleswar	62	Do.	9 0	27 0 0	400 0 0	..	Mortgaged Land to be in possession of lender in payment of interest at one rupee per cent. per month. If the value of the produce be greater than the amount of interest, the excess to be deducted from original debt, to continue until the whole debt and interest is liquidated Government assessment to be paid by owner of land.

STATEMENT A.—continued.

No. of transaction.	Villages.	Survey Number.	Land, Inhm or Government.	Arable Acres.	Survey Assessment.	Amount of Debt realized.	Date of transaction.	Agreement entered into.	Information where obtained.
	1	2	3	4	5	6	7	8	9
109	Hángal	63	Government.	A. g. 14 15	Rs. a. p. 9 0 0	Rs. a. p. 200 0 0	1875.	Mortgaged. Land free on payment of debt with interest at 4 pies per rupee per month. If not paid in one month the lender can sell the land in payment of debt. If the amount realized by sale be less than the amount of debt, the remaining amount will be made good by the owner of land. Government assessment to be paid by the owner of land.	
110	Do.	172	Do.	0 30	13 0 0	162 0 0	"	Mortgaged. Land to be in possession of the lender in payment of interest at Rs. 32 per cent per annum; if the value of the produce of land be greater than the amount of interest, the excess to be deducted from the original debt, meanwhile Government assessment to be paid by owner of land.	
111	Do.	55	Do.	5 39	13 0 0	50 0 0	"	Mortgaged. Land free on payment of debt without further interest. Government assessment to be paid by owner of land.	
112	Do.	116	Do.	6 4	18 0 0	200 0 0	"	Mortgaged. Land free on payment of debt with interest at 1½ rupees per cent per month. If not paid in 6 months, the lender can sell the land in payment of debt; if the amount	

Sub-Registrar's Office.

113	Tewarmehhali	47	Government.	39 2	45 0 0	1,500 0 0	"	realized by sale be less than the amount of debt, the remaining amount will be made good by the owner of land. Government assessment to be paid by the owner of land.
114	Venktápur	1	Do.	16 9	17 0 0	184 0 0	"	Leased for 22 years for Rs. 1,500 paid in advance. Land free on expiration of term. Government assessment to be paid by owner of land.
115	Chebi	175	Do.	7 9	22 0 0	350 0 0	"	Mortgaged. Land free on payment of debt without further interest. Government assessment to be paid by owner of land.
116	Bhingikop	5	Do.	33 34	34 0 0	400 0 0	"	Mortgaged. Land free on payment of debt without further interest. Government assessment to be paid by owner of land.
117	Surahet'kop	108	Do.	11 15	1 8 0	120 0 0	"	Mortgaged. Land free on payment of debt without further interest. Government assessment to be paid by owner of land and the lender as may be agreed to.
		109	Do.	6 0	9 0 0			
				17 15	10 8 0			
118	Kardikop	40	Do.	5 18	4 4 0	120 0 0	1876.	Mortgaged. Land free on payment of debt without further interest. Government assessment to be paid by owner of land.
		3	Inám.	9 30	11 0 0			
				15 8	15 0 0			
119	Tewarmehhali	90	Government.	9 32	10 0 0	400 0 0	"	Mortgaged. Land free on payment of debt without further interest. Government assessment to be paid by owner of land. Debt to be re-paid in 3 years.
		63	Do.	6 0	6 8 0			
		75	Do.	5 35	5 8 0			
		64	Do.	13 35	17 0 0			
			35 22	39 0 0				
120	Hale Bankápur... ..	67	Do.	5 9	4 12 0	100 0 0	"	Leased for 10 years for Rs. 100 paid in advance. Land free on expiration of term. Government assessment to be paid by lender.

STATEMENT A.—concluded.

No of trans- action.	Villages.	Survey Number.	Land, Inám or Government.	Arable Acres.	Survey Assesment.	Amount of Debt realized.	Date of trans- action.	Agreement entered into	Informa- tion where obtained.
1	2	3	4	5	6	7	8	9	
121	Alúr'	123	Inám.	A. g. 2 2	Rs. a. p. 33 0 0	Rs. a. p. 100 0 0	1876.	Leased for 8 years for Rs 100 paid in advance. Land free on expiration of term. Govern- ment assesment to be paid by owner of land.	Sub-Registrar's Office.
122	Chikeri	8	Government.	5 20	16 8 0	240 0 0	"	Mortgaged. Land free on pay- ment of debt with interest at Rs. 28 per cent per annum. If not paid in 10 years, the lender can sell the land in payment of debt. If the amount realized by sale be less than the amount of debt, the remaining amount will be made good by the owner of land. Government assess- ment to be paid by lender.	
123	Jighkop... ..	65	Inám.	15 4	17 0 0	500 0 0	"	Mortgaged. Land free on pay- ment of debt without further interest. Debt to be re-paid in 5 instalments at Rs. 100 each. The produce of the land will be taken by the lender in payment of the amount of instalment. If the value of the produce of land be less than the amount of instalment, the remaining amount will be made good by the owner of land. Govern- ment assesment to be paid by owner of land.	

(Signed) C. W. GODFREY, Captain,
Deputy Superintendent, Revenue Survey, S. M. C.

No. 15 of 1848.

FROM

CAPTAIN G. WINGATE,
Superintendent, Revenue Survey and Assessment,
Southern Marátha Country;

TO

W. A. GOLDFINCH, Esq.,
First Assistant Collector in charge Dhárwár.

*Superintendent's Office, Camp Rám Ghát,
Belgaum Districts, 26th January 1848.*

SIR,

I have the honour to submit, for the sanction of Government in the present report, proposals for the assessment of the tálukas of Ránebeennur and Hángal, and also for the Tadas Division of Hubli, in all of which the survey operations for the measurement and classification of the land are either completed, or approaching completion.

2. The táluk of Ránebeennur is situated in the south-east corner of the Collectorate, and its position with reference to the other districts of your charge will be readily understood from the map given on the opposite page. It is bounded on the east by the Tungbhadra river, beyond which is the Bellary Zilla of the Madras Presidency; on the west and south by the táluk of Kode, and on the north by Jághír territory and the adjoining district of Bankápur. Besides the Tungbhadra river, this district is watered by the small rivers Varda and Kumadvati, which respectively pass along its northern and southern boundaries. As now constituted the táluk consists of two divisions, Ránebeennur and Gutal, under the superintendence of a Mámlatdár and Maháلكari, and contains in all 142 villages, 12 of which are alienated. The present distribution of these villages between the Mámlatdárs' and Maháلكaris' divisions as well as the ancient maháls to which they belong are shown in the following statement:—

Name of Mahál or old division to which the villages belong.	NUMBER AND PRESENT DISTRIBUTION OF VILLAGES.					
	Ránebennur or Mámíatdárs' Division.		Gutal or Mahálkaris' Division.		Both Divisions.	
	Government.	Alienated.	Government.	Alienated.	Government.	Alienated.
Ránebennur ...	45	6	.....	...	45	6
Aurni	12	..	.....	...	12	...
Desgat	12	...	9	...	21	...
Gutal ... ..	...	..	40	3	40	3
Medleri ... ..	.....	..	12	2	12	2
Kagnelli ... ..	.....	...	.....	1	.....	1
Total ..	69	6	61	6	130	12

3. The general aspect of this district, which is very partially cultivated, is bare and sterile. The Mámíatdárs' division is thus described by my Assistant Mr. G. Anderson:—"From the great scarcity of trees and the rocky and sterile character of a considerable portion of its surface, this district presents nearly throughout a bare and uninteresting appearance. It is traversed in several directions by ridges of barren hills of no great height. With the exception of some land near the river and an open level tract situated between the hills of the Gutal Mahál and the town of Ránebennur, the country to the eastward of the road (from Dhárwár to Harihar) consists of hilly or undulating ground, of which a small portion only is fit for tillage. This black surface extends here and there to the westward of the road, but a short distance beyond and stretching towards the Kod Táluka there is a considerable tract of good soil." The following description of the Mahálkaris' division by my Assistant Mr. Biggs is not more favourable:—"The general appearance of the Gutal Mahál is barren and uninteresting, the greater part being an extensive waste of rocky hilly and uncultivated ground. The soil is mostly red, although there is a longish tract of black soil in the northern part of the mahál on the banks of the rivers Varda and Tungbhadra. A great portion of the mahál from the rocky nature of the ground is incapable of any cultivation, and the greater part of the red soil at present uncultivated is covered with low jungle."

4. The climate of Ránebennur is nearly uniform and much resembles that of the Karajgi Division of Bankápur, the district

last reported on. There is not sufficient rain for rice, but an ample supply for the ordinary dry-crops, and droughts are not of frequent occurrence. The Mungari or early husbandry is general, and all kinds of soil are regularly manured. The most important crops are jowári and cotton; chillies are raised in a few villages bordering on Kod but not to any great extent. Mr. G. Anderson states in reference to the husbandry that—"a two years' rotation is considered to be a sufficient relief to the soil and is generally practised. In black soils alternate crops of jowári and cotton are generally sown. In some villages jowári, náchni or gram is sown the second, and cotton the third year, but any modes of cropping beyond a rotation of two years do not seem to be general." The irrigated lands of this district are of some extent, the most important being garden grounds under the tanks of Ránebennur, Gutal and Honatti. Means of irrigation ~~were~~ greater in former times, as proved by numerous remains of old embankments of tanks, which have now become silted up and useless. The garden products are the same as in Bankápur, the most valuable being cocoanuts, the supári nut, the betel vine, and sugar-cane.

5. A considerable manufacture of cotton stuffs and woollen cumlis of a finer description than ordinary, is carried on in the larger villages of the Mámlatdárs' division. These are mostly for internal consumption, but are also exported to Mysore, Kánara and the neighbouring districts of this Collectorate. Mr. G. Anderson says of the cotton manufacture, that it "employs a large number of weavers. About 400 looms are worked in Ránebennur: Byádgi has 250, Halgerri 140, Airni 74, Bisurhulli 69, and there are a few more in some of the smaller villages. Besides cotton goods, some of the more expert of the Ránebennur weavers manufacture a few of the silk cloths called 'Pitámbar,' the raw silk being imported from Mysore." He also states that the finer cumlis are chiefly made at Airni where there are 39 looms employed in the manufacture.

6. There are several market towns in this district; but the only places possessing any trade beyond the supply of the wants of immediately surrounding villages are Ránebennur and Byádgi, both in the Mámlatdárs' division. Some idea of the nature and value of the trade of these towns will be obtained from the following account of it by Mr. G. Anderson:—"The trade of the mahál centres in Ránebennur and Byádgi, and is principally in the hands of the sowkárs residing in these towns, several of whom are wealthy and not only export the produce of the táluka, but carry on a considerable exchange trade between Bellary and Mysore on the one side, and the Dhárwár Districts and Kánara on

the other. I estimate the annual amount of the trade of Ránebennur at Rs. 2,00,000, and of Byádgi at 90,000 rupees. The following are the chief items:—First, cotton and silk stuffs and cumlis manufactured in Ránebennur, or brought from Adwani, Hospet, Yemignur, Pudatur, and other towns of the Bellary Zilla, for export to Háveri to the Kod and Hángal táluks, to Mysore and Kánara. Second, raw cotton, the produce of Ránebennur or the Bellary Districts, principally for export to Kumta; a small quantity is also exported to Narsipur and Bangalore in Mysore. Third, betel nut, jaggery and sugar from Anawatti, Sorub and Shikárpur in Mysore, and from the Kod and Hángal táluks for home consumption and export to the Bellary Zilla, also to Harihar and Dawangeri. Fourth, rice from Chick-Kerrur and Honsbavi in the Kod Táluka, and from the Nagar Division of Mysore for home consumption and export to Harpanhalli and other towns in the Bellary Zilla; also to Harihar and Dawangeri. Fifth, chillies brought from the villages of Kod and Ránebennur, to Byádgi and thence exported to Nargund, Navalgund, Shirhatti and Lakshmeshvar, also to the Bellary and Mysore Districts. Sixth, raw silk from Honhalli, Bangalore, and Kunigal in Mysore, partly consumed by the Ránebennur weavers and partly exported to Hubli and Lakshmeshvar. Seventh, indigo from Pudatur in the Bellary Zilla for home consumption and export to Tuminkatti, Karajgi, Shigli and Lakshmeshvar. Eighth, wheat and gram brought to Byádgi from Nargund, Shirhatti and Lakshmeshvar for home consumption and export to the Bellary Zilla, also to Harihar and Dawangeri. Ninth, cocoanut and tobacco from Dawangeri for home consumption and export to Hubli, Dhárwár and Dhundshi. Tenth, salt from Kumta and Dhundshi for home consumption."

7. From the preceding statement of the chief articles of commerce, it will be seen that cotton in its raw and manufactured state is the only valuable export possessed by this district, to which therefore the argument contained in the 10th paragraph of my last assessment report regarding the importance of this staple to the land revenue, is quite as applicable as to the neighbouring táluk of Bankápur which was then under consideration.

8. The past revenue history of Ránebennur exhibits the same alternations of prosperity and adversity that have been described in the case of the districts already reported on, and calls therefore for no detailed remarks. The period of the Hindu dynasty of Annagundi was the golden age of the district, to which the construction of its tanks for irrigation and all its brightest traditions are referred. This was followed by an interval of disorder and rapine, during which the Desáis and other hereditary

chiefs of the Annagūndī State maintained a struggle for independence and plundered the people they had once protected, until finally subdued by the Nawáb of Savanúr. The district remained under the latter principality for a century, and, though in this period the land assessment was greatly increased, its condition was comparatively prosperous. During all this time the Desái of Hawanur continued still powerful, and held possession under the Nawáb of a considerable portion of the táluk, but his influence was finally subverted on the cession of the Carnatic in 1787 to Tippu, who deprived him of power and confiscated all his estates. For the next three years the district remained a dependency of Mysore, until re-annexed to the Marátha dominions by Parashurám Bháu Patwardhan in 1791. It remained under the administration of this Chief for some years and during this period was comparatively prosperous, but was then transferred to a succession of farmers, whose exactions became yearly more arbitrary and oppressive, and had seriously crippled the resources of the district when it passed into our hands in 1817.

9. Under British management the district has enjoyed thirty years of uninterrupted peace and security, but, notwithstanding these important and long continued advantages, its condition has not improved as might have been anticipated. At this moment the extent of Government land in cultivation and the revenue derived from it, are both much less than when we obtained possession of the country. I do not infer from this, however, that the condition of the district is actually worse now than it was then; I believe that the numbers and perhaps even the resources of the agricultural population have been augmented since, which I account for through an extension of the cultivation of inám lands. These were not allowed to be cultivated at all under the Native Governments, except by ryots who held a sufficient proportion of the most heavily assessed Government land, and the removal of this restriction under our administration has greatly promoted the cultivation of alienated land, while it has had the opposite effect on the cultivation of Government land. The additional value thus conferred on the ináms, and the corresponding depreciation of the Government revenue occasioned by our greater liberality of management are however by no means to be regretted. The general effect has been good. Though the revenue has suffered, the cultivators have been gainers, an excessive assessment on Government land has borne less heavily and injuriously upon their resources than it would otherwise have done, and the good effect of this will be shown in a more rapid improvement of the revenue under a reduced assessment than would otherwise have been possible. And these observations are equally applicable to the Southern Marátha Country in

general, where the great extent of alienated land has materially assisted in preventing or retarding the decay of agricultural resources, that would otherwise have resulted from the operation of an oppressive land-tax.

10. While my opinion of the general effect of our management is as I have stated, I would not have it inferred that the cultivators of this district are generally well off; on the contrary, I think that, as a class, they are perhaps poorer than those of any district yet reported on. In particular villages the ruinous effect of the old assessment is very evident, in proof of which I cannot do better than cite the following remarks from a recent report by my Assistant, Mr. Francis, on the Gital Division of this taluk:—
 “I was surprised at the accounts given me by some of the Kulkarnis of the immense falling off in the revenue of some of their villages. Amongst the most striking cases, I may mention the two adjoining villages of Mehdur and Gudgur. The yearly revenue of the former, taking the average of the first ten years of our rule, was in round numbers 1,200 rupees; for the following ten, the average gives 600 rupees; and the year before this last, the total revenue was 154 rupees. The average of Gudgur for the first ten years was 850 rupees, for the following ten 500, and the year before last the total revenue was 140 rupees. The lands of both villages are now nearly all waste; and there are but four or five cultivators of Government land remaining in them; these hold their lands on favourable terms, and have thus weathered the storm which has made wreck of their fellow-labourers on the soil. The ruins of what were once inhabited dwellings are still to be seen, and in these we have evidence that so large a falling off in the revenue, was, as might naturally be expected, attended with a decrease in the population owing to desertion.” The villages here described were not more heavily assessed than many others, but from the want of other resources to fall back upon, the effect of the high taxation became more speedily apparent.

11. I will now proceed to consider the results of our management in greater detail. The total area of the 130 villages of this taluk under Government management, according to the records of the former survey, is 278,236 acres, of which 69,025 acres are alienated and the remaining 209,261 acres are subject to the full assessment; a considerable deduction from the last item, chiefly on account of unarable land entered as arable at the former survey, must be made to ascertain the true extent of the assessable area, which may be estimated with sufficient correctness at 190,000 acres. It is with the portion of this under cultivation, and the revenue realized from it during the several years of our management, that I shall first occupy your attention.

12. I have obtained from your records accounts of the revenue and cultivation of all the villages of Ránebennur for the last 27 years, excepting in the case of Murdur, originally an alienated village, but which was attached about two years ago, consequent on an investigation by the Inám Committee. This village I have, in consequence, excluded from consideration in constructing the annexed diagram, which exhibits the fluctuations of the cultivation and collections for the remaining 129 villages during the last twenty-seven years. The diagram will be understood from the explanation given at foot of it, but a few additional remarks will be useful to prevent misconception. It refers only to the arable land subject to the full assessment. The cultivation is invariably entered in acres, and the assessment and realization in Company's rupees. For the six years previous to 1827-28, when the measurements of the former survey were first made the basis of the annual settlements, the extent of land in cultivation is not shown, as in these years it was recorded in the accounts in Kurgis, and the exact equivalent of these in acres cannot be ascertained. During these years, however, there was little variation in the extent of land under cultivation. The dotted lines carried across the columns represent the area in cultivation, the summits of the lighter shaded columns the full assessment on this land as recorded in the annual accounts, and those of the darker columns the portion of the full demand set apart for collection at each annual settlement. The amount actually collected I have not been able to ascertain exactly; but as the portion left uncollected and subsequently written off as irrecoverable was extremely small, the amount shown on the diagram, though slightly beyond the truth, may be assumed as actually realized. For the first 13 years the lighter shaded portion of the column for each year shows the extent of remissions granted from the revenue actually due for that year. For the succeeding years, the same portion of each column includes, in addition to the remissions at the annual settlements, fixed or variable abatements from the full demand or "Kamal" on account of over-assessment, Cowle, &c., which is the reason of the lighter columns being comparatively so high in these years. We do not know then the "Kamal" or standard assessment of the land in cultivation for the first thirteen years of the diagram, as it is not shown in the account of these years. This, however, is of no importance, as the "Kamal" had nothing to do with the settlement of the year, and was a mere imaginary standard of assessment confined to the accounts. In the year 1841-42 it was re-adjusted, and appears in that year about 30,000 rupees higher than in the preceding one, though the extent of land in cultivation, and the actual revenue obtained from it, were almost exactly alike in both. The fluctuations of the cultivation represented by the dotted lines, and of the net rental by the darker

columns, are alone of any importance to our enquiry. And, according as the summits of the darker columns are above or below the dotted lines, the collections exceeded or fell short of one rupee per acre on the whole land in cultivation. Further details regarding the cultivation, assessment and collections will be learnt from an inspection of the detailed figured statements of my appendix.

13. The cultivation and collections for the first 8 years of the diagram were remarkably steady, though the latter were comparatively high. The first serious reduction in both of these items took place in the year 1829-30, and though the cultivation was increased considerably in the following years by grants of waste on favourable terms, there was no corresponding improvement in the revenue until 10 years later in 1839-40, when, by the falling in of Cowles and a generally stricter system of collection, the realizations were again brought up to their former standard. From this time no extraordinary inducements for the cultivation of waste were held out, and, as was to be anticipated, the onerous nature of the assessment became immediately apparent. The cultivation and collections fell off from year to year with accelerated rapidity, until the advanced state of the present survey operations and the near approach of a revision of assessment gave the cultivators hope once more, and induced several to take up again their relinquished fields, under the apprehension that if they were longer to delay they might be taken by others; to which must be ascribed the increase in the cultivation and realizations of last year, which otherwise would certainly have been lower than those of the preceding season.

14. The revenue history of the taluk exhibited on the diagram may be appropriately divided in three periods. The first embraces nine years from 1820-21 to 1828-29, when the cultivation and collections remained nearly stationary without any decided improvement or decline, with the latter at a high average of 1 rupee 5 annas 5 pies per acre. The second period of ten years from 1829-30 to 1838-39 is characterized by a slight improvement in the cultivation, accompanied by great fluctuations in the revenue; which was comparatively low, being on the average 15 annas per acre. The third period embraces the last eight years, in which the cultivation and revenue, without exhibiting any fluctuations, have steadily declined; the exception in the case of last year being, as already explained, only apparent. The average rate in this case is the highest of all, being 1 rupee 5 annas and 7 pies per acre. The steadiness and high average rate of the collections in the first of these periods, I consider due to various causes, among which may be mentioned the spirit infused into agriculture, and the attraction of capital to this branch of industry by the return of peace, and the confidence entertained in the stability of our Government; as well

as the indirect taxation of alienated land, which, in the early years of our administration as under the Native Governments, was only permitted to be cultivated by ryots who were also holders of fully assessed land. The fluctuations of the revenue and improving cultivation of the second period, I ascribe to bad seasons, liberal remissions, and efforts to prop up an excessive assessment by grants of waste on favourable terms. The decline in the last period is due to a relinquishment of the Cowle system and a generally stricter management, under which the excessive nature of the assessment became at once apparent.

15. The most important conclusions are perhaps to be obtained from a consideration of the results of the last period of decline. From it we learn that the best land in the táluk to which cultivation is chiefly confined cannot pay an average assessment of 1 rupee 5 annas 7 pies per acre. The average collections during this period, as shown by the diagram, were 79,424 rupees, but from this must be deducted about 5,000 rupees on account of the extra assessment of irrigated land, which reduces the collections to Rs. 74,424, and the average rate to Rs. 1-4-4 per acre of dry-crop land. We know then that the best dry-crop land of this táluk to which cultivation is chiefly confined, cannot pay an average assessment of this amount, and we know further, from the very slow and slight increase in the cultivation during the most liberal period of our management, that an average assessment of 15 annas on the better qualities of soil, which is the rate for the period in question, would not secure the prosperity of the district. Something considerably short of even this is evidently requisite to ensure the vast extent of arable waste in this district being brought under tillage.

16. Further light will be thrown on the question of assessment by comparing the táluka with the others already settled. Its climate, as already stated, is nearly uniform, and closely resembles that of the Karajgi Division of the neighbouring district of Bankápur. The fall of rain, however, is perceptibly greater along its western border, where it meets the Kod District, than on the opposite side along the bank of the Tungbhadra. The western villages have the further advantages of being in the immediate neighbourhood of the road from Bangalore to Dhárwár, and the chief marts for the disposal of produce, viz., Ránebennur and Byádgi. These advantages will be apparent from an inspection of the map, and, though not of very material moment, are sufficient, in my opinion, to warrant a slight variation in the rates of assessment of the two divisions of the táluk.

The following table shows the rates of assessment sanctioned or proposed for the districts already reported on :—

Táluka.	Class of Villages.	Maximum Rate of Assessment per Acre.		
		Rs.	a.	p.
Hubli	1st	2	0	0
	2nd	1	8	0
	3rd	1	4	0
Nawalgund	1st	1	5	0
	2nd	1	2	0
	3rd	1	0	0
Dambal	1st	1	2	0
	2nd	1	0	0
Bankápur	1st	1	12	0
	2nd	1	8	0
	3rd	1	6	0
	4th	1	4	0

17. The climate of Ránebennur is on a par with that of the 3rd and 4th classes of Bankápur villages. In respect of markets the firstnamed district has a trifling advantage, and prices there rule somewhat higher than in Ránebennur, but the difference is very slight, and in the article of cotton, from which the assessment is chiefly realized, they are much the same in both. I do not think the difference sufficient to require a change in the rates, and a consideration of the respective advantages of the two districts in point of climate and market has led me to conclude that the rates adopted for the 3rd and 4th classes of Bankápur would be equally suitable for the two classes of villages into which I propose to divide Ránebennur.

18. The first class will contain 44 villages forming the south-western half of the Collectorate, which I propose to assess as in the case of the 3rd class of Bankápur villages, viz., at rates varying from 1 rupee 6 annas for 1st class soils, down to 2 annas for the very worst. The 2nd class will contain 86 villages forming the remainder of the táluka, and be assessed like the 4th class of Bankápur villages at rates varying from 1 rupee 4 annas to 2 annas, according to the value of the field.

19. The application of these rates to the entire arable area will give an average rate of about $10\frac{1}{2}$ annas, or a total assess-

ment of 1,25,000 rupees on the 190,000 acres of Government arable land in the táluka. But there is a large extent of the waste of this district composed of very poor soil, which reduces the average rate very greatly, and it will be necessary to allow for this in comparing the average rate of past collections with that likely to result from the proposed assessment on the land now actually cultivated. I estimate this will be about 13 annas per acre, which is 2 annas less than that derived from the past collections of the middle period of my diagram, when alone there was any tendency to an extension of the cultivation, and 7 annas 4 pies less than that of the last eight years, when the cultivation and revenue have both been rapidly declining under the operation of an excessive assessment. And when we consider the depressed condition of this district, with only one-fifth of its arable land under cultivation after thirty years of peace and British rule, I think it will be admitted that the reduction here proposed is not beyond what is called for by the circumstances of the táluka. The financial result of the proposed rates, which is eminently promising, I will consider after disposing of the assessment of garden and rice land.

20. The garden land of Ránebennur is confined to a few villages, and is neither so extensive nor so valuable as that of Bankápur, the táluka last reported on. It is recorded at 1,450 acres in the accounts, but a deduction of upwards of 600 acres must be made from this, on account of dry-crop land included in fields wholly entered as garden, in the villages of Gutal and Honatti in the Mahálkaris' division. Nearly all the garden land of this táluk is watered in part at least from tanks, of which the principal are those of Ránebennur, Gutal and Honatti. These tanks, and indeed all others in this district, are to a great extent filled up with mud, in consequence of which the supply of water is greatly diminished, and generally fails altogether for some months of the hot weather, when recourse is had to wells dug in the saturated ground of the gardens below. But as these wells have rarely independent springs and are supplied chiefly by the water percolating through the soil from the bed of the tank, they, too, are liable to failure, and are only capable of supplying water for a limited period after the tank itself dries up.

21. The present realized assessment on the garden land of Ránebennur, I do not consider particularly high upon the whole, though it is so in particular instances. It bears very unequally, however, being in one or two gardens as high as 40 rupees an acre, while in others it hardly exceeds the ordinary dry-crop rates. Owing to the circumstance just noticed of a large proportion of dry-crop land being mixed up in the accounts with the

garden land of this táluk, it is impossible to state exactly the average rate of assessment on the latter, but I estimate it at a little over 8 rupees per acre. The highest garden rates proposed for Bankápur were 15 rupees per acre in the case of tank gardens, and 5 rupees in that of well gardens, and these have given an average rate of 7 rupees 12 annas upon the whole assessable garden land of the táluk, however irrigated. I propose to retain the same rates for the gardens of this táluk, though I anticipate that they will yield a somewhat lower average, owing to the tanks of Ránebennur being upon the whole of rather inferior capacity to those of Bankápur. The assessment of the whole garden land at the proposed rates may be estimated, in round numbers, at 6,000 rupees, and the average rate per acre at 7 rupees.

22. The extent of rice land in Ránebennur is quite insignificant, amounting in all to between two and three hundred acres. The climate is unsuited to this description of cultivation, and consequently it is confined to spots admitting of occasional irrigation from tanks. Some of this land is suited to the production of sugar-cane and culinary vegetables as well as rice. I propose for its assessment a maximum rate of 5 rupees per acre, which was that sanctioned for Bankápur, it being understood that all rates beyond 2 rupees per acre are to be confined to soils capable of producing the superior products which have been named in addition to rice. The present average rate of assessment cannot well be ascertained owing to dry-crop land being mixed up with the rice as well as with the garden land of this táluk, but I estimate it at $3\frac{1}{2}$ rupees per acre, which will probably be reduced to about $2\frac{1}{2}$ rupees by the adoption of the proposed rates.

23. I have some further remarks to offer on the subject of irrigated lands, garden as well as rice, but these I will reserve until I come to treat of the assessment of the Hángal Táluk, in which the irrigated husbandry is greatly more important than in Ránebennur.

24. The rates of assessment which have now been proposed are intended to include the indirect levies hitherto made from the ryots by the village officers, which were valued by them at Rs. 1,400 in statements furnished to your office in 1253 Fasli. Their real value I believe to be considerably within this, and that I shall make a liberal allowance in estimating it at 1,000 rupees. No levies in grain are made by the district jamádárs of this táluk. The collection of these indirect levies is intended to be forbidden, and a temporary compensation awarded to the hereditary officers at the introduction of the survey

settlement to continue in force until the final adjustment of their claims, for which proposals have, as you are aware, been already submitted to Government. The new assessment is intended also to embrace every tax falling upon the land, and will therefore include the sheep-tax and revenue derived from fruit trees, the produce of which latter is intended to be hereafter the perquisite of the occupant of the land. The proceeds of the sheep-tax were last year 606 rupees and of the sale of fruit 449 rupees.

25. I will now exhibit the general financial result of the proposed settlement, which will be found compared in the sub-joined statement with the averages of the last 27 years, and of the three periods referred to in considering the results shown by the diagram, as well as with the settlement for the year 1845-46, which shows the state to which the district was reduced under the old assessment, before the approach of the new had brought about any amendment;—

Periods.	COLLECTIONS ON ACCOUNT OF				Total Collections from Government land.	Estimated Survey Assessment of Government land.	Excess of Survey Assessment over collections of past years.	
	Cultivated land as per Diagram	The village of Murdur not in Diagram.	Grazing farm, sheep-tax, fruit trees, &c not in Diagram.	Village Officers' Baks in grain not in Diagram				
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Per cent.	
Average of last 27 years	77,302	300	3,236	1,000	81,838	1,30,000	48,162	59
Do 9 years ending 1828-29	90,650	300	2,787	1,000	94,737	1,30,000	35,263	37
Do. 10 years ending 1838-39 ..	63,591	300	2,806	1,000	67,697	1,30,000	62,303	91
Do. 8 years ending 1846-47.	79,414	300	4,276	1,000	85,000	1,30,000	45,000	53
The year 1845-46	63,785	300	5,920	1,000	71,005	1,30,000	58,995	83

26. The preceding statement includes every item of revenue obtained from the Government land of the taluk during the last 27 years, whether levied in the shape of public taxes or private perquisites. The survey assessment is estimated at 1,30,000 rupees, viz., 1,25,000 rupees for dry-crop and 5,000 rupees for irrigated land. An inspection of the last column will show the excess of the latter over the realizations of former years, amounting to no less than 37 per cent. of average collections of the most prosperous period of our management, and 83 per cent. of those of the year 1845-46 which may be considered the last of the old assessment. It is not of course to be anticipated that the whole of this excess will ever be realized; but I consider we have good grounds for anticipating that the revenue under the new assessment will considerably exceed its amount under the old, and that

the change of system will at the same time be signalized by a rapid development of the agricultural resources of the districts.

27. The preceding observations have been limited to the consideration of the assessment of Government land, but it is to be understood that the same rates of assessment will be applied to alienated land of every description, for the purpose of ascertaining and recording its value in the public accounts. And in the case of Judi land, *i.e.*, land held on the condition of paying Judi or quit-rent, whenever the amount payable as Judi shall exceed the survey assessment of the whole land whether Judi or Sarwa Inám (rent-free) held by one and the same party, the excess is intended to be struck off and the survey assessment of the whole land levied in lieu of the Judi for the future, as under the revised assessment it would of course be improper to take from any parties whomsoever anything in excess of the full demand of Government. The extent of land alienated in the 130 Khálsat villages of this táluk is, according to the accounts of last year, as follows :—

Tenure.	Acres.
Judi	33,475
Sarwa Inám	26,931
Mahál Judi	3,302
Service Inám	5,317
Total ..	69,025

28. From column 16 of the Tabular Statement of Revenue Collections for this táluk in my appendix, it will be seen that the average annual realizations for the last 8 years on account of alienated lands amount to Rs. 30,537. This sum is exclusive of about 1,800 rupees paid by the hereditary district officers as Mahál Judi, not merely for the land entered under that denomination in the preceding statement, but also for two villages held wholly as inám. The latter item will therefore not be affected at all by the new assessment, but the former, which is nearly altogether paid by the Patels and Kulkarnis, will probably be slightly reduced by it, as in addition to their Judi land the latter officers hold very little "Sarwa Inám" in this táluk, under 500 acres in all. The average rate of assessment now paid upon their Judi land is 14½ annas per acre, and this is not likely to be much reduced by the new rates, for their land includes a proportion of garden ground and

is generally good soil; but it will be so in particular instances when the present assessment is unusually high, and so far will be a desirable though most inadequate relief to a very important but hitherto neglected class of public servants.

29. I now turn my attention to the Hángal Táluk, which, as may be seen from the map at the commencement of this report, is situated in the south-west corner of the Collectorate, being bounded on the south and west by Mysore and Kánara respectively; on the north by the Tadas Division of Hubli and by Bankápur, and on the east by the latter district and Kod. The western and larger portion of the táluk forms the division of the Mámlatdár who is stationed at Hángal, and the eastern that of his subordinate Mahálkari whose kacheri is at Adur. The district contains in all 192 villages, inclusive of 32 alienated, of which last, however, 30 are subject to the payment of Judi. They are distributed between the two kacheris, as exhibited in the subjoined table:

Number of Mahál or old division to which the villages belong.		NUMBER AND PRESENT DISTRIBUTION OF VILLAGES.					
		Hángal or Mámlatdár's Division.		Adur or Mahálkari's Division.		Both Divisions.	
		Government.	Alienated.	Government.	Alienated.	Government.	Alienated.
1. Hángal	...	4	18	...	...	44	18
2. Nidsingt	...	45	8	...	...	45	8
3. Adur	...	3	5	58	1	61	6
4. Tadas	...	4	...	...	...	4	...
5. Karadgi	...	1	...	...	...	1	...
6. Bomgatti	...	5	...	...	...	5	...
Total		102	31	58	1	160	32

30. The Hángal Táluka is well watered, being traversed throughout its greatest length by the rivers Varda and Dharma. No advantage is taken of the waters of the Varda for irrigation, owing probably to the deepness of its bed; but the smaller river Dharma is dammed in two places, from which its waters are conveyed by means of canals over a considerable portion of the táluk. From these canals are filled numerous tanks, in which the water is stored up to provide for the exigencies of the dry season, when the river from which it was obtained can no longer afford a supply. The lands irrigated from these tanks are among the most valuable in the táluk, and, as the system of works of irrigation here alluded to is by far the most important of any in the Collectorate, it may not be out of place to notice it a little more in detail.

31. The two dams are both constructed of solid masonry and date from a remote period. They have both received repairs under our Government, and are now almost as strong and perfect as when first constructed. The upper one is thrown across the stream at the village of Mantgi where the Dharma enters the Hángal Táluka from the westward. The canal from this dam, writes my Assistant Mr. Springer, "is carried through the lands of seven villages, viz., Sewalli, Herur, Gowrapúr, Gigihalli, Sirmapur, Doleshwar and Surlshwar nearly a distance of 12 miles. At the latter village it branches off in two directions, the one taking a south-east course through the lands of Giglikop, Alúr, Hawasgi and the inám village of Mulgund, empties itself into the Varda, and the other, a north-east one, through the lands of Akiwalli and Arleshwar, and after passing two villages of the Adur Mahál, it once more enters that of Hángal before it disembogues its superfluous waters." The tanks of all these villages and of several others are in a great measure filled from these canals. The second one is situated about 12 miles lower down the stream, near the village of Kenchi Neglur, and its dependent system of irrigation, though not so extensive as in the case of the other, is yet of considerable importance. My Assistant Mr. Fanning, who surveyed the villages in its neighbourhood, has described it as follows: The dam "has been thrown across the Dharma about eight miles from the point of its junction with the Varda. By means of this dam the water of the river is turned into a canal, which, after running a course of more than five miles, empties itself into the Naregal tank. This canal looks little better than a ditch, but its usefulness is not to be measured by its appearance. Besides supplying water to the tank at Naregal which overflows annually and irrigates the 'Tarri' (rice) lands of Wardi, it also serves to irrigate the rice lands of Nellibid." The tank at Naregal referred to in this description is the largest in the Collectorate, and the gardens beneath it are unsurpassed in value, producing the finest supári to be met with in the neighbourhood. From the preceding remarks some idea of the magnitude and importance of these works of irrigation may be obtained, and I had the intention of availing myself of the present opportunity to offer some suggestions for their due conservation and timely repair; but on further consideration, I think it will be preferable to reserve this subject for a distinct report, in which the state of the tanks and other works of irrigation throughout the Collectorate may be brought under review.

32. The Mámlatdár's and Mahálkari's, or western and eastern, divisions of the Hángal Táluka are further distinguished by diversity of natural features and climate. The former is uneven in surface, though the rising grounds rarely attain the elevation of

hills, with a light soil and moist climate, the greatest fall of rain occurring along the border villages to the west, where a good deal of the land is still uncleared, and covered with a thick bush jungle. The Mahálkari's division, on the contrary, consists for the most part of a level plain of black soil on both banks of the Varda and Dharma rivers. The climate here is much less rainy than in the Mámlatdár's division, in consequence of which it is well suited for the dry-crop husbandry, whereas in the latter the irrigated culture is alone of any importance.

33. The chief market towns of the Mámlatdár's division are Hángal, Bomanhali, Alur and Mahárájpeth, and of the Mahálkari's Adur and Naregal. The manufactures of the táluk are quite unimportant, being limited to a few of the coarsest kinds of cotton and woollen stuffs for domestic consumption, and nearly the whole population is consequently agricultural. The imports of the Mámlatdár's division, according to my Assistant Mr. Springer, are jowári, wheat, gram, kusumbi and augsí oils, from the northward; cloths from Hubli and Bellary; salt, dried and fresh coconuts; supári, dried and fresh dates, pepper, cardamums and plantains from Kumta. The exports are rice, jowári and raw sugar towards Nawalgund, Dambal, Nargund, Hubli and Bádámi. The two latter articles used also to be sent to Kumta; but this trade has recently been lost, consequent, I believe, on the Madras Presidency being admitted to the privilege of exporting sugar to the United Kingdom, which entailed the necessity of prohibiting importations. The trade of the Mahálkari's division is the same, except that it exports in addition a small quantity of raw cotton from the plain villages. A great portion of the rice and sugar exported to the northward is disposed of at the bázár of Dhundshi in the Tadas Division of Hubli, which is much frequented by traders from all parts within fifty miles, who meet there for the exchange of the products of their respective districts.

34. There is a point of some importance connected with the prices of agricultural produce in this táluk. The products of the dry-crop cultivation, which is nearly confined to the eastern portion of the district, command equally good prices with the neighbouring parts of Bankápur to the northward, for the position of the cotton growing villages here is about as good for export to the port of the Kumta, as any other parts of the Collectorate, and the jowári and gram are for the most part consumed within the district itself which also imports these articles from the northward. On the other hand, the prices of the products of irrigated land are considerably below what they are in any of the districts already settled, owing to the quantity produced being greatly beyond the

consumption of the district, and the export of the surplus being nearly all in a northerly direction. Rice and jaggery are the chief exports, and the prices of these articles rule lower in Hángal than in the adjoining district of Bankápur, and to a still greater extent than in the more northerly táluk of Hubli. In point of markets, then, the dry-crop soils of the district under report are about on a par with those of Bankápur; but the rice and garden soils are at a disadvantage; and this distinction it will be desirable to keep in view in considering the question of the assessment.

35. The Hángal Táluk is thinly inhabited and the villages generally very small. Extensive tracts of waste are everywhere to be met with, and in the western villages especially a good deal of land is covered with dense jungle. And if we may judge from the breadth of land now in cultivation compared with that in past years, the scanty population of this district does not appear to have received any considerable accession to its numbers under our rule, which is the more remarkable, as the average condition of the cultivators appears to me to be decidedly superior to that of those of the adjoining districts, and indeed of the Collectorate in general. The people appear at once better fed and better clothed than elsewhere, and it is remarked by my Assistant Mr. Springer that the women and children have invariably some sort of trinkets either of gold or silver about their person. The slow increase of population may, I think, be attributed rather to the prevalence of disease induced by climatic influences than to any deficiency in the means of subsistence. Cholera and small-pox have been very fatal in this district, and fevers also prevail.

36. The revenue annals of this district do not differ in any important particular from those of Ránebennur, already noticed in a previous para., and need not therefore be further adverted to.

37. I will now proceed to consider more particularly the subject of the assessment. The accompanying diagram is in all respects similar to that already given for the táluk of Ránebennur, and the explanatory observations regarding the latter given in my 12th para. apply in all their details to this. On examining the diagram it will be found, if we except the first five years when the collections were evidently beyond the capabilities of the district, that the fluctuations of the collections and cultivation have both been moderate, indicating at once that the assessment has not been greatly in excess, and that extensive failures in the crops have been rare. The fall of rain indeed in this district is generally considerable, and, as tanks are numerous, the irrigated crops which yield the bulk of the revenue are

supplied from them during intervals of dry weather in the monsoon, and are thus secured in great measure against entire failure. The diagram, it will be understood, is constructed for the whole Government land in cultivation, whether dry-crop or irrigated; though it would have been more useful had the accounts enabled me to separate these descriptions of cultivation and construct a diagram for each. From the year 1826-27, the first in which the land under tillage was entered in acres, up to 1837-38, or for twelve years, the cultivation was slowly extending, and from the latter year up to the present time, it has, on the contrary, been gradually contracting. This is to be accounted for by the circumstance of waste having been given out for cultivation on comparatively favourable terms during the former period, and generally only at the full assessment in the latter. In consequence of this, little, if any, waste has been taken up of late years, and as the more heavily assessed land has been to some extent relinquished during the same period, the result has been the gradual decline of cultivation shown upon the diagram. And the general conclusion I would draw from the latter is that the Government demand during the last twenty-two years, though perhaps higher than consistent with any rapid improvement, has not been oppressive or so considerable as to have crippled the resources of the district.

38. This is the general result, but in the case of particular fields and villages the assessment has no doubt been excessive, as it has also been the reverse. It bears in fact most unequally. The average rate of dry-crop assessment on the cultivated land of whole villages varies from 3 rupees 9 annas per acre to 1 anna 3 pies per acre; and that of rice land from 13 rupees 9 annas to 14 annas 7 pies per acre; and although variations in the value of land are more than ordinarily remarkable in this district, they are altogether inadequate to account for the great inequalities observable in the assessment.

39. The question of the assessment of the Hángal Táluk differs in some most important respects from that of any districts hitherto reported on. In all of the latter the dry-crop cultivation was of transcendent moment, and the irrigated of comparatively little importance. In the former, however, the case is reversed, and the assessment of irrigated land is found to be of chief consideration. The revenue accounts of last year show the collections on account of dry-crop land to have been Rs. 19,454, and those of irrigated land Rs. 37,424, or nearly double the former. Of the latter sum Rs. 29,940 were obtained from the rice, and Rs. 7,484 from the garden cultivation. This is the first táluk in which the rice husbandry has been extensively met with, or in which sufficient opportunities have been afforded for

forming any satisfactory conclusions regarding its value compared with that of dry-crop soils.

40. And not only is it with respect to the rice cultivation that Hángal differs widely from the districts hitherto assessed; but the dry-crop cultivation, too, presents some remarkable peculiarities, which have an important bearing on the question of the assessment, and demand an attentive examination. The district altogether differs widely from those to which my experience had previously been confined, and the distinctions of climate and culture in different parts of it are so remarkable, that its assessment forms a much more difficult and complicated problem than that of any part of the country I have yet had to do with. I will endeavour, therefore, to place before you in an intelligible light the peculiar circumstances of the district, and the conclusions to which their consideration has led me; though I cannot venture to adduce my opinions with the confidence that experience gives. Without vouching for their soundness I venture to express a hope that, even if the result prove them mistaken, they will aid in leading us to correcter conclusions in the case of similarly situated districts hereafter.

41. In considering the assessment I will take up that of dry-crop, rice, and garden lands separately, and in the order just recited.

Dry-crop Lands.

42. The most important circumstance affecting the value of these is climate, which exerts a very remarkable influence and in a manner exactly the opposite of what I have observed in other districts. Elsewhere, as the climate becomes moister, the fertility of dry-crop soils is increased. Here, on the contrary, it is diminished. The climate of Hángal becomes more and more rainy as we proceed from its eastern border westwards, and with every accession of moisture the soil becomes less and less suited to the culture of dry-crops, until, in the villages along the western jungles, this description of husbandry is almost entirely supplanted by that of rice and other products requiring irrigation. And the prejudicial influence of this excess of moisture on the dry-crop husbandry is greatest, as might be expected, in the case of the superior soils, which from their close uniform texture drain most slowly, and consequently retain moisture the longest. These soils in the western parts of Hángal become so wet and swampy during the monsoon, as to be almost unsuited for the cultivation of dry-crops, and when brought under tillage are almost invariably converted into rice and sugar-cane grounds. And throughout the Mámlatdár's division of the táluk, the dry-crop husbandry is

nearly confined to the lighter kinds of soil, which admits of a comparatively rapid drainage.

43. This peculiar effect of an over-moist climate is also observable in a few villages of Bankápur, though I was not aware of the fact in proposing rates of assessment for that district. The Bankápur villages, it will be recollected, were divided into four classes with reference to climate, the rates proposed being lowest in the most easterly division where the fall of rain is least and most uncertain, and higher in each succeeding division as it lay further westward and enjoyed a moister climate. Of the propriety of this classification of the villages of the district, I am still convinced, as also of the suitableness of the rates of assessment proposed for them, with the single exception of the most westerly division. This last is of very limited extent, consisting of fifteen villages, mostly very small, and was proposed to be assessed at higher rates than the rest of the district in consequence of its moister climate. This, however, was an error; for the rule of additional moisture conferring additional fertility, which held good in the three remaining divisions of the táluk, failed in this, where, as in Hángal, the fall of rain is excessive for the dry-crop husbandry, and consequently, instead of being assessed at higher rates than the divisions lying further east, in consequence of its moister climate, it should have been assessed at lower. I became so fully convinced of this afterwards that I took upon myself the responsibility of lowering the rates of most of the villages of this extreme westerly division to the same standard as those of the adjoining division on the east; but the reduction should have been considerably greater even than this, to compensate for the diminution of fertility in dry-crop soils due to the excess of rain, and should it appear hereafter that the prosperity of these villages has not been secured by the present rates, I may have to propose a further reduction for the sanction of Government. I had never had any previous experience of such a climate, and there being very little dry-crop cultivation in the villages of the division, the fact of the rain being too abundant for this description of husbandry did not in the first instance attract my observation. The oversight perhaps should not have occurred; but I shall not regret it, if it assist us in arriving at juster conclusions regarding the effect of over-moist climates on the dry-crop cultivation of other districts.

44. To return, however, from this digression to the case of the Hángal Táluk. The portion of this district lying east of a line passing north and south through the Mahálkari's station of Adur, consists for the most part of a level plain of black soil, and possesses a comparatively dry climate, very similar to that of

the portion of the Bankápur Táluk contiguous to it on the north, which belongs to the second division of villages into which the latter district was divided for the purpose of assessment. In the portions of both districts here referred to the fall of rain is ample, but not generally excessive for the dry-crop husbandry. In some of the most westerly villages of both divisions, the prejudicial influence of excessive rain is perhaps apparent in the superior soils; but not, I think, to a degree requiring any alteration in the rates of assessment. It is evident, indeed, that when a change of climate is gradual, we could not exactly accommodate the assessment to its peculiarities without altering the rates for every village; but to attempt such refinement would be altogether out of place in a plan of operations, which when executed with every degree of care does not profess to do more than secure an approximation to the true relative values of different soils. A sufficient degree of exactness for the practical object of adjusting a moderate assessment is all that we aim at, and this will be adequately attained by taking notice of such circumstances only as palpably and to a considerable extent affect the value of soils. In the eastern group of plain villages, then, under review, I am of opinion that for practical purposes, the climate may be considered to be everywhere the same and to be favourable to the raising of dry-crops. The fertility of soils suited to these may here be estimated at a maximum, the fall of rain being sufficiently abundant, and yet not excessive for the dry-crop husbandry.

45. In proceeding out of this division in a westerly direction, the climate becomes more and more rainy, until we reach the jungles on the Kánara frontier, where the lighter soils alone are at all suited for dry-crop cultivation. The deteriorating influence of an excess of moisture sustains a gradual increase as we recede from the plain and approach the jungles; but it will, in my opinion, be sufficiently provided for by arranging the villages comprised in this tract into three groups, consisting of a westerly belt of villages, a central, and an easterly, the excess of moisture being greatest in the first and least in the last, which borders the plain portion of the táluk, in which there is supposed to be no excess of moisture at all. By this arrangement the 160 villages of the táluk will be divided into the following four groups on account of peculiarities of climate affecting the fertility of dry-crop soils to an extent requiring an alteration in the rates of assessment.

1st or Plain Group.

Thirty-six villages, situated east of Adur, enjoying a climate well suited to the culture of dry-crops, for which the fall of rain is ample, but not excessive.

DIAGRAM Constructed to represent the manner in which the fertility of dry crop soils is affected by climate in the HANGAL TALUKA

The perpendicular lines represent the nine soils of our classification. The lengths of the perpendiculars intercepted between the base of the Diagram and the several sloping lines represent the relative values of the same classes of soil in the four divisions into which the villages of the Taluka are proposed to be allotted for the purposes of assessment, and these lengths are written in annas and pies of our classification scale under their respective perpendiculars.

The black sloping line and numerals represent the gradation in the values of the several classes of soil in the 1st or most easterly division, which is favorable for the dry crop culture.

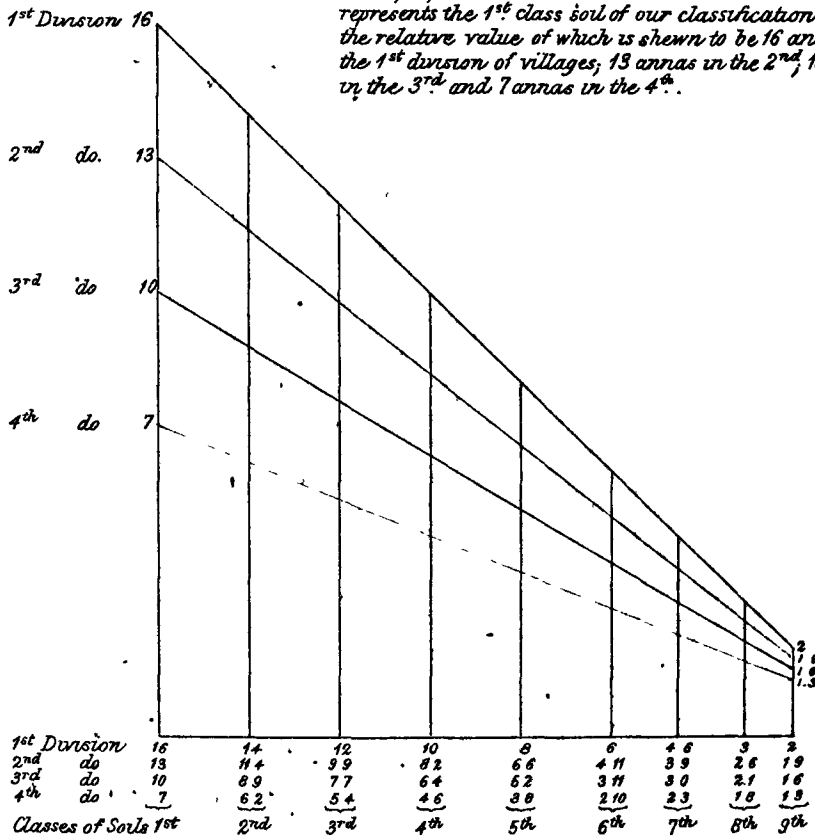
The red sloping line and numerals the same perpendiculars for the 2nd division lying immediately west of the preceding, the climate of which is rather moist for the dry crop culture.

The blue do do for the 3rd division lying still further west in which the climate is more rainy still.

The yellow do do for the 4th division which has the most unfavorable climate of all for the dry crop culture.

EXAMPLE

The perpendicular on the extreme left of the Diagram represents the 1st class soil of our classification Table, the relative value of which is shown to be 16 annas in the 1st division of villages, 13 annas in the 2nd, 10 annas in the 3rd and 7 annas in the 4th.



2nd Group.

Thirty-one villages lying immediately west of the preceding, in which the fall of rain is in excess, but not to a degree sufficient to interfere materially with the cultivation of dry-crops.

3rd Group.

Fifty villages still further west, in which the fall of rain is heavier than in the preceding group, and exerts a still more prejudicial influence on the dry-crop husbandry.

4th Group.

Forty-three villages in the immediate neighbourhood of the Kánara jungles, and in which the fall of rain is greatly in excess of the quantity best suited for the production of dry-crops.

46. Confirmation of the correctness of the view here taken of the effect of the climate of these groups on the dry-crop cultivation is, I think, afforded by the subjoined table, which exhibits the assessable area of dry-crop land in each group, together with the portion of this under tillage and the assessment paid by the same, as obtained from the revenue accounts of last year :—

No of Group.	No of Villages.	Assessable area of dry-crop soils in acres.	PORTION OF ASSESSABLE AREA IN CULTIVATION.		Realised assessment on cultivated acres	Average rate of assessment per acre.
			Acres.	Percentage.		
1st	36	24,500	9,223	37½	12,891	Rs. s. p. 1 6 4
2nd	31	18,518	4,730	26	4,371	0 14 9
3rd	50	22,642	4,784	21	1,535	0 5 1
4th	43	43,189	2,710	6	656	0 3 10
Total ...	160	108,849	21,447	19½	19,453	0 14 5

47. In all the groups the portion of the arable area under tillage is limited; but is greatest in the most easterly or plain division, and rapidly diminishes as we proceed westwards. In the 1st group, the cultivated portion amounts to 37½ per cent. of the whole area, and pays the comparatively high average rate of assessment of Rs. 1-6-4 per acre, which is good proof of a large proportion of superior soils being cultivated in this division. In the 2nd group, the proportion of cultivated land is 26 per cent., and its average rate of assessment Re. 0-14-9, showing that the dry-crop cultivation is at once of less estimation and of less

value than in the preceding group, though ^{still embracing a} proportion of good soil. In the 3rd group, the ^{same facts become} still more remarkable, the cultivation being diminished to 21 per cent. and the average rate of assessment to Re. 0-5-1 per acre. And in the 4th and last group, these results are even more strikingly exemplified, for here we find that 6 per cent. only of the whole area is under cultivation at the very low rate of Re. 0-3-10 per acre, from which we may conclude that the climate has become almost quite unsuited for the dry-crop cultivation. It is in fact confined to the lightest descriptions of soil, admitting of rapid drainage, and all the superior soils under tillage are devoted to the production of irrigated crops.

48. My Assistants Lieutenant Francis and Mr. Young, who were employed in classifying the lands of this district, have been led to similar conclusions regarding the effect of the climate on dry-crop soils, as will be seen from their letters noted in the margin, copies of which are appended to this report. Lieutenant Francis states that little or no black soil under the ordinary course of dry land cultivation in the Mallad (rainy) division of the Hángal Táluk, and thinks that if brought into cultivation it will be with rice. He mentions further that the dry land cultivation of the district is confined to the red soils in the Munjal (dark brown) ~~deficient in~~ depth, while, in some few of the western villages immediately adjoining the jungles, the fall of rain is so continuous that these kinds of soil are wholly unadapted to the growth of jowári (the most important dry-crop of the plain). And from a statement of the relative productiveness of the same classes of soils in different parts of the táluk, he concludes that the red soils of the "Mallad" (rainy quarter) are not so productive for dry-crop cultivation as those of the plain; but that the entire Mallad is not alike unfavourable for the production of dry-crops, as the villages on its eastern border enjoy a climate better adapted to their cultivation than the others. Mr. Young observes to the same effect, that in the district strictly styled "Mallad" the usual dry-crops of the open country are scarcely cultivated at all, but there is a tract called by the people "half Mallad," running from north to south between the rice growing district and the plain, in which a half or more of the cultivation is dry-crop.

49. The *Plain* referred in the remarks of these officers is represented in the case of the Hángal Táluk by my 1st group of villages, and the "half Mallad" and "Mallad" in which the fall of rain is excessive for the dry-crop cultivation, by the remaining three groups.

50. Trusting to have now satisfactorily established the fact of the deteriorating influence of great part of the climate of this district on the dry-crop cultivation, there remains to be determined the weight to be given to this in fixing the rates of assessment. It is, I think, quite evident that the deterioration in question, while extending to all soils, is greatest in those of superior quality from their greater retentiveness of moisture, and becomes less observable as we descend from them to the inferior descriptions whose coarser texture affords facilities for rapid drainage. This indicates with sufficient clearness the manner in which the adjustment should be effected, though not its amount. The determination of the latter point cannot be so satisfactorily established, and must in any case be matter of judgment and discrimination rather than of demonstration. The old assessment of similar soils in different villages and even in different fields of the same village is so unequal as to be of no service in settling the details of this question, though when a sufficiently large average is taken, as in the table given in a previous para., it may be employed for the establishment of general conclusions. And even the information obtainable from local enquiry and observation is little more determinate or satisfactory, for the accounts given by the cultivators themselves are so conflicting and the actual produce of fields so dependent on the degree of labour and skill expended on their tillage, that no unvarying data are to be obtained by such investigations, and it will be found, when all is done, that we have no better security for the correctness of any estimate than the judgment and experience of the framer.

51. Lieutenant Francis states as the result of his enquiries that the average productiveness of red soils cultivated with jowári (these may be assumed to be the superior kinds) are in the relation of $\frac{3}{5}$ and $\frac{2}{3}$ in the case of the Mallad to 1 and $1\frac{1}{4}$ in that of the plain, and when cultivated with "rági" (usually the inferior qualities,) in the relation of 30 and 40 in the former to 35 and 50 in the latter, or with oil plant 15 and 20 in the "Mallad" to 24 and 32 in the plain. And Mr. Young states as the general conclusion to which he had been led by his investigations, that the red soils of the plain are about one-third more valuable than those of the "Mallad."

52. The estimates of these officers do not materially differ, and after a full consideration of their opinions, aided by my own local enquiries, I have been led to adopt the scale shown by the diagram opposite, as representing with sufficient accuracy for practical purposes the relative values of the various qualities of dry-crop soil determined by our system of classification in the four groups of villages into which I have divided the taluk. In

this diagram, the relative values of the standard soils of our classification in each group are represented by the portions of the perpendicular lines contained between the several sloping lines and the base. Each sloping line is of a different colour, and the length of the perpendicular intercepted between it and the base, or relative value of the soil, is written in the same colour underneath the perpendicular in annas and pies of our classification scale. The uppermost sloping line, coloured black, or rather the perpendiculars intercepted between it and the base of the diagram, represent the gradation of our nine classes of soils in the 1st group of villages, in which the climate is understood to be favourable to the ordinary dry-crop cultivation. The red sloping line, in like manner, the gradation of the same soils in the 2nd group; the yellow line in the 3rd; and the blue in the 4th. The slope of each of these lines, it will be observed, diminishes in steepness, and consequently the difference between the lengths of any two of their respective perpendiculars diminishes also; or, in other words, the several soils approach more nearly to each other in value in each succeeding group. Thus the difference in relative value between the 1st and 2nd class soils in the 1st group is 2 annas; in the 2nd group, 1 anna 8 pies; in the 3rd group, 1 anna 3 pies; and in the 4th group, 10 pies.

53. In adjusting these scales, I have not had reference simply to the productiveness of the soils of each group when cultivated with dry-crops; for, I believe the diminution of productiveness in the superior soils to be greater than I have shown. In the 3rd and 4th groups, for instance, in which rain is most excessive, the difference between the values of the superior and inferior soils for the dry-crop cultivation is probably considerably less than shown by the scales; but it is to be borne in recollection that superior soils are those best suited for irrigation, and generally capable of being converted into rice grounds, which we may anticipate they will be to some extent under the operation of a fixed assessment, which will secure to the cultivator the whole benefit of the improvement for a long term of years. Such soils will probably not be taken into cultivation at all unless for the purpose of being brought under irrigation, and their superior advantages in this respect may fairly, I think, be considered in adjusting the rates, if we take care that the latter are not made so heavy as to interfere with the progress of improvement.

54. The relative values of the dry-crop soils in the several divisions of the district having been settled, we have yet to determine the actual rates of assessment to be imposed. I have already stated in a previous paragraph my reasons for considering the 1st or plain group of Hángal villages to be on a par with the 2nd

division of Bankapur villages, the maximum rate of assessment for which, as will be seen from the table given in my 17th paragraph, was fixed at Rs. 1-8-0 for dry-crop soils. This is equal to an advance of 50 per cent. on the classification scale of the preceding diagram for the 1st group of Hángal villages. And in the remaining divisions of Hángal, dry-crop products fetch equally good if not better prices, in consequence of not being raised there in sufficient quantity for domestic consumption and having to be imported from the plain. My opinion is that no change in the dry-crop rates of assessment of this taluk is called for on account of prices, and I beg to propose for all the four divisions an increase of 50 per cent. on the rates for each shown upon the preceding diagram.

55. The effect of these rates will be to lower the existing dry-crop assessment of cultivated land in the 1st and 2nd groups of villages, and to raise it in the 3rd and 4th. The subjoined table affords a comparison between the existing assessment of the area under cultivation with dry-crops, and the estimated Survey²⁶ Kamal on the whole arable area suited to this cultivation, in the 4 classes of villages at the proposed rates :—

No. of Group.	No of Villages.	FROM REVENUE ACCOUNTS OF 1846-47.				ESTIMATED RESULTS OF PRESENT SURVEY		
		Total area of dry-crop land in acres.	Cultivated portion of dry-crop land, acres	Assessment on cultivated acres.	Average rate per acre of of cultivation.	Total area of dry-crop land in acres.	Total assessment of dry-crop land.	Average rate per acre.
1	2	3	4	5	6	7	8	9
					Rs. a p.		Rs.	Rs. a. p.
1st .. .	36	24,500	9,223	12,891	1 6 4	24,500	24,500	1 0 0
2nd .. .	31	18,518	4,730	4,371	0 14 9	17,000	11,887	0 11 0
3rd .. .	51	29,842	4,734	1,585	0 5 1	17,000	8,562	0 9 0
4th .. .	43	48,188	2,710	656	0 3 10	33,000	10,212	0 5 0
Total .	161	108,849	21,447	19,468	0 14 5	91,500	56,051	0 9 9

56. It may appear from this statement that the increase of assessment in the 3rd and 4th classes of villages is too considerable, but the circumstances mentioned in my 53rd para., coupled with the fact that the dry-crop land of these divisions has hitherto been thrown in more as a make-weight to enable the cultivators to continue the cultivation of their irrigated land than with any special regard to its own value, induce me to believe that the rates are sufficiently moderate. And even should the result prove me to be wrong, the error will have little injurious effect either on the revenue or on the ryots, owing to the very limited extent of this land now in cultivation. I do not anticipate much extension of the dry-crop cultivation in these groups; but in the 1st and 2nd

where the proposed rates are considerably below the present, and the climate suitable, I look for a considerable though ~~not rapid~~ increase, and also believe that the general effect of the proposed rates in the dry-crop cultivation of the whole taluk will be favourable to the revenue.

Rice Lands.

57. I now turn to the rice cultivation, which is the most important branch of husbandry in the taluk under report. It will perhaps conduce to clearness to exhibit the extent and value of this description of cultivation in the four divisions of the taluk adopted for the assessment of dry-crop land, and though I shall not have occasion to propose distinct rates for each in the case of the land under consideration. The arrangement will moreover be natural as each accession of moisture unfavourable to the dry-crop culture is beneficial to the rice; and the most westerly group of villages, which is least suited to the former, is best adapted to the latter. But in consequence of the rice lands of the taluk being nearly all dependent for sufficient irrigation upon tanks, the latter source of supply becomes a much more important element in determining their value than the mere fall of rain; though both will receive due consideration in settling the rate of assessment for each field, which will be determined with reference to the nature of the soil and supply of moisture however obtained.

58. The following table shows from the accounts of last year the extent of rice land, waste and cultivated, and the assessment paid by the latter in the four divisions of the taluk which have just been alluded to:—

No. of Group.	No. of Villages.	Assessable area of rice land in acres.	PORTION OF ASSESSABLE AREA IN CULTIVATION.		Realizable assessment on cultivated acres.	Average rate per acre.
			Acres.	Per cent.		
					Rs.	Rs. a. p.
1st	36	1,395	701	50	3,113	4 7 0
2nd	31	3,391	1,468	43	3,615	2 7 5
3rd	51	9,104	4,025	44	11,930	2 15 6
4th	43	9,209	3,838	41½	11,232	2 15 0
4	161	23,099	10,032	43	29,940	2 14 9

59. On looking at this statement an apparent anomaly will be observed, viz., that the rice land of the 1st or plain division, the climate of which I have stated to be least favourable to this description of crop, nevertheless pays a greatly higher average

rate of assessment) than the same land in any other of the divisions. This is to be explained by the fact that there is little rice cultivation dependent on the ordinary rain to be found in this division, and that the great bulk of it is situated under large tanks which supply water sufficient, not merely for the rice, but for occasional crops of sugarcane, which are greatly more valuable. There is indeed a considerable extent of sugarcane land in all the divisions, but in none of the others does it bear so large a proportion to the whole cultivation as in the first.

60. The rice lands of the Hángal Táluk may then be conveniently classed under two heads, viz., those in which sugarcane as well as rice is an ordinary or occasional crop, and those in which sugarcane cannot be grown at all. The sugarcane lands are greatly more valuable than the other, and I shall now devote a few observations to each.

Rice Lands adapted also to the culture of Sugarcane.

61. These are almost always situated under tanks in low and moist localities, where the soil is deep and of good quality, as an inferior soil would not retain moisture sufficient for sugarcane without the aid of frequent irrigation. The two most important varieties of cane cultivated are the large or garden sort and the small "grass cane." The former is much more valuable, but does not succeed without occasional irrigation during the dry season, and can therefore generally only be grown under large tanks which afford a supply of water for great part of the year, while the latter can be raised in moist localities without any further irrigation than a single flooding of the land when the cane is planted, and is on this account by far the most extensively grown in the lands under consideration. A crop of this small cane may generally be taken every third year, the land in the two intervening seasons being sown with rice, though, when the supply of water is not abundant, it can only be raised occasionally when the rains happen to be heavier than usual, and in rare instances where the soil is unusually moist a crop may be obtained every alternate year.

62. Estimates of the comparative value of sugarcane growing rice lands and the best dry-crop soils of the plain will be found in Messrs. Francis and Young's letters already quoted. I have pointed out the difficulties attendant upon such investigations, and merely bring them forward here with the view of conveying some general idea of the comparative value of the two descriptions of culture. The estimates of these officers are made out somewhat differently. Mr. Francis takes the average extent of rice and dry-crop land, capable of being farmed by a cultivator with a pair of bullocks, and Mr. Young takes one acre of each description. The

former, too, supposes a crop of cane to be raised every third year, and the latter every second, which, as already mentioned, can very rarely be done. Both officers give a greatly higher valuation to the sugarcane lands, and it is deducible from their estimates that Mr. Francis considers the net profit per acre to be 4 times greater in the case of sugarcane than dry-crop land, and that Mr. Young thinks it to be 6 times greater when the large garden cane is made the subject of comparison, and 3 times when the smaller variety is so. My own estimate of the returns from the two descriptions of culture would be somewhat different, and I consider Mr. Young's valuation to be greatly too high for an average; but I see no object to be served by going into details.

63. It is sufficiently evident that the sugarcane growing rice-lands are very considerably more valuable than the dry-crop soils of the plain, and, further, that their different varieties are of very different value. Those capable of producing crops of the large garden cane every second year are of course greatly more valuable than others in which the small cane can only be raised once in three years, and these again are superior to the descriptions in which cane can only be grown in occasional favourable seasons. The transition from the most valuable sugarcane growing rice lands to what in this taluk are called "garden lands," viz., those producing betel, supari, cocoanuts and fruit trees, is very difficult to be defined, and it is impossible to say in all cases whether the supply of water is sufficient for the latter or not. The presumption may be that it is not from the fact of the superior products never having been cultivated, but this may be due to other causes, such as poverty or want of enterprise in the cultivator. And from these circumstances we may safely assume that the range of the rates of assessment, or the difference between the lowest and highest, ought to be very considerable in the case of the lands under consideration.

64. The best description of sugarcane land bears in some instances a higher rate of assessment at present. At Naregal, the finest garden village in the Collectorate, the rice land watered from the same large tank that supplies the gardens pays an average assessment of Rs. 7-9-0 per acre, which with one exception, where the land is too limited in extent to be adducible as an example, is the highest average rate of any village in the taluk. The averages for rice lands of every description have been already given in the table following my 58th para. The great bulk of the sugarcane land, however, is by no means very valuable. The general conclusion which Mr. Young arrives at is that, if the best description of rice land with moisture sufficient for the large cane be assumed at 16 annas, the value of land suited for the small cane would be 10 or 11, and of the best dry-crop soils of the plain 4 or 5. And

this, though presenting a less favourable view of the sugarcane land than deducible from his detailed estimates, I am inclined to think not far from the truth.

65. I will now offer a few remarks on the rice lands incapable of producing sugarcane. These are of considerably greater extent than those we have just had under review, and their value is much below what my first impression of the superior value of the irrigated over the dry-crop husbandry had led me to conceive. The labour required for the cultivation of all kinds of rice land, superior and inferior, is much the same, and about treble that required for the better descriptions of dry-crop soils. A cultivator possessing a pair of bullocks is unable to cultivate more than 4 or 5 acres of rice land. Mr. Francis considers three bullock-loads of rice per acre to be a fair average return for good soils, and Mr. Young estimates the produce as high as $7\frac{1}{2}$ loads. The latter, however, is certainly much beyond a fair average, and soils are rarely to be met with capable of yielding so large a return. From $1\frac{1}{2}$ to 3 bullock-loads per acre may be considered in my opinion a fair average crop for the varying qualities of rice land in this taluk, which at 3 rupees the load gives from $4\frac{1}{2}$ to 9 rupees for the value of the crop, or from $22\frac{1}{2}$ to 45 rupees as the return for the 5 acres capable of cultivation with a pair of bullocks. I do not of course bring forward this estimate with any great degree of confidence, but merely as an opinion derived from my local enquiries and experience. And the general conclusion to which I have been led is, that the very best rice land of this taluk incapable of producing sugarcane does not yield so large a return for the labour and capital employed in its cultivation, as the finest descriptions of dry-crop soil in the plain. The maximum rate of assessment proposed for the latter is $1\frac{1}{2}$ rupees per acre, which, were the returns on an equal expenditure the same in both cases, would be represented by $4\frac{1}{2}$ rupees in the case of rice land, the extent of land in the latter case being only one-third of the former; but $4\frac{1}{2}$ rupees would, I am persuaded, prove a very excessive assessment, after making due allowance for the lower prices of irrigated produce here; compared with the districts already settled to the northward, as already explained in my 34th para., I have come to the conclusion that there is very little rice land in this taluk, unsuited to the growth of sugarcane, which could safely be assessed higher than 2 rupees per acre.

66. And having weighed to the best of my ability the many circumstances affecting the question, I beg to propose rates varying from 5 rupees down to 12 annas per acre as the most suitable for the rice lands of Hángal, the higher rates above 2 rupees being for the superior kinds capable of being cropped at regular intervals

or occasionally with sugarcane, and the lower for soils capable of growing rice only, or a green crop of pulse in addition.

67. These are in effect the rates sanctioned for Bankápur which immediately adjoins Hángal on the north, excepting that in the latter instance they descend as low as 12 annas, whereas in the former 1 rupee was the limit. I do not wish it to be inferred from this, however, that the rice land of the two districts is on exactly the same footing. In point of markets, Bankápur enjoys a considerable superiority, as do many villages of Hángal in reference to the supply of water for irrigation. These circumstances will receive due consideration in determining the particular rate of assessment for each field. All other circumstances being equal, a Bankápur field would be assessed somewhat higher than one in Hángal on account of the higher price of produce in the former district; but this is but a single and not the most important element in fixing the actual rate, which, in both instances, would be chiefly determined by the quality of the soil and command of water for irrigation. In classifying rice land I have had these circumstances minutely enquired into and recorded; thus, in addition to the determination of the quality of the soil of each field, the portion of it suited to the growth of rice alone, or capable of producing a second crop of pulse or sugarcane, and if the latter the actual extent of this crop growing at the time of survey; the supply of water for irrigation, whether obtained from the ordinary rain, water courses led from the hills, large or small tanks, &c., are all minutely specified in the Classers' field books, and from a consideration of these particulars and others of a more general nature such as prices, &c., the rate of each field is finally determined. It would be a difficult, and, I think, needless, task to attempt to explain the exact weight allowed to each of these circumstances in settling the rate of the field; but it may be satisfactory to the Honourable the Governor in Council to know that the operation is in every instance performed by myself.

68. The effects of the rates on rice land proposed will occasion a reduction of the present assessment, but not to any very great extent. From the table given in my 58th para., it will be seen that the present average rate of assessment on the whole rice land in cultivation is Rs. 2-14-9, and, inclusive of waste, it is Rs. 2-12-8; whereas, I estimate the new assessment will yield an average rate Rs. 2-3-0 in the former case and Rs. 2-2-0 in the latter, which is equivalent in both cases to a reduction of 7 per cent. This is a moderate reduction, and it is with some hesitation that I venture on pitching the new assessment so high; but I have already stated my opinion that the existing assessment on the cultivated land of this táluk is not upon the whole very excessive, and I trust to an

equalization of the rates rather than to the absolute amount of reduction for the future progress of the district.

Garden Land.

69. I have now to dispose of the garden land of the táluk, which is not extensive, though it comprises the finest in the Collectorate. The crops grown are the same as those already mentioned in the case of Ránebennur, though the supári tree is more extensively cultivated, especially in the large garden village of Naregal in the Mahálkari's division, than elsewhere. The principal garden villages are Naregal, just mentioned, Alur and Hángal in the Mámílatdár's division, of which the two first are supplied with water from the dams on the Dharma River, described in a former paragraph.

70. The extent of garden land cultivated and waste, as also the present assessment of each portion, are exhibited in the subjoined statement, as obtained from the accounts of last year:—

GARDEN LAND IN CULTIVATION.			GARDEN LAND WASTE.			CULTIVATED AND WASTE.		
Acres.	Assessment.	Average Rate.	Acres.	Assessment.	Average Rate.	Acres.	Assessment.	Average Rate.
	Rs.	Rs. a. p.		Rs.	Rs. a. p.		Rs.	Rs. a. p.
395	7,484	18 15 0	59	1,093	18 8 0	454	8,577	18 14 0

From this statement it will be seen that little of the garden land is waste—59 acres only out of 454—and that the cultivated portion pays the high average rate of assessment of 18 rupees 15 annas per acre.

71. In my report on the assessment of Bankápur, I have explained the principles on which the garden assessment is intended to be settled, and proposed 15 rupees as the maximum rate of garden assessment per acre for the very best soils with the most ample supply of water. This was done on the consideration that these soils could not fairly support a higher rate of assessment if cultivated with annual crops, and that the higher rents paid by gardens cultivated as supári, betel and cocoanut plantations,

should be deemed in part made up of the additional profit required to replace the capital sunk in the formation of the plantations. Such, no doubt, is the case; but I have nevertheless since found occasion to modify to a partial extent my original conclusion. Gardens cultivated with superior products have generally a larger supply of water than is requisite for the production of sugarcane and other annual crops, and consequently the supply of water would not be fully taken advantage of, were the gardens devoted to the growth of the latter. And the quantity of land commanding the requisite supply of water for the superior products being limited, and not readily admitting of further extension, the products in question, while an effective demand for the whole crop continues, will yield to a certain extent a monopoly price, and the natural rent of the favoured spots on which they can be grown will consequently be higher than that of other gardens, where the supply of water is ample for sugarcane or fruit trees, but insufficient for betel and supári plantations.

72. What the excess of natural rent here alluded to may amount to, I am unable to determine; but there are some circumstances which induce me to think it considerable in the taluk under report. The condition of the garden cultivators of Naregal is decidedly prosperous, notwithstanding the high rents now paid by them, which amount, inclusive of money haks to the hereditary officers, to Rs. 28-11-0 per acre on the average. There are several gardens at this village assessed at rates varying from 30 to 43 rupees per acre exclusive of haks, which amount to 2 rupees 12 annas more, and yet seem to be discharged without much difficulty. The case with which these enormous rents are paid, however, is to be accounted for in part by the circumstance of the Naregal gardens being generally fully stocked with valuable supári trees in full bearing, and cultivated with great skill and economy. The garden assessment of this village was originally even higher; but was reduced in 1842 on account of the oppressiveness of the rates, so that we may conclude with safety that the present assessment approaches the limit capable of being paid by the most favourably situated gardens in full bearing. In Alur and Hángal the rates are nearly as high. In the former village inclusive of haks, which may be valued at 2 rupees 8 annas per acre, the average on the whole garden land in cultivation is Rs. 25-3-0 per acre. The cultivators here, however, are not so well off as those of Naregal, nor are their gardens so fully stocked with trees; but their condition is at least as favourable as that of the generality of cultivators in the district.

73. These and other considerations lead me to conclude that the maximum rate of 15 rupees per acre, fixed for the assessment

of the gardens of the Bankápur Táluk, would advantageously admit of some increase in the case of Hángal, and I beg therefore to recommend for the latter a maximum rate of 20 rupees per acre for the most favourably situated gardens in respect of soil and water, as, for instance, in the case of some of those at Naregal, which are at all times abundantly supplied with water from the tank and require no aid from wells at all. The inferior rates would be determined, as in Bankápur, on an estimate of the relative value of each garden determined with reference to its soil, command of water and situation.

74. There are very few gardens in this táluk wholly watered from wells; but for such as exist, I have to propose the same maximum of 5 rupees per acre sanctioned in the case of all the táluks of this Collectorate hitherto settled.

75. The assessment resulting from the rates proposed will amount to about 6,000 rupees, at an average rate of 13 rupees 4 annas or thereabouts. The reduction of the existing assessment will be somewhat less than one-third, which is not, in my opinion, greater than is requisite to place the garden assessment on a proper footing with reference to the standards adopted for other descriptions of land, and to afford due encouragement to the extension of this valuable description of culture. The beneficial effect of the reduction of the garden assessment in Bankápur is already apparent. Most of the waste gardens have been taken into cultivation, and several new plantations of betel and supári have been formed and are now in course of formation. Similar results will, it may be confidently predicated, follow the reduction in Hángal.

Lands covered with Jungle.

76. I have stated in my 32nd para. that there is a considerable extent of land in the western parts of this district covered with dense jungle. This land it would have been a useless and almost impracticable task to divide into fields and classify in the ordinary way, owing to the dense impervious nature of the jungle. In its present condition this land is quite unsuited for tillage, though the soil may generally be considered arable. These jungle tracts have been measured off into plots of any size found most convenient, and the soil has not been classified at all. They will be entered in the survey papers as unarable, and no assessment be placed on them. Small patches here and there may be found cleared and cultivated on the Kumri system, which is similar to the Dulleh-ran of the Deccan. The jungle is cut down and burnt on the ground from which a crop is obtained for one or two sea-

sons in succession, when the soil becomes exhausted and is thrown up for another piece of jungle to be treated in the same way. This description of husbandry was never, however, extensively practiced in this taluk, and of late years has become still more restricted owing to the land being made subject to the ordinary assessment, when discovered at the annual inspections to be in cultivation.

77. As population increases and the present extent of cleared land becomes insufficient for its wants, these jungle tracts will, in all probability, be appropriated and brought into regular tillage, for which some of them are well suited; and all that appears necessary to be done at present, is to take care that no obstructions are placed in the way of such a consummation. And this object, I think, will be sufficiently attained by continuing the present plan of allowing the ryots to clear and cultivate any portion of the jungle (unless set apart for the growth of timber) on the payment of an assessment equivalent to that of dry-crop soils of the same quality in cleared parts of the village, the extent of land so cultivated to be determined by measurement at the annual inspection of the village lands, and the rate of assessment to be levied on it settled at the Jamábandi. The grazing of the uncultivated portions of these jungle plots should be sold as in the case of ordinary waste lands. The plan of management I have here in view is that recommended in rules 13 to 16 of those following the 84th para. of a joint report of the several Superintendents of Survey, dated 3rd August last, to the address of the Revenue Commissioner, S. D., which is, I believe, now under the consideration of Government. The extent of the jungle capable of being eventually brought under tillage is probably not less than 10,000 acres; though from the circumstance of the land not having been classed the point cannot be stated with certainty.

78. I have now completed the statement of my proposals for the re-assessment of Hángal. The rates, as in other instances, are intended to absorb all levies made by the hereditary officers, which have been valued by them at Rs. 5,049, for which a liberal commutation would not probably exceed Rs. 4,000. They also include the taxes on sheep and the sale of the produce of fruit trees, the former of which last year yielded a revenue of Rs. 89, and the latter of Rs. 128.

79. The full survey rental of the whole Government land, I estimate, will amount to Rs. 1,12,000 in round numbers, viz., dry-crop land Rs. 65,000, rice land Rs. 50,000, and garden land Rs. 6,000; and a comparison of this rental with the average of past realizations, so as to show the possible increase of revenue under the new settlement, is given in the following statement:—

Periods.	COLLECTIONS ON ACCOUNT OF			Total collections on account of Government land.	Estimated Survey Assessment of Government land.	Excess of Survey Assessment over collections of past years.	
	Cultivated land as per Diagram.	Grazing, sheep tax, fruit trees, &c., not in Diagram.	Haks of Hereditary Officers not in Diagram.				
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Per cent.
Average of last 22 years ..	61,361	1,199	4,000	66,560	1,12,000	45,440	68½
The year 1846-47	56,876	3,208	-4,000	64,084	1,12,000	47,916	74½

80. The new assessment, it is thus seen, affords ample scope for financial improvement, but its immediate effect will however occasion some sacrifice of revenue. I estimate the survey rental on the cultivation of last year together with the revenue of grazing land at Rs. 48,000, which is Rs. 16,000 or 25 per cent. below the realizations of the same year inclusive of the value of haks. The immediate financial result may therefore be a falling off in the revenue to the extent of 25 per cent., but in consequence of waste being taken into cultivation in anticipation of the new settlement, the deficiency is not likely to be so considerable. And if the new assessment answer my expectations, the revenue will, in the course of a few years, attain its old standard, and thereafter range considerably above the average realizations of the last twenty-two years; a prospect, which, on taking into account the present low prices of agricultural produce and the probability of their experiencing still further depression, seems to me as satisfactory as could well be looked for under the circumstances.

81. The rates which have been proposed are also intended to be applied to alienated lands contained within the limits of Government villages, as explained in my 27th para. in the case of Ránebennur. The extent of these alienations in Hángal is as follows:—

Tenure.				Area.
				Acres.
Judi	...	...	...	27,195
Sarwa Inám	...	...	...	10,543
Mahál Judi	...	...	...	7,077
Service Inám	...	...	...	2,421
Total ..				47,236

The average revenue derived from alienated lands for the last 22 years is entered in the statement of collections for this táluk contained in my appendix at Rs. 35,252, of which Rs. 35,205 fall upon the 27,195 acres of Judi land entered in the above statement, which gives an average rate per acre of Rs. 1-4-8. The average rate of the survey rental on the whole Government arable land of the táluk irrigated and unirrigated is about Re. 0-15-6 per acre, or twenty-five per cent. less than the present Judi rate; but, as the land of the hereditary officers contains a larger proportion of irrigated land than that of Government, and is at the same time of superior quality, I believe that the decrease of Judi from the application of the survey rates will be very trifling. Exclusive of the Judi revenue obtained from Government villages entered in the statement of my appendix, about 15,000 rupees are annually paid by the district officers for the numerous inám villages held by them in this táluk in addition to their ináms in Government villages, entered under the head of Mahál Judi in the preceding statement. The Mahál Judi revenue will not be affected at all by the introduction of the new assessment.

82.- In order to complete the subjects embraced by this report, I have still to dispose of the assessment of the Tadas Division of the Hubli Táluk, which need not however be treated in much detail, as, in most particulars, it bears a strong resemblance to Hángal. The Tadas Division is composed of a belt or strip of villages lying for the most part north and south of the town of Tadas. The more southerly villages situated to the north of Hángal and immediately west of Bankápur, are those proposed to be transferred to the latter district in my report on its assessment. The division should contain according to the accounts 66 villages, of which one has been already surveyed and assessed with the villages composing the Mámlatdár's division of the táluk, and nine are alienated, but subject to the payment of

Judi. The ancient maháls to which these villages belong are shown in the annexed statement :—

Name of Mahál or old Division to which the Villages belong.	NUMBER OF VILLAGES.		
	Government.	Alienated.	Total.
Tadas	44	9	53
New Hubli	11	...	11
Old Hubli	1	...	1
Karadgi	1	...	1
Total	57	9	66

83. The present survey, however, reduces the Government villages of the Tadas Mahál to 42, as no trace can be found of Tadikop and Khurd Narayanapur, which once formed part of the mahál. The lands of these villages have not been in cultivation within the memory of man, and, lying somewhere in the dense jungle, all recollection of their position and boundaries have in the course of time been lost. The district hereditary officers, when applied to on the subject, have failed to point them out, but state that they have been included within the limits of Hosur, a Hángal village. Whether this is the case or not we have no means of ascertaining, though the probability is that the missing lands have been measured into those of surrounding villages. The number of Government villages to which my present proposals relate, is therefore reduced by these lost villages and that of Sheriwad in the mahál of new Hubli, already surveyed and assessed, to fifty-four. And of these lost, the lands of two villages Karkikóp and Mawakop are wholly uncultivated and overrun with jungle. Those of the remaining fifty-two villages are all cultivated to a greater or less extent.

84. The climate of the Tadas Division is very similar to that of Hángal, though the portion of it well suited to the growth of dry-crops is limited to the single village of Hale Taralgat, which occupies a detached position some miles to the east of the rest of the district, and in the midst of villages of the Bankápur Táluk. With this exception, the unfavourable influence of excessive rain on the dry-crop cultivation is observable throughout the whole of the division.

85. In respect of markets and prices of produce, Tadas enjoys some advantage over Hángal. In both cases the chief exports consist of rice and jágri, and are made in a northerly direction. The bázár of Dhundshi, itself a Tadas village, is the great mart for these products in the case of great part of Hángal and the southern villages of Tadas, and is much more conveniently situated for the ryots of the latter. Dhundshi, though itself an inconsiderable village, and without any wealthy traders, is perhaps the most important bázár in the Collectorate, south of Hubli. It has sprung up within the last thirty years, and owes its success to its favourable situation for the exchange of the products of the dry-crop region to the east and north, with those of the rainy rice-growing districts lying south and west of it. A detailed account of its trade and of the Tadas district in general is given by my Assistant Lieutenant W. Anderson in the letter quoted in margin,

To Superintendent,
dated 2nd July 1846.

copy of which accompanies this report. In addition to Dhundshi, there are bázárs at Tadas and Arlikatti, the latter being chiefly resorted to by the cultivators of the northern villages, who also occasionally take their produce to Hubli for sale. The road now in course of construction from the latter town to join the Kumta road at the Madras frontier passes through the northern half of Tadas, and will afford additional facilities for the disposal of its produce.

86. The manufactures of this district are almost confined to a few of the northern villages, in which common descriptions of cotton and woollen stuffs are made, chiefly for disposal of at the Arlikatti bázár.

87. As in Hángal so in Tadas the irrigated husbandry is of most importance, the revenue derived from it last year being 11,216 rupees while that from unirrigated land was only 6,959 rupees. The wet land is nearly all of the description classed as "rice land," the gardens being limited to a few acres in three villages.

88. I have given a diagram of cultivation and collections on the opposite page for the Government land of the 54 villages for which I am about to propose rates of assessment, and which is in all respects similar to those given in a previous part of this report for the táluks of Ránebennur and Hángal, except that it only embraces a period of 22 years, in consequence of the accounts for the early years of our administration being incomplete. The most remarkable circumstance connected with this district is the absence of remarkable fluctuations either in the extent of land cultivated, or in the amount of revenue realized from it, throughout the period embraced by the diagram. With

the exception of the years 1834-35 and 1836-37, the one of excessive and the other of deficient collections, the realizations of the remaining years do not differ in any considerable degree from the average of the whole period indicated by the red horizontal line drawn across the diagram. The fluctuations in the cultivation have been even less considerable, and for the last twenty years the difference between the cultivated area of any two successive years has rarely exceeded 500 acres out of 14,000 to 15,000 under tillage. This singular steadiness in the cultivation and collections is to be attributed, in my opinion, to the comparative certainty of rain, and to the large proportion of irrigated land in this district. It is remarkable under these circumstances that cultivation should not have extended under our rule; for we might infer that the numbers of the population must have been greatly increased within the last thirty years. This, however, seems doubtful, and the cause, as in Hángal, must be sought for in the prevalence of fatal diseases. My Assistant Lieutenant W. Anderson is of opinion that "the population is gradually and generally decreasing, cholera and small-pox being the most active agents in effecting this decrease," and, though unable to admit so startling a conclusion without stronger evidence of its

16th para. of his
letter to Superintendent
quoted above.

correctness than we have now the means of obtaining, there is sufficient to show that the mortality in this district is unusually great. To this cause no doubt the stationary condition of the cultivation is in some measure due; but it is also, in my opinion, fairly traceable in part to over-assessment, especially in the case of waste, now generally burdened with the full standard rate which is usually so high as to present an insurmountable obstacle to the land being brought under tillage.

89. As regards the dry-crop rates of assessment, I propose to have four classes of villages, as in Hángal, on account of difference in climate, the rates of the 2nd, 3rd and 4th classes being lowered in the same manner, as the fall of rain became more and more excessive for the dry-crop husbandry. The villages of the Tadas Division are situated for the most part immediately west of those of Bankápur, and the most northerly ones abut on the Mámlatdár's division of Hubli, both of which have been already assessed, the maximum rates in both instances being Rs. 1-8-0 per acre for dry-crop soils. As respects prices, Tadas may be considered on an equality with the northern villages of Bankápur, but somewhat less favourably situated than the Mámlatdár's division of Hubli. The latter difference, however, is very slight, except in the case of the villages immediately around the town of Hubli, in which the maximum rate was raised to 2 rupees per acre; in

consequence of the advantages derived from their proximity to the latter town. It would appear, then, that in reference to prices, the standard of assessment may fairly be made the same in Tadas as in the districts just mentioned, and having found no reason to be dissatisfied with that actually adopted for the latter, I beg to propose the same maximum of 1 rupee 8 annas for the assessment of the dry-crop land of this division. This maximum, it will be understood, however, will only apply to the 1st division, consisting of the single village of Taralgat, in which the climate is favourable for dry-crops. The climate of the rest of the division is not so well suited for these, as that of Bankápur and the Mámlatdár's division of Hubli, and to meet this disadvantage the rates of the remaining three divisions will be lowered as in Hángal by the scale exhibited on the diagram referred to in my 52nd para.

90. The extent of dry-crop assessable land in the four divisions just referred to, and the present average rate of assessment on the cultivated portion of it, together with the probable results of the proposed rates, are exhibited in the annexed table :—

Number of group.	Number of villages.	FROM REVENUE ACCOUNTS, 1846-47.				ESTIMATED RESULTS OF PRESENT SURVEY.		
		Total area of dry-crop land in acres.	Cultivated portion of dry-crop land in acres.	Realized assessment on cultivated portion.	Average rate of assessment per acre.	Total area of dry-crop land in acres.	Total assessment of dry-crop land.	Average rate per acre
1st	1	795	727	Rs. 1,569	Rs. s. p. 1 15 10	795	Rs. 894	Rs. s. p. 1 2 0
2nd	24	12,849	7,397	4,818	0 10 5	12,849	9,235	0 11 6
3rd	19	14,190	2,169	536	0 3 11	13,000	4,875	0 7 0
4th	10	6,415	269	45	0 2 9	5,500	1,719	0 5 0
Total ..	54	34,249	10,612	6,969	0 6 4	32,144	16,723	0 8 3

91. From this statement it appears that the proposed rates will occasion an increase of the dry-crop assessment in the division generally, and also in each of the groups of villages, with the exception of the first. The increase, however, is most apparent in villages with a considerable extent of irrigated land, while the assessment of all those nearly in which the cultivation is chiefly dry-crop, will be reduced by the proposed rates. This I attribute to the fact of the dry-crop land having been held of little account in villages with any considerable extent of rice land, upon which it was the practice of the Native Governments to lay the bulk of the assessment, allowing the cultivators the privilege of holding in

addition a quantity of dry-crop land, either rent-free, or at merely nominal rates. No revision of assessment has taken place under our Government in any of the districts affected by the proposals contained in this report, and the assessment that obtained when we took possession of the country, though frequently modified in particular cases at the discretion of the local authorities, still forms the basis of the revenue settlements. In many of the Tadas rice villages, the existing average rate of dry-crop assessment is under 2 annas an acre, and in some under 1 anna, which is considerably less, I am convinced, than the land will let at for grazing purposes under the new settlement. It would be a mistake, then, to infer that the proposed rates are unsuitable, because higher than the existing dry-crop rates, and it is to be recollected that, under the new settlement, the cultivator will be at liberty to convert his dry-crop land into rice grounds without becoming liable to any increase of assessment. It must be admitted, however, that from the want of anything like precise data for estimating the deteriorating influence of excessive rain on the unirrigated husbandry, the fixing of the dry-crop rates of assessment is attended with peculiar difficulties, in this division as well as in Hángal, and I bring forward my proposals with considerable diffidence, viewing them in the light of an experiment whose value will have to be decided by the results of future experience.

92. The rice lands of Tadas are in all respects similar to those of Hángal, the best being situated under tanks, in which the supply of water remains for a sufficient period to admit of sugarcane being raised as an alternating or occasional crop in addition to rice. Their extent according to last year's accounts, is 5,874 acres, of which 3,422 acres were cultivated and 2,452 acres was not. The realized assessment of the cultivated portion as already stated was Rs. 11,216, which gives an average rate of Rs. 3-4-5 per acre, being nearly 5 annas in excess of the present average rate for the same lands in Hángal, as will appear from an inspection of the table given in my 58th para. The present rates range from 10 rupees and upwards down to a few annas. I have already brought to notice the similarity of climate between Hángal and Tadas and no alteration in the assessment of the two districts is necessary on this account.

93. But the prices of irrigated produce, owing to the causes already detailed in my 34th para., run higher in Tadas, and the difference, though not great, is sufficient in my opinion to warrant a corresponding distinction being made in the rates of assessment. It would only confuse my argument to adduce returns of prices in the different bázárs, which abound with irreconcilable discrepancies, and I shall therefore content myself with stating my own opinion

formed after careful enquiry, that the prices of irrigated produce obtainable by the grower average about 10 per cent. higher in Tadas than in Hángal, and on this account I propose to increase the maximum rate of 5 rupees per acre fixed for the latter district to 5 rupees 8 annas in the case of the former, the inferior rates being also raised in the same proportion. The effect of these rates would be to produce an average rate of about 2 rupees 2 annas per acre on the whole rice land, and 2 rupees 4 annas on the cultivated portion, which is equivalent to a reduction of 30 per cent. on the existing assessment. This reduction is about .5 per cent. greater than in the case of the Hángal Táluk (*vide* 68th para.); but is still moderate, and appears to me fully justified by the circumstances of the district in which cultivation has not extended, and there would appear to have been little increase of agricultural capital since it came into our possession thirty years ago.

94. The garden assessment does not require more than a passing allusion, as the extent of this land is quite insignificant, being under 15 acres in all. It is not of a very valuable description, as the tank at the village of Gangélur under which most of it lies is very inferior to many in Hángal and Bankápur. The highest rate will be 10 rupees per acre for the best gardens under this tank, and 5 rupees in the case of well gardens of which there are one or two in the district, the latter being the rate which has been adopted throughout the Collectorate.

95. Lands covered with jungle will be entered in the Survey Registers as unarable, and managed as described in my 77th para. with reference to those of Hángal.

96. The new assessment will absorb the haks of the village and district officers, as in other táluks. These are estimated at 1,934 rupees, for which we assume 1,500 rupees as a liberal compensation. The sheep-tax, which realized 89 rupees last year, and any portion of the fruit-tax obtained from land in cultivation, will also be abolished by the new mode of management, under which the whole waste with the exception of small portions allotted for free pasturage is sold annually, and the produce of all fruit trees standing in cultivated land is reserved to the holder.

97. I have yet to state the general result of the rates which have been proposed. The full standard survey rental of the whole Government arable land of the division may be estimated in round numbers at 30,000 rupees, of which 17,000 form the assessment of dry and 13,000 that of wet lands. This of course forms the possible limit of the land revenue under the new settlement, and,

it is hardly necessary to add, the actual collections will always fall considerably short of it. The new rental, compared with the average of past collections and with those of last year, is exhibited in the annexed statement :—

Periods.	COLLECTIONS ON ACCOUNT OF			Total collections on account of Government land cultivated and waste	Estimated Survey Assessment of Government land.	Excess of Survey Assessment over collections of past Years	
	Cultivated land as per Diagram.	Grazing, sheep-tax, fruit trees, &c, not in Diagram.	Haks of Hereditary Officers not in Diagram			Rs.	Per cent.
Average of last 22 years	Rs. 20,467	Rs. 877	Rs. 1,500	Rs. 22,844	Rs. 20,000	Rs. 7,656	34
The year 1846-47	16,701	1,828	1,500	21,029	20,000	7,971	36

98. The proposed assessment will thus admit of a possible increase of land revenue to the extent of 34 to 36 per cent., and, though this will never be attained, it yet affords a sufficient margin beyond the average of past collections to allow of the revenue improving to some extent under its operation. The immediate effect of its introduction will of course be shown in a diminution of the revenue, but not to any great extent. On the same extent of cultivation as in 1846-47, I estimate the land revenue under the new settlement would be about Rs. 16,600, which is Rs. 3,900 or 19 per cent. less than the revenue of that year; though in consequence of an increase of cultivation in anticipation of the new settlement, it is probable that the actual deficiency will be even less considerable.

99. The only remaining item of revenue that will be affected by the settlement is that derived from alienated lands, which is shown, by the statement for the Tadas Division given in my appendix, to have yielded on the average of the last 22 years Rs. 11,295, and last year Rs. 10,295. The extent of alienated land in the 54 villages of the division to which my proposals refer is shown in the subjoined table :—

Tenure of alienated land.	Arable area in acres.
Judi	9,714
Mahál Judi	3,297
Sarwa Inám	3,023
Service Inám	1,092

100. The revenue above shown falls almost exclusively upon the 9,714 acres of Judi land entered in the table, which belong

to the village Patels and Kulkarnis. A reduction will only be made when the present Judi of any village officer exceeds the survey assessment of the entire service lands, whether Judi or Sarwa Inám, attached to his office, in which case the excess would be relinquished and the land become subject to the ordinary assessment. It is impossible to state exactly the amount of these reductions until the introduction of the new settlement, when an examination into each individual case will be made. The sum now paid as Judi yields a somewhat higher rate per acre of assessment than that proposed for the Government land; but the Judi land is generally of superior quality and contains a larger proportion of rice grounds; so that its assessment according to the new rates will probably not fall short of what is now paid, upon the whole, though it will do so in individual instances. In addition to the revenue entered in the statement of collections above referred to, upwards of Rs. 5,000 are paid by the district hereditary officers as Mahál Judi for the land entered under that head in the preceding table, and nine entire villages besides held by them in inám. This revenue will not be affected at all by the new settlement.

101. I have now completed my proposals for the re-assessment of the táluks of Ránebennur, Hángal and the Tadas Division of Hubli, and, before concluding, have only further to request the sanction of the Honourable the Governor in Council to the new settlements being declared incapable of increase for the usual term of thirty years.

102. I fear it may be thought that the information given on many points connected with my proposals may be considered too defective to admit of their merits being satisfactorily determined by parties at a distance having little personal acquaintance with the districts described; but I could not have entered into greater detail without extending beyond due limits the present communication, and incurring perhaps the risk of obscuring instead of elucidating the discussion by an over accumulation of facts and illustrations. With the view, however, of meeting this objection in part, I have given in an appendix copies of reports by my Assistants under whose charge the survey of the districts in question was effected, which contain a variety of interesting and valuable information respecting their peculiarities and present condition, and will, I hope, be found to supply many of the deficiencies observable in my own observations.

103. I had it in contemplation to submit at this time proposals for some re-adjustment of the territorial distribution of villages amongst the several Kacheris, as was done in my last assessment report in the case of Bankápur, but I think this will

more appropriately form the subject of a separate communication and had better be delayed until after the transmission of my next assessment report, which will contain proposals for the settlement of all the remaining unassessed portions of Dhárwár. By this course I shall be enabled to treat the subject more satisfactorily by bringing into one report the whole of such changes contemplated for the final settlement of the entire Collectorate.

I have the honour to be,
 Sir,
 Your most obedient Servant,
 G. WINGATE,
 Superintendent, Revenue Survey and
 Assessment, Southern Marátha Country.

Accompaniment No. 1.

No. 3 of 1846.

FROM

LIEUTENANT G. S. A. ANDERSON,
 Assistant Superintendent, Revenue Survey and
 Assessment, Southern Marátha Country ;

TO

CAPTAIN G. WINGATE,
 Superintendent, Revenue Survey and
 Assessment, Southern Marátha Country.

Camp at Dhárwár, 29th August 1846.

SIR,

With reference to your letter No. 59 of 15th April last, I
 Ránebennur Mahál have the honour to submit the following
 Ránebennur Táluka. remarks on the Mámlatdár's Division of the

2. The above district is situated in the south-eastern corner
 of the Dhárwár Collectorate, and contains
 Dimensions. about 235 square miles. Its figure is rather
 irregular. Taking as a line the main road from Dhárwár to Hari-
 har, which runs through it, its length from north-west to south-
 east is $26\frac{1}{2}$ miles, its breadth varies from $2\frac{1}{2}$ to 16 miles, being

narrowest towards the north. It is bounded on the west by the
 Boundaries. Kod Táluka, on the south and east by
 the Tungbhadra River, and its branch the
 Kumadvati; the former separating it from the Mysore territory
 and on the north-east from Airni on the banks of the river, to
 Motebennur by the Gutal Mahal.

3. From the great scarcity of trees and the rocky and sterile
 Aspect. character of a considerable portion of its
 surface this district presents nearly through-
 out a bare and uninteresting appearance. It is traversed in several
 directions by ridges of barren hills of no great height. Those
 Soil. stretching from Karrur to Airni are the
 most prominent. The soil is various. With
 the exception of some land near the river, and an open level tract
 situated between the hills of the Gutal Mahál and the town of
 Ránebennur, the country to the eastward of the road consists
 of hilly or undulating ground, of which a small portion only is fit
 for tillage; the remainder, though in parts rocky, is generally cover-
 ed with a thin coating of earth and affords a scanty pasturage for
 cattle and sheep. This bleak surface extends here and there to
 the westward of the road, but a short distance beyond, and
 stretching towards the Kod Táluka there is a considerable tract
 of good soil, principally black, the greater portion of which is level,
 but a few hills are to be met with. There is a small ridge from
 Khuskur to Bisarhalli, a distance of about 7 miles, which is
 continued in a north-westerly direction into Kod. There are
 also hills at Kadarmandalgi, Yericupi, &c.

4. The climata of this part of the zilla appears to be
 Climate. favourable both with regard to health and
 cultivation. The variation of the tempera-
 ture is not great. The heat is more intense than in the country
 to the westward towards the Gháts, but I am led to think that
 there is less sickness. This perhaps is owing to the deficiency of
 vegetable decomposition and consequently a greater freedom from
 miasma. Fevers of an intermittent nature prevail at the commence-
 ment of the rains and during the cold weather, but are generally
 of a mild character. Guinea-worm is common, though not to the
 same extent as in some other of the Dhárwár Districts. Of late
 years cholera has committed great ravages, but this scourge is not
 at all peculiar to this locality. The town of Byádgi, where there
 is a largely frequented bázár seems to have suffered most from it
 this year.

5. Droughts are not of frequent occurrence. The natives
 Seasons. enumerate no less than 27 different falls of
 rain during the year, the names of which

I do not consider it necessary to detail. Of these 5 are required for the sowing of the Mungari, and 5 for the Hingari crops. There is sometimes a deficiency in the latter, but the former seldom fail and on the whole the average fall of rain is good, and, except in seasons of general failure, sufficient for agricultural purposes.

6. I shall confine my remarks on the agriculture to the
 Cultivation. jiráft or dry cultivation, the very small quantity of irrigated land, including a patch of bágáft under the Ránebennur tank and a few gardens and rice lands at some of the other villages, not affording sufficient data to report on with any certainty. The system of cultivation prevalent here embraces both Mungari and Hingari crops, the staple productions being millet, cotton and the chilly or capsicum. There are many other grains and plants grown, such as náchni, wheat, gram, the castor-oil plant, tobacco, &c., but as they are not cultivated to any great extent, many of them not sufficing for the consumption of the district, I do not deem it necessary to enter into detail regarding them.

7. Millet or jowári is the most extensively cultivated crop,
 Millet. the grain forming the principal food of the cultivators, and the straw supplying fodder for their cattle. About eight varieties of the plant are grown here. The early or Mungari kinds are sown in the month of July and the late or Hingari in October, the former being reaped from October to December and the latter in February and March. Along with the Mungari jowári is generally sown in every fourth row, or drill, dall tugari, kulti, huruli and matki and occasionally with the latter, agsi, or the lin plant.

8. The cotton crop ranks next in importance. The seed is
 Cotton. sown in September, and the cotton is picked in February and March. To secure the whole crop there are generally three pickings at intervals of about 15 days. The cotton is generally purchased in an uncleaned state by the sowkárs. Sometimes the crop is sold when standing. The seed is considered to be nourishing food for cattle, and the plants, when the cotton has been gathered, are used as thatch for stacks, as fuel, and are also sometimes mixed with other ingredients to form manure. I have no means of estimating correctly the quantity of cotton grown, but I should think that not less than half the produce is used up by the weavers of the district, the remainder being exported by the Ránebennur sowkárs to Kumta and the Mysore country.

9. The chilly is principally grown in the villages bordering on Kod in the western portion of the mahál. Chilly. The rich soil called Marrikat seems best adapted for its cultivation. The seed is sown in June, and the young plants are removed to the field in July, manure being applied to each root. The pods are picked as they ripen in December and January, and after being for some time dried by exposure to the sun are taken to Byádgi for sale, and thence exported to Nárgund, Navalgund, the Bellary Zilla and Mysore.

10. No very regular system of cropping appears to be established in this part of the country. A two years' rotation is considered by the cultivators to be a sufficient relief to the soil, and is generally practised. In black soils, alternate crops of jowári and cotton are generally sown. In some villages jowári, náchni, or gram is sown the second and cotton the third year, but any modes of cropping beyond a rotation of two years do not seem to be general.

11. The importance of sustaining and increasing the fertility of the soil by the application of manures is better understood. Rich land is manured every fourth or fifth, and sloping or poor land every second or third year. A field is considered to be properly manured at the proportion of 10 or 12 large cart-loads to the acre. This quantity, however, is seldom procurable, and in some villages the supply is very scanty. The result of inquiries I caused to be made at several villages as to the amount actually applied, this year gives an average of about four and a half cart-loads to the acre, but as the ryot manures only a portion of his field each year, it is rather difficult to make a very accurate statement: a larger quantity of manure is generally applied to the land situated nearest the village on account of the less expense and labour required in carting it. Other modes of manuring are resorted to. Flocks of sheep are occasionally hired for a short time for this purpose, and as these animals are known to leave their droppings on the ground the moment their rest is disturbed, the result of this observation, I may remark, is not lost on the ryots, who turn it to advantage by entering into their agreements with the shepherds that the sheep at night should not be allowed to rest more than an hour or two in one place, but be moved on from time to time for the reasons alluded to. The rich sediment obtained from the beds of some tanks and nálas is also made use of. Manure is commonly spread on the field and ploughed into the soil, but the poorer ryots in sowing jowári and other grains sometimes mix it with the seed.

12. Most of the working bullocks are imported from Naikenhatti and Bangalore in the Mysore country. Large numbers are brought thence for sale in the Dhárwár Collectorate. The purchaser of a bullock generally pays for it in three yearly instalments, and the prices thus paid commonly range from 20 to 40 rupees.

13. The body of the population is engaged in agriculture and is principally composed of the Lingáyat caste. The ryots are a well disposed, intelligent, and industrious class, and possess a greater amount of shrewdness than a casual observer would give them credit for. They are not wanting in the spirit of enterprize, but this has been hitherto somewhat checked by their having no permanent interest in the land they cultivate, and they are consequently reluctant to invest their hard earned savings in its improvement. In most villages the quantity of stock is insufficient for the proper cultivation of the lands attached. Some villages are better cultivated than others. Ryots of Hulihalli and Assundi are spoken of as the best, as having a larger amount of stock and cultivating more within their means and with greater care than is generally the case.

14. There are six market towns in this mahál, viz., Byádgi, Ránebennur, Hulgeri, Bisarhalli, Airni, and Kadarmandalgi; of these the two first are thriving towns, having a considerable trade and manufacture. With the exception of Byádgi, the bázárs of the above towns are not much frequented and are merely held for the retail of such articles as are required to supply the wants of the surrounding villages. The Byádgi bázár is more for wholesale traffic, and from its central position has become the principal depôt for supplies in this part of the country, and is much resorted to by traders from various quarters.

15. Cotton stuffs suitable for the different articles of native dress, such as rumáls, dhotras and sáris, are manufactured in considerable quantities throughout the principal towns. They are of various colours and different degrees of texture, though generally of a coarse description. There is a good demand for them, principally for internal consumption, but they are also exported to Mysore and Kánara.

This manufacture employs a large number of weavers. About 400 looms are worked in Ránebennur, Byádgi has 250, Hulgeri 140, Airni 74, Bisarhalli 69,

and there are a few more in some of the smaller villages. Besides cotton goods, some of the more expert of the Ránebennur weavers manufacture a few of the silk cloths called "Pitáunbars," the raw silk being imported from Mysore.

Silk stuffs.

16. The only other manufacture worthy of mention is that of camlies. The small coarse article in common wear by the poorer ryots and labourers throughout the country is made in almost every village by the Kurburs or shepherds, and is sold by them on market days in all the bázárs. The price varies according to the size or quality of the article from 6 annas to a rupee and a half; black, white or check camlies of a much finer texture and larger size are procurable in several of the townes. The best kinds are made at Airni, where there are about 39 looms employed in the manufacture. A good many of these camlies find their way to Dhárwár and other parts of the zilla, where they are valued on account of their superior quality, large size, and durability. Some of them cost 5 rupees or upwards. The wool used in their manufacture is principally supplied from the sheep of the district, but it is sometimes mixed with a finer sort, which is imported from the Bellary Zilla. I may remark that many camlies sold under the name of Ránebennur manufacture are brought to Airni from the neighbouring market town of Dawangeri in Mysore, and thence exported.

Camlies.

17. The trade of the mahál centres in Ránebennur and Byádgi, and is principally in the hands of the sowkárs residing in these towns, several of whom are wealthy, and not only export the produce of the táluka, but carry on a considerable exchange trade between Bellary and Mysore on the one side, and the Dhárwár districts and Kánara on the other. I estimate the annual amount of the trade of Ránebennur at 2,00,000 and that of Byádgi at 90,000 rupees. The following

Trade.

Annual amount items. are the chief items:—1st, cotton and silk stuffs and camlies manufactured in Ránebennur or brought from Advani, Hospet, Yemganur, Pudatur, and other towns of the Bellary Zilla for export to Haveri, to the Kod and Hángal tálukas to Mysore and Kánara; 2nd, raw cotton, the produce of Ránebennur or the Bellary Districts principally for export to Kumta, a small quantity is also exported to Narsipur and Bangalore in Mysore; 3rd, betelnut, jagri and sugar from Anawatti, Sorub, and Shikárpur in Mysore, and from the Kod and Hángal tálukas for home consumption and export to the Bellary Zilla, also to Harihar and Dawangeri; 4th, rice from Chick-Kerrur and Housebavi in the

Kod Taluka, and from the Nagar Division of Mysore, for home consumption, and export to Harpanhalli and other towns in the Bellary Zilla, also to Harihar and Dawangeri; 5th, chillies brought from the villages of Kod and Ránebennur, to Byádgi, and thence exported to Nargund, Navalgund, Shirhatti, and Lakshmeshvar also to the Bellary and Mysore Districts; 6th, raw silk from Honhalli, Bangalore, and Kunigal in Mysore, partly consumed by the Ránebennur weavers, and partly exported to Hubli and Lakshmeshvar; 7th, indigo, from Pudatur in the Bellary Zilla, for home consumption, and export to Tuminkatti, Karajgi, Shigli, and Lakshmeshvar; 8th, wheat and gram brought to Byádgi from Navalgund, Nargund, Shirhatti and Lakshmeshvar, for home consumption, and export to the Bellary Zilla, also to Harihar and Dawangeri; 9th, cocoanuts and tobacco from Dawangeri for home consumption, and export to Hubli, Dhárwar and Dhundshi; 10th, salt from Kumta and Dhundshi, for home consumption.

18. The remains of embankments visible at many villages prove that tanks were at some former period pretty numerous in this mahál. Since the acquisition of the country by the British Government, however, no measures seem to have been adopted either with the view of building new ones, or even of preserving those already in existence. This is the more surprising as not only would the health, comfort, and prosperity of the inhabitants be very greatly increased by a good supply of water, but the outlay would soon be more than repaid to the Government from the greatly enhanced value of the land brought under irrigation. At present the Ránebennur tank is the only one of any size. It covers a large area, but no provision having been made to prevent its filling up, or for having it properly cleaned out, it has become very shallow and dries up in the hot season. From its great extent it would now prove a work of great labour and expense to deepen it so that a sufficient supply of water might be retained throughout the year. In the hot months in most of the villages water is obtained from wells and from holes dug in the beds of nálas, but in many cases the supply is neither good nor plentiful. The villages of Motebennur, Bidri, Yericupi, Gudhapur and others are badly off in this respect.

The Tungbhadra River forms the boundary of the mahál from Mudenur to Airni and is here about 420 yards wide with high banks. It is easily fordable except during the rains. It is not throughout this portion of its course made available for the purposes of irrigation.

19. The principal place of religious resort, both for Hindus and Lingáyats, is the village of Dewargudh or Guddguddápur, which is situated on a small hill $5\frac{1}{2}$ miles to the north of Ránebennur; it contains a temple dedicated to Maular-Ling, who is said to be the same as the Marátha god Khandéráo) an *avatár* or incarnation of Shiva. Large “*jaírás*” or assemblies of devotees from various quarters, many of them coming from a considerable distance, occur twice a year. On these occasions the ceremonies of Shidi (or the swing) and Powada (or cutting and making incisions in the body) are performed. A large sum of money is collected for the support of the temple from the credulous pilgrims, who are imposed on by many mock miracles, and by the numerous ridiculous tales of the god’s wonderful deeds related to them by the attendant priests. There are no buildings or antiquities here or elsewhere throughout the district worthy of notice.

20. In conclusion I must apologise for the meagreness of the present report. The constant superintendence and attention required by a very young and inexperienced establishment, and my absence during a considerable portion of the working season, has left me less time than I could have wished to devote to the enquiry of such various and important subjects.

I have, &c.,

(Signed) G. S. A. ANDERSON, Lieut.,
Assistant Superintendent, Revenue Survey and
Assessment, Southern Marátha Country.

Accompaniment No. 2.

FROM

MR. THOMAS BIGGS,
Assistant Superintendent, Revenue Survey
and Assessment, Southern Marátha Country;

TO

CAPTAIN G. WINGATE,
Superintendent, Revenue Survey and Assessment,
Southern Marátha Country.

Dhárwár, 19th June 1846.

SIR,

In accordance with your letter No. 60 of 1846, I have the honour to forward the following report of the agriculture, trade,

&c., of the Gutal Mahálkari's division of the Ránebennur Táluka, but at the same time beg to mention that having been myself the first part of the season in the Bankápur Táluka getting up the arrears of tax from last season, and having been again withdrawn from my duties in the survey for two months this season, my stay in the Gutal Mahál has been of short duration, and I have had neither time nor opportunity to make the enquiries or observations I intended to have done to enable me to make a full and explicit report, but have been compelled to trust almost entirely to the statements gathered from the head men of the various villages without having any opportunity of judging if their statements can be relied on or otherwise.

2. The general appearance of the Gutal Mahál is barren and disinteresting, the greater part being an extensive waste of rocky, hilly and uncultivated ground. The soil is mostly red, although there is a largish tract of black soil in the northern part of the mahál on the banks of the rivers Varda and Tungbhadra. A great portion of the mahál from the rocky nature of the ground is incapable of any cultivation, and the greater part of the red soil at present uncultivated is covered with low jungle, so that unless the assessment is very low it cannot be expected that the cultivators will be at all willing to entail the expense and trouble of clearing it for cultivation.

3. The mahál having the river Varda running through the villages in the northern part, and flowing into the Tungbhadra which forms the eastern boundary, with the exception of two villages in the eastern side of the Tungbhadra, may be said to be generally well supplied with water, but some of the smaller villages in the western side of the mahál, which are seven or eight miles from either river, situated among the low rocky hills, suffer greatly from the scarcity of water during the months of March, April and May, when the small tanks filled during the monsoon are dried up, as they are then compelled to fetch water for many miles from the nálas in the vicinity of the rivers, but although the district is thus generally well supplied with water it is nowhere turned to the useful purposes of artificial irrigation and there are no gardens on the banks of the rivers.

4. The mahál contains about 140,000 acres and in all seventy-one villages. The only villages of any size or note are Gutal, Kanwalli, Honnur, Neglur, Medleri and Honatti; the rest are small and insignificant. The villages are situated far apart and are very thinly populated, which may perhaps in some measure account for the immense tracts of uncultivated land. The cultivators generally, with the exception of those at Kanwalli, appear to take little interest in the cultivation of the land.

5. The principal products of the mahál are cotton and jowári, but the only village from which cotton is exported to the Coast by the cultivators themselves is Kanwalli ; the cultivators of the other villages trust to the merchants from other parts taking their cotton off their hands. Jowári is not exported in any quantities but is sold chiefly in the bázárs of Gutal, Agri, Nowa Reti, Káradgi and Ránebennur. Besides the above, in some of the larger villages, rice, rali, gram, culti, wheat and castor-oil are grown in small quantities.

6. The products of the gardens of Kanwalli, Gutal and Honatti are cocoanuts, plantains, supári, pánvel, haldi, chillies, and sugarcane. Cocoanuts are exported to Lakshmeshvar, Shirhatti and Wonsigli. Pánvel and haldi are exported to Lakshmeshvar, Kaládgi, and Alwandi Kolar; the other products are sold in the neighbouring bázárs.

7. The cultivators usually expect a few heavy showers in April and May sufficient to moisten the ground and enable them to prepare it for sowing. A heavy fall of rain is looked for in July, and light rains usually continue to fall till October, when another heavy fall is expected. It does not appear that the fall of rain is at all partial to any particular parts, but all seem visited alike.

8. The time for sowing cotton is usually in the end of August or beginning of September, and it is fit for picking in February. The time for sowing jowári is July and it is fit to cut in the end of November or beginning of December.

9. In black soil jowári and cotton are usually sown alternate years, and in red soil jowári is generally succeeded by rali or castor-oil, but with regard to the other crops there appears to be no regular rotation.

10. The cultivators appear to manure their fields according to their means and the difficulty or otherwise of procuring manure; if they can, they manure their fields every year, if not, every two or three years.

11. The chief markets in the vicinity of the mahál are Agri, Reti, Káradgi and Ránebennur.

12. With the exception of a few camlies made in some of the larger villages, there are no manufactures of any note in the mahál; almost all the iron comes from Hollall, a village in the Bellary District.

13. The cultivators of Kanwalli appear better off, and to take more interest in cultivation, than those of any other village;

they supply many of the bázárs in the neighbourhood with cotton, jowári, pánvel and haldi. The garden land of Kanwalli is considered superior to any in the mahál, but the cultivators have suffered a serious loss in the large tank on which they almost entirely depended for a supply of water for their rice lands and which was about 200 acres in extent, having from its bed never having been cleaned out at length become filled up and consequently useless. The cultivators are extremely anxious to get the tank repaired, and told me they had petitioned Government to assist them in so doing, and it is to be hoped they will meet with the assistance necessary for so desirable an object, as if it is not repaired the land dependent on it for a supply of water will decrease yearly in produce and value.

14. The tank at Honatti has also become gradually filled up with soil and contains very little water, although formerly upwards of 200 acres in extent; the cultivators of Honatti do not appear so well off or to take so much interest in their cultivation as those of Kanwalli; and as the garden land has to depend in a great measure on the tank for a supply of water, unless the tank is repaired the gardens must gradually fall waste.

15. The garden land of Gutal is considered inferior to Honatti or Kanwalli. The tank of some 150 acres in extent is gradually filling up, but still contains a considerable body of water. With the exception of Gutal, Honatti and Kanwalli there is no garden land in the mahál.

16. The whole of the Gutal Mahál has been most severely visited this season with cholera, which, it appears, first broke out at a *jatra* at Honatti during the Holi holidays, where an immense concourse of people from all the neighbouring villages were collected together; many died at Honatti, many more on the road to their villages, after which it spread over the whole mahál, and scarcely a village escaped the dreadful scourge.

I have, &c.,

(Signed) THOMAS BIGGS,

Assistant Superintendent, Revenue Survey and
Assessment, Southern Marátha Country

Accompaniment No. 3.

FROM

MR. J. H. SPRINGER,

Assistant Superintendent, Revenue Survey and
Assessment, Southern Marátha Country ;

TO

CAPTAIN G. WINGATE,

Superintendent, Revenue Survey and Assessment,
Southern Marátha Country.*Assistant Superintendent's Office,
Camp Hángal, 18th May 1846.*

SIR,

In reply to your letter No. 53, dated the 7th April last, with reference to the 7th para. of the one of the 4th October 1845, No. 64, I do myself the honour to report on the agriculture, manufacture, trade, &c., of the Mámlatdár's Division of the Hángal Táluka assigned to my establishment for measurement.

2. The Mámlatdár's charge, which forms an irregular oblong figure, is bounded on the north by the Bankápur Táluka and partly by the Tadas Mahál; on the east by the A'dur Mahál (Maháلكari's Division); on the west by the Madras Presidency; and on the south by the Mysore territory; consists of 103 villages, viz., 46 in the Hángal and 45 in the Nidsungi Maháls, and 12 Phutgaons. Of this number 2 are deserted.

3. Nearly the whole face of this portion of the táluka is wavering with low detached hills slightly connected: those to the westward and southward are covered with thick jungle, and those to the northward and eastward, some with tolerable herbage and others bare and rocky, admitting comparatively of little pasturage.

4. With the exception of the Varda River, which forms the eastern boundary of six villages of the Hángal Mahál, viz., Gundi, Makarwalli, Howkan, Anwasgi, Saisgeri and Mulgund, the two latter ináms, the district is not traversed by any river or stream of magnitude, unless I mention the Dharma Nála, which takes its rise about 18 miles south-west of Hángal from a strong spring near the village of Hissalur in the Sirsi Táluka of the Madras Presidency; and after passing within a short distance of the town of Hángal it forms a junction, a few miles north-east of Naregal,

with the above-named river. The whole of the water of this stream, instead of being allowed to run to waste, is diverted by a large watercourse, the cut commencing near the inám village of Shringari situate about 12 miles from its source, and which is carried through the lands of 7 villages, viz., Sewali, Hirur, Gowrapur, Gugihalli, Sirmapur, Doleshwar and Sureshwar nearly a distance of 12 miles. At the latter village it branches off in two opposite directions, the one, after taking a south-east course through the lands of Geglikop, Alur, Anwasgi and the inám village of Mulgund, empties itself in the Varda, and the other a north-east one through the lands of Akiwalli and Hurleshwar, and after passing two villages of the Adur Mahál it once more enters that of Hángal before it disembogues its superfluous water into the present bed, by passing through the lands of Kenchi-Neglur. At this latter village a third branch winds its way towards Neglur of the Adur Mahál. From the principal cuts minor ones branch off in every direction for the purpose of feeding the tanks of the villages through whose lands they traverse, as well as for the irrigation of rice fields and garden lands in case of failure or long cessation of rain. The supply of water continues for a period of six months.

5. The general soil of the district is a light brown colour. It rarely presents a broken surface in the hot season, unless on wastes of long standing, where fissures and hollows occasioned by the rain are to be seen.

6. The supply of rain in this district, being situated so near the western range, may be considered pretty certain and regular. It generally sets in about the middle of June and continues till the 15th or end of October.

7. The climate of the district is considered very damp during the whole of the monsoon and for a few months after it. The cold is remarkably mild, and the hot weather is more salubrious and pleasant than what is felt in other parts of the Collectorate. The hot winds are never experienced unless in the eastern parts, and those only occasionally and mild. The thermometer seldom rises higher than 100° during the months of April and May under canvass, and 105° in the open air.

8. Fever and its concomitants are very prevalent immediately after the monsoon, or at the time of reaping the rice fields. That terrible and frequent visitant of the Indian Cabin, the small-pox, which not only sweeps hundreds to an early grave, but leaves a number of its victims disfigured or unfit for the ordinary duties of their calling, and thereby dependent on others during the remainder of their lives, is very severe. When the disease appears

once in 4 or 5 years it generally makes a sweeping visit throughout the whole country, and the contagion is much more virulent than when its visits are shorter. Although a native vaccinator visits the district, yet little has been done in the way of introducing vaccination *generally* amongst the people.

9. The cholera is another fatal complaint that the district is subject to; but whether its ravages are greater here than in other parts of the Collectorate I am not prepared to give an opinion. However it has been very prevalent after an exemption of five years during the last and present seasons. Hundreds have been carried away, and a few of the villages have in consequence been nearly deserted. It would appear (I speak from personal observations added to those of the inhabitants) that the young and athletic, from the age of 18 to 40, are much more subject to the epidemic than old men, females and children. Another local complaint that the people are liable to is the guinea-worm.

10. The villages are, with a few exceptions, small and miserable; the houses low and thatched; and the streets, if they could be designated as such, narrow and dirty. They are, particularly those bordering on the jungles (the whole of the country to the westward along the Madras Presidency is covered with an interminable forest) enclosed in with a high and thick live hedge, with an opening for egress and ingress, which is closed at nightfall as a protection against the attacks of wild animals. The depredation of monkeys, which abound more or less at these villages, prevent the inhabitants from tiling their houses; and, besides, a thatched roof is better adapted to keep off the heavy rains. Next to Hángal, Bamanhalli is the only place of note, and contains a large population of Bráhmans, about 300 including adults and children.

11. Water is found in almost every part of the taluka from 30 to 35 feet in low or garden lands, and from 60 to 65 feet in high lands, *i.e.*, near sites of towns and villages. It is well supplied with tanks and wells, and the quality of the water is comparatively speaking good. The cost of sinking and setting up a well for the purpose of irrigation is estimated at 100 rupees.

12. The scenery in general is verdant and pleasing from the number of gardens and trees, such as mango, tamarind, cocoanut, supári, ním, woodapple, jack, date, &c., all bearing the most flourishing appearance, with which the country is studded; and it is still more heightened immediately after the rains and during the whole of the cold season from the innumerable tanks and ponds that meet the eye in every direction.

13. As is the abundance of the vegetable kingdom so is that of animal life. The tanks and ponds, as long as any water

remains in them, are *literally* teeming with ducks of all species and plumage, and other aquatic birds; the marshes with snipe; the bushes and hedges with hares, partridges, and quail; the jungle with tigers, leopards, bears, wild-dogs and hogs, wolves, elks, spotted-deer, bakri, peafowl, jungle or spur fowl, and elephants occasionally in the south-west parts of it. The antelope alone, unless a stray one be occasionally seen in the eastern parts of the táluka, is not an inhabitant of the soil. The cattle are usually small, and the country not quite favourable for sheep. The tanks also, I may observe, swarm with fishes, particularly the "Murrál" which is to be seen from 2 to 3 feet in length, and form an article of food to many of the inhabitants, who collect from the neighbouring villages on a stated day when the water is reduced to a low ebb, with wicker baskets in the shape of a cone, for the purpose of fishing.

14. The jungles are also, I am told, infested with dangerous serpents; but I have only seen one, which the natives term an "Ajgar," the boa-constrictor or a species of the same family, in a cave by the side of a nála. The spot had been pointed out to me as being a favourite one for bears, and in hopes of seeing one I was induced to approach the place, and instead of a bear I saw the monster (it measured full 8 feet when shot) comfortably coiled up and in a state of coma or helplessness from having over-gorged itself, I suppose, on some large prey. The bear occupant of the cool and well sheltered cave, would appear, had been to the spot a short time previous to my going there, for the prints of its paws were quite fresh on the sand, but, finding its dwelling occupied by an intruder whom it was unable to dislodge, thought it prudent to leave it for another.

15. The general language of the district is Kánarese; the Musalmán alone speak the Hindustáni. The knowledge of reading and writing, with the exception of the Patels and some of the principal ryots, is not common amongst the people. Hángal is the only town in the táluka that has a Government vernacular school, and there are a few private ones at market towns and large villages.

16. The population of the táluka may be said to be entirely agricultural. The Lingáyats (they are divided into nine sects, the Panchamsali being considered the highest) are more numerous than any other single caste. Although in habits, general character, and religion they all resemble each other, yet they will not eat together or intermarry. Each sect has its own spiritual teacher, and the whole a principal "Guru," who, however, has the privilege, which is not permitted to the others, of eating with the laity of all the classes. They will not allow others not of

their own creed to enter their dwellings, particularly that portion set apart for cooking, nor will they, if it could be possibly avoided, permit any one to see them while in the act of cooking or eating. They are prohibited by their religion from drinking ardent spirits, smoking or eating intoxicating drugs, but, like the Musalmán, there are apostates amongst them. They however use tobacco freely by smoking, chewing and snuffing it. This caste is easily distinguished from the other natives of the country by their wearing the Ling, which is tied round the neck of an infant as soon as it is born and which is afterwards worn round the neck, arm, or in the turban, and by some of the women in the hair. It is either incased in gold, silver or copper according to the means of the wearer, and very often tied in a handkerchief. It is considered a heinous sin to show it to others not of their own faith, and in the event of any one losing it, he is not supposed to eat or drink till it be found, and should he prove unsuccessful he is, however, at liberty to procure another, but not without incurring some expense, according to his means, in performing the requisite religious ceremonies and feasting his caste; but death is looked upon as preferable to the disgrace of surviving such a loss. This emblem, the *Phallus* of the Greeks, or the representation of *Shiva*, is made of a kind of potstone called "bullup," and sold for a mere trifle. They marry at any age, but the parents are always anxious to get rid of their daughters before they reach the age of puberty. Polygamy is allowed, but it is seldom resorted to unless the first marriage prove unfruitful. Either a shaven crown or one adorned with a lock of hair would appear optional.

17. The sole pursuit and occupation of the bulk of the inhabitants, as observed above, is agriculture. Those who have garden or sugarcane fields in addition to their other fields (there is hardly a village without the latter) have their time fully occupied throughout the year, and those who have none of these lend their aid to or are engaged by those who require their services, as soon as they have reaped their crops and stacked in their produce, in manufacturing jagri and sugar. The women are usually engaged in household affairs, the girls in collecting cowdung for manure and sticks for fuel, and the boys in pasturing the cattle.

18. None of the villages, except market towns or large villages, have any shops. This may be considered a desideratum by many, especially travellers, but it should be looked upon as a blessing to the ryots; for that pernicious system of borrowing from the village sowkár or Bania, so common in the Deccan and other parts of the Presidency, either for the purpose of paying the Government dues or for marriage, religious or funeral ceremonies, at a heavy interest and premium, which in course of time is made up of compound interest and further aids, which go on accumulat-

ing so as to prevent a ryot from extricating himself, and thereby obliging him to sell his crops when there is no great demand for them, is not of frequent occurrence amongst the cultivators here. In alluding to the circumstance I do not mean to insinuate that the practice of borrowing is foreign to the ryots of this district; they may be as prone to it, I dare say, as their brethren in other parts of the country, but it is evident that the difficulty of getting money is enhanced when the lender finds that the borrower, unless he be able to give ample security, is not a member of his own town or village. Compare the ryots of this district to those of the Deccan, Khándesh, or Konkan, and I think, their circumstances in general will be pronounced comparatively better. You seldom meet either man, woman or child, the latter unless very young, in a state of nudity. Although the wearing materials of the generality of the indigent cultivators are of the coarsest kind, yet they are tolerably well clothed, and the women and children have invariably some sort of trinkets either of gold or silver about their person. What is this to be attributed to? Are they less taxed? Do they occupy a more productive country? Or have they a better market for their products? I may be charged with colouring the subject a little too brilliant, but the outlines of the picture, however, will be found pretty nearly as I have attempted to describe them.

19. The shopkeepers or Baniás in this district are not composed of those rapacious, intriguing, and money-making people the Márwáris, who, as it is well known, leave their native land penniless and return to it in a short time worth hundreds, but are usually Lingáyats. Before closing this subject I may as well remark that pauperism, or rightly speaking beggars, are not found amongst the Lingáyats, or, in short, common throughout the whole district, unless it be enthusiasts, zealots or fakirs, or others who are mendicants by profession. No vices of a prominent kind, such as may be termed characteristic, could be laid against this class of people, unless it be, if it could be termed a *crime*, that of *Penu-rism*. They are either as cultivators, merchants, or tradesmen not scrupulous to follow any trade or profession not derogatory to the tenets of their religion shrewd and intelligent; but I suspect, somewhat indolent when *actual* manual labour is required. They are naturally like the Bráhmans, a timid race; and seldom or never engage themselves as peons or enter the ranks. They abstain from using anything that has had life or knowingly occasion the death of any animals, but some of them do not scruple, however, to destroy such beasts that are by nature savage or destructive. Nearly the whole of the Patels are Lingáyats, and some of them are met holding the office of Kulkarni. They, till lately, were seldom or never employed as kárkuns.

20. I have enumerated at some length the principal class or classes who form the largest portion of the population; I shall therefore mention cursorily the remaining castes that make up the bulk of the district, and give a short sketch of their occupation and calling.

21. The Bráhmans follow the profession of kárkuns, kul-karnis, joshis, wydis, pátels, shroffs and pantojis. The Musalmáns are seen engaged as cultivators, peons, shetsandis, pátels and labourers. The Arrairs or Maráthas as cultivators, labourers and peons. The Kurburs as cultivators, shetsandis, labourers, shepherds, and manufacturing "kamliés" or coarse blankets. The Madegauers or Mehtris act as servants, scavengers and watchmen of the village, make all articles of leather for the use of the ryots, such as buckets, whips, sandals, thongs, &c., often cultivate for themselves, and at some villages hold "Jori" land. The Rajputs are employed as cultivators, peons and village guard. The Kubairs or Gangi Macklas as cultivators, labourers, watchmen, quarrying and preparing lime, and weaving "dangri" or coarse cloth. The Kamatgairs as cultivators, labourers, brick-layers, and growers of potherbs and esculents. The Korawarus as musicians, making brooms, baskets and cords from a kind of hemp. The Panchalras (they are divided into three sects, and will not eat or intermarry with each other) as gold, silver, copper and iron smiths, and cultivators. The Mochgaur in making shoes and slippers, and hiring themselves out as labourers. They take precedence with the Madegaur and are permitted to live within the limits of a town or village, while the latter the outskirts of it. The Ellgaur draw and sell the juice of the date-tree, make mats, and are employed as cultivators and labourers. The Jains as cultivators, merchants and labourers. The Kurrars as hamáls, fishermen, labourers and cultivators. The Khotgaur as cultivators, buruds, shetsandis, labourers and mendicants; in the latter profession they blow the "Kali" or horn before the deity.

22. Exclusive of the Bráhmans, Lingáyats, Jains, and the Panchalras, unless some of them do it "under the rose," all the other classes enumerated in the above paragraph, the Musalmáns and Arrairs taking the lead, are greatly addicted to the vice of drinking, particularly the juice of the date-tree, which is freely imbibed in a state of fermentation. The use of ardent spirits amongst the lower orders may be looked upon as a crying evil, the parent of idleness and dissipation; but it is one in some respects necessary, when used in moderation, to the health of the people, particularly those who inhabit or live near the jungles, in a district where the rains are heavy, and the country for five or six

months out of the year, wet and marshy from the innumerable tanks, ponds, water-courses and rice fields. The juice of the date-tree is never distilled, the jagri being the only article from which liquor is extracted.

23. Although rice is the principal or nearly the only produce of the district, yet the food of the inhabitants does not consist of that grain alone. They eat jowári which is purchased or bartered for rice on market-days, made into cakes in the morning or more particularly when engaged in the fields. Those who have out-door work eat three times, and those whose occupation is of a sedentary nature twice a day. There is no material change in the diet of the rich and poor unless it be in the indulgence of ghee, milk, jagri, sugar or vegetables. They also use in common náchni or ragi, nawani and savi; the former is only made into cakes, and the two latter grains either into cakes or a kind of porridge, and eaten with curd or butter-milk. The milk, butter and ghee that may be necessary as articles of diet are supplied by the cattle belonging to the ryots; the overplus, particularly butter, is sold on market days, and purchased up by shopkeepers and converted into ghee for internal consumption or exportation.

24. There are no less than four kinds of sugarcane grown in this district, viz., hulcabbu, ramrasdalli, gabrasdalli, and karracabbu. The first is white and thin, about the thickness of a good size jowári stalk, and contains very little saccharine matter. It is sown in rice fields, and is considered a hardy plant, thriving for a considerable length of time without irrigation. If the season be a favourable one, an acre of this cane is supposed to produce on an average about 6 loads (equal to 400 sers weight) of jagri, and 5 of sugar in the Nidsingi Mahál, and somewhat more at a few of the villages of the Hángal Mahál: the soil of the latter being considered much more productive. The second (ramrasdalli) is streaked white and red, and is also sown in rice fields as well as in garden lands, but not so extensively cultivated as the former. It grows to a tolerable good height and thickness, and an acre will produce about 10 loads of jagri; but no sugar to speak of is manufactured from it, the quality being considered inferior. There is an apparent difference in the quality, weight, and appearance between the jagri of this cane and that of the hulcabbu; the former is heavy, wiry, and somewhat of a darker colour than the latter, which is light and granulated. The third (gabrasdalli) is only cultivated in garden lands in small quantities for consumption, and requires care and irrigation once a fortnight. The skin of this cane is remarkably thin, the space between the knots far apart, and quite juicy. It very much resembles the Mauritius cane, and were the same care and labour bestowed on

its cultivation as with the exotic, I think it would grow equal to it in height and diameter. As no jagri or sugar has hitherto been made from this cane, it would be worth the trial to ascertain if it be of the same species. The fourth (karracabbu), the common red kind, is very little cultivated and sold on market days for consumption.

25. The Mauritius sugarcane, which was introduced into the táluka about four years ago, was extensively planted the first season at Hángal, but from its requiring irrigation oftener, and being much more subject to the attacks of wild animals than the indigenous kinds, which, added to the want of a ready market for the produce, have been startling drawbacks to its becoming a favourite with the ryots, who, as it is well known, are so averse to innovations unless they can be made without much trouble or expense. The first year of its cultivation, a quantity of superior sugar and sugarcandy, I am told, was made from it at Hángal, but meeting no purchasers on the spot, the manufacturer was obliged to dispose of them at Dhárwár amongst the European community. The quantity of cane sown this season at Hángal is about half an acre by one Mahádevráo.

26. The process of making jagri and raw sugar in these parts is both simple and primitive: the mill, which costs from 10 to 24 rupees, is generally put up near the field where the sugarcane is grown under a temporary shed constructed for the occasion, consists of two upright wooden rollers and worked by two or more pairs of bullocks. The juice expressed from the cane runs down the sides of the rollers into a trough, which forms the base of the machine, and thence into a broad-mouthed earthen pot buried in the ground. When a sufficient quantity is procured, it is conveyed to the boiler, a large flat iron vessel which costs from 16 to 40 rupees, placed on a brisk fire fed by the dried rinds of the cane. The juice while in the act of boiling is actively stirred, and the thick scum that is raised to the surface is carefully removed till it assumes a sirupy consistency, when it is poured, if required for jagri, into the ground previously prepared to receive it, and which is afterwards cut out into cakes or dug out whole; and if for sugar, the sirup, after it is removed from the oven, is briskly thrown up the sides of the vessel by two or three men with long flat wooden ladels till it becomes quite cool, and finally with oblong or oval-shaped wooden blocks with a single or double handle attached to them, it is broken into powder. The hulcabbu is passed once, and the ramrasdalli twice through the rollers.

27. The sugarcane is cultivated in the month of December; the ground being previously prepared by breaking up and levelling the ridges of earth put up in rice fields for the retention of water,

after a week it is ploughed up twice by a small light plough to which two or more pairs of bullocks are yoked, and the large clods of earth broken small. In January it is gone over with the Kurdu, an instrument for clearing and turning up the soil, and about the end of the month furrows are prepared and manured. In March, the ground being previously well-watered, the sets or cuttings of the cane are sown in rows, and after an interval of 8 or 10 days it is again irrigated, and the soil loosened or stirred by the Kurdu. The ground is once more slightly ploughed up on the fourth or fifth day, the Kurdu being used immediately afterwards, and on the fourth day it is levelled with the Balkunti drawn by a pair of bullocks. As soon as the cuttings begin to shoot out, which is generally about a month from the time they are sown, the ground is gone over two or three times by the Yackunti, an instrument for clearing the grass and weeds that may have sprung up on the sides and those on the ridges by the hand. In December, a year after, the cane arrives to perfection, and is fit to be cut for the mill or consumption.

28. To manure an acre of ground for sugarcane it requires about 9 small cart-loads, drawn by 4 pairs of bullocks, and six if the cart be larger, but the same number of bullocks. The price of a large cart of manure is 2 annas, and that of a small one $1\frac{1}{2}$ anna.

29. To sow an acre of hulcabbu it requires from 2,500 to 3,000 cuttings, at 3 shoots per cane, and for an acre of gabrasdalli or ramrasdalli 5,000 at 5 per cane.

30. The present market rate for a maund of 40 sers weight of raw sugar is 1 rupee and jagri 12 annas, and that of former year, sugar 12 annas, jagri 9 annas.

31. It is roughly estimated that an acre of sugarcane, if the season be a tolerably fair one, will pay the owner, after deducting the Government dues and all other expenses incurred, about 16 rupees.

32. Lands first planted with sugarcane have for a succeeding crop rice, and in garden lands culinary vegetables, which, however, do not produce much the first season, unless the ground be richly manured, and it is not till the second or third year that sugarcane can with advantage be again cultivated. No other kind of crop tends to impoverish the soil so much, unless it be the poppy, as the sugarcane.

33. In no article of produce is there greater room for improvement in this district than in the sugarcane. Although the ryot has a thorough knowledge and pursues with great advantage the cultivation of the plant, yet to think of obtaining superior

sugar and thereby making it the staple product for exportation, it requires European skill and capital. The soil and climate appear, judging from its extensive cultivation, well adapted for its growth and may be increased to any extent, and, I should think, with the most profitable results.

34. The following is a list of the agricultural produce of the hill (Mallad) and plain villages of this táluka, and constitute what are called the Mungari (kharif) and Hingari (rabi) crops:—

Black Soil or Plain Villages.

Mungari or Kharif Crop.	Hingari or Rabi Crop.
Yellu (Sesamum orientale). Ooddu (Phaseolus radiate). Joalah (Holcus sorghum). Dhod talli nawani (Panicum italicum). Mallagsavi (Panicum miliaceum). Rági or náchni. Togri (Cytisus cadjan). Madki (Phaseolus aconitifolius). Hesru (Glycine tomentosa). Avari (Dolichos lablab). Hurli (Phaseolus radiatus).	Sialu Jolah. Godi (Wheat). Kadli (Gram). Hatti (Cotton). Kusumbi (Safflower). Awudlah (Castor-oil seed). Guralu (a plant from the seed of which an oil is extracted, fennel flower ?) Karrasavi (Panicum aniliacum). Nawani (Panicum italicum). Angsi (a plant from the seed of which an oil is extracted).

Mallad or Hill Villages.

Mungari or Kharif Crop.	Hingari or Rabi Crop.
Bhatta (Rice). Ragi. Malginsavi (Panicum miliacum).	Awudlah. Hessru. Udu. Angsi. Avari. Kadli.

35. There are different kinds of rice grown in this district; but the mul-butha, san-butha, and dodgin-butha are the principal ones. The former is most cultivated and forms the main food of the inhabitants, and is also extensively exported. The second (fine sort) is very little sown in consequence of its requiring more

water, and there being no great demand for it. All three are cultivated at the same time; but the dodgin-butha is first reaped, the mul-butha 15 days, and the san-butha a month later.

36. After the rice crop is reaped the ground is ploughed up, I should term it scratched, for the new earth is never reached while it is still moist, or else it becomes quite undurated, and again when a shower or two of the Mungari or early rain falls. If the field is to be manured, which is done once in two or three years, the means of the cultivators preventing them from doing it annually, it is laid on immediately after the first ploughing. After the second tilling the soil is turned up and cleared by the Balkunti and then with the Kurdu. On setting in of the monsoon the field is once more prepared by the Kurdu and sown, after which it is again used, then by the Yadgunti, and finally by the Kurdu. On the expiration of a week the seed sprouts out, and to keep it free from grass and weeds, the Yadgunti is used weekly or till such time as the fields or beds become flooded, when the Kurdu is used for the last time and the sides of the earthen ridges cut with a saw and smoothed to prevent the water oozing out. A fortnight after the last process men are employed to weed the fields.

37. No second crop of rice is raised in this district from irrigation, the water being reserved for garden lands, which are usually situated in the vicinity of tanks.

38. To manure an acre of rice land it requires from 4 to 5 small cart-loads, and the same number for dry-crop lands.

39. Rice is the only grain that is sown alone, the others which form the Mungari crops of the Mallad villages, such as ragi and malginsavi, are either cultivated separately or together, but the Hingari crops are invariably sown together. In the plain villages (there are not many comprised in the portion of the taluka I am reporting on) joalah is not sown, unless the ground is well manured, for two successive seasons in the same field, the next crop is either cotton, wheat, gram or kusumbi.

40. Rice, ragi, mallagsavi, and yellu are all sown about the end of June and ripen, with the exception of the rice and one species of the ragi (there are two kinds sown) which are reaped in November, about the end of September. Joalah, togri, hurli, hesaru, mudki, and nawani (the dhodtalli kind) are cultivated about the middle of August and ripen, with the exception of the togri which comes to perfection at the close of February, about the end of November. Wheat, gram, and kusumbi are sown about the 15th of October and reaped at the end of February. Cotton is cultivated about the 15th of September and the wool is gathered at three successive times commencing from the end of January till that of February.

41. Although cotton is becoming a primary object of cultivation, yet only a very few villages in this district, those to the north-east, where small quantities of it are sown: the red soil not being adapted for its culture, and it is also inimical for wheat. Gram is raised in very small quantities for the domestic use of the people, and is generally eaten green. No tobacco or gánja (the hemp plant) whatever is cultivated.

42. The quantity of seed required to sow an acre is as follows:—Mul-butha 25 sers, Dodgin-butha 25 sers, San-butha 24 sers. If awudlah and kurrasavi $4\frac{1}{2}$ sers, viz., 3 of the former and $1\frac{1}{2}$ of the latter: these seeds are let into the ground by different pipes of the drill plough, i.e., six rows of the latter to one of the former. If joalah and togri be sown together it takes about $3\frac{1}{2}$ sers, viz., $1\frac{1}{2}$ of the former and 2 of the latter; but if joalah alone, the quantity is still the same. If joalah and hesaru be sown together, a handful of the latter is mixed with the former. If joalah and hurli be sown together, the proportions are $1\frac{1}{2}$ sers of the former to 1 of the latter. If joalah and mudki, $1\frac{1}{2}$ sers of the former to $\frac{1}{2}$ of the latter. Cotton seed 6 sers weight. Yellu and awudlah 2 sers, viz., $1\frac{1}{2}$ of the latter to $\frac{1}{2}$ of the former. Awudah and kurrasavi $4\frac{1}{2}$ sers, viz., $1\frac{1}{2}$ of the former to 3 of the latter. The same quantity of awudlah and rági be sown together. If nawani and hurli 3 sers, viz., 2 of the former to 1 of the latter. Wheat 16 sers, kusumbi 1 ser.

43. The following is an estimate of the rate of produce and the prices:—

Grains.	Greatest produce per acre in sers.	Least produce per acre in sers.	Price per bag of 128 sers.
Joalah	240	120	Rs. a. p. 3 0 0
Cotton (wool)	48	...	Uncertain.
Cotton (seed)	144	...	Do.
Kusumbi	60	30	2 8 0
Nawani	120	60	2 8 0
Savi	160	80	2 8 0
Hesaru	20	15	5 0 0
Rági	160	80	1 10 0

Grains.	Greatest produce per acre in sers.	Least produce per acre in sers.	Price per bag of 128 sers.
			Rs. a. p.
Awudlah	40	20	4 0 0
Togri	80	40	5 0 0
Kadli	80	40	12 0 0
Oodu	20	15	7 0 0
Hurli	40	20	2 8 0
Avari	36	24	4 0 0
Yellu	80	40	4 0 0
Mudki	80	40	2 8 0
Godi	40	20	3 12 0
Mal-Bhatta...	400	200	2 8 0
Sun-Bhatta...	350	200	3 8 0
Dodgin-Bhatta	200	100	2 0 0

The produce per acre and the prices given for the three last-named grains are with the husk paddy.

44. There are altogether 36 garden villages, including inám ones, viz., 9 in the Nidsingi and 27 in the Hángal Maháls. The garden produce consists of supári, beetle-vine, cocoanut, plantains, ginger, lime, turmeric, sugarcane, guava, jack, mango, oranges, pine-apples and vegetables.

45. I do not think that the value of land as affected by distance from the village could be applicable with the majority of the villages in this táluka, as the lands attached to them are, with a few exceptions, situated within a convenient distance. The ryots, however, are of opinion that if it is to affect a field, there should be a difference of 1 rupee between the one situated in the vicinity of the village and the other at its furthest extremity.

46. The following is a list of agricultural implements and their estimated cost :—

Names of Implements.	Prices.		
	Rs.	a.	p.
Ranti (plough) of 8 bullocks	2	0	0
Do. do. of 2 do.	0	8	0
Balkunti of 8 bullocks (for cleaning and turning up the soil)	3	0	0
Do. of 2 bullocks	1	8	0
Yadkunti (a smaller one of the same kind for clearing grass and weeds)	1	4	0
Kurgi (sowing machine)	2	0	0
Kudli (axe or hatchet)	0	8	0
Gudli (pick-axe)	1	0	0
Kurchegi (weeding hook)	0	6	0
Kudgoul (sickle)	1	0	0
Baegudli (small hatchet)	0	7	0
Sulki (spade)	1	0	0
Kudgul (saw to cut the ridges put up in rice fields)	From 8 annas to 1 rupee.		
Bundi (cart)	From 40 to 160 rupees.		

47. The annual expense for a ryot's family, consisting of a man, woman, and two or three children, for clothing and feeding, is supposed to cost from 40 to 50 rupees. To which the following contingent expenses may be reckoned once in 4 or 3 years :—

Son's marriage from	Rs. 100 to 160
Daughter's do.	„ 40 to 60
Funeral expenses	„ 1½ to 2½

48. The imports into the táluka are joalah, wheat, gram, kushumbi and augsí oils from the northward. Cloths from Hubli and Bellary, salt, dried and fresh cocoanuts, supári, dried and fresh dates, pepper, cardamum, and plantains from Kumta. The exports are rice, jagri, and raw sugar towards Navalgund, Dambal, Nargund, Hubli and Bádámi. It used to export a great quantity of the latter articles to Kumta, but since last year the trade was put a stop to; but they are however exported from thence to Dhundshi of the Tadas Mahál.

49. A good deal of the produce of the Nidsingi Mahál, such as cocoanuts, supári, jagri, sugar, and rice, are disposed of or bartered by the ryots for other grains on market days at Bamanhalli, Chandapur (Savanúr Nawáb's), Dhundshi of the

Tadas Mahál, Maharajpeit, Alur, and Hallihkowta of the Hángal Mahál, Bankápur and Alladkatti of the Bankápur Táluka, and Chergulli of the Madras Presidency.

50. The villages of the Hángal Mahál find a market for their produce at Alur, Šamasgi (inám village), Husur, a Mazra of Chick-Kowski Maharajpeit, Alladkatti, Hallehkwoti, Handigol (inám village), Saisgerri of the Adur Mahál, Bamanhalli, Dhundshi, Byádgi of the Ránebennur and Háveri of the Bankápur Táluka.

51. There being no official record or date of any kind of the commercial intercourse between this district and the neighbouring countries, and the oral information on this most interesting subject being so conflicting and uncertain, that to attempt giving the exact quantities or anything approaching them would be both useless and ridiculous.

52. About 18,000 or 19,000 bullocks pass through the district from the northward, viz., Bamanhalli, Hángal and Alur to Kumta, laden principally with cotton and small quantities of wheat, gram, ghee, sweet oil, and cotton seed.

53. Although the district is tolerably well peopled and the villages closely situated, yet the quantity of arable waste land is unaccountably great. The practice of giving out land that has been lying fallow and partially over-grown with brushwood on Cowle, has been discontinued of late by Government; it is still extensively resorted to by Inámdárs, Judidárs and holders of service land, who give it for a period extending from 4 to 12 years, subject at the first to a nominal rent and increasing gradually to the close to the full assessment.

54. The cultivator in this district is exempted in a great measure from the trouble of watching his field, I may say, from the time of sowing till that of reaping, both by day and night, as is the case in the plain districts, to prevent the depredations committed by large flocks of antelopes and clouds of jowari and other birds. The only enemies he has to fear of are the bears and wild hogs in destroying his sugarcane fields, which, however, are merely confined to villages situated near the jungles and which he has the means of preventing by enclosing them in, as is done, by a thick bamboo fence.

55. There is nothing whatever manufactured in this district either for exportation or internal consumption worthy of notice, unless it be a few coarse kambliés and dangaries.

56. From the want of passable roads for wheel carriages, nearly the whole of the traffic through the district, whether im-

ports or exports, are carried upon pack bullocks, and even this mode of conveyance is closed, in a great measure, during the rains.

57. I have omitted to mention in its proper place, that one-fourth of the inhabitants of the village of Bisanhalli, the only one in the district, carry on an extensive and profitable trade in cattle; they are purchased in the northern districts of this zilla and taken to Kumta and Sirsi.

I have the honour to be,

Sir,

Your most obedient Servant,

(Signed) J. H. SPRINGER,

Assistant Superintendent, Revenue Survey and
Assessment, Southern Marátha Country.

Accompaniment No. 4.

FROM

MR. FRED. FANNING,

Assistant Superintendent, Revenue Survey and
Assessment, Southern Marátha Country;

TO

CAPTAIN G. WINGATE,

Superintendent, Revenue Survey and Assessment,
Southern Marátha Country.

Dhárwán, 19th June 1846.

SIR,

In compliance with your letter No. 51 of 1846, dated 7th April, I now do myself the honour to report on the Adur Mahálkari's Division of the Hángal Táluka.

2. The towns and villages comprised in the Adur Mahál are fifty-eight in number; of these, five are market towns, viz., Adur, Naregal, Devi-Hosur, Domanhal and Sangur.

3. The villages of the mahál are situated on both banks of the river Varda along eighteen miles of its course, on both banks of the Dharma for about half that distance, and in the lands lying between the two rivers, south-west of the point of their junction.

4. The lands of the mahál being thus favourably situated, intersected by two small rivers, the villagers generally even in the driest seasons escape the miseries of a drought such as this year I observed to prevail during April in the west of the Gutal and

east of the Hawasbhavi Maháls. In the Adur Mahál there are but few villages where the inhabitants have not abundant water for themselves and cattle, close to their doors, even in the driest season. An unusually small quantity of rain having fallen during the last monsoon, the water in the river Varda became stagnant during April and May in the deeper parts, and was dried up entirely at the fords, and in places where the bed of the river is shallow. But, although during the hottest months of the year the bed of the river was quite dry at the fords of Adur, Kusnur, Kudal and in other places, there was abundance of water in all the deeper parts.

5. A dam has been built across the river Dharma about eight miles from the spot where it flows into the Varda, and a large body of water is retained by it. Through the dam, however, a small quantity of water constantly percolates, and thus a clear stream is always running in the bed of this river from the dam to its junction with the Varda; while the larger river into which it flows is not unfrequently stagnant altogether during the months of April and May.

6. The following may be considered a list of the various kinds of produce of the lands of the Adur Mahál :—

No.	Name.	Season of Sowing.	Season of Harvest.
1	Rice	From 25th May to end of June ..	From 15th October to end of November.
2	Sugarcane	From 15th January to 1st March ..	During December and January.
3	Jowári (early)	From 18th June to 5th July ..	During November.
4	Do (late)	From 5th July to 5th August ..	During December.
4	Cotton	From 1st September to end of August	If the soil is good, the cotton is picked off the same trees three times, at intervals of 12 days; the first picking takes place about 3rd February. In poorer soils the first picking takes place a month later than the date mentioned above, and for three months the cotton is picked as it appears.
5	Wheat	During October	During February.
6	Gram	During October and November ..	About three and a half months after sowing.
7	Savi	From 25th May to 25th June ..	From 1st September to 10th October.
8	Rápi or Náchni	Do. do.	From 25th September to 10th October.
9	Rali	During August and September ..	During November and December.
10	Black Savi	Do. do.	Do. do.
11	Culta	During October	During January.
12	Castor-oil	During August	During January and February.
13	Uríd	During June	During September.
14	Sheji or Bájri	Do	From 10th October to 5th November.
15	Chulies	During August	During December.

7. In addition to the various kinds of produce enumerated in the foregoing statement, there are some inferior grains which I have not mentioned. These, however, are grown in such small quantities as to be, I think, altogether unworthy of notice.

8. With reference to rotation of crops, it appears that in black soils, cotton and jowári are sown alternately. Between

the rows of jowári it is usual to sow either turi, pávte, or múg, &c. ; these crops are allowed to stand after the jowári has been cut, and are reaped in March. When jowári is sown in red lands, ráli is the usual crop for the following year, either turi, pávte, or múg, &c., is sown between the rows of ráli, and reaped as mentioned above. Instead of ráli, either chillies or castor-oil is occasionally sown alternately with jowári. In inundated lands, it is usual to sow rice every year, or rice for two years and sugarcane the third; a crop of sugarcane is never taken off the same land more than once in three years. Should water be deficient, jowári is frequently substituted for rice or sugarcane. Two crops are usually obtained in one year off tari lands; as soon as the rice has been removed, the land is prepared for producing a crop of gram, jawas, múg, &c. These second crops are reaped in March, and the land is again ready to be sown with rice in May. Wheat is grown in very small quantities, and, when sown, is followed by either cotton or jowári. Beyond what is mentioned in this para., I can discover nothing regarding any regularly adopted system of rotation of crops.

9. In the garden lands are found plantain, supári and cocoanut trees and the pávvel :—

- (1.) The plantain tree does not produce fruit till two years after it has been planted, when the fruit is taken, and the tree cut down. Fruit is taken only once from the same tree.
- (2.) The supári tree appears above ground six months after the seed has been sown. In ten years it bears fruit, which is taken from the tree during October, November and December. This tree continues to bear annually for a period varying from 50 to 75 years.
- (3.) The cocoanut tree does not bear fruit for nearly sixteen years after it has been planted, and continues in bearing for nearly a hundred years.
- (4.) Leaves are not plucked from the pávvel until eighteen months have expired since the cutting was planted. The supply of leaves from the same creeper continues for about eight years.
- (5.) Sugarcane is also sometimes produced in garden lands.

10. I have not attempted to ascertain the quantity of land in the mahál which is suited to the cultivation of any particular produce, because any information that may be required on this point can, I conceive, be obtained with greater accuracy after the classification of soils has been made.

11. There are large quantities of good land in Adur, Devi-Husur and other villages, which are now waste, and have evidently been so for many years. The reason which the ryots universally assign for not cultivating these lands is, that they cannot do so with profit, or even without loss, while the assessment remains as at present. All these waste lands will, I doubt not, be brought under cultivation on the introduction of a reduced assessment; indeed, I have been informed that the ryots belonging to the town of Adur are now absolutely quarrelling amongst themselves as to who will have the best right to cultivate the lands now waste, after the anticipated reductions in the assessment have been made.

12. The cultivated lands in the district under report are very generally manured. The village lands are in most cases of so small extent, that the most distant fields are comparatively close to the habitations of the cultivators. In some villages, I was informed that the ryots consider it absolutely necessary to manure land annually for the production of sugarcane, rice, jowári, ragi and chillies; whereas, if the fields are manured once in two years, it is considered sufficient for the production of crops of savi, castor-oil, urid, and some others. Lands distant more than a mile from the village are not manured more than once in three or four years.

13. The principal part of the produce of the Adur Mahál is consumed internally. In the smaller villages, all the grain is consumed on the spot where it is produced, with the exception of a small quantity which some of the cultivators usually sell in the neighbouring bázárs to enable them to meet the demands made on them on account of the Government revenue. Of the cotton grown, a small portion is retained by each planter for spinning,—a greater or a less according to the number of females he may have domesticated in his family. Most of the cotton, however, is brought up by the “Wanis” of Naregal, Bankápur, Háveri, Alur, Maharaj-peit, Surlshwar and other towns, for the purpose of being exported to Kumta. The “Gul” made at Naregal and Devi-Husur is sold in the bázár at Dhundshi.

14. The manufactures of the district appear to me to be scarcely worth noticing at all. In several villages, dangri, dhottars, and cumlis are manufactured but only in quantities sufficient for the use of the inhabitants. The kambliés are all made by the shepherds.

15. Having thus mentioned all that occurs to me regarding the mahál in general, I think that the town of Naregal merits some special notice. Judging from appearances only, I should pro-

nounce it one of the most flourishing towns that have come under my observation in the zilla. The lands pertaining to it are not extensive : in all under four thousand acres ; but there is here a larger quantity of "bágáit" cultivation than I have noticed in any village of the Collectorate. In the middle of last month, when nearly every tank in the district was dry, there was still water in the large tank at Naregal, under which the great mass of garden land is situated.

16. In para. 4 it is mentioned that a dam has been thrown across the Dharma about eight miles from the point of its junction with the Varda. By means of this dam the water of the river is turned into a canal, which, after running a course of more than five miles, empties itself into the Naregal tank. I examined the dam and canal in the middle of May ; the water in the Dharma had then fallen very low, and the canal was not running at all. I saw it, however, under every disadvantage, for owing to all the ryots having been employed on the lands during the greater part of the season now drawing to a close, the canal had not (as is usual) been cleared of the obstructions which collect in it during the year. This canal looks little better than a ditch, but its usefulness is not to be measured by its appearance. Besides supplying water to the tank at Naregal, which overflows annually and irrigates the "Tarri" lands of Vardi, it also serves to inundate the rice lands of Nellibid. There is a large quantity of water dammed back in the Dharma, which, were the canal deepened, might, I think, be made available for the purposes of irrigation. A considerable piece of waste land belonging to Naregal, lying below the level of the canal, and situated between it and the Dharma, might, I conceive, be planted advantageously to the cultivator as "bágáit" or "Tarri." The soil of the land I allude to appears to me to be generally good, but to make it available for cultivation as garden or "Tarri" land, the canal must be deepened so as to draw off a large portion of the water at present retained by the dam. Were the water of the canal to be used for the irrigation of the land I speak of, without the bed of the canal itself being deepened, and the supply of water by these means increased, the large tank, under which the gardens now cultivated are situated, would be robbed of its necessary supply of water, and the gardens themselves, as a natural consequence, destroyed.

17. My account of the agriculture of the district will, I fear, be considered meagre in the extreme ; for, you will have observed that I have confined myself to merely enumerating the names of the different kinds of produce, noting the seasons of sowing and reaping, and the rotation of crops. A person who had studied agri-

culture would, I dare say, be able to form a sufficiently accurate opinion of the cultivation of a district by merely visiting the different parts of it and noting what fell under his observation. But as I have no previous knowledge of the subject, any report from me bearing on it must necessarily be consequent on the most minute enquiries; and even when answers to all my questions have been received, I have no confidence in any opinion the information so obtained might incline me to form, owing to my general ignorance of the subject on which I have been called to report. I might, indeed, obtain considerable information which would bear on the point by employing all my kárkúns to answer certain questions in reference to the agriculture of the village at which each may be employed, and by afterwards testing the correctness of the replies furnished by making enquiries myself at some of the villages on which they had reported; I do not, however, think that I should be justified in thus employing the Measurers, though perhaps for only a few days during the season, and keeping them from their surveying duties, the uninterrupted prosecution of which is, I am sure, of far greater importance than any report I could make on the subject in question. Besides, a not unimportant part of the Classers' duty consists, I believe, in collecting statistical information of a nature which would furnish important data on which an opinion regarding the condition of the villages of a district might be founded. I have no such data to go on. Without them, I am unwilling to record an opinion formed hastily and with no sufficient foundation, only probably to find it proved to be at variance with truth, when the information I allude to has been collected and a report made founded thereon.

18. In your letter No. 61, dated 4th October 1845, you request that information may be furnished on the geology, botany and natural history of the districts. To enable me to report on any of these subjects, more previous knowledge of them than I either possess, or have time to acquire, must, I think, be necessary; regarding them, therefore, I remain silent rather than presume to treat on matters of which I know so little.

I have the honour to be,

Sir,

Your most obedient Servant,

(Signed) FRED. FANNING,

Assistant Superintendent, Revenue Survey and
Assessment, Southern Marátha Country.

Accompaniment No. 5.

FROM

LIEUTENANT J. T. FRANCIS,
 Assistant Superintendent, Revenue Survey and
 Assessment, Southern Marátha Country;

To

CAPTAIN G. WINGATE,
 Superintendent, Revenue Survey and Assessment,
 Southern Marátha Country.

Dhárwár, 7th August 1847.

SIR,

In reply to your letter No. 37, dated the 13th of April, I have the honour to report the result of my enquiries regarding the subjects therein alluded to.

2. As regards the effect of the heavier rains of the Mallad District on the cultivation of the ordinary dry-crops as compared with the same description of cultivation in the adjoining open country where the fall of rain is less: Cotton and jowári, which are the ordinary dry-crops of the plain, are seldom or ever cultivated in the black soils of the Mallad, and therefore a comparison of the relative productiveness of these soils in both districts for the above kind of cultivation cannot well be made. It appears from enquiry that a black soil in the Mallad District, unless it can be brought under irrigated cultivation, is of little value, and that it does not frequently repay the cost of cultivation even for the ordinary dry-crops. That there is a great semblance of truth in this remark may be inferred from the circumstance that little or no black soils will be found under the ordinary course of dry land cultivation in the Mallad Division of the Hángal Táluka; large tracts of it lying waste are to be met with in all parts of it, and these have not in the recollection of the cultivators been ever brought under dry-crop cultivation; they were waste at the time the former survey was made, and were then entered in the village accounts as "Parampoke," a name indicating the slight value put upon them, and I am myself doubtful whether they can be advantageously brought under this kind of cultivation in the westerly villages of the Mallad, and that, if cultivated, it will be with rice dependent on the ordinary falls of rain. This would be an uncertain kind of cultivation, but it would probably yield in the average of seasons a better return to the ryot than that of the ordinary dry-crops would do.

3. The crops and method of cultivation of the red soils of the two districts being nearly similar, some estimate of their relative productiveness may be formed. I should observe that the better kinds of Munjal soil, those verging towards a black, appear as little adapted for the growth of the ordinary dry-crops in the Mallad, as the black soils themselves, and that the dry land cultivation of the district is therefore confined to the red soils and the Munjal deficient in depth, but in some few of the western villages the fall of rain is so continuous that these kinds of soil are there found to be wholly unadapted to the growth of jowári. This applies only to the villages immediately adjoining the jungles, for in the other part of the Mallad Division the cultivation of jowári is pretty general. The returns of produce per acre, taking the average of the villages to which my enquiries were extended, give for jowári in the red soils of the Mallad from $\frac{1}{2}$ to $\frac{3}{4}$ of a goni of 32 chittas, and for the same soils in the plain from 1 to $1\frac{1}{4}$ gonis, besides half a goni of tugri or madki grown between the drills in which the jowári is sown, a method of cultivation which is seldom adopted in the Mallad. From 30 to 40 chittas are an average crop of ragi, and from 15 to 20 chittas of the oil plant in the Mallad and the average for the plain gives from 35 to 50 of the former and from 24 to 32 chittas of the latter.

4. Looking at the statement above given, it is evident that the red soils of the Mallad are not so productive for dry-crop cultivation as those of the plain, but on examining the returns procured from some of the easterly of the Mallad villages, I find a greater amount of produce per acre than in those procured from the westerly ones, and in some cases nearly as much as in those from the plain. It therefore appears that the entire Mallad Division is not alike unfavourable for the production of the dry-crops, and that the villages on its eastern border enjoy a climate better adapted to their cultivation than the others.

5. As regards the comparative productiveness of the irrigated lands of the Mallad and of the dry-crop soils in the open country, I have adopted the suggestion contained in the 2nd para. of your letter, in procuring statements from several villages of the number of acres of irrigated land usually cultivated by a pair of bullocks, taking the average of those farmed by large and small cultivators, and of the number of dry soil cultivated by a pair in some of the plain villages; and from these it appears that $4\frac{1}{2}$ acres, or 5 at the outside, is the extent cultivated by a pair of bullocks in the former case, and 13 or 14 in the latter, or at a rough estimate the dry-crop soil cultivator has three times as many acres to get a return from with his pair of bullocks and his

own labour, as the Mallad cultivator. Taking, then, the value of the produce which the plain cultivator can obtain from his (say) 13 acres of dry soil cultivation, and contrasting it with that obtained by the Mallad cultivator from his four and a half acres, we shall arrive at the comparative return for each kind of cultivation, supposing the ryot to be able to farm in each case the extent of land given above without any additional expenditure being incurred in the hire of bullocks or in wages for labour.

6. The Mallad cultivator's products are rice and sugarcane. The latter is not usually planted in the same ground until two intermediate crops of rice have been taken, so that the annual crop of his $4\frac{1}{2}$ acres will be 3 acres of rice and $1\frac{1}{2}$ of sugarcane, and the produce from these and its value are as follows:—

	Rs.	p.	a.
3 acres of rice producing 12 gonis of 32 chittas each at 3 rupees per goni	...	...	...
1½ acres of sugarcane producing 18 gonis of gul' at 7 rupees per goni	...	...	...
Total	162	0	0
<i>Deduct—</i>			
Cost of 6,000 pieces of sugarcane for seed	6	0	0
Cost of 27 chittas of rice for seed	2	8	0
Cost of manufacturing gul at 3½ rupees per goni	63	0	0
Rent for 4½ acres at 5 rupees per acre	22	8	0
Balance showing the return to the cultivator	94	0	0
Balance showing the return to the cultivator	68	0	0

For the plain cultivator we may estimate half his land to be sown with cotton, and the other half with jowári, and these will give the following return:—

	Rs.	a.	p.
Seven acres of jowári producing 10½ gonis at 2½ rupees per goni	...	...	...
3½ gonis of turi grown between the drills of the jowári at 2½ rupees per goni	...	...	...
Six acres of cotton producing 18 maunds of clean cotton at 1½ rupees per maund, 27 rupees, and 54 maunds of seed at 2 annas a maund, Rs. 6 and 12 annas	...	...	...
Total	68	12	0
<i>Deduct—</i>			
Cost of 2 maunds of seed cotton at 2 annas per maund	0	4	0
Cost of turi and jowári for seed (say)	0	4	0
Rent of 13 acres at 1 rupee 6 annas per acre	17	14	0
Balance showing the plain cultivator's return	50	6	0

According to the above statements, the Mallad cultivator has from his $4\frac{1}{2}$ acres of irrigated cultivation a return of 68 rupees 12 annas after deducting all the expenses both of production and of preparing the produce for market, and the plain cultivator a return of 50 rupees 6 annas from his 13 acres of dry soil cultivation, leaving a balance of 18 rupees 6 annas in favour of the former party.

7. Some circumstances in explanation of the statement given above require to be stated. The produce per acre is calculated to be that of a fair average crop in a good soil in both districts, the Mallad cultivator having also the advantage of a regular supply of water. It is not an easy matter to form an estimate of this kind, but it would be still more difficult to make one giving the average produce of the entire Mallad District, owing to the many circumstances connected with the supply of water so materially affecting an irrigated crop, and the variation in the dry soil crops of the plain is also considerable, though not so great as in the former case. I have therefore formed my estimate on the better kinds of cultivation only, calculating the return given to be the average crop for favourable and unfavourable seasons taken together.

8. On comparing the statements of the produce per acre of sugarcane obtained from the cultivators of the Hángal Táluka with those given me the previous season by the Hattimattur garden cultivators, I am inclined to suppose that the estimate I have made from the former ones may be something less than an average crop. The two kinds of cultivation are however very dissimilar, that of Hattimattur being of a large kind of sugarcane requiring water once in fifteen or twenty days, and the cane commonly grown in the rice lands in Hángal being a small sized one, called by the ryots holcabbu, and requiring to be watered only once in the season immediately after planting. The returns of produce I have given apply to the cultivation of this latter kind of cane. It will be seen that I have put down $3\frac{1}{2}$ rupees as the cost of manufacturing one goni of gul; this includes every item of expenditure, such as hire of mill, of bullocks, of pans for boiling the juice in, the cultivator's own labour, &c. It appears to be a very large sum, but from enquiries I find little room to doubt its expenditure. Wealthy ryots have their mill and pans, &c., by them, and are thus enabled to manufacture a large quantity of gul at a little more than half the above expense, but by far the greater number of the cultivators adopt the plan of hiring the mill, &c., and are therefore put to the expense given in the above statement.

9. In the plain cultivator's statement of produce, I have omitted to insert the value of his kadbi, which at 5 kats per acre

will give 35 kats for the 7 acres, making at the rate of 4 annas per kat 8 rupees 12 annas, and in that of the Mallad cultivator no second crop of gram or hesru, &c., from the 3 acres sown with rice has been accounted for. About 2 or 2½ rupees an acre appears a fair return from a crop of this kind, and this, added to the value of the rice straw, will fully balance the plain cultivator's return from his kadbi.

10. Taking all the circumstances of the two cultivators' cases into consideration in the light in which I have set them forth, it is clear that the Mallad cultivator has an advantage over the plain one in being enabled to obtain a greater profit from the land cultivated by him with a pair of bullocks than he (the plain cultivator) can from that which he farms with a pair, and I am further of opinion, that the balance in his favour which my statement exhibits is by no means over-estimated; on the contrary that I have not on the whole put his case in an equally favourable view with that of the plain cultivator.

I have the honour to be,

Sir,

Your most obedient Servant,

(Signed) J. T. FRANCIS, Lieutenant,

Assistant Superintendent, Revenue Survey and
Assessment, Southern Marátha Country.

Accompaniment No. 6.

No. 1 of 1847.

FROM

MR. D. YOUNG,

Assistant Superintendent, Revenue Survey and
Assessment, Southern Marátha Country;

TO

CAPTAIN G. WINGATE,

Superintendent, Revenue Survey and
Assessment, Southern Marátha Country.

Office at Shiggaon, 14th June 1847.

SIR,

I have now the honour to submit the following report called for by your letter No. 38 of the 13th April. First with regard to the effect

of the heavy rains of the Mallad on the cultivation of the usual dry-crops, as compared with the same description of cultivation in the open country adjoining where the fall of rain is less ; and second, regarding the comparative productiveness of the rice lands in former, with the dry-crop soils of the latter.

2. In that district strictly called " Mallad," the usual dry-crops of the open country are scarcely cultivated at all, the only dry-crops being ragi, savi, nawani and jola, but chiefly the two first, the others being sown only in small fields two or three in a whole village, and frequently not at all.

3. Even the two which are sown, namely, ragi and savi, are cultivated in comparatively small quantities, and, as the villages lie further to the west, these also disappear, and I am informed, rice becomes the only crop.

4. But there is a tract called by the people half Mallad running from north to south between the rice-growing district and the plain, in the villages composing which a half or more of the cultivation is dry-crop, and it is in such villages whose soils are less clayey than those to the west, that the inferior grains, such as ragi, savi, nawani, seji, and early jola, are mostly sown.

5. The cultivation of the two districts being nearly distinct, I proceed to the next subject, namely :

6. What is the comparative productiveness of the soils in each? It appears to me that a reply to this question, besides showing the mere amount of produce obtained from equal areas, ought also to show the values of the chief crops which may be grown in them. I shall commence therefore with this intention with—

First, the Mallad.—The best soils in this tract of country are brown alluvial, and black, in low and moist localities. In these, sugarcane may be produced every second year, being alternated with rice. A crop of some kind of pulse may also be obtained after the rice has been reaped, but if the cane is to be planted in January, such crop is never sown.

The value of such crops is very small, and it appears that soils from which such are obtained do not produce such abundant crops of rice as the others.

It will perhaps therefore be better to omit alluding to them, especially as their total value only amounts to about one and a half rupees (Rs. 1½) per acre.

The best lands for the growth of rice are those about Advi-Somapur, Kunur, Dhundshi, Hartal, and those villages of the Hángal Táluka lying below that table land, where tanks are numerous.

The next best lie to the north and west of these, namely, about Tadas, Warur, Tabkad-Honihalli, Bendalgatti, &c., and including those also to the east about Silwant-Somapur, Makapur, &c., and the least productive for rice are those half Mallad villages formerly alluded to, namely, those about Agdi, Jigalur Tirth, &c. These different degrees of productiveness will not, however, require separate consideration, as their inferiority and superiority are frequently as much caused by the difference of soils, as by the unequal supply of rain.

After much and careful investigation, I conclude that in a good season an acre of the best soil in the most favourable situation will produce seven and a half ($7\frac{1}{2}$) hérs (a hér being equal to 128 sers) of rice, which at Rs. 3 (three) per hér makes the gross value of the produce of such an acre equal to about Rs. 21 (twenty-one). This I have calculated as the price of the rice *with the husk*.

The cost of cultivation, weeding, &c., amounts to about Rs. 7 (seven) per acre, which deducted from the value of the crop leaves Rs. 14 (fourteen) as the profit to the cultivator.

In the other villages, where the soil is not so productive, the quantity produced varies from three to five or six hérs per acre.

An acre of best soil, in the most favourable situation, planted with the large cane in which four thousand cutting (each "thousand" always meaning *three* thousand) have been laid down, will yield, as far as I have been able to ascertain, about eighteen hérs or more of gul, or four and a half hérs per thousand.

The price per hér is at present ten rupees (Rs. 10), but it is frequently as low as Rs. 4 or Rs. 5, so that, estimating the average price at Rs. 7, the gross value of an acre will be about one hundred and twenty-six rupees (Rs. 126).

The expense of cultivating it and manufacturing *gul* amounts to about forty rupees (Rs. 40) per acre, thus leaving a balance of eighty-six rupees (Rs. 86) as the ryot's profit.

A similar acre planted with the small cane, called holcabbu will contain about five thousand (5,000), the produce of which per thousand is one and a half hérs only, or seven and a half per acre. The price of the gul being the same as that manufactured

from the large cane makes the total value of an acre equal to fifty-two rupees (Rs. 52), from which deducting the cost of cultivation and manufacture of the gul, estimated at eighteen rupees (Rs. 18) will leave a balance of thirty-four rupees (Rs. 34) per acre as the profit of the cultivator. It is necessary to explain, however, that these data, though according to what will be supplied by some of the villages, are different from what would be the statements of others. Some will declare that the cultivation of the large cane costs upwards of seventy rupees per acre, and that the profit scarcely exceeds that of rice; others in whose lands the large cane is not cultivated magnify the profit as even higher than that I have stated above, and make out that the small cane costs both more money and labour than the large does.

The small cane, it will be observed, is not nearly so profitable a crop as the large kind, but with the exception of part of the lands of Tadas, Advi Somapur, Kunur, Hulugi, Dhundshi, the Hángal villages, and some few others, there is not sufficient moisture for its cultivation, so that the small cane, which succeeds with less, is that most generally planted.

In endeavouring, therefore, to fix the average value of an acre of best soil, this must be taken into account and two averages be made instead of one, thus:—

Rs.	(A) 1st Year	<i>Rice, &c.</i>
	14	Price of produce of an acre, deducting cost of cultivation, &c.
		<i>2nd Year</i>
	88	Price of produce of an acre, deducting cost, &c., of the large cane.
	100	Being the value of two years' crops, which divided by 2
	50	leaves fifty rupees, as the average of each year.
		(B) 1st Year
	14	as above.
		<i>2nd Year</i>
	34	Price of produce of an acre, deducting costs, &c., of the small cane.
	48	Being the value of two years' crops, which divided by 2
	24	leaves twenty-four rupees as the average of each year.

Second—The open country of the Bankápur Táluka.

The best land in this district is a tract of black or alluvial soil stretching on both sides of a nála running south from Hire Mallur to the river Varda, and extending thence for some distance east and west.

In these villages two crops a year may, every alternate or every third year, be obtained from the best fields, but the first crop must

be ellu and the second crops wheat or gram with occasional rows of kusbi augshi or owdla as described in my report of the Bankápur Táluka last year under "The rotation of crops."

The crops from which the highest profits are obtained in black or brown soils are cotton and gram. An acre, it appears, produces upwards of a hér of cotton with the seeds, but it is difficult to fix an average price on it.

Clean cotton is now eighteen rupees per naga (of 480 sers), but three or four years ago it was as high as twenty-eight rupees.

The average price I should suppose will be about twenty-two rupees per *naga*.

As, however, when the seeds are separated, the clean cotton is less than a half of the original quantity, the amount of clean cotton per acre may be estimated at two hundred sers, which, at the above valuation, will amount to about Rs. 9-4-0 and the value of the seeds being Rs. 1-4-0 will make the whole value (Rs. 10-8-0) of an acre ten rupees and a half. But from this is to be deducted the cost of cultivation, picking and cleaning, amounting to about four rupees, and thus leaves a balance of six rupees and a half (Rs. 6-8-0) as the profit of the cultivator.

An acre of gram yields about a hér, the price of which is now eight rupees; and estimating the cost of cultivation at three and a half rupees leaves a balance of four and a half rupees (Rs. 4-8-0) as the profit. But such a crop has generally an occasional row of owdla sown with it, the value of which, deducting the cost of gathering, &c., is about four rupees, thus making the total value of an acre equal to eight rupees and a half (Rs. 8-8-0).

If, however, this be an acre from which a second crop may be obtained, to this sum must be added the value of a crop of ellu, with rows of udu, which deducting for cultivation, &c., amounts to about four rupees, and in this case the value of the acre becomes upwards of twelve rupees (Rs. 12).

But, as in the rice lands, the most valuable crops cannot be grown every year, so, in the plain, cotton and gram must be sown alternately with some white crop.

Jola is that most generally made the rotation. An acre produces upwards of two and a half hérs, in value about six and a half rupees (Rs. 6-8-0) from which, deducting the cost of cultivation, reaping, &c., about three rupees, leaves a balance of three rupees and a half (3-8-0) as the profit of the cultivator.

But the pulse togari, frequently mixed with hurali, &c., being sown as an occasional row with it yields about three-fourths

($\frac{2}{4}$) of a *hér* in value, deducting the cost of reaping it, &c., to about two and a half rupees, which added to the former makes the total value of an acre of *jola* equal to six rupees or more.

The *average* value, then, of an acre of the best black soil of Bankápur, estimating (in the same manner as I have done with the Mallad soils) from these crops, will be upwards of eight rupees (Rs. 8).

I have purposely omitted the items of expense, &c., to prevent this report being tedious or unnecessarily long, but the above averages are calculated from data collected by myself at a large number of the villages.

The value of the inferior or indeed of any crops, it is next to impossible to ascertain from the *ryots*. They appear to have such apprehensions of their fields being considered valuable, should they give a true statement of their productiveness, that they always depreciate their soils, magnify the amount of labour and expense required for them, and state the produce to be so little that in most of the villages my investigations have been very unsatisfactory.

7. Having thus, as nearly as possible, shown the value of an acre of the best soil in rice lands, and the dry-crop soils of the open country adjoining, it will be seen that the former, in which the large description of sugarcane may be grown, is nearly six times, and in which the small kind only can be grown, three times, as valuable as the latter.

8. In conclusion, I may remark that there have been many things which lead me to modify the above results. My own opinion formed from personal observation, from casual conversation with people all over the district, and from the fact that a man may cultivate three or four acres in black dry-crop soils, for every one he could cultivate in the Mallad, is that if the best description of rice land, namely, that which has sufficient moisture to allow of the large cane being grown, be fixed at sixteen annas, the next best, in which the small cane only is produced, will be *ten* or *eleven*, the best dry-crop soil of the open country at *four* or *five*, and the red soils of both differing about a third in favour of the plain.

I have the honour to be,

Sir,

Your most obedient Servant,

(Signed) D. YOUNG,

Assistant Superintendent, Revenue Survey and
Assessment, Southern Marátha Country.

Accompaniment No. 7.

FROM

LIEUTENANT W. C. ANDERSON,
Assistant Superintendent, Revenue Survey and
Assessment, Southern Marátha Country;

To

CAPTAIN G. WINGATE,
Superintendent, Revenue Survey and
Assessment, Southern Marátha Country.

Hubli, 2nd July 1846.

SIR,

In compliance with the request contained in your letter No. 54 of 1846, I have the honour to forward a report on the villages contained in the Tadas Mahál as follows.

2. Heavy thunderstorms fall at intervals during the month of May, in which time the fields are ploughed and prepared for the reception of the seed. By about the 10th or 15th June the rains have in general regularly set in in this part of the zilla; the after or Mungari rains are slight and uncertain, consequently crops dependent on them are not generally planted.

3. The principal crop in this mahál is rice. For this, land is manured to the extent of 3 or 4 loads per acre on an average: of course if more manure than this is laid on and the rains are abundant the crop will gain proportionately; but should the rains chance to be deficient, if the land has been too highly manured the crop will grow too luxuriantly, and very probably will be dried up without coming to any ear; rice is sown before any other crop, about the commencement of the rains, that is, from about the 1st to the 15th June; the harvest commences about the 15th November in the drier irrigated land, in the lowest situations where the water stands the longest the crop is seldom fit to be reaped before the end of December. A very dry or very wet season may hasten or retard the time of harvest a fortnight either way, for instance, the rains last year being very deficient by the 10th December, there was hardly a field in the mahál from which the crop had not been removed, but a small proportion of the rice produced is consumed in the mahál, nearly all is exported principally through the Dhundshi bázár.

4. The crop of next and almost equal importance to rice is sugarcane; in good soil abundantly supplied with water it is planted in alternate years with rice; the land on which this crop is to be raised requires more manure than any other, in fact no quantity of manure would be considered too great; the cuttings are planted

during the month of February and require about one year to arrive at maturity, the crop being taken off the ground in the months of February and March; in the former month in light porous soils from which the water quickly drains off; but when the soil is stiff and retains water the time of cutting is postponed till the end of March; and even till the middle of April, as the cane will continue growing up to that time. The whole of the sugarcane produced is manufactured on the spot into gúr, every ryot manufacturing the produce of his own field; those who cultivate sugarcane extensively generally themselves possess the mill and other implements necessary for this manufacture; those who grow but little commonly hire the mill, &c., for as long as they may require it; except a very trifling quantity, all the gúr manufactured in the mahál is exported.

5. The third crop in order of importance is ragi, of which there are two varieties, "Mul Ragi" which is sown in the month of June after the first burst of the monsoon has abated and reaped in the month of October; the other variety "Large Ragi" is sown at the same time as Nowl Ragi and reaped in December; together with ragi a little mustard is frequently sown: both the varieties of ragi and also mustard are cultivated by the ryots entirely for their own consumption, none whatever is exported, or little or none sold.

6. The next crop is savi, of which there are two varieties: black savi sown from the 1st to the 15th of September and reaped in the latter half of December; the other variety, Muligi savi, sown after the first burst of the monsoon in June and reaped in September; but little of this second variety is cultivated in the villages near the jungles, as from its arriving at maturity before any other kind of grain, the whole attacks of the wild hog, &c., with which the jungles bordering on this mahál are infested would be concentrated on it, and it is not a crop of value sufficient to make it worth the trouble of watching. In preparing land for both savi and ragi a little manure is used, probably not more than one or two cart-loads per acre. Sometimes this is mixed with the seed and laid on together with it, with both kinds of ragi and the last-mentioned kind of savi; at intervals a row of turi is often drilled in: this is harvested in the month of January. This as well as savi is grown principally for home consumption; savi and ragi are both planted in clearings made in the middle of the jungles: in this case no manure is used besides the ashes of the underwood cleared from the ground; the same clearing produces a crop only two years in succession and then must be left fallow till the underwood has grown up to a sufficient height to be worth burning again.

7. Red jowári is cultivated though not to any extent. It is sown in the beginning of July and requires about 6 months to arrive at maturity, being reaped in January : manure is used every year ; none whatever is exported, sufficient even for home consumption not being produced.

8. In the villages on the north-eastern side in which black soil is found tíl is cultivated. Manure is laid on every year ; it is sown in the end of August and beginning of September ; it arrives at maturity in about 4 months, the harvest being in the end of December and beginning of January. All produced is consumed in the oil manufacture within the mahál.

9. White jowári and cotton are both cultivated to a very trifling extent, there being but a very little soil in the mahál calculated for growing these crops.

10. The remaining crops are kulti and kungoni sown together in red soils, there being four rows of the latter to one of the former ; they are sown in the end of August and harvested in January : this is considered to be a crop that does not greatly exhaust the soil, and is grown in rotation with ragi and savi, ragi the first year, the second savi, kulti and kungoni the third ; manure is only used the first and third year, savi not requiring any when grown after ragi. These articles of produce are principally cultivated for home consumption, none is exported ; múg of which there are two varieties "green" múg, an occasional row of which is sown with white jowári, and "black" múg an after-crop sown in rice land immediately after the rice has been reaped : this is harvested in March. Awara also an after-crop in rice land and harvested in April. Gram is also sown as an after-crop in rice land and harvested in April. Urid also an after-crop harvested in March ; these are all grown entirely for home consumption. After-crops are only raised in low tari land, which retains moisture during the hot weather on account of water being very near the surface ; there is much of this kind of land on the banks of the Benni-Nála near Dhundshi and Kunur.

11. In the few black soil villages there are in the Tadas Mahál, distance from the village would, I think, affect the value of and to about the same extent as in the villages of the Dambal Mahál on which I reported last year, as the crops and modes of husbandry are very similar in the red soil villages. The lands attached to each village are in general of so small an extent that all the lands will be found to be within one mile of the village in the majority of cases. Within one and a half miles there should be, I think, no reduction as the increased distance from the village will be amply made up for by the comparative freedom of the crop from

injury from cattle, &c. Wherever land may be found beyond one and a half miles from the village, two and a half or three annas would, I think, be an ample reduction and another two annas' reduction for every mile beyond that distance. I think the reduction for distance from the village in red soil villages should not be so great as in black, for the reason that in black soil districts there is seldom water to be found except in the immediate vicinity of the village, but in red soil districts water may be found everywhere except perhaps for a month or six weeks in the hot weather, when there is little to be done in the fields. I think, too, that something less of reduction should be made in tari land than in khushki, as a man would require less to induce him to go some distance to cultivate a field producing a valuable crop than to cultivate one at the same distance from the village, but producing a crop of perhaps not one quarter the value and on which also the profit would bear a much smaller proportion to the labour outlay. In the case of clearings in the jungle there should be, I think, a special reduction (at whatever distance they may be from the village) to make up for the extra labour expended in fencing and for keeping nightly watch against the depredations of animals from the jungle.

12. Gúr and rice are both conveyed to the bázár by the ryots themselves if the quantity be but small; in this case the rice is first freed from the husk. Should the quantity be large these articles of produce are collected and exported by Banias who go round from village to village for this purpose; in this case the rice is always in the husk. These Banias sometimes advance money on the crop while it is still on the ground, but this practice is now by no means so common as it was some years back.

13. In the Tadas Mahál there are three bázárs—Tadas, Arlikatti and Dhundshi. Besides these some of the people of the villages in the northern part of the mahál attend the Hubli bázár, and some of those of the western villages attend the bázár held at Kalghatgi in the Mishrikot Mahál; to the Tadas bázár, with the single exception of gur, most of the produce grown in the immediate vicinity and not required by the producers for home consumption is brought for sale. A bázár is held every Tuesday throughout the year; a few merchants from Hubli, Kundgol, Shirhatti and Mulgund attend this bázár, bringing a portion of their bullocks laden with wheat, bájri and other produce of the black plains and the remainder unladen. They return with all their bullocks laden with rice. The imports of wheat, bájri, &c., amount to about 25 rupees worth every bázár-day, and the exports of rice to about 100 rupees worth; these imports and exports being equally shared between the four towns above mentioned.

14. The Arlikatti bázár is of considerably greater importance, and is much more largely attended than that of Tadas. A bázár is held every Thursday throughout the year; it is the principal market for the produce of the northern villages of the mahál; it is frequented by the people of the neighbouring villages of the Mishrikot Mahál, and also by those of the adjoining Patwardhan villages, and by merchants from the towns of Hubli and Kundgol. A considerable quantity (about 300 rupees worth every bázár-day) of coarse cotton cloth is sold here and principally exported to Hubli. A little less than one-half of it is manufactured in Arlikatti itself, the other half is made in the neighbouring villages Chabi, Mallalli, Kankur and Agdi. A small portion of the raw cotton is grown in the five villages, in which it is manufactured, and the adjacent black soil villages; the remainder is imported from the adjoining Patwardhan táluka of Kundgol. The inhabitants of the villages of this mahál go there in the season to pick cotton and receive their wages in kind. There is also a considerable quantity of oil manufactured in Arlikatti; about 50 maunds (worth at present Rs. 150) are sold every bázár-day, about one-half is consumed within the mahál, and the remainder is exported to Sirsi in the Kánara Zilla. This oil is made from safflower seed (kusumba) and from sesamum seed (tíl); the latter is grown in Arlikatti and the adjacent villages of the Tadas and Mishrikot Mahál. The safflower seed is almost entirely exported from the Kundgol Táluka. The oil is exported to Sirsi by the Arlikatti Banias; the bullocks generally return unladen. There is also a trifling trade with the Kundgol Táluka, rice being bartered for wheat, bájri, jowári. The Arlikatti Banias also export wheat, mág, turi, and a little cloth to Nandgad in the Bidi Táluka of the Belgaum Collectorate, and from the same place import salt. They also import about 200 bullock-loads of cotton from the Patwardhan country for exportation to Kumta. The bullocks, in returning; import small quantities of supári and catechu from Sirsi; otherwise they return unladen.

15. The third and by far the largest bázár is that of Dhundshi held every Wednesday and Thursday throughout the year. During the six months from the 1st December to the setting in of the rains, the imports amount to about 4,800 rupees weekly; during the other six months there is little traffic from the state of the roads and weather, the bázár being only attended by the people of the immediate vicinity. Nearly the whole of the gúr manufactured from the sugarcane grown in the Tadas Mahál and the adjoining parts of the Hángal Táluka is brought to this bázár for sale, and also the whole of the rice produced in the neighbourhood. It is largely attended by merchants from every part of this zilla, and from Belgaum, Ron, Bágalkot, Kittúr and from

every town of consequence within 80 or 100 miles ; it is the great mart in this part of the country for the people of the black plain to meet and exchange their produce—wheat, jowári, &c., for the produce raised and imported by those inhabiting the Mallad districts and those adjacent to the Gháts—rice, gur, pepper, coconuts, salt, &c. I subjoin to this report a tabular approximate statement of the trade that passes through Dhundshi weekly : not more than one bullock in ten comes from the black plain laden, the return loads of the remainder being paid for in cash.

16. I am not aware of there being any minerals worked in the Tadas Mahál ; iron stone of a quality apparently similar to that worked in the Dambal Táluka is plentifully scattered about in detached pieces on the surface in the neighbourhood of Tadas. Slate also of excellent quality and in slabs of large size may be obtained in the lands of Tabkad-Honihalli ; it is not quarried to any extent, being only made use of for floor, steps, &c.

17. In general the state of the villages appears better than I have seen in other parts of the zilla ; something in the shape of a road is made in the streets of every village of any size, with effective drains dug on each side ; at first sight, owing to the people being scattered in a number of small villages, the population appears to be scanty, but this is not the case ; in the villages under the Mahálkari, exclusive of jungles, there are about 90 square miles and a population of 20,593 by the census of last year, which will give an average of 2,288 inhabitants to each square mile, by no means a scanty population, yet I am inclined to think that the population was once considerably greater, and even now it experiences an yearly decrease. This cannot, however, be ascertained with absolute certainty, as till 1845 no census that could be depended on was taken ; by this census the births in the year from the 1st May 1845 to the 1st May 1846 amounted to 624 and the deaths to 904, giving an excess of deaths over births amounting to 280. Of the 65 villages (including 8 inám), under the jurisdiction of the Mahálkari, 13 are villages in name only, being entirely deserted ; and 5 more are little better, the population of each being within 50 souls. The natives say that nearly all these villages were inhabited and their lands cultivated at no very distant period, and, as some proof of the truth of what they say, I may state that even yet in the middle of the jungles in many places the small banks of Tarri laud may be traced plainly. I do not think this decrease in the number of inhabited villages can be ascribed to the centralization of the population in the larger villages, but I think the population of the country is gradually and generally decreasing, cholera and small-pox being the most active agents in effecting this decrease, and in this opinion I am borne out by the natives

themselves. They all concur in saying that cholera was a disease unknown in the country till about 25 years ago ; that, when first introduced, it only visited them at considerable intervals, but of late years its visits have become much more frequent. I have had a search made in the Mámlatdár's Kacheri for any papers relating to this subject, and find there are no records earlier than 1825. From those it appears that from 1825 to 1839, inclusive, in 5 years only did cholera scarcely visit this táluka; from 1839 there are no records in the Kacheri, but I know that it prevailed in 1842 to 1845 and the present year, 3 years out of 5. When cholera is prevalent I think many lives might be saved if very slight medical aid was given by Government. At present medicines and directions are placed in the Maháلكari's and Mámlatdár's Kacheris; the people are, in a few words, informed that the medicines are there and can be had for the asking and then the business ends; no one is specially charged with dispensing or in advising the use of the medicines; consequently, they remain in the Kacheri from one end of the year to the other. The numbers carried off by small-pox are, I imagine, not much less than those carried off by cholera; what precise numbers die in any specified time from this disease cannot be ascertained, as no report is made as of those dying of cholera. But few villages of any size are free from it for any length of time together; the people have in general heard that there is such a thing as vaccination and perfectly understand the advantages of it, as far as I could ascertain. No vaccinator had visited the mahál since 1826; vaccination was then a new thing to the natives and but a few availed themselves of the opportunity; those few who did, they say, escaped the small-pox. I think if it could be arranged that each village should be occasionally visited by a vaccinator, in a short time the people would be found just as willing to avail themselves of his services as they are at present in England.

18. It may be thought that I have digressed from the line marked out in entering on the subjects mentioned in the last paragraph, but the vital importance of the subject, both to Government and the people, must stand for my excuse.

I have the honour to be,

Sir,

Your most obedient Servant,

(Signed) W. C. ANDERSON,

Assistant Superintendent, Revenue Survey and
Assessment, Southern Marátha Country.

No. 232 OF 1848.

FROM

MR. W. A. GOLDFINCH,
First Assistant Collector in charge Dhárwár ;

TO

E. H. TOWNSEND, Esq.,
Revenue Commissioner, S. D.

*Dhárwár Districts, Collector's Office,
Camp Tadas, 5th February 1848.*

SIR,

I have the honour to forward in original a report from Captain Wingate, regarding the survey and assessment of the talukas of Ránebennur, Hángal and Tadas Mahálkari's division of the Hubli Taluka.

2. I see from the records of this office that the Acting Collector, in forwarding the report on the Bankápur Taluka last year, wrote a long accompaniment; this seems to me superfluous unless there may happen to be a difference in opinion on the points touched upon. As I heartily concur in all the views expressed by Captain Wingate, I shall refrain from clogging his most admirable report with any remarks.

3. In his 31st para., Captain Wingate expressed his intention of writing a separate report regarding the conservation of tanks, water-courses, &c., as this is a subject of the utmost importance. I shall request Captain Wingate to fulfil this promise as soon as he conveniently can. An arrangement of this point should go hand in hand with the revised rates; a low assessment alone will have no effect in increasing; it will not even preserve the present amount of garden cultivation *beneath tanks*—the case of the village of Naregal quoted by Captain Wingate shows that garden cultivation will continue, and the ryots flourish under a very heavy assessment, but no reduction in the latter will compensate for a scanty supply of water; it is to our neglect of the works of irrigation for more than the heavy assessment, that the decay in this, the most profitable and secure of all modes of cultivation, is to be attributed. I will only add that I trust you, if possible, obtain the sanction of Government for these rates in time, to allow the settlement of the current year to be made accordingly; the ryots have been led to expect it, and it is only lately that there existed any doubts as to its practicability. To defer the introduction for another year will be a very grievous disappointment to them and to myself, and I think I may say for Captain Wingate that nothing would give him greater pleasure than to preside this year over a jamábandi where so many happy faces will be collected.

4. On the score of expense there will be no saving by deferring the introduction of the new rates for another year. In all these talukas the crops have in many villages been very scanty; in Ránebennur particularly there are 20 or 25 villages, where I anticipate it will be necessary to remit at least one-half of the revenue. You must know from experience how unsatisfactory these remissions are—no one is satisfied—those who get no remissions are jealous of those who do, and those who do get remission make it a point to wrangle for more. One is never certain that the remissions are properly apportioned, and all is doubt and uncertainty on the part of the settling officers—squabbling and discontent on the part of the ryots; all this will be avoided if the assessment can be introduced; in that case no remission will be expected or required, the hopes of the ryots will not be disappointed and all will be satisfied. I feel assured that with your kind co-operation this most desirable object may be obtained.

I have, &c.,

W. A. GOLDFINCH,
First Assistant Collector in charge.

No. 651 of 1848.

FROM

E. H. TOWNSEND, Esq.,
Revenue Commissioner, S. D.;

TO

W. A. GOLDFINCH, Esq.,
First Assistant Collector in charge Dhárwár.

*Ahmednagar District,
Revenue Commissioner's Office,
Camp Ráhuri, 21st February 1848.*

SIR,

With reference to your letter No. 232, dated the 25th instant, submitting Captain Wingate's report on the survey and assessment of the talukas of Ránebennur and Hángal and Tadas Mahál, I have the honour to request that you will obtain from that officer and submit a *village* statement for each of the above divisions of the zilla, a form for which is hereto appended. To save time, I would suggest that the document be framed in the Maráthi language.

I have, &c.,
E. H. TOWNSEND,
Revenue Commissioner, S. D.

STATEMENT contrasting the average Amount of Collections, for 29 years, of two Villages of the Sangamner Táluka of Ahmednagar, with the average Amount of Revenue and the Rates of Assessment given by the Survey on the entire arable lands of each village.

No.	Name of Village.	Total amount of first 10 years' collection.	Annual Average.	Total amount of second 10 years' collection.	Annual Average.	Total amount of the remaining 9 years' collection.	Annual Average.	AVERAGE CULTIVATION, COLLECTIONS, &c, FOR 10 YEARS.				AVERAGE ACCORDING TO THE SURVEY.			DIFFERENCE BETWEEN THE 10 YEARS' AVERAGE AND THAT GIVEN BY THE SURVEY.	
								Cultivation in Bighas.	Do. in Acres.	Collections	Rate of Assessment per Acre.	Total extent of arable land in Acres.	Highest Revenue realizable	Rate per Acre.	Decrease by the Survey.	Increase by the Survey.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Kudith Budrukh ..	Rs 1,930	Rs. s. p. 198 0 0	Rs. 2,468	Rs. s. p. 246 4 9	Rs. 2,688	Rs. s. p. 296 7 1		A. g. s 381	Rs. 246 6 4	Rs. 260	Rs. s. p. 1 0 2	Rs. 453	Rs. s. p. 536 1 2 6	..	Rs. s. p. 0 2 4
2	Kudith Khurd ..	1,274	127 6 4	1,941	194 1 7	1,655	183 14 2	396	191 4 12	168	0 14 0	474	558	1 2 10	..	0 4 10

E. H. TOWNSEND,
Revenue Commissioner, S. D.

No. 397 OF 1848.

FROM

MR. W. A. GOLDFINCH,
First Assistant Collector in charge Dhárwár ;

TO

E. H. TOWNSEND, Esq.,
Revenue Commissioner, S. D.

*Dhárwár Districts, Collector's Office,
Camp Tadas, 3rd March 1848.*

SIR,

With reference to your letter No. 651, dated 21st ultimo, with enclosure, calling for further information on the proposed introduction of the new survey rates into the Ránebennur and Hángal tálukas and the Tadas Mahál, I do myself the honour to forward copy of a letter from Captain Wingate, No. 48, dated 2nd instant, stating that three months will be required to prepare the information called for. It appears to me that if the principles of the assessment are understood and approved of, the detailed information called for by you can hardly be necessary, especially when it will require extra establishment, and what is worse, it will cause the introduction of the new rates of assessment to be delayed for another year. I trust, therefore, under the circumstances stated by Captain Wingate, that you will not consider it expedient to delay the transmission to Government of his report on this account.

I have the honour to be,

Sir,

Your most obedient Servant,

W. A. GOLDFINCH,
First Assistant Collector in charge.

No. 48 of 1848.'

FROM

CAPTAIN G. WINGATE,
 Superintendent, Revenue Survey and Assessment,
 Southern Marátha Country;

TO

W. A. GOLDFINCH, Esq.,
 First Assistant Collector in charge Dhárwár.

*Superintendent's Office at Camp Bomigutteh,
 Hubli Táluka, 2nd March 1848.*

SIR,

I have the honour to inform you that the *village* statement for the tálukas of Ránebennur, Hángal and the Tadas Division of Hubli called for by the Revenue Commissioner in his letter to your address of 21st ultimo, No. 651, copy of which was transmitted to me with your memorandum of 28th idem, cannot, with every possible exertion, be furnished within three months from this date, and only then by means of extra kárkúns entertained for the express duty. I should be obliged then by your informing the Revenue Commissioner of this, and ascertaining from him whether he considers the statement to be of importance enough to require the introduction of the survey rates to be postponed for another year, and to authorize me to incur the expense necessary to its preparation.

2. As this is the first instance, to my knowledge, of information of so detailed a description having been called for in elucidation of proposals for assessment, and as it involves important consequences, I shall make no apology for devoting a few observations to the subject. It seems to me to imply that the Revenue Commissioner considers himself responsible, not alone for the soundness of the principles on which the revision of assessment proceeds, but also for the accuracy and suitability of its details. Now, in my humble judgment, a correct opinion regarding the latter could only be formed by one having a minute local knowledge of the districts for which the rates have been proposed, and of the various survey operations by which they may have been adjusted. These are matters for which the Superintendent of Survey has hitherto been considered responsible, and for the successful execution of which Government have hitherto relied on his judgment and experience, but the present call for detailed

information would appear to indicate a total change of system, and that the revising authorities now think it advisable to relieve the Superintendent of this responsibility, and themselves determine not alone the value of the general results of his operations, for which no local experience is requisite, but also their value in individual cases, as in the suitability of the rates to any particular village or field, for which an extensive local experience has hitherto been deemed indispensable.

3. The change, in my humble opinion, will form no improvement on the pre-existing practice, and lead, I fear, to much inconvenience and eventual disappointment. The attempt to elucidate the applicability of the Superintendent's proposals in detail by means of the imperfect information to be obtained by any amount of figured statements, will, it appears to me, prove a failure. It will probably lead to a further discussion of subordinate points, and is not unlikely to end in the real gist of the subject-matter becoming at length buried up and lost beyond recovery under a groaning heap of wearisome details, adding thus another instance of a defect which has been remarked as a characteristic of Indian correspondence in general.

4. Another serious objection to the contemplated change of system is the effect it may have on the progress of the survey operations. The latter, in a department so extensive as that under my control, can only be successfully and economically pursued by the observance of all possible regularity and system. The Superintendent should be in a position to calculate exactly, where, when, and how his whole department can be most advantageously employed, and any interference with his pre-concerted arrangements, such as deferring the settlement of one or more districts for a season beyond the time he had fixed, might derange his operations for years to come, and occasion a very serious addition of expense to Government. It might also be objected to the new plan, that it will involve the calculation of the assessment in its minutest details, many months before its introduction can be attempted, and by the knowledge thus acquired our native subordinates would have considerable opportunities afforded them for jobbing and fraud in the disposal of land, by collusion with the village officers or others.

5. With the view, therefore, of averting or meeting these and other serious objections that might be urged against the contemplated change of system, I feel very desirous that the subject should be submitted for the instructions of Government. And in event of the supply of more detailed information than has hitherto been customary being considered desirable, I would urgently solicit that the particular form in which it is to be submitted may

be laid down by Government, and strictly adhered to in future, in order to avert the great inconvenience and expense that must ever result from unexpected calls on the Superintendent for information requiring much time to prepare, and involving delays that might have the effect of disconcerting all his pre-arranged plans.

I have, &c.,

G. WINGATE,

Superintendent, Revenue Survey and Assessment,
Southern Marátha Country.

No. 898 OF 1848.

FROM

E. H. TOWNSEND, Esq.,
Revenue Commissioner, S. D. ;

TO

W. A. GOLDFINCH, Esq.,
First Assistant Collector in charge Dhárwár.

*Ahmednagar District,
Revenue Commissioner's Camp,
Kirkee, 11th March 1848.*

SIR,

Adverting to your letter dated 5th February, No. 232 (not received till the 17th of that month), and to mine of 21st idem, (No. 651), I have the honor to request, that you will procure the following additional information from the Superintendent of the Survey, Captain Wingate, regarding the Tálukas of Ránebennur and Hángal, and the Maháلكari's Division of Tadas, proposed rates for which accompany your letter above quoted.

2. Which of the officers, whose reports accompany that of the Superintendent, conducted or controlled the measurement of each of the districts now reported on, when did the work commence, and when was it completed?

3. Information similar to the above is requested concerning the classification : the Superintendent will perhaps be good enough to frame a statement in tabular form, containing the above information.

4. What extent of test was kept up on both operations? and by whom was the test made, *i.e.*, was it made by Natives or Europeans? and in what proportion by each? What was the average amount of error in both discovered? and in what instances did such discovery lead to re-measurement or re-classification? and what amount of error was suffered to pass? That Government require the above information to be supplied with all such reports, will appear from the accompanying extracts, being paragraphs 3, 4 and 5 of a letter from Mr. Secretary Goldsmid, dated 27th November last (No. 4981) in reply to one from me, recommending, for adoption, certain rates proposed by the late Superintendent of the Deccan Survey.

5. In his 46th paragraph, the Superintendent shows what have been the realizations last year on each of the four classes of villages into which he divides the Hángal Táluka; and for each of which, in paragraph 54, he proposes rates. Has the Superintendent tried, in like manner, the effects of his proposed rates on each class of land in these villages, by contrasting the past realizations, for a given number of years, of *each field*, with the entire amount of the proposed survey rate on each? and if so, with what result? Do the new rates generally preserve or alter the present gradations of prices (so far as any may be said to exist—*vide* Superintendent's paragraph 50) in different fields of the same village?

6. In explanation of the above questions, I transmit a form of statement in Maráthi, which I request you will ask the Superintendent to fill up for any two Jiráít, one rice, and one Bágáít, villages, in each of the three districts now reported on by him (in which the above three varieties exist) in which the rates now proposed exhibit (as compared with other villages of the same táluka) the *greatest contrast*, whether of increase or decrease, with the average collections of the last eighteen or twenty years. The Superintendent will be good enough to add a column to each statement, to show in what class each field is entered; and to favor me with such remarks and explanations as may occur to him regarding the difference between past receipts, and the proposed assessment. With the form an explanatory yád accompanies, and accounts of some fields are filled in to show how the form should be applied.

7. Where the proportions between the old Kumal of any particular field as shown in columns 8 or 11, and the new Kumal (column 15) are pretty much the same that those the entire village bear to each other in those several columns, little, if any, explanation is requisite: thus if the survey reduced the revenue of a village by 30 per cent., the same argument which applies to the whole village, will apply to each field, in which a similar reduction may have taken place.

8. But if in a village whose revenue is reduced as above described, the assessment of a certain class of fields is considerably *raised*, some explanation would be desirable, of the principles on which such increase was effected; and of the circumstances which satisfied the Superintendent, that such an alteration in the relative assessment of the village lands was expedient.

9. In cases which discover a large deviation from the general rule (whether of increase or reduction of assessment) in one or more fields of a village, but where a whole class of land has not been effected, I shall be obliged by the Superintendent's ascertaining in the first place, that the measurement and classification of the field or fields in question are correct, and next, by his explaining the causes of the large increase or decrease which the above supposed examples may discover.

10. I fully participate in the desire expressed in your letter under reply, to see the new rates introduced this year; and should you favour me with an early reply, the least possible time shall be lost in forwarding Captain Wingate's report to Government, more especially if he furnishes me with a copy of it.

I have, &c.,
E. H. TOWNSEND,
Revenue Commissioner, S. D.

No. 597 OF 1848.

FROM

W. W. BELL, Esq.,
Collector of Dhárwár ;

TO

E. H. TOWNSEND, Esq.,
Revenue Commissioner, S. D.
Dhárwár Collector's Office, 30th March 1848.

SIR,

I do myself the honor to forward in original, as requested by Captain Wingate, a report from that officer, supplying, as far as he is able, the information relative to the proposed assessment in the Tálukas of Ránebennur, Hángal and Tadas, called for in your letter No. 898, dated the 11th instant.

2. I will not delay the transmission of this interesting and satisfactory report by offering any remarks on the lucid explanation of Captain Wingate, but confine myself to remarking that this paper seems to me to convey all the information necessary to satisfy

you and the Government that the details of the survey have been conducted with every care, and that a high degree of accuracy, both of measurement and classification, has been attained. On the points on which Captain Wingate has failed to supply the information you have required, I would observe that the value of the present operations can with no advantage be tested by a comparison of their financial results with the revenue, whether on each field, or each village, realized under the old system. Such a comparison may be interesting, and it is doubtless desirable to know what amount of revenue Government is to abandon in consequence of the new scheme, but the results of such comparison can in no way affect the value, or raise a doubt regarding the accuracy of the new assessment and survey. The admitted defects of the old system are the cause of instituting the new, and no good result can follow the testing of the soundness of the new system by comparison with one professedly rotten.

3. The great safeguard of the new assessment must depend on the soundness and applicability of the principles by which it is regulated. The technical details must be left (to use Captain Wingate's words) "to the judgment, experience and practical tact of those conducting it" with the exercise of such general supervision by local authorities as may be practicable. The responsibility should rest entirely with these parties, for they alone are competent to judge of the minute details of the operations,

I have, &c.,
W. W. BELL,
Collector,

No. 65 of 1848,

FROM

CAPTAIN G. WINGATE,
Superintendent, Revenue Survey and Assessment,
Southern Marátha Country ;

TO

W. W. BELL, Esq.,
Collector of Dhárwár.

*Dhárwár District,
Superintendent's Office at Camp Kusnur,
Code Táluka, 28th March 1848.*

SIR,

I now do myself the honour to furnish, as far as the data in my possession admit, the further information regarding the Tálukas of Ránebennur, Hángal and Tadas, (for which rates of assess-

ment have been proposed in my report dated 26th January last, No. 15,) called for by the Revenue Commissioner, S. D., in his letter of 11th instant, No. 898, which with its accompaniments is herewith returned.

2. To the questions contained in the 2nd, 3rd and 4th paras. of the Revenue Commissioner's communication, I beg to submit the following replies.

3. The measurement of all the tálukas above named was commenced during the season 1845-46; two Measuring Establishments under the superintendence of Lieutenants G. Anderson and Biggs, respectively, being assigned to Ránebennur; two likewise, under the superintendence of Lieutenant Fanning and Mr. J. H. Springer, to the Táluka of Hángal, and one Measuring Establishment to the Tadas Division of Hubli, under the superintendence of Lieutenant W. C. Anderson. The measurements were completed in the following season under the superintendence of Lieutenant G. Anderson in Ránebennur,* Mr. Springer in Hángal, and Lieutenant W. C. Anderson in Tadas; the Establishments of Lieutenants Fanning and Biggs having this year been removed to other tálukas.

4. The classification of the soil of the Ránebennur and Hángal Tálukas was commenced towards the close of the season 1845-46, by two native establishments under the superintendence of Lieutenant Francis and Mr. Young; but only a few villages in each táluka were completed in this season. The work was resumed by the same officers in 1846-47, when the Hángal Táluka was completed, and Mr. Young's establishment was then moved into Tadas, which was also finished in the same year. Ránebennur was so also, with the exception of some villages of which the measurements could not be completed in time, and these have been classified by Mr. Young's establishment in the course of the present season 1847-48. It thus appears that the classification of the Tálukas of Ránebennur and Hángal was nearly all effected in the course of a single season, viz., 1846-47, by two native establishments under different European officers, and that of the entire Tadas Division in the course of the same season by one establishment.

5. The proportion of the work submitted to test and the degree of accuracy attained, are exhibited in the following statement:—

* Portions of a few villages of this táluka were not completed till the present season 1847-48.

Name of Tálukas.	Number of Villages.	Arable Acres.	Measurement and Classification.	NATURE, EXTENT AND RESULT OF TEST.										
				Number of Villages.	By EUROPEAN OFFICERS.				By NATIVES.			TOTAL.		
					Number of acres tested.	Average error.		Number of acres tested.	Average error.		Number of acres tested.	Average error.		
						Per cent.	Per field.		Per cent.	Per field.		Per cent.	Per field.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Ránebenaur . . .	130	2,76,202	Measurement . . .	61	10,218	0 95	..	1,331	0 94	..	11,548	0 95	..	
			Classification . . .	111	14,564	..	0-0-8	1,575	..	0-0-8	16,140	..	0-0-8	..
Hángal . . .	180	1,79,473	Measurement . . .	195	21,028	0 88	..	359	1 05	..	21,387	0 84	..	
			Classification . . .	130	9,495	..	0-0-9	2,174	..	0-0-9	8,092	..	0-0-9	..
Tadas . . .	54	58,769	Measurement . . .	41	5,787	0 64	..	442	0 55	..	6,229	0 63	..	
			Classification . . .	42	3,439	..	0-0-9	211	3,650	..	0-0-9	..

6. This table, I request it to be understood, refers to the completed work, and does not therefore include the test of any measurement or classification which has been disallowed. It embraces the test of admitted but not of rejected work, which is necessary to give a fair idea of the accuracy of the completed operations. A few villages in which the work did not appear sufficiently satisfactory were re-measured and re-classed, but not having the particulars by me, I am unable to state the exact number, and unwilling to detain this letter for the supply of this omission. I have written for the details, however, and will furnish them in a postscript, or separate letter should they not arrive in time. The record of such rejected work is usually destroyed as useless; but I may mention that in the case of the measurement, even when the work is rejected, the average error is generally very small, and as far as the degree of correctness in the area of fields necessary for the purpose of assessment is concerned, I do not recollect a case of a single village in which the measurements would have required to have been reversed. The most common cause of their being so is, that owing to some mistakes which cannot be discovered, or to carelessness in the work generally, though not probably involving an average error of 3 per cent. in the area, the map will not plot properly, and it becomes therefore requisite to re-measure the village in order to get a correct map, and be assured that no error remains even in the measurement of particular fields.

7. In the case of the classification, it is impossible to state the exact amount of error allowed to pass, as many circumstances,

come into operation to modify our estimate of misclassification. When the fields are very small and classed in few shares, a difference of opinion between the original Classer and Tester regarding the value of even a single share, will affect the result considerably. For instance, the size of the plots into which a field is divided for the purpose of classification generally varies from 2 to 4 acres. In a field under 2 acres, therefore, the class is generally ascertained from one examination, and as there is frequently a doubt between two contiguous classes, the putting of the field in one by the original Classer, and in the other by the Tester, would cause a difference in their estimates of 2 annas of our classification scale. This, in such instances, would not be considered an error of much consequence, but in a larger field divided into several shares it would, and if any considerable proportion of the fields tested exhibited an error of this amount the village would be re-classified. Errors in excess of 2 annas in the classification rate of a field are of very rare occurrence. Out of 100 fields taken without any selection from the test entered in the preceding table, I find only 4 in which the error exceeds two annas. In these four the errors are respectively 2 annas 1 pie, 2 annas 5 pies, 2 annas 7 pies, and 3 annas 3 pies. In the last instance alone would there be cause for apprehending the misclassification to be so serious as to interfere with the success of the assessment, and even here only in event of the error being on the side of *over-valuation*. If this example then affords a fair criterion of the accuracy of the classification generally, and I believe that it does, we may conclude that serious errors of *over-valuation* likely to interfere with cultivation, do not exceed half per cent. of the whole number of fields classed; and this, I trust, will be deemed a sufficiently satisfactory result.

8. It appears from the 13th column of the preceding statement, that the average difference between the original measurement and test is within 1 per cent. in all the three *tálukas*, which is perhaps as close an approximation to perfect accuracy as is attainable on a detailed survey; and, at any rate, goes far beyond the degree of correctness requisite for revenue purposes. This degree of accuracy is mainly due to the system of plotting by scale village maps from the field maps, which cannot be done unless the latter be almost absolutely correct. An error to the extent of a single chain in any measured line will interfere with the plotting of the village map, and can hardly fail of being discovered by the measurer during the process. He may indeed pass it over, and endeavour in technical terms to *make his map meet* by altering slightly the shape of one or more fields; but the attempt very generally causes him a great deal of extra trouble, and is almost certain of being discovered when the map is examined, so that it becomes a far simpler and safer process for the measurer to

correct any error than to attempt to conceal it. The result is that the measurements are performed with a degree of care and accuracy that has often surprised myself, and I believe that our village maps may, in point of accuracy, now challenge a comparison with those of detailed surveys executed according to the most approved methods of conducting such operations in Europe.

9. Another advantage of the plan is, that the accuracy of the measurements may be as certainly determined by a test made in the Kacheri as in the field. A village map is constructed by bringing together in their appropriate places the maps of the several fields of which the village consists. The map of each field may be compared to each separate piece of an ordinary Chinese puzzle, which could not be built up into one continuous whole, if any one piece of it were of any other shape than it actually is. In like manner, if any map of a field be not of the exact shape of the field it represents, it will not fit into its place in the village map, the correct construction of the latter being only compatible with correctness in the maps of the fields of which it is made up. By measuring, therefore, from the scale on which the map is constructed, the dimensions of any of the fields on the village map, and ascertaining that they agree with the entries in the field book of the measurements made in the field, we arrive at as satisfactory a conclusion regarding the accuracy of the latter, as we could do by an actual re-survey of the ground. This is a much more satisfactory test than is to be obtained by deputing a native to re-survey a portion of any completed village, and I trust to it with the utmost confidence for the accuracy of the measurements in those villages, which the European officers have not been able to test.

10. In Ránebennur, the number of villages tested would have been considerably greater; but for the circumstance of the two European officers, Lieutenants G. Anderson and Biggs, who superintended the measurements there, having been withdrawn from the department during two months of the season 1845-46 in order to join their Corps in Sind. The villages not tested, however, were carefully examined in Kacheri, and I have no hesitation in pronouncing the measurements in them to be quite as accurate as in the villages submitted to test in the field.

11. The accuracy attained in the classification can hardly be considered less satisfactory. The average difference between the original classification and test, being, as shown in the last column of the preceding statement, 8 pies of our classification scale for Ránebennur, and 9 pies for Hángal and Tadas, on the valuation of each field. This is less than one-half the difference in value, measured by the same scale, between two adjoining classes of soils in our classification table. And as this average difference between

the original classification and test has hardly varied during the last three years, I am inclined to think that a closer agreement between the estimates of different individuals is hardly attainable, and that the classification of the soil generally throughout the above period has been effected with as great a degree of accuracy as the process admits of.

12. It will have been observed that the classification of Ránebennur and Hángal has been performed by separate establishments under different officers, and it may be thought that though the test shows a considerable degree of uniformity in the work of each establishment to have been attained, there is still no security for the work of both establishments being alike, and consequently that the application of the same rates to the villages classed by each might be productive of inequality of assessment. This has been guarded against by the operation being conducted according to the same rules in both establishments, and by the rules themselves being made as clear and definite as possible. For a fuller exposition of the system, I beg to refer the Revenue Commissioner to paras. 38 and following of a joint report by the several Superintendents of Survey, dated 2nd August 1847, the plan of operations therein described having been followed on this survey for several years past. The European officers superintending the operation, moreover, have a thorough acquaintance with all the details of the system, having had their undivided attention devoted to it since they entered the Department six years ago; and having each only 12 classers to superintend, they are enabled to test the work of all of them at very short intervals, and thus to prevent any deviation from what they consider the proper standards. There would still be danger, however, of the European officers themselves insensibly adopting somewhat different opinions regarding the interpretation of the classification rules, and this I endeavour to guard against, by devoting a portion of each season to accompany them during their tests of the work of their establishments. I have done this every year since the survey has been under my superintendence, and the practice has enabled me to see that proper uniformity is kept up, and to point out to them any tendencies I may observe in their respective classifications to deviate from my own interpretation of the system. And the result of the whole satisfies me that the same rates of assessment may be applied to the work of both establishments with the utmost confidence as to the result.

13. The preceding observations refer to the classification of the soil. The classification of the supply of water in the case of rice and garden lands forms also a very important element in estimating their value. There are two ways in which this might

be done. The first and most systematic would be to have, as in the classification of the soil, a certain number of classes, denoting the varying supplies of water at the command of each field, or each portion of it, the characteristics of each class being defined by sufficiently clear rules to be readily applicable to all the varieties of circumstance actually met with in the field. The construction of such a system would require a most extended acquaintance with all the varieties of irrigation in the localities to which it was intended to apply it; but this degree of knowledge neither myself nor any of my Assistants possessed when the classification of the irrigated lands of the districts referred to in my report was undertaken, as our experience had previously been chiefly confined to dry-crop districts. Another method was open by which the classers, instead of fixing in the field the relative valuation or classification of the supply of water, should simply record all particulars connected with it, and leave the classification to be made at a future period when the requisite knowledge for the purpose had been acquired.

14. The latter was the plan followed in the *tálukas* of Ráne-bennur, Hángal and Tadas, and the various particulars connected with the supply of water to each field enumerated in the 67th para. of my report have been recorded in the classer's books, in compliance with definite instructions on the subject. From a consideration of these particulars, I afterwards, while determining the rate of assessment for each field, fix the class of water, and the comparatively large experience I have now had of irrigated land in all parts of the Collectorate enables me to do so with considerable confidence. The manner in which the classers have performed their share of duty was generally satisfactory; and the information thus collected will, I feel confident, enable me to regulate the detailed rates, so as to secure a sufficiently equitable assessment of irrigated land.

15. The former plan by which the class of water could be assigned to each part of an irrigated field by the Classer on the spot, I consider preferable, as likely to afford more correct results which could also be subjected to a more systematic and satisfactory test; but for the reasons already stated, this could not be accomplished in the districts to which my observations refer. In the present season, however, I have introduced such a plan by which the class of water in the case of rice fields is defined with the same ease and certainty as that of the soil. The plan is working most satisfactorily; but, as foreign to the subject of this letter, I need not do more than allude to it here. In the case of garden land, the number of particulars and variety of circumstances affecting the supply of water are so great, that I have not been able to lay

down any definite rules on the subject, and continue to reserve to myself the determination of the water class, on a consideration of the various peculiarities of each case.

16. Before proceeding to notice the remaining points brought forward in the Revenue Commissioner's reference, I think it desirable to explain that the degree of accuracy with which the survey operations in the talukas of Ránebennur, Hángal and Tadas have been executed, was not noticed in my report of 26th January last, No. 15, from my desire to admit nothing into the letter that did not immediately bear on the subject of the assessment, and because I have been in the habit of reserving all such details for my annual progress reports, in which they will be found fully elucidated.

17. With reference to the query contained in the 5th para. of the Revenue Commissioner's letter, I beg to state that I have not tried the effects of my proposed rates by contrasting the past realizations for a given number of years of *each field*, with the entire amount of the proposed survey rate on each. I do not think that any useful conclusion could be arrived at by such a comparison in the case of the districts referred to, and, were it otherwise, I should have been equally precluded from the adoption of the course suggested by the want of any sufficient information for the purpose.

18. There are no available nor, I believe, existing data from which the Revenue Commissioner's statement could be prepared. It proposes to ascertain the assessment realized on account of the old fields or sub-divisions of the village area, in order to compare this with the proposed assessment of the same sub-divisions. But to do this it is evidently requisite that we should know exactly what these old fields were, and possess the means of identifying them with our present survey sub-divisions. We must be able, for instance, to say that the "Mar," or other denomination of field, to be entered in the column 3 of the statement, and on account of which a certain assessment has been realized, is the identical piece of land of which the acres, according to the former and present surveys, are to be entered in columns 4 and 13. Unless this can be done, it would be worse than useless to institute the comparison, for the data being untrustworthy, the conclusion must be so likewise, and would only tend to mislead. Now, I have never met with a single record of the ancient sub-divisions of the village lands from which they could be identified, and I believe that none such will be found. And I have still less hesitation in expressing my belief that, if such a record were to turn up, its information would be utterly at variance with those of the accounts of later years. From all I have learnt on the subject, it would appear that under

the native governments, the village accounts were systematically falsified by the Kulkarnis, in order to protect their villages from the ruinous effects of over-assessment. The rapacity of the farmers and Tálukdárs was in some degree met and counteracted by the false returns of the Kulkarnis. The extent of waste was represented to be more, and the cultivated area less, than the truth, in order to escape a portion of the assessment. For the same reason, Government land was held to be inám, though its assessment continued most probably to be collected as before, and thus went to lighten the general burden on the village. Changes in the district management, which were of a frequent occurrence, afforded convenient opportunities for effecting these falsifications of the village accounts, and it is matter of notoriety that they were made to a great extent in this province. It is, therefore, wholly out of my power to supply trustworthy data for the first six columns of the Revenue Commissioner's statement for even one village out of the three tálukas to which my report refers.

19. Further, this uncertainty is not confined to the "Mars" or similar ancient sub-divisions of the village lands; but extends also to the field measurements of the former survey executed within the last thirty years. At the latter operation there were no boundary-marks of a permanent kind laid down, no field or village maps even prepared, and the only descriptive record of the position and limits of the fields measured is so imperfect that it is a matter of the greatest difficulty to identify these survey fields under the most favourable circumstances, and in a vast number of cases it is wholly impossible to do so. The ryots themselves know nothing whatever about them. The Kulkarni is the only person in the village who even pretends to do so, and he very often is a mere kárkún employed to keep the accounts, and knows just as little as the ryots. When a cultivator took up waste, there being no boundary-marks to distinguish one field from another, he ploughed as much land as suited his convenience, and the Kulkarni composedly entered it as such and such survey fields of so many acres in his books, but why he did so, and whether these were the fields or not, it would puzzle one to say. These rough estimates or guesses of the Kulkarni, for they can hardly be said to be better, were afterwards occasionally rectified or altered by the Mámlatdár or his kárkúns when visiting the village; but, when all was done, there was very little reliance to be placed on the accuracy of the result. Encroachments on adjoining waste were also very frequent, and seldom made subject of investigation; so that it is often doubtful whether very different quantities of land have not been continued to be entered as one and the same field in the village accounts for different years.

20. These and numerous like sources of error would involve in insuperable discredit, and render, in my opinion, worthless any attempt to settle what portions of the present survey fields have been under cultivation for a series of years preceding the introduction of the present survey. But admitting that the fields cultivated could be ascertained, it would be impossible to say what amount of assessment was realized from each, which must be done before columns 8 and 11 of the Revenue Commissioner's statement could be filled in. Most of the cultivators have several fields entered in their names, and on occasion of remissions being given, these form a deduction from the whole of the revenue for which they are liable; but not so much from the assessment of each field. Yet it is most probable that the failure of the crop in all the fields was not alike, and very possible that in one or more of them there was no failure at all; so that, if we were to reduce the assessment of each field by a rateable proportion equivalent to the remission on the whole holding in order to arrive at the amount collected on account of each field, the result would be false, and no useful inference could be obtained by such a proceeding. Again, many fields burdened with an assessment beyond their value are nevertheless cultivated, because the ryot holds on in hope of better times and is unable to bear the loss they entail by having other fields on which the assessment is light, or by cultivating inám land, which is usually obtainable at low rents. He will generally submit to great sacrifices rather than relinquish a field which has been long in his family. Such over-assessed fields, however, would require to be entered in the statement as paying the assessment at which they are rated in the accounts, whereas a portion of this assessment is in reality defrayed from other land, and in this case, again, a fictitious result would be liable to mislead.

21. These circumstances, had other considerations been wanting, would have prevented me from instituting the comparison of the past and proposed assessment of *each field* contemplated in the 5th paragraph of the Revenue Commissioner's letter, and now put it wholly out of my power to furnish the statement he has called for. Out of the twenty-four columns it contains, the only ones I could fill in with any assurance of their accuracy are 12, 13, 14 and 15 relative to the present survey, and the Revenue Commissioner, I feel assured, will hold me excused in refraining from attempting to prepare a statement from fictitious data, in which I have not even the degree of confidence that would admit of my presenting them as approximations to the truth.

22. But, were the case otherwise, and I had it in my power to furnish the most exact informations regarding the revenue derived from every field in the talukas of Ránebennur, Hángal and

Tadas, for any number of past years, I should still feel it my duty to insist on the worthlessness of such details for the determination of the new rates of assessment, or for forming any estimate of the suitability of the latter. I know from a personal examination of fields and villages, from the opinions of my Assistants, the admissions of the villagers themselves, and information obtained in a thousand other ways, that the old assessment, in instances without number, bears *no relation whatever to the value of the land*. I cannot visit a village without finding some example of the more valuable field bearing the lower, and the less valuable the higher, assessment, and no accumulation of such examples could shake my conviction that the richer and deeper soil, which the villagers themselves admit to yield the more abundant crop, should bear the higher assessment. How, then, would the fact of its hitherto having been subject to a relatively low assessment avail to test the fitness of the new rate? Evidently in no way whatever. It might show that either the old assessment or the new must be wrong, but it could in no way help us to discover that either is right.

23. The distribution of the assessment proposed for any taluka or circle of villages is effected, as has frequently been explained to Government, by means of our classification of soils, and the suitability of the rates of different fields will therefore depend on the degree of accuracy with which this classification represents the varying values of such fields. The system by which the classification is effected is the result of an accumulated experience of years on all the revenue surveys of this Presidency. I have myself the fullest conviction that it does represent the relative values of fields with an ample degree of accuracy for all purposes connected with assessment; but I have no means of conveying this conviction to the minds of others who will not take my word for it, and have not the practical acquaintance with the system requisite to enable them to judge for themselves. I have no power of communicating a knowledge of the thousands of varying circumstances under which this system of classification has been tested, and the result of which has left on my mind the fullest conviction of its sufficiency. I feel absolutely certain that a soil of a particular texture and depth, defined by our classification, is more valuable than another of a different texture and depth as determined by the same standards; but, to convey this assurance to another, he must first be provided with the same knowledge and experience of the system that I have. The fact of the old assessment being at variance with the results of our classification, does not at all tend to shake my conviction of the value of the latter. The whole effect of the discovery is to satisfy me that the old assessment is not based on a correct valuation of the land, and I must therefore strongly protest against my proposed rates being tried by such evidence.

24. It was for these reasons that in my report I have carefully avoided going into details, and based all my arguments drawn from past collections from large averages, so as to avoid the erroneous results that would inevitably be obtained from minute investigations. I have now, let me hope, shown how futile it would be to compare the past collections on account of single fields, and it would be hardly less so to do this on account of single villages. It will frequently be found that in villages of similar soil and equal advantages of climate and markets, which by our system would be assessed alike, the old rates differ to a great extent. Nor need this surprise us, if we only take into consideration how the existing assessment has come to be what it is. It has no relation to the ancient standard assessment by the "Mar" or other denomination of land. This had long been disregarded, and during the latter years of the late Marátha Government, the only rule that could be said to exist was that of ability to pay, whether estimated with reference to the means of the ryot or the value of the crop. These arbitrary and fluctuating assessments, or others equally arbitrary at the discretion of the Kulkarnis, became gradually fixed under our Government. The returns of field-assessments given in by the village officers were subsequently altered from time to time by the Mámlatdárs and Collectors as appeared to them necessary and desirable; but never upon any general system or recognized principles. This patch-work-assessment was declared by Mr. Chaplin, the Commissioner of the Deccan, and Mr. Thackeray, Principal Collector of the Southern Marátha Country, to be utterly untrustworthy; and the former survey of this province was instituted under the superintendence of the latter officer, to afford data for its revision. His lamented death, however, intervened to prevent this being done, and the hap-hazard rates I have described, subject to such modifications as have been since made in them by Collectors and their Assistants to the annual Jamábandis, continue to this day to be the basis of the village settlements. After this explanation, I feel sanguine that the Revenue Commissioner will agree with me in opinion, that the details of such an assessment could not be serviceable in any way as a test of the fitness of the proposed rates, and that to bring them forward conspicuously would only serve to mistify and embarrass our enquiry without answering any useful purpose whatever.

25. I also avail myself of this opportunity to remark that the subject of my assessment report is very distinct from what we have been here discussing. The main scope and object of its arguments are to support the suitability of the *amount of assessment* I have proposed for the different districts and sub-divisions, with reference to their peculiar circumstances and capabilities, and for which purpose I still hope the information contained in

the report will be considered sufficiently detailed. It is true that it also contains proposals for certain adjustments of our classification standards, to meet the deteriorating influence of excessive rain on the dry-crop cultivation, and I have endeavoured to give an intelligible account of the reason that led to their adoption, with the view of satisfying Government that these changes have not been introduced without due consideration, and that the general principles upon which they proceeded are sound; but I never thought of attempting, or imagined that it would be possible for me, to prove to the satisfaction of Government, that the exact modifications I had fixed upon were the most suitable. To form an opinion upon this point much local knowledge is evidently requisite, and if the Superintendent of a Survey does not possess it, where is it to be looked for? His views doubtless may be mistaken, and in a complicated enquiry like the one just noticed there is considerable danger of their being so; but, is there any probability of his estimate being brought nearer the truth by parties who are not in possession of, and cannot be placed in possession of, the facts and local peculiarities which have led to the formation of his opinions?

26. It was not, then, any part of my intention to prove the accuracy of the system on which the classification of the soil has been effected, and by means of which the assessment forming the subject of my report will be distributed over the fields of which the districts are made up. This is wholly distinct enquiry, which, as it appears to me, could only be successfully prosecuted by those having an adequate knowledge of the working of the plan and of the local peculiarities it is intended to meet.

27. Descriptions of the methods of conducting the various survey processes have been already at various times laid before Government, and the degree of accuracy with which they have been executed in the districts for which I have proposed rates of assessment are noticed in a previous part of this letter. But it certainly did not occur to me to attempt to prove to the satisfaction of the Revenue Commissioner and Government, who can hardly be supposed to be conversant with survey details, or to have much local knowledge of the relative values of different fields in Southern Marátha Country, that the processes employed by us have effectively answered the ends in view. And were this task now to be imposed on me, I should feel wholly at a loss how to proceed. It takes at least a year of unremitting endeavour to acquire a tolerable acquaintance with the relative values of different soils, and without this knowledge it seems to me a matter of impossibility for any one to judge of the fitness of any process

for making such valuations. All that I could do would be to state my own convictions of the subject, and appeal to the results of experience in districts where the assessment has been distributed by means of such a classification, and found to present no bar to the cultivation of all the varieties of soil there to be met with. But to deduce my conclusions from a train of reasoning that could be judged of by parties having no practical knowledge of the matter under discussion, I feel to be beyond my power.

28. It is my humble conviction that no better security will be found for the suitability of the technical details of a survey than the judgment, experience and practical tact of those conducting it. The reviewing authorities may indeed judge of the result of the several operations, and whether the precautions which have been pronounced necessary to ensure accuracy have been duly observed; but I do not see how, without technical and local experience, they can judge of the value of the several processes employed. For these it appears to me that the Superintendent should be held responsible, and in my humble opinion it would be greatly detrimental to the public interests to divest him of any portion of this responsibility, in order to transfer it to the superior authorities through whom his operations are submitted to Government.

29. Before concluding, I would apologise for the length of this discussion, into which I have been drawn by a conviction of the injurious consequences that would result to the operations under my control, were the latitude of judgment and freedom of action hitherto allowed to the Superintendent seriously circumscribed, and by my natural anxiety to do all in my power to avert such a result. Should, however, the explanations which have now been afforded, fail to satisfy the Revenue Commissioner, I would respectfully but urgently solicit that in consideration of the evil of further delay, he would kindly submit my proposals for the decision of Government in their present imperfect shape, as affording the only chance of the rates being sanctioned in time for the current year's settlement, which the ryots have been led to expect, and which would also be of great importance to my future operations, as these would be seriously embarrassed by the settlements in question being deferred for another year.

30. I have only further to request that, with the view of saving time, you will kindly transmit this letter to the Revenue Commissioner in original, and that he will oblige me by handing it on in like manner to Government, as it is my intention to furnish

you both with copies of the present communication, and also of my report of 26th January last, No. 15, to which it refers.

I have the honour to be,

Sir,

Your most obedient Servant,

G. WINGATE,

Superintendent, Revenue Survey and Assessment,
Southern Marátha Country.

No. 1199 of 1848.

TERRITORIAL DEPARTMENT, REVENUE.

FROM

E. H. TOWNSEND, Esq.,
Revenue Commissioner, S. D. ;

TO

H. E. GOLDSMID, Esq.,
Secretary to Government.

*Revenue Commissioner's Camp,
Nehr, 8th April 1848.*

SIR,

I have the honour to transmit for the early consideration of Government a letter, dated 5th February, from the First Assistant in charge of the Dhárwár Collectorate, forwarding a report dated 26th January last from Captain Wingate, Superintendent of the Southern Marátha Survey, proposing rates of assessment for the tálukas of Ránebennur and Hángal and part of the Hubli Táluka. The report is prefaced by a neat map of the Dhárwár Collectorate. I will endeavour to limit my remarks to a few principal points in this report, as a perusal of it will afford His Honour in Council a better idea of these districts, and of the measures proposed for them, than any summary of it which I can give.

2. The past history, natural character and capabilities of the Ránebennur. Ránebennur Táluka occupy the first fifteen paragraphs of the report; the 12th paragraph contains a diagram formed on "accounts of the

revenue and cultivation of all the villages of Ránebennur for the last 27 years," and on the practical effects of the revenue so realized since the British accession, on the district and people.

Para. 15. The Superintendent justly remarking that from these results "important conclusions are to be obtained"—1st, that the best land in the táluka, to which cultivation is chiefly confined, cannot pay an average assessment of Rs. 1-5-7 per acre : 2nd, "that an average assessment of 15 annas on the better qualities of soil, which is the rate for the period in question, would not secure the prosperity of the district," and that "something considerably short even of this is requisite to bring the large extent of arable waste under tillage." These important points of information towards the formation of new rates are thus obtained from past realizations of revenue.

3. In his 16th and 17th paragraphs the Superintendent refers to climate, to the advantages of roads, circumstances the consideration of which is evidently of much importance towards the apportioning of rates of assessment, but concludes—"I do not think the difference sufficient to require a changè in the rates ; and a consideration of the respective advantages of the two districts in point of climate and markets has led me to conclude that the rates adopted for the 3rd and 4th classes of Bankápur would be equally suitable for the two classes of villages into which I propose to divide Ránebennur." The Superintendent's remark on this head are important, both as showing the mature deliberation exercised by him ere coming to a conclusion on so important a subject, and as proving *how many points* require consideration before rates of assessment can be proposed, and to this part of the question I shall have occasion hereafter to revert.

4. The rates of assessment proposed by the Superintendent for dry land in this táluka vary from
 Para. 18. Rs. 1-6-0 to 2 annas per acre in 44 vil-
 Jiráit Rates. lages ; and from Rs. 1-4-0 to 2 annas per
 acre in 86 villages, the entire number of
 Government villages in this táluka being one hundred and thirty ;
 while 12 villages are alienated. These
 Para. 19. rates will average, on arable land, 10½
 annas, or, on past cultivation, 13 annas per acre, "which (the Superintendent remarks) is 2 annas less than that derived from the past collections of the middle period of my diagram, when alone there was any tendency to an extension of cultivation ;" and the Superintendent (in the same paragraph) proceeds to show (again adverting to the evidence afforded by past collections) that "the reduction here proposed is not beyond what is called for."

5. Garden cultivation is next adverted to by the Superintendent: its present assessment is estimated at Rs. 8 per acre, the rates proposed will, he anticipates, average Rs. 7 per acre.
- Garden lands.
Paras. 20 & 21.
6. This táluka contains very little rice land; the present rates are supposed to average Rs. $3\frac{1}{2}$ per acre, while the new rates will average about Rs. $2\frac{1}{2}$: the highest being Rs. 5 per acre. The above rates include all haks hitherto received direct by village officers, and "every tax falling upon land." The new Kamal revenue of this táluka will be Rs. 1,30,000, which exceeds past realizations, as shown by a figured statement in the 25th paragraph. Alienated lands are treated like those which belong to Government, whether they are wholly or but partly inám.
- Rice.
Para. 22.
- Para. 24.
7. The consideration of this táluka commences at the 29th paragraph; the peculiarity of its character consists chiefly in the number of its tanks, and the great advantages which it derives from works of irrigation, on the importance of which the Superintendent makes some just remarks. He notices a peculiarity in the prices of the different sorts of grain grown in this táluka, which, he remarks, "it will be desirable to keep in view in considering the question of the assessment."
- Hángal.
Para. 31.
- Para. 34.
8. The past revenue history of this táluka is exhibited by a diagram, which requires no explanation: from this document the Superintendent infers "that the Government demand, during the last twenty years, has not been oppressive." Although, however, "this is the *general* result in the case of particular fields and villages, the assessment has no doubt been oppressive, as it has also been the reverse." The Superintendent notices "that this is the first táluka in which rice husbandry has been extensively met with; and that its dry-crop cultivation presents some remarkable peculiarities, which have an important bearing on the question of the assessment, and demand an attentive consideration." It is unnecessary to quote more at length from the report in elucidation of this question: the Superintendent's remarks in paragraph 42 show, I think, most clearly that there may be circumstances of a local nature, which nothing but local experience can ascertain, which may vitiate an assessment,
- Para. 35.
- Para. 40.

though both measurement and classification have attained a high degree of correctness: and this fact, of which the example here given affords a striking illustration, must be borne in mind, as it has an important bearing on an after-question in connection with this report. The Superintendent, with characteristic candour, shows that, on a former occasion, one of these local peculiarities

Para. 43. escaped his notice, and that this circumstance affects, though to a very trifling extent, the rates already sanctioned for another táluka.

9. The Superintendent proposes to divide the villages of this táluka into 4 classes; and he adduces,

Para. 46. in confirmation of his opinion of the effect of climate, a statement of the assessment paid by the villages of these four classes during the last year; the deductions drawn from these facts by the Superintendent in the following paragraph appear to me most just, and all I submit tends to show that, though the old assessment was not scientifically arranged, and though, in many respects faulty and unequal, it must not be viewed as altogether worthless as a comparison. There was in it a certain rough adaptation to the capabilities of the soil, and in drawing from these facts the inferences which he has done, and in using them as one of many helps towards ascertaining the right assessment, the Superintendent has, I submit, acted very wisely.

Para. 50. Adverting to the difficulty of fixing an assessment, the Superintendent remarks—"The determination of the latter point cannot be so satisfactorily established, and must in any case be matter of judgment and discrimination, rather than of demonstration." The Superintendent here speaks strongly of the inequality of the old rates; nevertheless he adds—"when a sufficiently large average is taken, it may be employed for the establishment of general conclusions."

The Superintendent, however, thus concludes—"It will be found, when all is done, that we have no better security for the correctness of any estimate than the judgment and experience of the framer," sentiments in which I wholly concur.

10. The rates of assessment proposed for Jiráit assessment in the Hángal Táluka are explained by

Para. 52. the Superintendent in a diagram, which fixes the relative value of the lands: an addition of 50 per cent. to the number of annas contained in each class in the diagram gives the rate of assessment proposed for it; thus the 1st class of Hángal villages are placed on a par with the 2nd class in Bankápur, as shown in the statement contained in paragraph 16 of the report. The effect of this classification will be to lower the

assessment in the higher classed villages, and to raise it in the lower classed, as shown by the Superintendent in a figured statement : the causes of this arrangement Captain Wingate explains.

Para. 55.

11. The rice lands of Hángal, owing to the abundance of its rain and tanks, form a very important feature in its cultivation. In his observations on the calculations and conclusions of his Assistants, the Superintendent notices another important item for consideration in fixing an assessment, viz., the average net value of its crops : I say *average* value, because the Honourable Court's orders dated the 15th February 1833* which prohibit a consideration of the *value of crops* evidently refer to that of casual crops in particular years, and not to *average* value, which confessedly forms the main cause of difference between the rates of dry and irrigated land; in other words, the "return for labour and capital employed in cultivation." The rates proposed by the Superintendent for rice land vary from Rs. 5 to 12 annas per acre :

Rice lands.

Para. 57.

Para. 62.

Accompanying Government letter No. 445 of 23rd March 1835.

the Superintendent shows how many circumstances require to be considered, and how much thought he applied to the consideration of each before fixing the assessment; he also explains that the reduction in the rates will amount to about 7 per cent.

Para. 66.

12. In considering the rates of assessment which garden lands can bear, the Superintendent again quotes those *which they are actually paying*, and the condition of the cultivators under these payments : "these and other considerations lead me to conclude" (says the Superintendent) "that the maximum rate fixed for the gardens of Bankápur would admit some increase in Hángal." The highest rate proposed for land watered from tanks is Rs. 20 per acre : that on gardens watered from wells is Rs. 5 per acre : these rates will produce an assessment of about Rs. 6,000, and average about Rs. 13-4-0 per acre.

Garden land.

Para. 69.

Para. 73.

13. The prevalence of fever in the Hángal Táluka and the abundance of its rains cause it to be very much covered with jungle: tracts of this land have now been measured into large plots, but not

Para. 76.

classified, as for the present population, the country that is cleared is fully sufficient. The haks of village officers included in the proposed rates are estimated by the Superintendent at four thousand rupees. The new Kamal revenue is estimated at Rs. 1,12,000, and it is advantageously compared with past realizations, though its immediate effect will cause a sacrifice of revenue of about twenty-five per cent.

14. The next district of which the report treats is the Tadas Mahál of the Hubli Táluka, which borders on Hángal, and greatly resembles it in climate and cultivation: this district, however, lies between the large town of Hubli and the coast, and enjoys the advantage of proximity to a good road—an advantage which few districts of this Presidency enjoy,—but the importance of which can hardly be over-estimated. The diagram given by the Superintendent contrasts the past net revenue with the full survey rental, the former being about Rs. 21,000, the latter Rs. 30,000. The rates proposed for dry cultivation are the same as those in Hángal: in commenting on these, the Superintendent remarks that “owing to the want of anything like precise data for estimating the influence of excessive rain on unirrigated husbandry, the fixing of the dry-crop rates is attended with peculiar difficulties, and (he adds) I bring forward my proposals with considerable diffidence, viewing them in the light of an experiment, whose value will have to be decided by the results of future experience.”

15. The rates proposed for rice land exceed those of Hángal by 10 per cent. on account of the difference of prices, and give an average rate of Rs. 2-2-0 on the whole rice land, which is equivalent to a reduction of Rs. 30 per cent. on the existing assessment. The full assessment produced by these rates on each description of cultivation has been already shown: the immediate effect is supposed equal to a reduction of Rs. 19 per cent. Haks and inám lands are treated similarly to those in Ránebennur and Hángal as shown in paragraph 13 of this letter.

16. The Superintendent accompanies his report with figured statements, showing the area of Government land in cultivation,

and the details of land revenue in each district now reported on for a series of years: he also forwards the reports of his Assistants, which, he remarks, "contain a variety of interesting and valuable information respecting the peculiarities and condition" of their respective districts.

17. As the report now under consideration treats each *táluka* as a whole, I requested the Superintendent on 21st February to forward *a village* statement for each of the districts under report, according to the form attached to that letter, copy of which accompanies. It is evident that the *right distribution* of an assessment is a matter quite as important as the ascertainment of the *right amount*: a diagram and figured statements which show former years' realizations for a whole district, containing (say) a hundred villages, is a valuable index of the capabilities of *that district*, and, taken in connection with other circumstances, helps to show the entire amount which that district can pay. But if this sum is unequally distributed among the hundred villages, one being over, another under-assessed, the district will not be able to pay the amount, not because it is too much as an aggregate but because it is wrongly distributed. If, therefore, a reference to the entire payments of a district is an useful aid towards ascertaining its capabilities, a reference to the payments of each village is, I submit, equally important to ascertain its capabilities: nor can I imagine any argument which will include the one and exclude the other.

18. The Superintendent's reply is dated 2nd ultimo (No. 48): in it that officer states that to furnish a village statement would delay the introduction of the new assessment for another year; he objects also on other grounds to the call for so much detail, and I feel it my duty to admit that his arguments appear to me sound and convincing, and that the judgment and experience of the Superintendent is the best guarantee that Government can have for the fitness of the new rates; the demand for further particulars on my part proceeded solely from my desire to meet the wishes of Government as expressed in their letters quoted in the margin.

Government letter No. 4981
of 27th November 1847, paras.
3 to 5.

Government letter No. 5433
of 30th December 1847, para.
42.

19. With the same object I again addressed the Collector of Dhárwár on 11th ultimo (No. 898), and with my letter forwarded another statement, translation of which is herewith transmitted. This letter was despatched before the receipt of the Superintendent's reply above quoted. The Collector's reply dated 30th ultimo

encloses one from Captain Wingate of the 28th of the same month (No. 65), which also accompanies : the Superintendent's replies to the first four paragraphs of my letter are, I submit, quite satisfactory.

20. The information requested in paragraphs 6 to 8 of my letter of 11th ultimo, of the effect of the new rates in a few selected instances on individual fields, was suggested by information elicited during my recent tour through the Ankola Táluka, of the great alteration made by the survey in the *relative value* of fields : the rates on the better lands being generally reduced, and those on the inferior lands very often raised.

21. To furnish such a statement, the Superintendent raises two objections : *1st*, that it is impracticable ; *2nd*, that, were it otherwise, it would be useless and tend to mislead : while I admit that there is much incorrectness in the old accounts, my experience does not lead me to consider them so utterly worthless in the Collectorate either of the Southern Marátha Country or the Deccan, as the Superintendent supposes them to be. Instances may, no doubt, be found of deliberate false entries in the cultivation returns, such as are described in the Superintendent's 19th paragraph : but these I should imagine to be the exception rather than the rule, and to exist chiefly in the inferior lands of a village which often changed owners, and not to extend to the bulk of the land permanently cultivated by the same individuals or families.

22. With regard to the second objection, I trust that Government will not so far misunderstand the object of my reference as

Para. 23 of the Superintendent's letter of 28th March.

of 26th January abundantly shows the importance of ascertaining the *past payments* of a district, and that with all their imper-

Vide para. 2 of this letter.

Vide para. 3 of this letter.

Vide para. 8 of this letter.

fections they are useful as an *ingredient* in determining new rates. He also shows how many points require consideration before new rates can be safely determined : and further, that after all that exact measurement, careful classification and a deliberate consideration of climate, prices, roads, &c., &c., can attain, some local peculiarities may exist and may for a long time escape observation, which nevertheless render the rates proposed partly inapplicable.

23. The further details called for in my letters of 21st February and 11th ultimo were not suggested by any undervaluing

of the Superintendent's fitness for his work, nor by any idea of my capacity to improve his work (though sometimes the opinions of a second person, however inferior, may suggest a practically useful caution or amendment on what another originates). On this subject I would respectfully refer His Honour in Council to paragraphs 6, 9, 10 and 11 of my letter dated 21st ultimo (No. 984), and add that I concur in the opinions expressed in paragraphs 25 and 28 of the Superintendent's letter of 28th ultimo. These details were required in obedience to what I understood to be the wishes of Government as expressed in the letters quoted in paragraph 19 of this letter, and to enable me to form a deliberate opinion of the applicability of the rates proposed by the Superintendent before recommending them to Government. I shall however be truly glad if the details already furnished, and the knowledge which Government possess of Captain Wingate's fitness for his important duties, shall induce His Honour in Council to authorize the immediate introduction of the rates of assessment now proposed.

I have the honour to be,

Sir,

Your most obedient Servant,

E. H. TOWNSEND,

Revenue Commissioner, S. D.

No. 2773 of 1848.

TERRITORIAL DEPARTMENT, REVENUE.

FROM

H. E. GOLDSMID, Esq.,
Secretary to Government;

To

D. A. BLANE, Esq.,
Revenue Commissioner in charge, S. D.

Bombay Castle, 16th May 1848.

SIR,

I have laid before the R. H. G. C. Mr. Townsend's letter of the 8th ultimo, No. 1199, and its accompanying papers, relative to the survey operations in Ránebennur, Hángal, and the Tadas

Mahálkari's division of the Hubli Táluka of the Dhárwár Col-
lectorate.

2. The R. H. G. C. considers, as deserving of his highest commendation, Captain Wingate's report of 26th January, No. 15, and the papers drawn up by his Assistants.

3. The settlement Captain Wingate has proposed is sanctioned by the R. H. G. C., and the Collector is authorized to declare it incapable of increase for the usual term of thirty years; the question as to the necessity of any reduction of the dry-crop rates of assessment for the Tadas Division being allowed to lie over until the Superintendent has had some experience of the working of those rates.

4. The reduction which has been effected in the westerly division of Bankápúr is sanctioned, and Government awaits the further report of Captain Wingate as to the necessity or otherwise of the rates being still further lowered.

5. The instructions to be hereafter given relative to the Joint Report of 3rd August last, will enable the Collector to know how he is to dispose of land covered with jungle, alluded to by Captain Wingate in paras. 76 and 77.

6. H. L. C. considers that Mr. Townsend did perfectly right to call for information on those points regarding which he entertained doubts; the nature of some of the returns he called for show the necessity of the caution conveyed in the 7th para. of my letter of the 12th instant, No. 2661; but other enquiries which he made were to the point, and judicious, and Captain Wingate has reason to be gratified that they were made, for they afforded him an opportunity of furnishing the very satisfactory information contained in his letter of the 28th March 1848, No. 65. The only respect in which H. L. C. considers that information deficient, is, that the statement subjoined to para. 5 does not enable Government to form a correct opinion as to the actual results of the test—the exhibiting the average error being likely to leave a wrong impression.

7. H. L. C. is aware of the risk which may attend the interference of those officers not practically and intimately conversant with survey details, yet he cannot but hope that increased experience and the information contained in the annual progress reports will enable Mr. Townsend to satisfy himself as to the manner in which the preliminary operations of the several surveys are being carried on, without his having to call for detailed particulars, after receiving the completion reports in which the actual rates of assessment are proposed.

8. H. L. C. has every confidence in the accuracy and efficiency of the work performed under the superintendence of an officer of the energy, talents and peculiar qualifications possessed by Captain Wingate.

I have the honour to be,

Sir,

Your most obedient Servant,

H. E. GOLDSMID,

Secretary to Government.

No. 679 of 1877.

FROM

J. B. RICHEY, Esq.,

Acting Collector of Dhárwár;

TO

A. E. D. GREY, Esq.,

Revenue Commissioner, K. D.

Camp Hubli, 23rd March 1877.

SIR,

I have the honour to forward the Survey Commissioner's report on the proposed revision of the old Hángal Táluka and Tadas Mahál.

2. As I have had no opportunity of making myself thoroughly acquainted with the area in question, I am not qualified to examine Colonel Anderson's proposals in detail.

3. Paragraph 5 of Colonel Anderson's Area Report deals with a point upon which, I believe, it may be necessary for Government to lay down some principles for future guidance—changes in the nature of land from irrigated or rice land to dry-crop may arise from natural causes, or from the choice or the neglect of holders. When the Survey Department has finally ceased to deal with a district, the record left by it is, in theory, permanent, but must be liable to modification to meet natural changes; and, among these, the transfer of lands from irrigated or rice to dry-crop will sometimes have to be made. I recently had some correspondence with the Revenue Commissioner, N. D., on the subject of the reduction of water-

rates on well irrigated land, on the ground of the well falling into disrepair—a practice which seemed to me to have been carried too far in the Panch Maháls and, I think, elsewhere in Gujarát. The case of rain-irrigated rice land, which, from natural causes, can no longer grow rice, is different, inasmuch as there is no separate rate for water; but the question of making a change in

Paragraph 9. the record to meet the natural change will certainly arise, and Colonel Anderson's paragraph 9 indicates that the question is likely to be one of some importance.

4. With reference to Colonel Anderson's remarks regarding the effect of denudation upon rainfall, I have to record that the late Collector, Mr. Robertson, had given it careful attention, and a scheme is on the records for retaining under forest a tract running east and west through Hángal Táluka, for the specific purpose of attracting the rain, as described by the Survey Commissioner. This scheme I hope to put before you this month, but shall probably be unable to do so, as I must at once go to meet emergent famine duty at Hubli and Dhárwár. The record of the scheme will be sent to Colonel Anderson, and should he make the revision settlement this year, he will be able to have the few occupied fields which it includes omitted from his settlement, pending the maturing of the scheme.

5. Although the returns show a slight increase in working cattle, the falling off in dairy-stock—cows, buffaloes, sheep and goats, is very great. Paragraphs 29 and 30. Unless the village returns show that this decrease is chiefly in the eastern villages, where Colonel Anderson states that the grazing has much decreased through extension of cultivation, there must be some other cause than the inferiority of the Dhárwár cattle to discourage the keeping of dairy-stock, for this inferiority is not a new thing. As I had already noted in a report to you regarding the effect of the Government reservation of the grazing of waste land, it should be remembered that in districts such as this, where cereal crops predominate, the extension of cultivation does not necessarily imply a reduction in the available food for animals, but only the substitution of a valuable fodder for grass, which, before it was reserved by Government for sale, was probably consumed in the most wasteful manner possible, and, no doubt, supported many worthless animals. In order to arrive at any satisfactory conclusion as to the causes which have led to the diminution in dairy-stock, it would be necessary to examine the facts as to the markets for dairy produce—the increase or decrease in production of ghee, and its comparative value at different periods; and, in relation to the produce of arable, to consider the effect of improved communications as

tending to discourage those productions most open to competition in the new markets opened up, and as creating a new market on the spot for fodder—on which point the remarks in Colonel Anderson's paragraph 19 throw some light; to ascertain the history of cattle epidemics, and their effect during the period under review, judging without these data, but looking to the general prosperity of the district. It is, I think, hardly reasonable to regard the decrease in this particular item of capital as being without question a matter for regret; probably its most serious aspect is that which is presented when the growing demand and decreasing supply of manure is considered. (See Colonel Anderson's paragraph 49.)

.6. The condition of the cultivating class shown by Captain Godfrey's report is, as elsewhere in Dhárwár, remarkably prosperous; the degree to which lands are held by others than the cultivators being very small. The statement made in Colonel Anderson's paragraph 38, that grain rents are usually half the gross produce (assessment being paid by the owner), if it apply to *rice* lands, would indicate a remarkable degree of competition in a district which still holds so much waste.

The unsatisfactory nature of statistics furnished, as most of those accessible to Government officers are, from Mámlatdár's Kacheris, is well illustrated in Colonel Anderson's remarks in these paragraphs; all that can be hoped for is, that the figures may be fairly trustworthy. If the proposed enhancement were proportioned to the figures of these statistics, it would be difficult not to feel great hesitation before accepting conclusions drawn from such data. One feature, which to some degree discountenances the comparison of the last three years with the period of first settlement as shown by Colonel Anderson in paragraph 43, may be noted. The proportionate prices of rice in husk and jowári show but slight differences in the decennial averages from 1847 to 1876, and in the last two periods they are almost equal in average price; but the average of the last three years gives a difference of more than 50 per cent. in favour of jowári. It is probable that the sudden divergence is in some measure due to rainfall deficiency, which would least affect the rice crops of the western village; but it may be noted that the other dry-crops do not show the same disturbance as jowári, and that the figures of rainfall as given by Captain Godfrey do not account for such a new feature in the values of produce. It is quite possible that the variation may be corrected by future years, but it is also not improbable that the change may be permanent; and it may, perhaps, be traced to the growth of an export trade northwards which

has considerably developed of late. I call attention to this only to guard against a hasty conclusion being drawn from average prices of 1874-76. The undoubted enhancement of all produce goes far beyond the proposed increase of assessment; and looking at the condition of the district under report, and its very great natural and artificial advantages, it is not necessary to demand the exact statistics of the growth of prices.

Colonel Anderson's proposals for assessment of dry-crop rates proceed upon the principle of a reduction of four annas per group, going from east to west (viz., from fair to excessive rainfall) through six belts. Of these belts, three under Captain Wingate's survey had a uniform maximum rate of Rs. 1-8-0, and for the villages of his first belt—six only in number—Colonel Anderson proposes to give a maximum rate of Rs. 2-4-0, viz., an enhancement of 50 per cent. for all except one village, which was by mistake not included in Captain Wingate's first group, but instead of Rs. 1-8-0 was given by Captain Wingate a maximum rate of 15 annas only; for this village—Hanmarhalli—the enhancement, therefore, will be about 130 per cent. For the villages of the next belt the maximum rate proposed is Rs. 2, or about 33 per cent. increase. For the next belt Rs. 1-12-0 or an enhancement of about 14 per cent. This gradual decline of the enhancement in favour of the inferior soils of Captain Wingate's first group is not carried beyond this belt, the proposed enhancement of the old lower groups being uniformly higher as their first assessment was lower.

In paragraph 64 Colonel Anderson shows how the application of the proposed maximum is modified by his revision of the classification, which he notes in paragraph 7 was low in the superior dry-crop soils and high in the inferior soils. It is evident that, in his opinion, the assessment as well as the classification of the lands of the three superior belts required a greater range.

As the Bankápur revision of last year gives the standard for assessment of the first group of dry-crop lands, so it also gives the standard for the rates of rice land and gardens; and Colonel Anderson estimates the Hángal gardens as 25 per cent. better than those of Bankápur. The present bad season offers a good test of this estimate, and fully confirms it, as far as I have been able to learn.

Colonel Anderson records the principles and method followed in the assessment of rice land as already adopted in Bankápur, the noticeable feature in which is, that the lowest rate on rice land depending on-

tirely on rainfall is the same as if the land were simple dry-crop land. In paragraph 68 occurs the remark that a change from precarious rice cultivation to more constant dry-crop is "hardly to be deprecated." Such a change is encouraged by low assessment. The higher rate would not only leave less profit on a dry-crop, but would stimulate the cultivator to speculate on the rainfall for the more valuable crop. From experience elsewhere I am convinced that there is no condition more harmful to a ryot than for him to neglect dry-crop cultivation in favour of rainfall rice, with a bumper crop every now and then, and short crops or failure in the intervals.

The circumstances of the village of Hanmarhalli have been noted above. Rectifying a mistake in its original settlement moves it up from Captain Wingate's third to his first group; and as his first group is divided into three, and it is placed in the first of the new groups, the enhancement of assessment amounts to 143 per cent. There is no doubt that it ought to be placed in its proper position in the scale of assessment, but I most strongly deprecate the immediate exaction of the full enhancement. The ryots cannot be expected to understand the cause of their exceptional treatment, and, as the case is entirely singular, any departure from the usual practice in their case involves no admission of a change of principle; I strongly urge that the revised assessment, while sanctioned, should be introduced gradually. The total assessment of the village, Rs. 326, is so trifling that there can be but few ryots to deal with, and no appreciable labour or variation in accounts would be caused by giving them a settlement with decennial increases.

In these paragraphs Colonel Anderson records the results of crop experiments, which are a sufficiently clear proof, if any were needed, of the moderation of the demand of Government in an average season. It must be noted as regards the lowest class of produce, "rági," which gives high average, that, as this crop requires a year's fallow, two years' crop must be set against three years' assessment. As regards the percentage rates shown in the statement, I have to confess that I cannot, at first sight, see how 26·4 under the "rági" analysis is arrived at.

There is probably no district in the Presidency where the ryots are in a better position to bear enhancement of assessment than this: there is so little indebtedness that their produce comes to them almost unburdened. They have a fairly certain climate, a fine soil, with great resources in irrigation, and a wide range of produce, and, as

yet, there is no pressure of population on area; waste land of excellent quality abounding, the necessaries of life in fuel and building material being abundant, and accessible at nominal cost. This is the present state of the district; and under these circumstances it gives but little support to the plea for a gradual enhancement. But the supporters of that method would ask—Where else in the Presidency are these conditions combined, and what is likely to be the condition of the district itself at the next revision? As affording any ground for argument applicable to the Deccan, Khándesh, and most parts of Gujarát, this district is not “a case in point.” I cannot now follow Colonel Anderson into the questions raised in his paragraphs 84 and 85. I would only note that—

1st.—I cannot accept as generally applicable to the ryots of this Presidency the assumption that the value of the ryot's gross produce would be made the base of any estimate as to their available means of meeting the Government demand; for instance, where the crops grown are used for home consumption—as is largely the case in the district under revision—the gross outturn in the years of scarcity, when price is highest, may actually fall short of the producers' needs.

2nd.—That admitting the Government demand to be a fraction of the gross produce, it is easy to under-estimate its burden; for it does not, as the rent in kind, adjust itself to the yield; but, on the contrary, compels the ryot to part with his produce in worst market, to raise cash. If Colonel Anderson has commuted grain rents, he must be aware that he cannot levy more than at a maximum from 10 to 12 annas in cash of the average gross value of grain rental.

3rd.—That supposing the increase of assessment to equal a fall of 5 per cent. on the gross, or 10 per cent. on the surplus produce of the ryot, such a fall, though common enough, as Colonel Anderson states, would be a very serious matter indeed, if it were made a permanent reduction instead of a market fluctuation.

In conclusion, if there can be no stronger objection to gradual enhancement than those stated in paragraph 86, I think that Government will conclude that any hardships or inconveniences which it might possibly involve are not of so much importance as those which it is certain to preclude.

I have, &c.,
 (Signed) J. B. RICHEY,
 Acting Collector.

No. 688 of 1877.

FROM

A. GREY, Esq.,
Revenue Commissioner, K. D.;

To

THE HON'BLE E. W. RAVENSCROFT, C.S.I.,
Chief Secretary to Government,
Revenue Department.

Belgaum, 31st March 1877.

SIR,

I have the honour to forward papers, as per margin, regarding the proposals of the Revenue Survey and Settlement Commissioner for the revision of the assessment of two hundred and fifteen villages formerly comprised in the old Hángal Táluka and the old Tadas Mahál, or sub-division of the Hubli Táluka of the Dhárwár Collectorate, which are now distributed among the following tálukas as under:—

Hángal	...	...	...	119
Bankápur	..	...	...	65
Karajgi	...	...	...	12
Hubli	...	..	...	12
Kalghatgi	...	...	...	7
			<hr/>	
		Total	...	<u>215</u>

2. The Survey Commissioner shows in paragraph 3 that the villages have been remeasured on the same system which has been adopted for the other revised parts of the Dhárwár Collectorate, and has already obtained the approval of Government. The unoccupied rice lands, comprising upwards of 1,000 acres, have also been sub-divided into small numbers, of about 2 or 3 acres each, for the convenience of the ryot and in the interest of the Government revenue.

3. The classification of the soil has also been carried out in conformity with the approved practice which has been hitherto adopted in the Dhárwár revisions.

4. In paragraphs 10 to 14 Colonel Anderson describes the features of the country, its climate and products. The soil and climate vary so much in different parts of the tract, that there is a great variety in the crops and produce. "The eastern villages of the old Tadas Mahál and also of Hángal may be considered to be dry-crop villages of the most favoured kind. As regards natural advantages, they have a large proportion of excellent soil, producing jowári, cotton, and all the other better class of dry-crop produce, and enjoy a most excellent and certain rainfall." But "while the eastern villages may be considered pure dry-crop villages, the extreme south-western in the old Hángal Táluka are certainly pure rice villages, every intermediate gradation of climate and character of cultivation being passed through in the villages intervening between the eastern and western extremes."

5. The communications have greatly improved during the thirty years which have elapsed since the introduction of the original survey. The Survey Commissioner states that at the time of the first settlement the tract of country under report was not opened up at all, and any traffic with the coast was carried on under extreme difficulties. Now, both to the coast and inland, through all the fair season, the country is thoroughly opened up, and produce can be taken in whatever direction the best market for it is obtainable. The tract of country under review is also very well provided with markets.

6. In paragraphs 25 to 33 the Survey Commissioner discusses the statistics framed at the introduction of the past and present settlement, the results of which are shown in the following figured table :—

	At the time of Previous Settlement.	1876.	Increase	Decrease.	Percentage Increase or Decrease
Population	73,608	80,373	6,765		+ 9 19
Houses .. { Flat-roofed	1,688	4,422	2,734		+162 0
{ Tiled	2,285	3,670	1,385		+60 0
{ Thatched	11,228	8,892	...	2,336	- 20 0
Agricultural cattle	27,541	27,789	248		+ 0 98
Cow, buffaloes and their young	55,401	42,000		13,401	- 24 0
Sheep and goats	10,339	7,962		2,377	- 23 0
Ploughs	No record	11,385			...
Carts	1,615	*4,253	2,638		+ 163 0
Horses and Ponies	880	557		323	- 36 0
Walls ... { Irrigation	No record	844			...
{ Draining .. .. .	...	494			...
{ Out of repair .. .. .	...	622			...

* These figures are slightly in excess of those shown in Statistical Statement No. VI., attached to the extracts of Captain Godfrey's report appended. The above are, however, correct, being the result of careful check of the village detailed statements.

7. The average rate of population is lower than was found in the Bankápur Táluka, which was revised last year, although it was to be expected that a higher rate would be found in a tract of irrigated land where the population is generally larger than in the plain districts. The Survey Commissioner, however, explains the apparent falling off in numbers by pointing out that the extensive jungles which fringe the west and south of the tract, which forms about one-fifth of the whole area, contain a comparatively scanty population, and only show an average of 182, whereas the population of the eastern half of old Hángal shows an average of 217 to the square mile. The small percentage in the increase of population by 19 per cent. is attributed partly to the prevalence of fever, and partly to emigration into the contiguous parts of Kánara, where population has much increased within the past thirty years.

8. The Collector, Mr. Richey, in the 5th paragraph of his forwarding letter, discusses the advantages and disadvantages which are likely to result from the falling off in the number of cattle, which is apparent from the returns shown in paragraph 25 of the Survey Commissioner's letter. The same result has been found in other parts of the Dhárwár Collectorate which have come under revision ; and although it may, in some respects, be a benefit to the country to get rid of the many worthless animals that were reared and maintained when unrestricted grazing was available, it must also be remembered that, as the population increases, a larger number of cows, buffaloes, sheep and goats are necessary to supply milk and food for the people. The cultivation of the land must also be affected if a sufficient quantity of manure is not available for purposes of agriculture.

9. The returns annexed to the extracts of Captain Godfrey's report, which forms an accompaniment to the Survey Commissioner's letter, show the terms on which the land in the tract under report has changed hands, and certainly disclose a high degree of prosperity in the country where holdings are sold and leased at such very high rates. Sales at twenty to thirty years the assessment may be freely met with, and some at much higher proportions ; and leases are found in the records of the Registration Office which show that the original holders of land have let it out to tenants on the most favourable terms. Upwards of 72 per cent. of the occupied Government land is cultivated by the occupant himself, or in partnership with others.

10. Colonel Anderson, as in former years, has had considerable difficulty in forming a correct comparison between the prices of produce in past and present years. The calculations, however,

Population.

Leases, sales, mortgages and sub-letting of lands.

Present and past prices.

which he has made, show a very large rise in the prices of all products since the introduction of the rates in 1847-48. I quite agree with what the Collector has remarked in the 6th paragraph of his forwarding letter, that the statistics furnished from Māmlat-dārs' records regarding prices are generally so unsatisfactory that if the proposed increase in the rates were to depend entirely on the figures given from the Kacheris, which have been collected and compared with so much minuteness and care by the Survey Commissioner, one might hesitate in drawing conclusions from them. Setting all possible inaccuracies, however, aside, there can be no doubt that the improvement in communications, the decrease in the value of money, and the more prosperous condition of the people, have caused such a great rise in the prices of all articles of produce, that the profits of agriculture have largely increased during the past thirty years, and afford ample justification of the proposed enhancement of the assessment.

11. Paragraphs 46 to 50, with the details in Statement B. of the Appendix, give the past revenue history of the tract under revision since 1837-38. The following figured abstract is given :—

Years.	Government occupied Land	Government arable assessed unoccupied Land.	Collections on Government Land.	Remissions.	Outstanding Balances at end of year.
	Acres.	Acres.	Rs.	Rs.	Rs.
1837-38 to 1846-47	64,071	114,128	89,106	11,152	4,684
1847-48 to 1856-57	81,169	54,120	92,954	1,166	5,185
1857-58 to 1866-67	123,646	16,006	1,27,751	..	..
1867-68 to 1875-76	125,171	13,684	1,29,484	4	..

The figures from 1857-58 to 1875-76 show the success of the last settlement in an almost entire absence of any necessity for remissions, and a large decrease in the area of unoccupied waste. In the first decennial period before the expiring settlement, there were large annual remissions and considerable outstandings at the end of each year; but the increase of the occupied area and of the collections after 1847-48 was marked and rapid up to 1862-63, when a slight falling off in the cultivation occurred. The collections reached their highest point in 1867-68. The net increase in the area of Government occupied land and of the collections since the year of the last settlement is very remarkable, and is in itself sufficient proof of the success which has attended the introduction of the rates. The statement in paragraph 51 satisfactorily shows that, except in a very few cases, it has not been necessary to resort to compulsory process to realize the revenue.

Proposals for revision.

12. The important question of the revision of the assessment forms the subject of paragraphs 54 to 78 of Colonel Anderson's letter.

13. Captain Wingate, in the original settlement of these villages, divided them, north and south, into four groups of villages, and imposed four different rates, the maximum rate applying to the eastern villages, where there is the best dry-crop cultivation, and then, descending on each group in proceeding towards the west, till Re. 0-10-6 was the rate adopted for the extreme western villages :—

Number.	Number of Villages.				Maximum Rate.
					Rs. a. p.
1	70	...	...	...	1 8 0
2	37	...	...	...	1 3 6
3	57	...	...	...	0 15 0
4	51	...	...	...	0 10 6

Colonel Anderson proposes, in his 58th and 59th paragraphs, to divide these villages into six classes, sub-dividing Captain Wingate's group 1 into three divisions, imposing rates as below :—

No.	Number of Villages.	Groups.	Maximum Rate.
			Rs. a. p.
1	6	Captain Wingate's first group in the extreme east, and in contiguity with villages settled last year in Bankapur at rate of Rs. 2-4-0	2 4 0
2	32	Villages of Captain Wingate's first group...	2 0 0
3	32	Do. do. do. do. ...	1 12 0
4	37	Do. do. do. second group	1 8 0
5	57	Do. do. do. third group	1 4 0
6	51	Do. do. do. fourth group	1 0 0

Colonel Anderson shows in his 64th paragraph that great care has been taken to keep down the classification valuation of the dry-crop lands in the western half of the revised tract, so as to obviate their assessment being raised in the same proportion as the maximum assessment.

14. Under the last survey these lands comprised an area of 52,957 acres; they now amount to 50,921 acres, the decrease being attributable to some land having been transferred to the head of dry-crop, as it was

Rice lands.

probably found more advantageous to cultivate rice land, mainly dependent on rainfall, as dry-crop land. The system of assessing the rice lands which was followed by Colonel Anderson in revising the rates for the Bankápur Táluka. and received the approval of Government, has been adopted in the revision of the 215 villages now under notice, and a maximum rate of Rs. 8 for all the groups where there is this description of cultivation, except in the 6th group, which receives a maximum rate of Rs. 7, in consequence of the unhealthiness of the climate.

15. These lands, according to the old survey assessment, included an area of 807 acres, of which Government lands amounted 585. They now comprise an area of 1,101 acres, of which there is of Government land 725. It appears that antecedent to the last survey, the assessment on these gardens was very oppressive, in some cases amounting to as much as from Rs. 30 to 43 per acre. The maximum rate fixed by Captain Wingate at the introduction of the survey was thought very high; but several reasons restrained the Superintendent of Survey from reducing them. Colonel Anderson has now fixed uniform rates on all gardens with similar advantages of soil and water, and has adopted a maximum rate of Rs. 15 per acre.

16. The following statement shows the total area and assessment of the 215 villages under every head:—

Class.	Number of Villages in each Class.	Maximum Dry-crop Rate.	By FORMER SURVEY.		By REVISION SURVEY.						Increase of Assessment per cent.
			Government Occupied Land.		Government Occupied Land.		Government Unoccupied Assessed Waste.		Total.		
			Acres.	Assessment.	Acres.	Assessment.	Acres.	Assessment.	Acres.	Assessment.	
			Rs. s. p.	Rs.	Rs.	Rs.	Rs.	Rs.			
1st	6	2 4 0	3,542	3,323	3,568	6,318	62	2b	3,630	6,343	65.3
2nd	32	2 0 0	28,255	31,557	28,598	46,656	283	412	28,876	47,068	47.8
3rd	32	1 12 0	20,608	17,322	21,326	24,971	434	183	21,810	25,159	44.2
4th	37	1 3 0	23,387	24,200	23,596	35,138	2,069	1,705	25,762	38,898	60.5
5th	27	1 4 0	24,333	30,383	30,927	44,533	5,627	3,950	35,654	48,509	46.7
6th	51	1 0 0	18,097	20,364	18,343	23,344	1,897	1,310	20,245	30,154	41.6
Total	215	...	123,187	1,27,704	125,558	1,88,505	10,419	7,628	135,977	1,94,131	46.1

From this it may be noticed—

(1) That the average increase is 46.1 in the whole tract revised ;

- (2) That the maximum percentage is 65·3 in one group of six villages ;
- (3) That the increase on the remaining groups is at 47·8 and under, but that the lowest increase amounts to 40·5 per cent.

17. There is one remarkable increase in the assessment of one village, which, for the reasons explained in Colonel Anderson's 72nd paragraph, has been raised 143 per cent. The Survey Commissioner remarks in his 72nd paragraph "that, as regards other villages, there are no very remarkable amounts of increase, and in the rare instances where increases seem high, the rice land in increase of area or improved water-supply will generally account for the extra amount of the increase." The total area and assessment of the taluka, under every head, is shown in the tabulated figured statement given in paragraph 71.

18. The general result of the revised rates is an estimated increase of revenue from Rs. 1,27,704 to Rs. 1,86,505, a net increase of Rs. 58,801. The average rate per acre over all the Government land is Rs. 1-7-9 against Rs. 1-0-3 of the existing assessment, showing an increase of Re. 0-7-6 per acre.

19. I have no hesitation in recommending the proposed rates of assessment for the sanction of Government. Looking at the undoubted rise in the prices of all descriptions of produce, and the greatly improved circumstances of the country during the last thirty years, the increase appears very moderate, and might, doubtless, have been still further enhanced without injustice to the cultivator.

20. Before concluding, I request the attention of Government to the remarks of the Collector in the 6th paragraph of his forwarding letter, in which he strongly urges that the revised assessment should be introduced gradually in the case of the village of Hanmarhalli, which is referred to in paragraph 17 of this letter, and the assessment of which has been raised 143 per cent. Mr. Richey considers that the general prosperity of the district is such that it gives little support to the plea of a gradual enhancement of the assessment which has been recommended for the less prosperous parts of the Presidency, but is of opinion that the very large increase in the rates of this particular village justifies its exceptional treatment. I certainly am of opinion that in all cases in which the rates of assessment are raised to a very large percentage, say 80 per cent. on the former payments, a gradual enhancement would be greatly conducive to the convenience of the ryot,

and might be so arranged as not to be open to the objections pointed out by Colonel Anderson in paragraphs 84 to 86 of his report.

I have, &c.,
 (Signed) A. GREY,
 Revenue Commissioner, Kánarese Districts.

Revenue Survey and Assessment.

No. 2854.

REVENUE DEPARTMENT.

Bombay Castle, 3rd May 1877.

Letter from the Survey and Settlement Commissioner, S. D., No. 178, dated 3rd February 1877—Submitting proposals for the revision of the assessment of 215 villages formerly comprised in the old Hángal Táluka and the old Tadas Mahál or sub-division of the Hubli Táluka of the Dhárwár Collectorate; and requesting sanction of Government thereto and the issue of the usual guarantee for the settlement for thirty years.

Letter from the Temporary Revenue Commissioner, Kánarese Districts, No. 688, dated 31st March 1877—Submitting the above with his own remarks and those of the Collector of Dhárwár (No. 679 of 1877).

RESOLUTION.—The tract of country comprised in the old Hángal Táluka and Tadas Mahál, the revision of assessment in which is now proposed on the expiration of the first guaranteed period of thirty years, has since been partitioned out into the five tálukas of Hángal, Bankápur, Karajgi, Hubli and Kalghatgi, and is one of which the material condition has in the course of the guaranteed period been immensely improved by the opening out of communications with the sea-coast at Kumta and other important markets such as Dhundshi, Háveri, Bankápur and Hubli, and will no doubt before long be benefited by the construction of a railway from Bellary to Gadag, Hubli, &c. The value of agricultural produce, as shown in paragraph 43 of Colonel Anderson's report, has also greatly increased. On the whole, therefore, the tract under report can be subjected without hesitation to an increase in its assessment.

2. The result of the expiring settlement has been most favourable in a revenue point of view. The average area under cultivation in the ten years preceding it was 54,071 acres, with a realized revenue of about Rs. 72,000, whereas the area and receipts for the last ten years have been 125,171 acres and Rs. 1,29,430. The unoccupied assessed land has in the same period fallen from 114,128 to 13,584 acres.

3. Population has not increased in the same proportion as in other parts of the Deccan and Southern Marátha Country. This is partly attributed to the great prevalence of fever a few years back, and partly to emigration into the adjoining district of North Kánara. The great increase in the number of flat-roofed and tiled as compared with thatched houses, however, speaks well for the improved condition of the people, and that in carts, amounting, at a time of year in which many probably escaped enumeration, to over 163 per cent., proves that they have taken full advantage of the better means of communication brought within their reach.

4. The grouping of villages for maximum rates of dry-crop assessment is somewhat different from that adopted at the first settlement by Captain Wingate, and is more in accordance with his later views, confirmed by Colonel Anderson's subsequent experience, that the rainfall, as the line of Gháts is approached from the east, is too heavy for that kind of cultivation, which is presented in its most favourable condition under the lighter but still not uncertain fall of the more easterly villages. The gradation, in six successive groups, from Rs. 2-4-0 to Re. 1, seems unobjectionable, and may be confirmed.

5. The highest rate applies to only six villages, intermingled with those of the Bankápur Táluka, for which the same rate has already been approved. The result of its application will be to raise the assessment in one village, Hanmarhali, by 143 per cent., and the Collector, although not objecting to the eventual increase up to that amount, proposes that the enhancement shall be brought about by gradual increases instead of by raising the assessment at once. In the case of this particular village there seems no doubt that it was placed by mistake (probably from the similarity of its name to that of another village) in Captain Wingate's third group instead of in the first group, where it should have been from its position, and has thus for thirty years enjoyed a maximum rate of 15 annas in place of one of Re. 1-8-0. Its average rate is, moreover, only Re. 1-4-6, whereas that of no other village in the same group is less than Re. 1-9-0. The general question of a gradual in place of a sudden enhancement will be adverted to presently, but in the case of Hanmarhali, considering that the average assessment represents a grain rent of about 36 serg, or less than half a maund of jowári per acre, exclusive of the value of the straw, which on a well-frequented road must be considerable, there is evidently no reason to make a special exception.

6. The enhancement arising from the adoption of the proposed rates in the first group of six villages will be 65·3 per cent., but will range in the other groups from 40·5 to 47·8 or an average of a little over 44, which is not more in the opinion of His Excellency

in Council than this tract of country can well bear. The following is quoted from the 43rd paragraph of Colonel Anderson's report as showing the increase in value of the staple articles of agricultural produce since the introduction of the original settlement, and proves beyond a doubt the moderation of the proposed increase in assessment:—

				Sers of 80 tolas for one Rupee.		
				Period of ten years.	Average of three years.	Increase per cent.
				1847-56.	1874-76	
Rice in husk	...	86	47 $\frac{1}{4}$	82		
Jowári...	...	77	30 $\frac{1}{4}$	153		
Rági <i>alias</i> Náchni ...	..	112	44	154	
Jágrí .	...	14	8 $\frac{3}{4}$	61	
Arecanut	...	14	3 $\frac{7}{8}$	261		
Cocoanuts per 100 ...	...	Re. 1-9-5	Rs. 4-4-0	167	

7. For the rice lands of all but the 6th group of villages, in which it will be reduced by one rupee on account of the unhealthiness of the climate, a general maximum rate of Rs. 8, the same as that adopted in the neighbouring parts of the Bankápur Táluka, is proposed. Compared with the average rate under the current settlement this will give an increase of 53·6 per cent., the average rate at present being Re. 1-15-3, and that under the proposed rate Rs. 3. The increase in the value of rice is shown above to have been 82 per cent., and the proposed maximum may accordingly be sanctioned.

8. For garden lands a maximum rate of Rs. 15 is proposed. This is a reduction of Rs. 5 from that adopted under Captain Wingate's settlement, but its adoption will nevertheless raise the assessment from this source from Rs. 9,258 to Rs. 12,421, in consequence of an increase in the area from 807 to 1,101 acres. Colonel Anderson attributes the result partly to equalization of assessment, as it would seem from paragraph 61 of his report that the high rates imposed on the best gardens enabled Captain Wingate to adopt comparatively lower rates for gardens which had deteriorated and required time to be brought round again. These have all now very properly been put on an equal footing where they possess similar advantages of soil and water, and as the result is an increase of revenue notwithstanding the reduction of rate, the proposal may be sanctioned. It is presumed that none of the new

area now assessed as garden land is entitled to be continued at dry-crop assessments according to the principles of Sections 35 and 36 of Bombay Act I. of 1865.

9. The general result of the revision, as given in paragraph 78, will be an increase of revenue from Rs. 1,27,704 to Rs. 1,86,505, or 46 per cent., and, as the cost of revision is estimated at Rs. 63,914, it is certainly satisfactory. The crop experiments recorded in paragraph 80 also go far to prove that the assessment is very moderate.

10. With regard to the question of the gradual increase of assessments, Government concur with Colonel Anderson that it is advisable to do what is to be done in such cases at once, and not keep up the continual uncertainty arising from progressive enhancements, which of course very much diminish the value of land as a security or when it has to be sold. Colonel Anderson has shown conclusively that even a large enhancement does not come up to the variation in the market value of agricultural produce at different seasons of the year, and the ryots know their own interests sufficiently to take advantage of the most favourable time to dispose of their crops. His Excellency in Council is moreover quite sure that too much is made of the objection to sudden increase of demand from the habit of looking at the results of increases on whole talukas or whole villages, a proceeding which tends to exaggerate their effect unduly. An increase of 100 per cent. when a lakh of rupees is dealt with is astounding, but when it is split up into its infinitesimal component parts of a few rupees, the doubling of a man's assessment means that he has to part with but a very few extra sers of grain or a few hundred more bundles of straw to enable him to pay, or else to take an extra trip with his cart for hire, or do a few days' extra labour in the year.

11. The usual guarantee for the permanence of the proposed rates for thirty years may be given.

12. Colonel Anderson and Captain Godfrey may be thanked for the clearness and completeness of their several reports.

E. W. RAVENSCROFT,
Chief Secretary to Government.

To

The Temporary Revenue Commissioner, Kánarese Districts.
The Survey and Settlement Commissioner, S. D.
The Collector of Dhárwár.
The Survey and Settlement Commissioner, N. D.

*EXTRACT from the Proceedings of the Government of Bombay
in the Revenue Department, dated 8th February 1878.*

READ the following Despatch from Her Majesty's Secretary of State for India to His Excellency the Honourable the Governor in Council, Bombay, No. 37 (Revenue), dated 15th November 1877 :—

The report of the Survey and Settlement Commissioner, Southern Division, on the revision of assessment in the taluka of Hángal and the Tadas Mahál, or sub-division of the Hubli Taluka of the Dhárwár Collectorate, forwarded with other correspondence, by your Chief Secretary in his letter of the 21st September, No. 25 of 1877, has been considered by me in Council.

2. The able report of Colonel Anderson gives a very complete account of the tract which has been re-settled, and shows that in character of soil, both under dry-crops and in rice lands, in tanks, roads and markets, it is highly favoured, the single drawback on its prosperity being the occasional prevalence of fever in some parts of it.

3. I do not propose to notice all the details of the report, the statements in which have been carefully considered by the Collector of Dhárwár, the Revenue Commissioner, and by your Excellency in Council. The villages have been re-measured, and to some extent re-classified. The former division into four groups has been altered into one of six groups by sub-dividing the old first group into three. In the first group as it now stands there are only six villages with a dry-crop rate of Rs. 2-4-0 per acre, in the sixth or lowest group, containing 51 villages, a rate of Re. 1 per acre is imposed.

4. The only doubt which is suggested in the correspondence relates to the village of *Hanmarhali*, the assessment on which is enhanced by 143 per cent. But this village was, by a mistake in the old settlement arising from its confusion with the village of "*Hankanhali*," placed in the third group instead of the first. The ryots have thus for thirty years paid an assessment of 15 annas instead of one of Re. 1-8-0 per acre; they are, therefore, well able to pay the increased demand, and I see no reason why that demand should not be collected at once, instead of being spread over a number of years and realized by gradual increments.

5. The maximum rate of assessment on gardens has been reduced from Rs. 20 to Rs. 15 per acre, but the revenue will be raised by Rs. 3,163 in consequence of an increase in the area from 807 to 1,101 acres. The total assessment of Government lands is raised from Rs. 1,27,704 to Rs. 1,86,505.

6. In the 80th paragraph of the report, Colonel Anderson gives very briefly the result of 26 "crop experiments" (18 in rice lands and 8 in dry-crop lands) which have been made during the last four years under the orders of the Collector. These experiments show how very light the assessment is in comparison with the gross produce: The average proportion of the Government demand to the gross produce of the land appears to be about 6 per cent. I believe that similar experiments have been tried in various parts of the Presidency, and I desire to be furnished, at an early date, with a brief report showing the result of these inquiries.

7. I have read with interest the report by Captain Godfrey, the Deputy Superintendent of the Revenue Survey in the Southern Marátha Country, which is submitted by Colonel Anderson. It contains some useful details on the resources and statistics of the tract under re-settlement, and is creditable to the industry and intelligence of that gentleman.

8. I approve of the orders of your Excellency in Council, giving the usual guarantee for the permanence of the proposed rates for a period of thirty years.

RESOLUTION.—To be communicated to the Commissioner, S. D., the Survey and Settlement Commissioner, S. D., and the Collector of Dhárwár, with reference to Government Resolution No. 2854, dated 3rd May 1877.

2. Copies of the reports on crop experiments carried on in 1872-73, 1873-74 and 1874-75 should be forwarded to the Secretary of State, with reference to paragraph 6 of his despatch, with an intimation that reports for subsequent years will be submitted as soon as received.

Ordered that copies of the above be forwarded to—

The Commissioner, S. D.,
 The Survey and Settlement Commissioner, S. D.,
 The Collector of Dhárwár,
 The Secretary of State (by letter).

E. W. RAVENSCROFT,
 Chief Secretary to Government.