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MADRAS RECORD OFFICE

GOVERNMENT OF MADRAS

DEPARTMENT

Revenue

G.O. No.
B.P. No.

161

~~Press~~
Mis.

Dated

22-1-1876

~~196~~

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*Proceedings of the Madras Government, Public Works Department,
5th January 1876.*

Nos. 41 & 42. Read the following endorsement of the Acting Secretary to Government, Revenue Department, dated 18th October 1874 :—

Proceedings of the Board of Revenue, dated 29th September 1874, No. 2,805.

Read the following letter from R. W. BARLOW, Esq., Collector of the Chingleput District, to J. GROSE, Esq., Secretary to the Board of Revenue, dated Sydapet, 26th August 1874, No. 451 :—

I HAVE the honor to forward the statement of irrigation under the Cholaveram and Red Hills Tanks for a series of years, as directed in G.O., No. 1,313, of the 27th November, and Board's Miscellaneous Proceedings of the 4th December last, No. 8,303. I regret, however, to state that I am unable to give the necessary statistics for the Cholaveram Tank for a longer period than the last seventeen years, as, from the report of the Tahsildar of Ponneri, it seems that accounts for the previous three years are not forthcoming. As regards irrigation under the Red Hills Tank, I have given the statistics for twenty years for all villages under it but one, *viz.*, Cosa-poor, and the Tahsildar reports that the accounts of this village, for Faslis 1270, 1271, 1272, and 1273 inclusive, are not forthcoming, though a careful search has been made for the same.

2. Adverting to the concluding part of paragraph 3 of the Chief Engineer's letter, printed in the Proceedings of Government quoted above, wherein he remarks "that the causes which have led to a decrease of cultivation, and particularly to the

	Actual culti- vation.	Assessment including Fasli jasi and T. orva- jasi.	Net Revenue after deduct- ing remis- sions.	
	ACRES.	RS.	RS.	
1280 ...	3,329	14,107	13,299	grant of considerable remissions in Fasli
1281 ...	4,070	14,069	12,005	1281, should be inquired into," I may
1282 ...	4,494	15,108	14,915	observe that there has been an increase
				in the actual cultivation of late years,
				and also in the net revenue, though
				there was a slight falling off in Fasli
				1281, but this increase is nothing like

what was expected for the reasons stated further on.

3. The remissions granted in Fasli 1281 are due chiefly to a great deal of nunjah cultivation having been destroyed by floods, owing to the enormous quantity of water that was let out in that fasli to prevent the tank bursting.

4. It is to be remarked that the irrigation under the Red Hills and Cholaveram Tanks has not as yet been extended by cutting channels newly to any of those villages which were expected to be benefited by the project; but it is a question for calculation and consideration how far, if this was done, the supply of water would suffice for Madras, and for the extended cultivation.

5. As regards the apparent decrease of cultivation, noticed by the Chief Engineer in Faslis 1280, 1281, and 1282, as compared with Fasli 1276, I beg to remark that the figures of the former do not include (1) cultivation of nunjah minor inams in ryotwary villages; (2) the area irrigated in Zemindary and Shrotriern villages; (3) the area on which second-crop cultivation was raised in those faslis; whereas the figures of Fasli 1276, as given in Mr. Blair's report alluded to, includes the area of all these items, and further an amount was added, calculated at sixteen per cent. on the holding, as the approximate increased area likely to result from the new more accurate survey, and all these swelled the total to acres 5,559.

6. I may also add that the object of the figures given in Mr. Blair's report was to determine, as nearly as possible, the quantity of water required for irrigating the

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lands already entitled to it, and to see what supply would be available for Madras, after meeting the demand for irrigation, which that aimed in the statement furnished by this office to the District Engineer in August last, on which the Chief Engineer's remarks as to decreased holding are based, was simply intended to show the net revenue of Fasli 1282, as compared with the two previous ones.

7. The statements now sent even do not include the extent of cultivation in Moottahs and Shrotriem villages, because it is not possible to separate the revenue due to irrigation in these cases from other sources; the peishcush or the quit-rent collected being a lump sum fixed with reference to the average collections of a series of years on the entire villages.

SUBMITTED to Government with reference to G.O., dated 27th November 1873, No. 1,313.

2. The Collector shows that the figures contained in Mr. Blair's report included the cultivation on wet minor inams; the area irrigated in Shrotriem and Zemindary villages, and the breadth under second-crop cultivation. But these items formed no part of the Collector's statement, and hence the difference remarked upon.

3. The heavy remissions in Fasli 1281 appear to have been owing to the damage done when allowing an enormous escape to prevent the bank breaching.

4. The Board would direct attention to the Collector's remark regarding nothing having been done towards extending the channels for new irrigation, now that the capacities of the reservoirs have been increased. If there is surplus water at any time it might be diverted into some of the many tanks lying below the Red Hills Tank.

5. It is observed from the report of the Director of Revenue Settlement now before the Board, that he has raised the grouping of the villages under these tanks owing to the certainty of the supply, and placed the assessment thus derived to the credit of the project.

(A true Copy and Extract.)

(Signed) J. GROSE,
Secretary.

TRANSFERRED to the Public Works Department.

(Signed) C. G. MASTER,
Acting Secretary to Government.

No. 42-A. Read the following Proceedings of the Madras Government in the Revenue Department, dated 25th August 1875, No. 1,276.

Proceedings of the Board of Revenue, dated 23rd July 1875, No. 2,058.

Read the following Proceedings of the Madras Government, dated 9th June 1875, No. 1,221, Revenue Department.

Read the following Proceedings of the Madras Government, dated 2nd June 1875, No. 1,548, Public Works Department.

ABSTRACT.—*Madras Water Works Project.*—Passing orders on the Memorandum of the Chief Engineer for Irrigation affording some information as to points noticed by the Government of India relative to the

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ORDER THEREON, 9th June 1875, No. 1,221.

FORWARDED to the Board of Revenue with the request that they will be good enough to report at an early date on the points referred to in paragraphs 4 and 10 of the foregoing Order.

(True Extract.)

(Signed) LORNE A. CAMPBELL,
Under Secretary to Govt.

With reference to paragraph 4 of Government Order, Public Works Department, printed with the Order above read, the Board observe that the discrepancies therein referred to were explained in, and a statement of revenue forwarded with, the Board's Proceedings, dated 29th September 1874, No. 2,806. The Board, however, observe that the statement is slightly defective, since it does not show the assessment of dry lands, and the quit-rent of Inams, irrigated, both of which under the Order of Government, dated 25th July 1872, No. 1,766, Public Works Department, have to be treated as revenue due to irrigation. The Collector will, therefore, be separately requested to submit the statement in the form required by Government in their Order, dated 23rd March 1874, Public Works Department, No. 791.

2. The Collector's attention will be drawn to paragraphs 7 and 8 of the Government Order, Public Works Department, printed with the Order above read.

3. With reference to paragraph 10 of the Order just referred to, the Acting Director of Revenue Settlement in his report, about to be separately submitted to Government, on the resettlement of a tract in the Sydapet Taluk, which includes fifty villages under the influence of the Red Hill Tank, has furnished information which enables the Board to answer the questions now put. An extract from this report, which contains also suggestions as to the best method of utilizing the supply, is herewith submitted.

4. The area of waste in these villages is not large, and the land is of a very poor description. The tract is a poor one on the whole, and the people are not well off. Mr. Puckle doubts whether the land would fetch much at auction. It would have to be sold, under the terms of the settlement now made, subject to a swatantram, payable to mirassidars, of two Annas in the Rupee of assessment. The revised assessment has not yet come into operation; the lands are specially poor, and the people are as yet unacquainted with the benefits of good irrigation. Under these circumstances there would probably be a reluctance to buy, and the Board are, therefore, of opinion that the sale of the waste is not expedient.

5. The Board see no reason whatever for revising the Inam settlements in this tract by the imposition of additional charge for water supplied to wet lands, which they suppose is the intention of the Government Order. They have recently placed their views on this point and the grounds of them before Government in connection with the Sangam project, and there is nothing in the present case to render different treatment of the Inams possible.

6. From Mr. Puckle's report it will be seen that the wet lands in Government villages could bear, if furnished directly or indirectly, by means of Red Hill Tank water, with a regular and sufficient supply, an addition of Rupees 2 per acre to their present revised wet assessment, and that the dry lands could pay a water-rate of

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Rupees 4 in addition to the dry assessment. The wet average being now almost exactly 3 Rupees and the dry about 1 Rupee, this arrangement would bring all the lands under the influence of the project to a rate of Rupees 5 per acre on the average, and this, in Mr. Puckle's opinion, will be a moderate and fair rate of assessment.

7. Mr. Puckle, it will be seen, suggests certain methods for extending the supply and making it go as far as possible; and, if his estimate of the quantity of water available is correct, a return of Rupees 61,266 might be obtained from the fifty Government villages under the Red Hill Tank alone. It is for the professional department to say how much water can be made available and whether it can be utilized as suggested by the Director of Revenue Settlement.

(True Extracts.)

(Signed) H. E. STOKES,
Acting Secretary.

Extract from a letter from the Acting Director of Revenue Settlement, to the Acting Secretary to the Board of Revenue, dated 14th June 1875, No. 1,499 A.

PARAGRAPH 18.—Red Hill Tank.—This tank commands fifty of the villages reported on with an aggregate area of 35,608 acres. Of this, 3,585 acres are now irrigated from the tank direct, and 10,833 acres from petty rain-fed tanks; these latter are nearly all out of repair, and probably have been purposely left so, as the District Engineer informs me that when the system of irrigation from the Red Hill Tank is complete, these minor tanks will no longer be needed but may be levelled in and cultivated. If this is done, the tank beds will add 2,935 acres to the irrigable area; the manawari* will give 3,670 acres and ordinary dry lands 6,021 acres, total 12,626 acres, supposing the whole to be cultivated.

* Including Government and tenant cultivated and waste land.

19. Now, the Red Hill Tank contains 48,000,000 cubic yards of water, of which Madras takes 5,000,000, there are thus at least 40,000,000 cubic yards available for irrigation, and if each acre requires 6,000 cubic yards of water there is store sufficient to irrigate 6,600 acres without replenishing, but the tank is supplied by a river channel which has a continual flow; deducting therefore the area already irrigated 3,585 acres, there is probably water enough for 10,000 acres of dry land, and if the small tanks are repaired and deepened and their water-spread contracted, enough may be stored in these tanks from falling rain and the drainage of higher levels to fully irrigate the area that they now poorly supply.

20. The want of drainage and protection from the inundation of the Courtaliyar river is very much felt in these villages, and a thorough system of drainage to get rid of the salt and soda that has now no escape from the soil should, I think, be the precursor of an improved system of irrigation, as much that is deleterious may be washed away with the aid of falling rain if there is but an open channel. But as matters stand at present there is no drainage whatever, the eelingulah channel from the Red Hill Tank is bedded across in places to turn water to the fields, and the surplus of the nunjai is allowed to soak into the manawari lands instead of being carried away by a clear cut channel. The consequence is that some lands deteriorate yearly, and all are more or less injured by the want of a proper out-fall.

21. The advantage of repairing the minor tanks and restricting their capacity to their deep water bed is the more apparent from the fact that the shallow waterspread of many of these tanks is already cultivated, and only the deep bed is available for the extension of cultivation; if these deep beds are defined and the cultivation above them embanked, a high level channel from the Red Hill Tank might not only irrigate the cultivation hitherto periodically submerged, but might furnish the rain-fed tanks with a regular supply for the better cultivation of the lands below them.

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22. If the Red Hill Tank water is brought to these lands, the assessment of the existing nunjai may be raised by at least half a water rate, or by Rupees 2 an acre. This will give Rupees 21,666 on the 10,833 acres now cultivated, and if to this be added Rupees 40,000, at a full water-rate of Rupees 4 an acre, on the 10,000 acres of dry land to be irrigated, the total results will be Rupees 61,666 for one crop plus Rupees 11,772, the present single crop assessment of the 3,585 acres now irrigated by the Red Hill Tank.

(True Extract.)

(Signed) H. E. STOKES,
Acting Secretary.

COMMUNICATED to the Public Works Department, with reference to G.O. in that Department, dated 2nd June 1875, No. 1,548, for early attention and full report.

(True Extract.)

(Signed) A. MACGREGOR,
Acting Secretary to Government.

No. 42-B.

No. 1,439.

Note by the Chief Engineer for Irrigation.

THE Board of Revenue in the first paragraph of their Proceedings No. 2,058, of the 23rd July 1875, point out that, in their Proceedings of the 29th September 1874, No. 2,805, the discrepancies pointed out in Proceedings, Madras Government, No. 1,313, of the 27th November 1873, were explained. This was overlooked when the order of the 2nd June 1875, No. 1,548, was passed, and the undersigned regrets that very great carelessness in his office led to the Government being misinformed. The revised statements for the Madras Water Works, directed by the Board to be prepared, have not yet been received, but as a settlement has recently been made of the quantity of water to be reserved in the Red Hills Tank in connection with the supply of the town of Madras, information can be given as to the quantity likely to be available for irrigation.

2. In paragraph 19 of the extract from the report of the Acting Director of Revenue Settlement there are some material misapprehensions. He mentions that the Red Hills Tank contains 48 millions of cubic yards, that Madras takes 5 millions of cubic yards, and that the supply-channel has a continual flow. The facts are as follow:—

	Millions of Cubic Yards.
The Cholaveram tank holds	28.47
„ Red Hills do. do.	101.98
Total	130.45

In the Government Order quoted above the Government have directed that water is

* +31.31 M. S. L.

† 37.31 „

to be retained in the Red Hills Tank at 6 feet above the sill* of the lowest sluice of the Municipal off-take, and the quantity of water below this level† is 45.32, so that the water available for irrigation, if the tanks be only once filled annually, would be 85.13. Generally a great deal of additional water will be received, but this year it is possible or probable that the tanks will not be once filled, the Red Hills Tank being now more than 5 feet below the full level.

3. The storage of water in a tank required for the irrigation of an acre of land is in many cases more than the 6,000 cubic yards mentioned by the Acting Director,

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owing to the large quantity wasted by evaporation; but in these tanks of great area and considerable depth, in the larger of which, moreover, under the arrangements directed in connection with the supply of Madras, a considerable depth of water will always be maintained, evaporation will be less, while it will be probably more than compensated for by the additional surplus received from the river. Ere this, detailed information as to the supplies received in the last few years, and as to the extent and details of expenditure of water, should have been forthcoming; but the Superintending Engineer has not yet sent in his report for any year. Pending the receipt of the more definite information required, and looking to the low level of the land irrigated and to be

$$* 130.45 - 45.32 = 85.13.$$

irrigated, it may, it is thought, be assumed that the quantity* of water available for irrigation in the reservoirs of the Madras Water Works up to F.T.L., may be divided by 4,500 to obtain the irrigable acreage, which will thus be 18,900 acres.

4. The Acting Director of Revenue Settlement, in the extract from his report transmitted by the Board, refers to the area already irrigated and to the land capable of irrigation under the Red Hills Tank only, and the Cholaveram tank is not referred to; but it would seem from the following figures that his area of 3,585 acres is under both tanks. From the statements transmitted with the Board's Proceedings, No. 2,805, of the 29th September 1874, it appears that, subject to the corrections yet to be made, the cultivation and revenue for years prior to the enlargement of the tanks were as follow:—

	AVERAGE CULTIVATION		ANAM PAULJANTI, &c.		Total Revenue.	Remarks.
	Extent.	Revenue.	Extent.	Revenue.		
Faslis 1266 to 1279 ...	1,458	4,994	1	1	4,995	Cholaveram Tank.
Do. 1263 to 1279 ...	1,824	7,487	1	3	7,490	Red Hills do.
	3,282	12,481	1½	4	12,485	
Similarly, the average for the subsequent faslis are,						
Faslis 1280 to 1282 ...	1,730	4,945	...	1	4,946	Cholaveram Tank.
Do. do. ...	2,451	9,119	23	70	9,189	Red Hills do.
	4,181	14,064	23	71	14,135	

It appears, therefore, that only nine villages are irrigated under the Cholaveram and ten under the Red Hills Tank, and, as the Acting Director states that there are fifty villages altogether—thirty-one remain to be supplied. A list of these thirty-one, with the area irrigated and irrigable in each, will be useful to the Superintending Engineer, Chingleput, in determining the details of the distribution arrangements required. The available area of land for irrigation, taking the Director's figures, will apparently be—

	ACRES.
The old irrigation ...	3,585
Do. under petty tanks to be superseded ...	10,833
Do. tank beds ...	2,935
Do. manawari or waste ...	3,670
Do. dry lands to be converted ...	6,021
Total ...	27,044

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this, unless the water-supply prove better than has been supposed, only 18,900 can be irrigated, and, judging from the particulars of returns from the several stations of land given by the Director, it would appear that the most profitable portion of water to the 15,315 acres, which can be supplied in addition to the old will be to arrange, at least in the first instance, for the irrigation of the—

	ACRES.
Waste lands ...	3,670
Dry lands to be converted ...	6,021
make up the difference by bringing about 5,624 acres of the irrigation under tanks under the influence of the better supply. The revenue will then be—	
9,691 acres at 4 Rupees ...	Rs. 38,764
5,624 do. 2 „ ...	„ 11,248
	Rs. 50,012

The additional-quantity of water stored in the reservoirs by the outlay on the Water Works project is the—

	Acres.	Present capacity of the tanks...	Millions of Cubic Yards.
ram ...	3.36		130.45
is ...	26.48	Less the former do. ...	*23.84
Total ...	23.94		

uses the zero of Mr. Fraser's contours has been ordinary F.T.L. instead of the occasional or F.T.L., which would make the former capacity

Additional storage... 106.61

and it may perhaps be assumed that by extra-supplies at intervals the total receipts annually of water will amount to one-fifth of 130.45 + 26.09 = 156.54, and the additional water provided will then be numbers 132.70 millions. As above stated, the water reserved for municipal is to be 45.32, and the additional supply for irrigation will be 87.38.

The Government of India have intimated that a part of the capital outlay on the project should be borne by Provincial Funds, and a sum of two lakhs of Rupees suggested as the share of the latter, but at that time apparently neither the cost of the project nor the proportion of water to be appropriated for new irrigation and purposes respectively was known. The cost of the project has not yet been fixed, but the proportionate shares can be fixed from the information above given, and, it is thought, be—

Municipal or the Provincial Fund share, ...	45.32	45	15
	132.70	say	132 = 44
Irrigation share... ..	87.38	87	29
	132.70	say	132 = 44

the sum to be thus divided will be the total cost of the project less the outlay on distribution and excluding the contribution for the town delivery channel, and the share chargeable to Provincial Funds the amount of the contribution to be added, while the irrigation share will be enhanced by all distribution for conveying water to the fields.

The Acting Director's report refers to the want of improved drainage for the villages commanded by the reservoirs. There can be no doubt of the improvement which good drainage would secure, and the necessary investigation should be made. Probably the levels taken for distribution purposes will enable

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the wants of this tract of country as regards drainage to be readily determined and estimated for.

8. In the argument enunciated in paragraph 21 of the Director's Report the undersigned is unable to concur. To take water, other than surplus, from the reservoirs and store it in petty tanks would be the reverse of economical; there would inevitably be additional waste. The natural out-fall of the drainage of fields situated in the beds of these petty tanks is into the deeper parts of those beds, and were the fields bunded to enable water in the deep beds to be stored above the fields' level there would be a complete barrier to drainage; if not so stored embanking will be unnecessary. Some water will remain in the hollow parallel to the bunds of the minor tanks, even if the beds be generally reclaimed; but this should be used, or can conveniently be used, only for the irrigation of lands lying on a lower level and below the bunds. Some of the tanks will be capable of abandonment altogether; others probably will have to be retained, and some little judgment will be needed to make the best selection for either purpose.

FORT ST. GEORGE,
7th December 1875.

(Signed) JOHN MULLINS, Lieut-Col., R.E.,
Chief Engineer for Irrigation.

Abstract Statement of the Area of Cultivation and Revenue of each Fasil from 1266 to 1282 for all the Villages together under the Cholaveram Tank.

Villages.	Fasil.	NUNJAH ATACUT.		CULTIVATION.		INAM FASILJASTY AND TEERVASTY.		Total of Columns 6 and 8.
		Extent.	Assessment.	Extent.	Revenue.	Extent.	Assessment.	
1	2	3	4	5	6	7	8	9
			RS. A. P.		RS. A. P.		RS. A. P.	
No. 6, Sembilivaram.	1266	...	...	1,325 48	4,858 14 6	6 48	0 12 10	4,859 11 4
	1267	...	...	1,230 56	4,347 5 1	...	...	4,347 5 1
	1268	...	...	1,283 84	5,026 4 11	...	...	5,026 4 11
	1269	...	...	1,503 69	5,592 8 3	...	...	5,592 8 3
	1270	...	...	1,444 23	5,205 10 1	0 76	0 8 2	5,206 2 3
	1271	...	...	1,602 26	5,999 1 2	...	...	5,999 1 2
	1272	...	...	1,759 51	6,043 9 7	...	...	6,043 9 7
	1273	...	...	1,700 16	6,079 8 7	...	...	6,079 8 7
	1274	...	...	1,681 67	5,756 9 3	...	...	5,756 9 3
	1275	...	...	1,803 63	6,168 11 3	1 86	4 8 9	6,168 11 3
	1276	...	...	1,292 54	4,545 4 9	3 82	8 7 7	4,545 12 4
	1277	...	...	1,071 36	1,501 0 6	...	...	1,501 0 6
	1278	...	...	1,180 20	4,328 8 8	0 67	1 1 0	4,329 0 3
	1279	...	...	1,321 15	4,562 0 7	...	...	4,562 0 7
	Total ...	...	...	20,419 63	69,910 0 9	7 49	15 6 4	69,925 7 1
	Average...	...	...	1,455 53	4,993 9 2	0 50	1 1 7	4,994 10 9
	1280	...	...	1,361 69	4,529 1 6	1 17	2 10 6	4,531 12 0
	1281	1,474 66	4,674 0 6	1,756 93	4,778 4 9	...	...	4,778 4 9
	1282	...	...	4,071 97	5,528 8 5	...	...	5,528 8 5
	Total ...	...	...	5,190 57	14,835 9 7	1 17	2 10 6	14,838 4 1
	Average...	...	...	1,730 19	4,943 3 3	0 39	0 14 2	4,946 1 4

FORT ST. GEORGE,
December 1875.

(Signed) JOHN MULLINS, Lt.-Col., R.E.,
Chief Engineer for Irrigation.

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Abstract Statement of the Area of Cultivation and Revenue of each Fasil from 1263 to 1279 for all the Villages together under the Red Hills Tank.

Villages.	Fasil.	NUNJAH ATACUT.		CULTIVATION.		INAM FASILJASTY AND TEERVASTY.		Total of Columns 6 and 8.
		Extent.	Assessment.	Extent.	Revenue.	Extent.	Assessment.	
1	2	3	4	5	6	7	8	9
			RS.		RS. A. P.		RS. A. P.	
	1263	...	...	1,544 0	6,936 0 0	...	...	6,936 0 0
	1264	...	...	1,370 0	6,059 0 0	...	...	6,059 0 0
	1265	...	...	1,360 0	5,452 0 0	1 0	3 0 0	5,455 0 0
	1266	...	...	1,648 0	6,302 0 0	...	...	6,302 0 0
	1267	...	...	1,719 0	7,520 0 0	...	...	7,520 0 0
	1268	...	...	1,846 0	7,831 0 0	1 0	1 0 0	7,833 0 0
	1269	...	...	1,946 0	8,457 0 0	1 0	1 0 0	8,458 0 0
	1270	...	...	1,702 0	7,864 0 0	...	...	7,864 0 0
	1271	...	...	1,701 0	7,250 0 0	...	...	7,250 0 0
	1272	...	...	1,766 0	7,836 0 0	3 0	7 0 0	7,843 0 0
	1273	...	...	1,938 0	8,356 0 0	1 0	3 0 0	8,359 0 0
	1274	...	...	1,938 0	8,325 0 0	...	...	8,325 0 0
	1275	...	...	2,311 0	8,830 0 0	...	...	8,830 0 0
	1276	...	...	2,158 0	9,030 0 0	4 0	10 0 0	9,034 0 0
	1277	...	...	2,009 0	6,928 0 0	3 0	5 0 0	6,933 0 0
	1278	...	...	1,831 0	4,665 0 0	2 0	1 0 0	4,675 0 0
	1279	...	...	2,162 0	9,086 0 0	1 0	7 0 0	9,093 0 0
No. 22, Kosalpoor.	Total ...	...	...	31,006 0	1,27,286 0 0	17 0	47 0 0	1,27,333 0 0
	Average...	...	...	1,822 88	7,437 6 7	1 0	2 12 3	7,490 2 10
	1280	...	...	2,102 0	9,179 0 0	...	70 0 0	9,249 0 0
	1281	2,948 0	10,260	2,607 0	8,088 0 0	19 0	55 0 0	8,148 0 0
	1282	...	...	2,637 0	10,098 0 0	49 0	76 0 0	10,174 0 0
	Total ...	...	...	7,350 0	27,356 0 0	68 0	210 0 0	27,566 0 0
	Average...	...	...	2,450 0	9,119 0 0	23 0	70 0 0	9,189 0 0

FORT ST. GEORGE,
December 1875.

(Signed) JOHN MULLINS, Lt.-Col., R.E.,
Chief Engineer for Irrigation.

Statement showing the Average Area of Cultivation and Revenue for each Village under the Cholaveram Tank, from Fasil 1266 to 1279, and the subsequent years (1280 to 1282) individually.

Villages.	Fasil.	NUNJAH ATACUT.		CULTIVATION.		INAM FASILJASTY AND TEERVASTY.		Total of Columns 6 and 8.
		Extent.	Assessment.	Extent.	Revenue.	Extent.	Assessment.	
1	2	3	4	5	6	7	8	9
			RS. A. P.		RS. A. P.		RS. A. P.	
No. 6, Sembilivaram.	1266 to 1279	...	...	113 85	612 14 7	0 22	0 7 7	613 6 3
	1280	...	...	121 60	647 15 5	...	...	647 15 5
	1281	165 06	658 2 2	167 40	618 7 11	...	...	618 7 11
	1282	...	...	167 27	676 7 11	...	...	676 7 11
	1266 to 1279	...	...	185 77	634 13 8	...	...	634 13 8
	1280	...	...	154 13	609 4 11	...	...	609 4 11
	1281	202 88	636 14 2	341 43	778 5 2	...	...	778 5 2
	1282	...	...	360 34	848 15 5	...	...	848 15 5
	1266 to 1279	...	...	162 45	303 14 5	...	...	303 14 5
	1280	...	...	57 70	217 15 11	...	...	217 15 11
	1281	76 31	217 15 11	76 31	217 15 11	...	...	217 15 11
	1282	...	...	163 60	297 8 5	...	...	297 8 5

Proceedings of the Madras Government, Public Works Department,
5th January 1876.

Statement showing the Average Area of Cultivation and Revenue for each Village, &c.—(Concluded.)

Villages.	Fasli.	NUNJAH ATACUT.		CULTIVATION.		INAM FARULJASTY AND TEERVAJASTY.		Total of Columns 6 and 8.
		Extent.	Assessment.	Extent.	Revenue.	Extent.	Assessment.	
1	2	3	4	5	6	7	8	9
			RS. A. P.		RS. A. P.		RS. A. P.	RS. A. P.
No. 10, Seroonayam.	1266 to 1279	...	...	134 72	585 5 0	...	...	585 5 0
	1280	...	...	165 24	660 0 9	...	...	660 0 9
	1281	205 57	707 15 9	215 68	730 2 3	...	...	730 2 3
	1282	...	...	217 24	778 9 7	...	...	778 9 7
,, 13, Cholavaram.	1266 to 1279	...	...	584 68	1,814 7 11	0 19 0	8 5	1,815 0 4
	1280	...	...	543 24	1,708 12 9	...	...	1,708 12 9
	1281	545 80	1,648 7 5	612 04	1,719 13 3	...	...	1,719 13 3
	1282	...	...	757 80	2,073 0 11	...	...	2,073 0 11
,, 64, Karanoodai.	1266 to 1279	...	...	39 77	136 11 7	0 93 0	0 11	136 12 6
	1280	...	...	35 57	176 10 4	1 17	3 10 6	179 4 10
	1281	36 85	149 8 7	38 62	175 0 7	...	...	175 0 7
	1282	...	...	42 90	214 2 9	...	...	214 2 9
,, 72, Vijanulloor.	1266 to 1279	...	...	72 58	147 3 7	...	...	147 3 7
	1280	...	...	24 12	29 5 1	...	...	29 5 1
	1281	31 80	58 6 2	31 50	45 8 7	...	...	45 8 7
	1282	...	...	31 24	61 6 4	...	...	61 6 4
,, 105, Sathoorumbedu.	1266 to 1279	...	...	119 78	468 5 1	0 05 0	0 7	468 5 8
	1280	...	...	113 54	126 11 3	...	...	126 11 3
	1281	8 69	46 1 8	133 62	162 0 4	...	...	162 0 4
	1282	...	...	108 73	223 2 7	...	...	223 2 7
,, 153, Nulloor.	1266 to 1279	...	...	102 90	259 13 1	...	...	259 13 1
	1280	...	...	135 44	357 5 1	...	...	357 5 1
	1281	200 90	500 8 8	148 72	340 14 8	...	...	340 14 8
	1282	...	...	152 85	355 2 6	...	...	355 2 6

FORT ST. GEORGE.

(Signed) JOHN MULLINS, Lt.-Col., R.E.,
Chief Engineer for Irrigation.

D.

Abstract Statement showing the Average Area of Cultivation and Revenue for each Village under the Bed Hills Tank from Fasli 1263 to 1279, and the subsequent years (1280 to 1282) individually.

Villages.	Fasli.	NUNJAH ATACUT.		CULTIVATION.		INAM FARULJASTY AND TEERVAJASTY.		Total of Columns 6 and 8.
		Extent.	Assessment.	Extent.	Revenue.	Extent.	Assessment.	
1	2	3	4	5	6	7	8	9
			RS. A. P.		RS. A. P.		RS. A. P.	RS. A. P.
No. 23, Kossapoor.	1263 to 1279	...	...	91 23	331 13 2	0 47	0 10 4	332 7 6
	1280	...	...	135 0	496 0 0	...	...	496 0 0
	1281	239	712 0 0	190 0	503 0 0	...	...	503 0 0
	1282	...	...	191 0	521 0 0	2 0	4 0 0	523 0 0
,, 20, Sathinudoor.	1263 to 1279	...	...	36 0	128 4 8	...	...	128 4 8
	1280	...	...	49 0	151 0 0	...	...	151 0 0
	1281	127 0	362 0 0	58 0	178 0 0	...	...	178 0 0
	1282	...	...	59 0	162 0 0	...	...	162 0 0
,, 18, Alingivakum.	1263 to 1279	...	...	64 53	505 0 0	...	...	505 0 0
	1280	...	...	64 0	574 0 0	...	...	574 0 0
	1281	71 0	414 0 0	66 0	571 0 0	...	...	571 0 0
	1282	...	...	66 0	574 0 0	...	...	574 0 0
,, 16, Thundlakani.	1263 to 1279	...	...	141 30	454 11 3	...	...	454 11 3
	1280	...	...	194 0	549 0 0	...	...	549 0 0
	1281	155 0	431 0 0	166 0	604 0 0	...	...	604 0 0
	1282	...	...	151 0	573 0 0	6 0	15 0 0	588 0 0

Proceedings of the Madras Government, Public Works Department,
5th January 1876.

Abstract Statement showing the Average Area of Cultivation and Revenue, &c.—(Concl.)

Villages.	Fasli.	NUNJAH ATACUT.		CULTIVATION.		INAM FARULJASTY AND TEERVAJASTY.		Total of Columns 6 and 8.
		Extent.	Assessment.	Extent.	Revenue.	Extent.	Assessment.	
1	2	3	4	5	6	7	8	9
			RS. A. P.		RS. A. P.		RS. A. P.	RS. A. P.
No. 15, Vadakara.	1263 to 1279	...	...	...	...	...	...	...
	1280	...	...	...	...	...	...	...
	1281	43 0	133 0 0	...	...	...	...	...
	1282	...	...	...	...	...	...	...
,, 21, Vadapoorambakum.	1263 to 1279	...	...	...	...	...	...	...
	1280	...	...	...	...	...	...	...
	1281	359 0	1,116 0 0	...	...	...	...	...
	1282	...	...	...	...	...	...	...
,, 38, Polul.	1263 to 1279	...	...	...	...	...	...	...
	1280	...	...	...	...	...	...	...
	1281	668 0	2,784 0 0	...	...	...	...	...
	1282	...	...	...	...	...	...	...
,, 13, Line.	1263 to 1279	...	...	...	...	...	...	...
	1280	...	...	...	...	...	...	...
	1281	430 0	1,221 0 0	...	...	...	...	...
	1282	...	...	...	...	...	...	...
,, 19, Poyasumkum.	1263 to 1279	...	...	...	...	...	...	...
	1280	...	...	...	...	...	...	...
	1281	145 0	569 0 0	...	...	...	...	...
	1282	...	...	...	...	...	...	...
,, 9, Velangadoovakum.	1263 to 1279	...	...	...	...	...	...	...
	1280	...	...	...	...	...	...	...
	1281	711 0	2,518 0 0	...	...	...	...	...
	1282	...	...	...	...	...	...	...

(Signed) JOHN MULLINS, Lt.-Col., R.E.,
Chief Engineer for Irrigation.

No. 43.

ORDER THEREON, 5th January 1876, No. 21.

IRRIGATION, No. 5-A.

THESE papers contain in an approximate form part of the information required in connection with the Madras Water Works Project.

1st.—There is the water-supply available, and this supply, though necessarily liable to variation, has been supposed by the Chief Engineer for Irrigation to be equivalent to one-fifth more than the capacity of the two reservoirs in which it is stored. The figures are as follow, and they will be liable to correction when the actual receipts and expenditure of water as deduced from the registers of recent years, including the present year, have been worked out:—

	Millions of C. yds.
156-54-45-32.	Available for irrigation ... 111-22
156-54-(23-84+45-32.)	Do. for additional irrigation ... 87-38
	Reserved for town of Madras ... 45-32
2ndly.—The land capable of being irrigated, and this is shown to be—	
	ACRES.
	That already or formerly irrigated under the reservoir ... 3,585
	Other lands ... 23,459
	Total ... 27,044

Of this, for the reasons stated in the foregoing note, somewhat more than two-thirds will, it is anticipated, be actually irrigated ultimately, and the additional area, after deducting the old irrigation, will be about 15,115 acres.

3rdly.—The probable returns from the area which can be irrigated, those lands

9,691 Acres at 4 Rupees	..
5,624 Do. " 2	..

or, say, in round numbers, half a lakh the outlay.

The average cost of maintenance the cost of upkeep subsequently, with to be determined and stated.

The gross revenue up to 1865
Rupees 12,485.

4thly.—A material portion of the sum having been reserved for the benefit of the Province, divided between Provincial and Agrarian purposes, made available for municipal purposes. It is shown that out of 132·70 millions of francs, by the project, the shares will be—

subject to certain deductions and additions. In the Engineer's Note, the shares of outlay charged to Agricultural $\frac{2}{4}$ of the cost of the project for water-supply made by the Municipal Funds, but these will have to bear $\frac{1}{4}$ of the works prior and subsequent to 18

2. These papers will be communicated to the Order in that Department of Board of Revenue in order that the rev. of the 23rd July 1875, No. 2,058, Superintending Engineer, Chingleput, who should submit the information need

3. Ordered that a copy of these 1
of the Government of India.

igation will be, selecting out of the gross which will give the largest income,

					RS.
425	000	000	000	000	38,764
000	000	000	000	000	11,248

Total	...	50,012
-------	-----	--------

ces gross revenue will be the return on

anks prior to Fasli 1279 (1869-70), and
observable average from 1870-71, have yet

clusive averaged, subject to correction,

age provided by the outlay on the project the town of Madras, this outlay has to be equal in proportion to the quantity of water for drinking and irrigation respectively, and it has been 1000000000 yards additional supply provided altogether

...	...	...	45.32 millions.
...	...	...	87.38 "

ious specified in paragraph 6 of the Chief
feasible to Provincial will therefore be 1½, and
it. Under this arrangement the payments
will be carried to the credit of Provincial
a difference between the cost of maintenance
70.

ed to the Revenue Department, with reference 25th August last, No. 1,276, and to the statements referred to in their Proceedings submitted as soon as possible. Also to the Controller of Public Works Accounts, from them at an early date.

proceedings be forwarded for the information

(True Extract.)

C. M. Walker Major-General, R.E.,
Secretary to Government.

To the Public Department.

Revenue
Superintending Engineer, Chingleput
Chief Engineer for Irrigation.
Board of Revenue.
Controller of Public Works Accounts.

Exd. S. T. Austin.

Revenue Department
N^o 198

Govt. of 1876 Madras.

PUBLIC WORKS.

5

To

THE PUBLIC DEPARTMENT

&c. &c. &c.

Dated January 5th.

Issued

Recd. — 20 —

Encl.

G. O., 5th January 1876, No. 21.

For File

JANUARY.

Nos. 41-43

Madras Water Works Project.—Passing
orders on papers on the subject of the —

N^o 161

Received

22nd Jan'y/76