M.R.O. 1—10,006—28-2-50.

(1) Number of pages _____

(2) Date of repair _____

(3) Initials of the Referencer _____

MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No. 2931-32 Press Copy
B.P.—No. Mis.

Dated 14. 10. 1932

Not to be folded or roughly handled

Read the following papers :—

No. 215. From Colonel C. H. DICKENS, R. A., Secretary to the Government of India, Public Works Department (Account—Irrigation), to Major-General G. W. WALKER, R.E., Secretary to the Government of Madras, Public Works Department (Irrigation—Branch), dated Simla, 21st July 1875, No. 214 A. I. :—

THE Governor-General in Council having had under consideration the Proceedings* of the Government of Madras in which it is urged that for the future the ordinary grant for Irrigation Works in the Madras Presidency should be fixed at 35 lakhs per annum, I am directed to communicate the following observations on the subject.

* No. 475 A., dated 17th February 1875.

2. The grant already assigned for 1875-76 is Rupees 23,56,600, while the amount required is 35 lakhs, distributed as follows :—

	Works.	Establishment.	Total.
	Rs.	Rs.	Rs.
Repairs	15,00,000	3,75,000	18,75,000
New Works of Irrigation	12,00,000	3,00,000	15,00,000
New Works other than Irrigation, but for Agricultural purposes	...	1,25,000	1,25,000
Conservancy Establishment			
Total ...	27,00,000	8,00,000	35,00,000

3. As regards repairs, the attention of the Government of India has been drawn to the remarks by the Chief Engineer for Irrigation Works respecting the disuse of customary labor and the consequent addition to the charge on the State for maintenance of Irrigation Works. The Government of Madras in a letter,† dated 14th September 1872, intimated that the "report on customary labor is now being compiled from the replies of the various officers consulted, and will be laid before the Government of India at an early date." But up to this time no report has been received, and I am, therefore, to ask that it may be furnished at an early date.

† No. 2,191.

4. It is observed that the increased grant required is almost entirely due to the supposed necessity of undertaking new works under the head Ordinary to more than double the outlay at present allowed. It appears that the proposed expenditure is for works coming under two distinct categories, *viz.*, 1st, Irrigation Works from which a direct return is obtainable ; and 2nd, works from which no direct return is looked for, but which are considered necessary for the protection of agricultural interests or for sanitary reasons. The sum required for new works as well as for repairs is to be expended on both classes of works, but the amount to be spent under each head is not shown, and I am to ask that this may be done, and in such a manner as to admit of some useful comparison being made to show the necessity for the expenditure.

5. It is the more necessary to make such a comparison, because a portion of the amount is apparently required for drainage works. The Government of India is not satisfied that Imperial Funds should be liable to bear the whole of the charges on this account, and I am therefore to ask that the sum required for the purpose may be re-considered with reference to the remarks made on the subject in Public Works Department No. 212 A.I., dated 20th July 1875.

6. Under Establishment the amount required is ... ... Rs. 8,00,000
The grant for 1875-76 being 6,19,200
That of 1874-75 5,00,000
The charge of 1873-74 5,31,190
And that of 1872-73 4,56,160

The Government of India would be glad to receive information as to whether the increase is intended to provide for additional supervision consequent on the larger grant asked for, or whether it is due to the application of the rule under which the charge for establishment for Irrigation Works is made at the rate of 25 per cent. of the grant in addition to meeting the cost of direction and conservancy establishment. If the increase is due to the latter cause, I am to ask whether the increased grant, if given, will not reduce the percentage of all the Establishment charges; and, if so, what objection there is to the charge for Irrigation establishments being diminished in the same proportion.

7. In the consideration of this case, the need has been greatly felt of a concise report on the various Irrigation Works under the Government of Madras, grouping them and describing the canals constructed by the British Government and the several groups of tanks which have to be maintained, the localities where the several works are situated, the revenue dependant or derived from them. If such a report could be furnished, it would materially help the Government of India in arriving at a proper understanding of the annual grants that should be allotted for Irrigation Works, and I am to ask that such a report, prepared from the readiest information available, may be furnished.

8. With these remarks I am to say that the request of the Government of Madras, that the ordinary irrigation grant should be fixed at 35 lakhs, will be duly considered after the receipt of the information herein called for.

No. 216. No. 1,194.

Note by the Chief Engineer for Irrigation.

Of the information required by the Government of India in their letter, No. 214 A. I., dated 21st July 1875, which has to be given in the Public Works Department, the following are the items:—

1*st*.—The amount proposed to be spent under New Works and Repairs respectively on remunerative works and on works yielding no direct returns.

Paragraph 8 of the memorandum* printed in Proceedings of Madras Government of the 17th February 1875, No. 475, shows that it was suggested by the undersigned that as regards new works about half as much might properly be expended on works yielding no direct returns, that is on works intended for the general advantage of agricultural interests, as on directly remunerative works. Government, however, in considering the subject, deemed it better to bracket these two classes of work, and to fix the total for the two at 12 lakhs instead of the 15 recommended by this office.

* Dated 17th September 1874.

Since the memorandum of September 1874 was written, there has unfortunately been much too abundant evidence of the need of both classes of expenditure advocated. The rains and floods of the monsoon which followed within a few weeks did so much damage that it has been necessary to alter very materially the programme of this year's operations, and the extremely limited grants of the ordinary budget have resulted in expenditure being incurred without appropriations being made to meet it, and in the interests of financial regularity this is not desirable. The account of the floods with the extent of damage sustained and the probable cost of preventive measures is now before Government. The value of the former has been ascertained to be about 11·29 lakhs, and the estimates for the latter, which are likely to be found to err on the side of being too low, amount to 14·75 lakhs. The great object which the Government had in view in asking for larger ordinary grants was to be able to put a stop to wholesale damage from causes ascertained and preventable. The expenditure on works yielding no direct return will at least for some time to come be for river conservancy and for flood banks. The need of the former has been illustrated by many papers which have been submitted to Government. In the Godavery considerable outlay in this direction has been incurred in past years on works, many of which ought to have been treated as new rather than as repairs, though they were met from the repair grant. In the Kistna very little has been attempted. In Tanjore much has been done, but entirely as repairs, and there the works are so comparatively simple and inexpensive that probably it will be considered that no change of system is required, though even there also a distinction should be made between new works and repairs whenever permanent works costing any considerable amount and required for radical improvements of the rivers are found necessary. As regards flood banks, the cost of these has in too many cases been charged to Irrigation instead of to Agricultural generally. In most districts, and indeed it may be said in all in which new systems of irrigation have not been established, very little has been done, and the rivers have had much their own way, doing at intervals great damage which, as regards public works, has been made good without the concurrent removal of preventable causes. Take the Pooniar river in South Arcot for instance: directly the most cursory inquiry into the circumstances was made, it became apparent that embanking is a necessity. A few detached flood banks have in the past been thrown up without much regard to levels, but in the case of a river like this, the flood waters of which spread over the country and pass over into other lines of drainage injuring or obliterating irrigation works, roads, villages and private property of all kinds, adequate treatment is essential. The cost of 100 miles of flood bank for 50 miles of river is roughly estimated at 3 lakhs, but there will soon be detailed information on which to prepare a regular estimate. For the right bank of the Pennair in the lower 20 miles or so of its course an estimate, amounting to Rupees 1,10,400, for raising

and strengthening the flood banks, as evidenced to be necessary by the flood of 1874, has just been submitted* to Government. The Godavery and Kistna need attention to avert repeated, damage. The Palar in North Arcot needs partial embanking, and the Tambrapoorney in Tinnevelly must be similarly treated, so that the conditions of safety of the numerous works within the reach of flood waters may be circumscribed, and that it may not be necessary to spend thousands of Rupees repeatedly, where about an equal sum spent in the right way once for all would probably suffice.

*Sanctioned in G. O., No. 2,741, dated 21st September 1875.

As regards repairs of Irrigation Works on the one hand, and on Miscellaneous Works on the other hand, in only a few districts has such a record been kept as will show at once the proportion between the two kinds of outlay, but for these it is exhibited below:—

	Average of three years from 1871-72, solely of Irrigation Works	Miscellaneous.
	Rs.	Rs.
Godavery	182,145	81,500
Kistna	1,11,500	3,761
Tanjore	63,215	81,800

In some districts the distinction has not been properly maintained, and it is comparatively recently only that definite instructions have been given on this subject. No additional funds have been asked for on account of the maintenance of works not giving any direct return. It is hoped that the above remarks coupled with the papers in Proceedings of Madras Government, No. 175, of the 17th February last, and with the

*No. 2,780, dated 20th September 1875.

information contained in the Proceedings* of 1874, will demonstrate sufficiently that there is much which must be done, and that to do it within a reasonable time will require energetic measures.

2*ndly*.—With regard to drainage, that the need of which is due to irrigation has, on the narrative of the effects of the floods so far as the investigations have yet gone, been found to be very small, and if any attempt at debiting charges on its account in the case of the Godavery Delta be made, there can be but little doubt that a considerable refund of debits against the delta irrigation will have to be made. The main drains were originally large enough to carry off all the surplus irrigation water, though numerous branch and minor drains were needed to render certain lands fit for wet cultivation. How the cost of drainage of villages, necessitated by the physical circumstances of their sites and not to irrigation, is to be provided for is under consideration in the Financial Department. Such works, however, as these latter will exercise no material influence upon the amount to be provided under Agricultural for non-remunerative or miscellaneous works. In the Godavery Delta the general drainage has been charged to the capital account of the delta system of irrigation as already mentioned, and its cost in relation to the total expenditure will not be very considerable. The Kistna Delta is, however, differently circumstanced, and there the cost of general drainage will be a very material item of the improvements. The funds will have, it is thought, to be provided

under Agricultural, and divided between Irrigation and Miscellaneous in such proportion as the circumstances may show to be equitable.

3*rdly*.—As regards Establishments the amount entered is simply a percentage, on the scale at present in force, added to the charge for Conservancy Establishments, which latter is not part of the executive establishment proper of the department. The system of charging all establishments to Provincial and then crediting this fund with percentage charges for work done for other funds, is of such recent introduction that the results are not yet fully known, but, as far as information is at present available, it appears to be more than probable that Provincial Funds will be left with an undue share of the cost of establishments,

The average percentage for 1874-75 under the old arrangement was 27.

and that consequently a re-adjustment of the percentage charged to other funds in the direction of an increase will be required. As to increased means of supervision, there has been no proposition to this effect recently made. Representations have on several occasions been made by this office on the inadequacy of the Public Works Establishments in particular districts, and it would be good economy to make them efficient as early as may be possible.

4*thly*.—That such a report as is referred to in paragraph 7 of the letter from the Government of India would be of great value is unquestionable, but there are no means available for its preparation. Not only have the officers of the department their current work to attend to—work which is more than they can get through—but there is much to be done in connection with the Capital and Revenue Accounts; the tanks have not yet been grouped, though for professional purposes this grouping is known to be of very great importance. It is a matter of very great difficulty to get a connected account of even individual important works, and though instructions have been issued

Circular No. 70, dated 15th June 1875.

with a view to the collection of the necessary materials, it is not, the undersigned thinks, to be expected that anything towards the compilation of the reports will be done until a special officer can be spared to edit the papers. Similarly there is other work to be done which probably will have to await the services of a special officer; the preparation of a code is a case in point. At the present moment several officers are urgently needed to take charge of ranges and sub-divisions, and it appears to be useless to hope that, while current work cannot be properly got through, officers or time can be found for anything else.

Possibly the accompanying statements, the one showing the number of tanks on the registers in each district with the irrigated area and revenue of the year 1873-74; the other giving a list of the estimates for repairs and improvements to Irrigation Works sanctioned by Government, owing to the amounts being in excess of the limits

Since 1st April 1874.

of sanction by district officers, may be of interest. The rule is that not more than the average revenue of an Irrigation Work can be spent on local sanction within any five years, and the instructions of this office are that when a work cannot be properly repaired under the rule on district sanction, a complete estimate must be submitted for the sanction of Government.

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

OOTACAMUND,
20th September 1875.

Proceedings of the Madras Government, Public Works Department, 14*th October* 1875.

List of Estimates for Repairs and Improvements to Irrigation Works from 1st April 1874.

District.	Name of Work.	Number and Date of sanctioning Order.	Average Revenue.	Sanctioned Outlay.		Remarks.
				Capital.	Revenue.	
		1874.	Rs.	Rs.	Rs.	
Kurnool ...	Constructing a new surplus weir for the Owk tank.	1,044 23rd April...	16,383	1,179	...	
South Arcot...	Closing breaches and repairing the bund of the Athiput tank and re-constructing two sluices.	1,130 1st May ...	...*	...	657	* Average revenue not given.
Do. ...	Do. do. bund of Annathanum-pettai tank.	1,130 Do. ...	...*	...	692	
Cuddapah ...	Escape to the Budwail Roycheroovoo tank.	1,284 12th May ...	1,837	1,199	...	
North Arcot...	Improving Thorapady tank and its supply, and constructing an additional surplus weir.	1,427 20th ,, ...	...*	6,150	...	
South Arcot...	Restoring the Sallinpolliom anicut.	1,338 19th ,, ...	199	790	...	
Coimbatore...	Repairing Coorchy tank ...	1,683 23rd June ...	1,022	...	180	
Do. ...	Nunjacalacoorchy anicut repair.	1,683 Do. ...	1,362	...	191	
Do. ...	Repairing Dalvoypuinum anicut	1,683 Do. ...	4,918	...	530	
Kurnool ...	Goodoor large tank	1,791 4th July ...	455	...	600	
Do. ...	Vapadimma tank	1,791 Do. ...	75	...	97	
Do. ...	Gubbur large and small tanks ...	1,791 Do. ...	261	...	377	
North Arcot...	Thembully tank	1,799 8th July ...	723	...	2,000	*
Do. ...	Mustarasacoopum tank ...	1,799 Do. ...	578	...	1,960	
Do. ...	Bingarappah tank of Vasanthapoorum.	Do. Do. ...	797	...	2,020	
Do. ...	Coopooreddy tangle ...	Do. Do. ...	175	...	140	
Do. ...	Goodanagarum tank	Do. Do. ...	1,0	...	1,0	
Do. ...	Bodireddipattadai spring channel.	Do. Do. ...	...*	...	2,0	
Do. ...	Ramcoopum tank ...	Do. Do. ...	383	...	560	
Nellore ...	Pongaraguntah tank ...	Do. Do. ...	301	...	1,040	
North Arcot...	Iswaravaka tank	Do. Do. ...	110	...	1,000	
Do. ...	Tirupanamoor tank	1,997 21st July ...	44,184	1,200	...	† For fasli 1281.
Do. ...	Selery tank	2,023 28th July ...	2,474	...	5,730	
Do. ...	Moram tank	... Do ...	221	...	493	
	Puthramathy Camenareddy tank	... Do. ...	374	...	1,210	
Coimbatore...	Caniemperliem channel	... Do. ...	225	190	960	
Do. ...	Dallipolliem do. ...	2,127 3rd August ...	727	...	1,656	
North Arcot...	Keelvembaukum tank ...	... Do. ...	513	...	456	
Do. ...	Koorchant tank	2,244 14th August.	560	870	2,010	
Do. ...	Pomaveram do.	... Do. ...	1,206	...	1,950	
Do. ...	Serimhanungalum tank ...	... Do. ...	531	470	1,050	
Do. ...	Arconum tank	... Do. ...	170	850	570	
Do. ...	Narasingapooram tank ...	... Do. ...	881	...	1,470	
Do. ...	Cotaramangalum do. ...	... Do. ...	318	...	600	
Do. ...	Thookivakum do. ...	... Do. ...	472	293	780	
Do. ...	Do. small do. ...	... Do. ...	471	315	980	
Do. ...	Mustavanacoopum do. ...	... Do. ...	264	240	500	
Do. ...	Moonjoorrum do. ...	2,369 17th August.	342	...	210	
Do. ...	Covelay large do. ...	... Do. ...	207	...	1,350	
Do. ...	Iroombada Mooroncary tank ...	... Do. ...	1,463	...	1,980	
Do. ...	Agrum do. ...	... Do. ...	418	...	610	
Do. ...	Covilcoopum do. ...	... Do. ...	305	...	430	
Do. ...	Keeranmali do. ...	... Do. ...	274	...	410	
Do. ...	Moonany do. ...	... Do. ...	603	...	380	
Do. ...	Chenaveram do. ...	... Do. ...	341	...	850	
Do. ...	Salavadu Chittary tank ...	... Do. ...	213	...	290	
Do. ...	Keelpakum large do. ...	... Do. ...	218	...	165	
Do. ...	Keelpakum Chittary tank ...	... Do. ...	577	...	210	
Do. ...	Mahamdoor tank	... Do. ...	42	...	145	
Do. ...	Mungalum small tank ...	... Do. ...	185	...	240	
Do. ...	Do Chittary ...	... Do. ...	161	...	265	
Do. ...	Malicodungalor tank ...	... Do. ...	87	...	220	
Do. ...	Mambut do. ...	... Do. ...	234	...	490	
Do. ...	Karany do. ...	... Do. ...	141	...	515	
Coimbatore ...	Thuthiput do. ...	... Do. ...	352	160	540	
Kurnool ...	Chittary do. ...	2,335 30th August.	621	...	560	
Salem ...	Poliem do. ...	... Do. ...	323	146	450	
Coimbatore...	Markapur do. ...	2,536 Do. ...	2,102	...	630	
	Andevannahilly do. ...	2,273 21st August.	5,197	...	1,275	
Salem ...	Soondacoorpolliem channel from the Amravathy.	2,394 21st ,, ...	38	...	180	
Do. ...	Erramampert Vagaiary tank ...	2,350 Do. ...	21,870	...	825	‡ Average not given.
Do. ...	Moothumputty Reed Sally's anicut.	2,407 25th August.	764	...	2,940	
Do. ...	Golingoora Vepalanaikum tank.	Do. Do. ...	435	...	630	
	Kanamanchoor tank ...	Do. Do. ...	310	...	350	
		2,329 27th August.	462	...	765	

Proceedings of the Madras Government, Public Works Department, 14*th October* 1875.

List of Estimates for Repairs and Improvements to Irrigation Works, &c.—(Continued.)

District.	Name of Work.	Number and Date of sanctioning Order.	Average Revenue.	Sanctioned Outlay.		Remarks.
				Capital.	Revenue.	
		1874.	Rs.	Rs.	Rs.	
...	Paramoothumputty tank ...	... 27th August.	251	...	547	
Salem ...	Masilmadugu tank	2,494 3rd Sept.	*1,221	660	5,116	* Present revenue.
Kurnool ...	Anna agarum Hissa tank ...	2,539 8th ,,	1,832	1,340	2,300	† Rupees 36 for Government lands and Rs. 76 for Inam lands.
Salem ...	...	2,652 17th ,,	{ †36 / 76	...	305	
Cuddapah ...	Cothacotta tank	2,288 18th August.	555	...	912	
Chingleput ...	Sorusari large tank ...	2,918 13th October.	764	...	1,239	
Do. ,,	Theelalum and Pammumpet Hissa tank.	... 13th ,,	335	...	1,013	
Do. ...	Valamoor tank	... 13th ,,	815	...	1,112	
Do. ...	Thandry tank	2,918 13th ,,	260	...	985	
Do. ...	Nunjeepuram tank... ...	... 13th ,,	363	...	674	
Do. ...	Katto goodalore tank ...	... 13th ,,	126	...	314	
Do. ...	Kooroovady large tank ...	... 13th ,,	851	...	1,600	
Do. ...	Perungooly large tank ...	... 13th ,,	1,038	...	1,560	
Do. ...	Oorathoor large tank ...	... 13th ,,	597	...	1,550	
Do. ...	Keelamoor tank	... 13th ,,	187	...	810	
Do. ...	Thalacananjary tank ...	... 23rd ,,	2,041	...	2,580	
Do. ...	Seroomathuray spring pond and channel.	3,021 11th Nov.	250	870	900	
South Arcot...	Thandooearanhully tank ...	3,190 12th ,,	43	...	220	
Salem ...	Yerragoontlapully Galwany tank.	3,202 14th ,,	718	160	940	
Cuddapah ...	Codoocanthangal tank ...	3,228 14th ,,	139	265	695	
North Arcot...	Vencatasamoodrum tank ...	... 14th ,,	189	...	530	
Do. ,,	Pasomathoor small tank ...	... 14th ,,	156	...	490	
Do. ...	Athicoopum tank	3,395 3rd Dec.	113	...	140	
Do. ...	Thondapaud tank	... 3rd ,,	‡199	...	400	‡ Highest revenue.
Bellary ...	Toomergoody large tank ...	... 1875.	1,768	1,467	2,880	
Do. ...		113 14th January.	§	1,560	...	
Chingleput ...	Chengalur tank	126 15th ,,	403	...	1,070	§ Average revenue not given.
Tinnevelly ...	Sanur channel	585 2nd March.	1,159	1,740	1,050	
North Arcot.	Kummasamudrum tank ...	... 2nd ,,	§	...	192	
Do. ...	Calinjoor tank ...	16 Mls. 3rd February	243	730	960	
Salem ...	Anicut across the Veeraganoor.	834 6th ,,				
North Arcot...	Vellemalay tank channel and surplus weir.	584 2nd March.	171	150	460	
Do. ...	Narrayanamungalum tank ...	... 2nd ,,	256	175	1,365	
Do. ...	Vadagaranammianthal tank ...	... 2nd ,,	116	210	360	
Do. ...	Euchampoondy do. ...	... 2nd ,,	419	530	1,120	
Do. ...	Vamanur do. ...	532 24th February	241	650	775	
Do. ...	Kullamullah	550 26th ,,	245	...	975	
Cuddapah ...	Nagguna anicut	685 10th March.	336	210	640	
Do. ...	Paricuiput tank	... 10th ,,	190	160	550	
North Arcot.	Cadapentangle tank ...	... 10th ,,	131	110	840	
Do. ...	Coliem do. ...	... 10th ,,	177	...	655	
Do. ...	Vellore Ayathangle tank ...	... 13th ,,	191	200	240	
Do. ...	Karamunury tank	709 13th ,,	260	...	530	
Kurnool ...	Udamalapad do.	... 13th ,,	390	...	620	
Do. ...	Jolakal do.	... 13th ,,	1,846	...	1,990	
Do. ...	Yellamur channel	742 17th ,,	172	...	455	
Bellary ...	Allapakum tank	763 18th ,,	36,596	...	53,000	
Chingleput ...	Cauveripauk do.	739 16th ,,	§	...	369	
North Arcot.	Removal of Calingulah surplus channel of the red Hills tank near Shaviaukpam lock.	873 2nd April.	515	...	920	
Chingleput ...	Peddy Reddy tank (Chinnacumbalur).	898 5th ,,	1,347	225	1,305	
Kurnool ...	Do. Kotha do. ...	... 5th ,,	406	...	1,020	
Do. ...	Parcoorvarally do. ...	... 5th ,,	1,322	410	2,210	
Do. ...	Sirwell Nagula do. ...	927 8th ,,	345	...	740	
Do. ...	Vylore small tank	974 13th ,,	2,202	...	1,480	
South Arcot...	Vunjivakum tank	1,077 17th ,,	211	...	740	
Chingleput ...	Kotakonda Kota Iyennah tank.	...	459	...	540	
Kurnool ...	Pellagalapully Guagama tank ...	1,038 14th April.	§	...	5,260	
Do. ...	Gootloor tank	1,202 30th ,,	891	...	1,215	
Bellary ...	Perikal do.	1,260 30th ,,	3,989	6,500	5,130	
South Arcot.	Polur do.	1,250 4th May.	3,759	3,950	3,100	
North do.	Tripatore large tank ...	1,323 8th ,,	1,104	460	3,700	
Salem ...	Kadamalacalva do. ...	1,357 12th ,,	184	...	250	
Kurnool ...	Teroosoolam do. ...	1,359 12th ,,	104	...	955	
Chingleput ...	Puttoor do. ...	1,375 14th ,,	1,091	...	2,300	
Kurnool ...	Narramapuram do. ...	...	399	...	2,250	
Do. ...	Iyalur south do. ...					
Do. ...						

List of Estimate for Repairs and Improvements to Irrigation Works, &c.—(Concluded.)

District.	Name of Work.	Number and Date of sanctioning Order.		Average Revenue.	Sanctioned Outlay. Capital.	Sanctioned Outlay. Revenue	Remarks.
			1875.	Rs.	Rs.	Rs.	
Kurnool ...	Iyalur North small tank ...	...*	14th May ...	289	...	1,470	* Average revenue not given.
Salem ...	Atheeroliem do. ...	1,474	27th May ...	868	1,590	1,250	
North Arcot...	Valithangypooram do. ...	1,470	26th May ...	615	115	1,220	
Do. ...	Chinglenathum do. ...	...	Do. ...	67	...	715	
Do. ...	Cadambanthangle do. ...	...	Do. ...	227	...	460	
Do. ...	Poondysamudrum do. ...	...	Do. ...	55	...	214	
Do. ...	Vullapooram do. ...	...	Do. ...	1,525	1,900	1,950	
Do. ...	Ponapakum do. ...	...	Do. ...	928	475	829	
Do. ...	Thapoor do. ...	...	Do. ...	519	1,750	2,130	
Do. ...	Jambocolum do. ...	...	Do. ...	366	530	810	
Do. ...	Moneyampett do. ...	...	Do. ...	310	...	625	
Do. ...	Thagaracoopum do. ...	...	Do. ...	311	...	650	
Do. ...	Casavancoopum do. ...	...	Do. ...	153	...	560	
Chingleput ...	Myoor channel from the Palar...	1,550	3rd June ...	3,726	...	2,560	
Do. ..	Vellampakum tank	1,545	2nd ,, ...	313	...	545	
Cuddapah ...	Ganjicoontah Anantharoyan tank.	1,507	7th ,, ...	574	...	2,330	
Do. ...	Pallavole channel	...	Do. ...	1,236	...	2,380	
Chingleput ...	Madranticum tank calingulah ...	1,639	10th ,, ...	5,266	...	2,460	
Kurnool ...	Thamadapalli tank ...	1,656	12th ,, ...	615	...	2,210	
Salem ...	Bustee tank	1,666	Do. ...	108	...	392	
Do. ...	Chinnamanagarum Marali tank.	...	Do. ...	123	...	360	
Do. ...	Woodenhully tank	...	Do. ...	234	...	1,033	
Cuddapah ...	Ramapooram Pundivari spring channel.	1,874	3rd July ...	41	...	180	
	Clearing Gramum channel ...	1,908	6th ,, ...	...	...	212	
South Arcot.	Road bridge crossing the Periacolum channel converted into a head sluice.	1,930	7th ,, ...	1,088	...	...	
Coimbatore...	Repairing Malepedu tank bund.	1,912	6th ,, ...	1,818	1,700	...	
Chingleput...	Total ...	...	...	75	...	* 220	
				1,59,898	45,498	2,12,782	

Miscellaneous.	Number and Date of sanctioning Order.		Sanctioned Outlay.
		1874.	Rs.
Godavery ... Alterations and additions to the river defences at the Kakarapurru.	1,192	4th May ...	2,000
Chingleput ... Flood bank north of Cortiliar above the Thamarapaukum anicut ...	1,223	7th ,, ...	5,550
Do. ... Flood bank south of Cortiliar above and below the anicut ...	1,223	Do. ,, ...	6,800
Kistna ... Make shift head sluices to supply channels in Divi Island ...	1,265	11th ,, ...	8,209
Coimbatore ... Sand sluices on the Nunjacalacoorchy channel	2,325	19th Aug. ...	1,180
Cuddapah ... Constructing a groyne on the left bank of the Pennair river ...	2,838	6th October...	1,470
Godavery ... Drainage of twelve villages Central Delta forming the Rali sub-section.	548	1875. 25th Feb. ...	6,160
Chingleput ... Constructing a channel to supply the Government farm at Sydapett with water.	1,206	30th April ...	1,200
Godavery ... Restoring the water supply of Munsubdar of Rampah	1,239	3rd May ...	1,610
Coimbatore ... Protective works to the Cauvery river near Hamppapooram ...	1,471	20th ,, ...	2,500
Godavery ... Wall on the river side of the Dowlaishweram Workshop ...	1,665	12th June ...	1,368
Cuddapah ... Constructing a groyne for the protection of Devegudi on thePennair	1,976	12th July ...	2,219
Total ...	...	...	40,257

OOTACAMUND,
20th September 1875.

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

Statement showing the Number of Tanks in and the irrigated Area and the net Revenue of each District in the Madras Presidency for 1873-74.

Districts.	Number of Tanks in District.	Irrigated Area.	Revenue.
			Rs.
1. Ganjam	2,778	192,770	5,17,379
2. Vizagapatam	622	55,148	2,50,647
3. Godavery	2,164	567,282	23,42,724
4. Kistna	895	191,153	10,21,647
5. Nellore	932	222,254	9,02,606
6. Cuddapah	4,972	135,293	9,14,311
7. Bellary	1,378	125,140	7,11,166
8. Kurnool	600	38,573	2,43,597
9. Madras	8	...	...
10. Chingleput	2,396	326,976	9,71,240
11. North Arcot	3,878	266,115	12,08,020
12. South do.	3,541	370,285	16,24,415
13. Tanjore	941	940,618	36,33,103
14. Trichinopoly	2,158	227,126	7,61,058
15. Madura	5,785	160,823	5,54,577
16. Tinnevelly	2,661	166,199	13,40,273
17. Coimbatore	293	103,236	6,02,899
18. Nilgiri	...	40	90
19. Salem	2,980	106,686	4,77,536
20. South Canara	...	...	...
21. Malabar	...	388,171	11,65,177
Total ...	38,982	4,583,888	1,92,32,465

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

No. 217. ORDER THEREON, 14th October 1875, No. 2,931.

IRRIGATION, No. 20.
Account.

THESE Proceedings will be communicated to the Revenue Department in order that the information regarding the present state of, and the proposed action in connection with, the subject of customary labor may be furnished as early as possible.

2. It is considered that if 12 lakhs be set apart annually as the amount to be devoted to Major and Minor New Works of irrigation and under Miscellaneous,* it will be proper to allot about 8 lakhs to the former class and the remainder to the latter. As regards repairs it has been pointed out by the Chief Engineer for Irrigation that no additional funds have been asked for on account of miscellaneous works, and that, as hitherto, only in a few districts has the distinction between this class of agricultural, and irrigation, works been attended to; information showing how the sum of 15 lakhs required for Repairs Agricultural will be expended is not forthcoming, but the instructions given with it is hoped secure the preparation of the budget estimates of 1876-77, so as to show exactly what is intended in this respect.

3. The subject of the incidence of cost of drainage works, rendered necessary by other causes than the presence of artificial irrigation, is under consideration in the

* That is works not yielding a direct return.

Financial Department, and these papers will be communicated to that department in continuation of G. O., No. 2,840, dated 2nd October 1875.

4. The proposed provision for establishments other than conservancy having been determined with reference to the percentage charge recently introduced in accordance with the wishes of the Government of India, it does not appear to be practicable at the present time to suggest any other arrangement, and the question whether any increase of supervision will be found necessary or desirable is one which cannot be settled in immediate connection with Agricultural works only, seeing that in this Presidency the general establishment supervises works of all kinds and classes.

Proceedings, No. 1,927, dated 17th July 1874.

5. The Government concur with the Chief Engineer for Irrigation in considering that such reports as those contemplated in paragraph 7 of the foregoing letter from the Government of India cannot immediately be prepared. Moreover, though they might possibly enable the circumstances of Irrigation Works in this Presidency to be the better understood, they can hardly be necessary to decide the really very simple question, whether funds are to be provided to maintain existing works in a state of efficiency, to carry out such improvements thereto as have been very clearly demonstrated to be essential to their safety, and to prevent repeated waste of money, and also to enable such extensions to be executed as circumstances from time to time may show to be necessary to secure the objects for which the works were planned and constructed. The narrative of the floods of 1874 and their effect upon Irrigation Works afford very cogent support to the arguments contained in Proceedings of Madras Government, No. 475, of the 17th February last, and the Honorable the Governor in Council feels that stronger evidence can hardly be adduced in any case, but that if information in greater detail be required, it will be found in the Proceedings of Government containing the reviews of the large numbers of estimates for the repair and improvement of Irrigation Works referred to in the statement submitted by the Chief Engineer for Irrigation. In those cases in which capital outlay has been deemed to be essential, expenditure on repairs alone would have merely led to a great waste of money and to the repetition, on the recurrence of heavy rain-fall, of the expensive accidents of past years.

6. Ordered that a copy of these Proceedings be transmitted to the Government of India in partial reply to their Secretary's letter above recorded.

(True Extract.)

(Signed) G. W. WALKER, Major-General, R.E.,
Secretary to Government.

No. 218.

(Docket No. 2,932, dated 14th October 1875.)

Copy of the above forwarded to the Government of India.

(True Extract.)

Major-General, R.E.,
Secretary to Government.

Exd. E. C. Shunker.
Spare Copies

In considering the question of "customary labour" as it now stands, it is, in my opinion, essential, to a right understanding of it, that it be dealt with separately under two aspects.

(1.) Did the tenure of the land originally involve certain obligations? Have those obligations been so long uncalled for that they can no longer be legally demanded; if not are they sufficient for the end in view, and are they indispensable?

(2.) Are there not certain obligations which the tenure of land under irrigation must necessarily involve? What is their nature and extent? How can they best be enforced? The evidence before the Commission, to my mind, disposes of the first aspect of the question; in most districts the custom has lapsed; in many the duties performed ought more properly to have been executed by Government; in some, work legitimately the object of "customary labour" has been neglected.

The fact of certain obligations in certain districts having the sanction of custom ought not, in my opinion, to be an argument for their continuance in future; if, however, they be legitimate objects, it is a consideration that should affect the terms upon which they may fairly hereafter be demanded.

In attempting to define the nature and extent of work forming a legitimate object for the application of customary labour, it must be remembered that there are two great divisions into which hydraulic works may fitly be separated.

(*a.*) Those for Tank Irrigation.

(*b.*) Do. Channel Irrigation.

There are two sources of labour supply, (1) the open labour market comprising professional excavators and labourers of low caste, available alike to Government, the cultivators, and general public; and (2) the agricultural labourers and cultivators themselves.

There are two classes into which the work to be done may be fitly divided.

(1.) That which from its character, extent, locality or interests involved can and ought to wait for the intervention of the professional department with its cumbrous machinery, involving delay, and fit object, therefore, for the open labour market.

(2.) That which demands immediate execution, and can only be promptly met by a supply of labour on the spot, awaiting an opportunity afforded by the weather or other considerations.

There are two other kinds of work which, however, in my opinion, would be best considered apart from the question of customary labour.

(1.) Extraordinary repairs such as are contemplated by the Act I. of 1858.

(2.) The conservancy of "petty works" and the execution of petty repairs, which from their insignificance hardly call for the interference of the professional department, and might, therefore, with advantage be held to be fit objects for cultivators' labour.

It is to my mind perfectly clear that no money equivalent could ever replace the services required from the cultivators for work which I have described in the second of the two classes above mentioned.

The exact description and quantity of work will vary with each work or group of works; it should be confined to that which the Government clearly could not undertake except at utterly disproportionate cost, and which the cultivators, on the other hand, are in a position to undertake with but little inconvenience and expense; it must be defined for each work or group of works by the Revenue and Public Works Officers in concert with reference to the above considerations only, and the fact of its being customary,

or otherwise should be considered only with reference to the terms on which it may equitably be enforced by law.

In no case ought commutation for a money cess to be left optional with the authorities or cultivators, an increase to the grant for irrigation repairs, or a transfer of expenditure from the Government to the cultivators, is not the object in view.

To illustrate the principle which, in my opinion, ought to determine the demand for customary labour, I will now specify some of the descriptions of work which would fall within its scope.

For Tanks.

1. Repairs to ordinary breaches of whatever size in the banks of the catchwater channels, sometimes miles in extent.

2. Repairs to their banks; and protection against sets of current.

3. Repairs to cattle tracks and other such damages, incidental to the dry season or unusual rains, needing prompt repair.

4. The regulation whether by shutter planks or earth of weirs and sluices.

5. The temporary protection of bund face against waves, the immediate protection of a slip in rear slope or leak or settlement of whatever kind.

6. The repairs needed to meet trees blown down, or such like accidents.

7. The provision of night and day watchmen, and of materials for the prevention of breaches.

8. The replacing of loose stones in revetments, weir aprons and wing protections.

9. The execution of all work connected with the distribution of water after it leaves the sluices.

In the above I have excluded all such work as though, perhaps, hardly worthy of being handled by the professional

department, yet could well wait for its interference; and I have omitted all mention of a money limit, as, in my opinion, all the above work should be carried out by the cultivators of their own accord; and, in the event of the value of work so done being exceptionally large, it would be easy to indemnify the cultivators for it as an exceptional case. Under the head of "Channel Irrigation," the limit of work should be fixed on the same general principles.

It would include the construction and maintenance of all "corumboos" and temporary head-works of whatever kind in the river beds.

The clearance of all river channels between the head-sluice and the river during the irrigation season, and all clearances except one annual clearance which may be required elsewhere.

In systematized irrigation works, such as Godavery, Nellore, Kistna, and others, there would probably always be such a large staff of labourers from the open market constantly employed, that recourse to the village labour would seldom or never be advisable; but it would be necessary in all river systems to determine, with reference principally to the possibility of securing community of action on the part of villages or groups of villages, where the water should be considered as under the sole management of the villagers themselves, who would execute all work of whatever kind necessary to lead the supply to individual holdings.

In some districts, it would appear, the limit has been fixed with reference to the size of the channel or the value of the work to be done, I think the principle a wrong one. If a subsidiary channel leads to one village only, whatever its size, self interest may be secured to effect the distribution with due economy; in

If this be so, for "annual" read "Quinquennial" W.S.

some cases this would be found feasible even with more than one village. In no case do I think that clearances ought to be carried out at one time by Government; at another by the villagers (that is in systematized works). The protection of banks against sets, and against cattle trespass, and repairs similar to those described in the case of tank-bunds, should all be carried out by village labour as requiring immediate attention. Extraordinary damage ought as a rule to be met, however large, by village labour, as contemplated in Act I. of 1858, the question of remuneration being dealt with in each case on its merits. In undeveloped schemes, such as Tanjore, many parts of the Godavery, Kistna, and probably many other districts, there are works usually carried out by village labour with the object of regulating and distributing water, pending the construction of permanent works; such works are described by Mr. Rundall and Major Oakes in their memoranda, but they are not, in my opinion, fit objects for what is known as customary labour, because of their probable early replacement, and should be arranged for specially with village communities. I would apply similar principles to irrigation under "spring channels;" the annual clearances should be effected by Government, and all work periodic and uncertain in its nature should be met by village labour.

A great variety of opinions were expressed in reply to the circulars issued by the Department Public Works Commission, owing principally to the absence of any clear definition of what ought to be understood by "customary labour;" a large majority of Revenue Officers would legislate for the revival of what they understood as "customary labour," and a considerable but not so large a majority would recommend that

no commutation for a money cess be permitted; while many who advocate a cess evidently do so with a view of securing an increased grant for repairs to irrigation works, overlooking the fact that village labour must still be supplied in addition to its money equivalent; it is clearly shown by Mr. Banbury and others that the river works for the supply of channels with open heads, necessitating 1,000 men sometimes for six and eight days together being miles away from their villages, on as many as three and four occasions during one irrigation season, could never under any circumstances be executed by Government with labour from the open market which would have to be kept ready in waiting for an opportunity to be afforded by the river, while the village labour would also lie idle, awaiting the completion of the work. The general tendency of the evidence is to prove that work of the nature described has to a greater or less extent been carried out by village labour in bye-gone days, and that in these districts, where an attempt has been made to revive it, the villagers have acquiesced in the equity of the demand. In the districts most concerned there is a general concurrence of opinion in favour of an Act embodying a register, in which should clearly be defined the nature and quantity of work contemplated in each case, and I see no practical difficulty in the way of its fulfilment. The Government have, I believe, over and over again ordered the preparation of Irrigation Registers, but I understand they are still incomplete. These should be at once finished and the obligations attaching to tenure of land under each work or group of works should be clearly defined. In the evidence given before the Commissioners, the "conservancy of works," which is in no way connected,

in my opinion, with "protection of works" is everywhere discussed in connection with "customary labour," and the necessity for "abandoning small works" is also frequently alluded to. In both of these cases the transfer of the obligation to repair from the Government to the ryots is based on grounds other than those which recommend the transfer of work which comes within the scope of "customary labour." Tanks are to be abandoned because they are not remunerative, conservancy is to be carried out, not because the work could not wait for Government interference, but because the work, if done from time to time as it accumulates, will not have to be done in the lump later on.

As regards the abandonment of tanks nearly all officers appear disposed to determine which shall be given up by their returns. Now, this is one of the results of "Irrigation Registers" not being insisted on. One of the most pressing requirements at the present time to meet the continued curtailment of establishment is the systematizing of "tank repairs;" tanks ought in our accounts, as they are actually by nature, to be grouped and treated conjointly. It may not appear from a comparison of outlay with its own individual revenue to be remunerative to construct a weir for, or strengthen a tank of, 90 Rupees revenue, but if it be remembered that the breaching of this tank may carry away eight or ten others in the same valley lower down and the outlay be compared with the joint revenue of all concerned, the abandonment to the certain neglect of the village communities assumes a different aspect.

So also the selection of which tank in a series to repair is essential to a wise and discriminating outlay of public funds, insufficient in amount to

meet half the real requirements and without the grouping process; this is quite impossible, rivers and their affluents are laid out regularly and in order, and tanks should all be similarly arranged and considered just as our large delta projects are; these cover much larger areas of country, yet no proposition is ever entertained without due regard to the interests of the whole area. I am inclined myself to think that if small works can profitably be made over to the neglect of the villagers, they may with equal safety be neglected by Government, and, therefore, as far as the Department Public Works is concerned, the relief due to the transfer would be practically inappreciable.

From a revenue point of view the case may be very different.

As regards "conservancy work" apart from "protective work," I should be very loth to incorporate it in any legislative act referring to what is known as "customary labour."

The standard defining the good upkeep of a tank is so much a matter of opinion that any act enforcing it would form an instrument of oppression and an outlet for ill-temper in the hands of whoever had the power to invoke or administer it.

It would, no doubt, be well to get the bunds well kept up, and it would not entail much expenditure on the part of the adjoining village; but I do not consider it essential, and I believe at present the Collectors by withholding remission can secure what little work is really needed.

It will be seen that I advocate a complete revision of what in each district is understood as work for "customary labour," and this would, in fact, be equivalent to raising the value of the land by removing certain obligations in

some cases and to lowering the value by attaching fresh obligations in others. The "custom" in regard to such work or group of works would have to be duly considered, but I conclude there would be no difficulty in making such a concession in the demand that any obligations could be equitably enforced.

The mode of assessing the obligation among the various tenants, most acceptable to them, will be found fully illustrated in the Cuddapah, Nellore, and Salem Districts, where the old customs are still extant. I have myself watched the operation of the system in Nellore for years, and it would be difficult to improve upon it. It is to be hoped, and may fairly be expected, that at no very distant date corumboos will all have been re-placed by permanent structures, or the necessity for them have in some way been superseded; that head-sluices will have to great extent put an end to periodic channel clearance, and the demand for "customary labour" be reduced to a minimum; but meantime it is idle to recommend, as several officers have done, its early and complete abolition.

A careful consideration of the evidence before the Department Public Works Commission will show that the subject of tank repair is often greatly misapprehended. "Self-interest," as it is called, is often relied on, as opposed to what is supposed often to be the guiding motive in the professional department.

Now, of the enormous number of tanks in this Presidency, there is probably hardly one under which the area of land irrigable does not greatly exceed the capacity of the tank to supply, and but few from which the surplus available does not pass on into other tanks or systems lower down. In a season where the rainfall is distributed over

long and frequent periods, and the tanks are constantly replenished as they are drawn upon, a very much larger area of land is profitably irrigated than can be the case in an average, much less in a poor season. Experience, therefore, perpetually unites with self-interest to prompt the ryots to *improve*, by raising and strengthening, their tank bunds. To this the interest of the country as represented by the many is nearly always opposed, and it will be found that almost invariably wherever tank irrigation has been grouped and systematized, the measures recommended by the professional department have been the cutting down of the weir crests, limiting the capacity of the tank, and the opening out of the bund ends with a view to locate the "breach" that is in most cases in exceptional years inevitable. Under the present "want of system" villagers whose interest it is to get as much, in the general scramble, for funds as they can, forward their demands for what is really "improvement," not "repair" of the tanks; neither Revenue nor Department Public Works Officers have the time to scrutinize more than a very few of the establishments, and it is to be feared, indeed it is known, large sums of money are thus annually misapplied. Handing tanks over to villagers would in no way remedy this; it would remove the only restriction at present imposed to the gratification of self-interest at the expense of their neighbours less favourably circumstanced.

In river irrigation "self-interest" is a still more difficult enemy to deal with, still more radically opposed to the interests of Government, and channel clearance furnishes a most abundant field for its exercise. Yet many officers would confidently appeal to it as a remedy against the entire absence of

interest which is supposed to characterize the action of a professional department. It is to combat self-interest that I recommend that work to be given over to "customary labour" should be minimized and confined exclusively to what cannot brook the delay inseparable from a professional department.

NO. 214 A.J

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

ACCOUNT.

Irrigation

From

The Secretary to the Government of Madras

Public Works Department.

Irrigation Branch

Simla, 21st July 1875.

To

Sir,

I am directed by the Governor General in Council to acknowledge the receipt of your letter No. 475 A dated 17th February 1875 having under consideration the proceedings of the Government of Madras in which it is urged that for the future the ordinary grant for irrigation works in the Madras Presidency should be fixed at 35 Lakhs per annum, I am directed to communicate the following observations on the subject.

2. The grant already assigned for 1875-76 is Rs. 28,56,600 while the amount required is 35 Lakhs distributed as follows:-

	Works Rs.	Establishment Rs.	Total Rs.
Repairs	5,00,000	375,000	18,75,000
New works of Irrigation New works other than Irrigation but for Agricultural purposes	12,00,000	3,00,000	15,00,000
Conservancy Establishment		125,000	1,25,000

As regards repairs the attention of the Government of India has been drawn to the remarks by the Chief Engineer for Irrigation Works respecting the disuse of customary labour and the consequent addition to the charge on the State for maintenance of Irrigation Works. The Government of Madras in a letter dated 14th September 1872 intimated that the report on customary labour is now being compiled from the replies of the various officers consulted, and will be laid before the Government of India at an early date. But up to this time no report has been received, and I am therefore to ask that it may be furnished at an early date.

4. It is observed that the increased grant required is almost entirely due to the supposed necessity of undertaking new works under the head ordinary to more than double the outlay at present allowed. It appears that the proposed expenditure is for works coming under two distinct categories viz 1st Irrigation Works from which a direct return is obtainable, and 2nd works from which no direct return is looked for, but which are considered necessary for the protection of Agricultural interests or for sanitary reasons. The sum required for new works as well as for repairs is to be expended on both classes of works, but the amount to be spent under each head is not shewn, and I am to ask that this may be done, and in such a manner as to admit of some useful comparison being made to shew the necessity for the expenditure.

5. It is the more necessary to make such a comparison because a portion of the amount is apparently required for Drainage works. The Government of India is not satisfied that Imperial funds should be liable to bear the whole of the charges on this account, and I am therefore to ask that the sum required for the purpose may be reconsidered with reference to the remarks made on the subject in Public Works Department No. 212 N.I. dated 20th July 75

6. Under Establishment the amount required

is Rs	8.00.000
The grant for 1875-76 being	6.19.200
That of 1874-75	5.00.000
The charge of 1873-74	5.31.190
And that of 1872-73	4.56.160

The Government of India would be glad to receive information as to whether the increase is intended to provide for additional supervision consequent on the larger grant asked for, or whether it is due to the application of the rule under which the charge for Establishment for Irrigation Works is made at the rate of 25 per cent of the grant in addition to meeting the cost of Direction and Conservancy Establishment. If the increase is due to the latter cause, I am to ask whether the increased grant

grant if given will not reduce the percentage of all the establishment charges; and if so, what objection there is to the charge for Irrigation Establishments being diminished in the same proportion.

In the consideration of this case, the need has been greatly felt of a concise Report on the various Irrigation Works under the Government of Madras, grouping them and describing the canals constructed by the British Government and the several groups of tanks which have to be maintained, the localities where the several works are situated, the revenue dependant on or derived from them. If such a report could be furnished, it would materially help the Government of India in arriving at a proper understanding of the annual grants that should be allotted for Irrigation Works. And I am to ask, that such a report prepared from the readiest information available may be furnished.

8. With these remarks I am to say, that the request of the Government of Madras, that the ordinary Irrigation grant should be fixed at 35 Lakhs will be duly considered after the receipt of the information herein called for.

I have the honor to be,
Sir,
Your most obedient servant,

(Signed) William Coll R. A.
Secretary to the Government of India

No. 1194.

Note by the Chief Engineer for Irrigation.

Enclosure J.

Of the information required by the Govt. of India in their letter No. 316 A. I. dated 31st July 1875, which has been given in the Public Works Department, the following are the items

1st the amount proposed to be spent under new works and repairs respectively on remunerative works and on works yielding no direct returns.

Para 3. of the Memorandum printed in Pro: Madras Govt. of the 17th February 1875 No. 475 shows that it was suggested by the undersigned that as regards new works about half as much might properly be expended on works yielding no direct returns, that is on works intended for the general advantage of agricultural interests, as on directly remunerative works. Government however in considering the subject deemed it better to bracket these two classes of work, and to fix the total for the two at 13 Lakhs instead of the 15 recommended by this office.

dated 17th Sept 1875.

Since

Since the Memorandum of September 1874
was written, there has unfortunately been
much too abundant evidence of the need
of both classes of expenditure advocated.
The rains and floods of the monsoon which
followed within a few weeks did so much
damage that it has been necessary to
alter very materially the programme of
this year's operations, and the extremely
limited grants of the Ordinary Budget
have resulted in expenditure being in-
-curred without appropriations being
made to meet it, and in the interests of
financial regularity this is not desira-
-ble. The account of the floods with
the extent of damage sustained and the
probable cost of preventive measures
is now before Govt. The value of the
former has been ascertained to be about
11.29 Lakhs and the estimates for the
latter, which are likely to be found to
err on the side of being too low, amount
to 14.75 Lakhs. The great object which

the

the Govt. had in view in asking for
larger ordinary grants was to be able
to put a stop to wholesale damage
from causes ascertained and preventable.

...ding no
...me
...time to
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...propers
...Govt. In
...ry in this
...East years
...t Bhaue
...ew as
...Bain the
...very little
...d much
...repairs,
...tively
...inexpensive that probably
it will be considered that no change of
system is required, though even there also
a distinction should be made between
new

Since the Memorandum of September 1874 was written, there has unfortunately been much too abundant evidence of the need of both classes of expenditure advocated.

The rain- [illegible] following [illegible] damage [illegible] after ser- [illegible] this year [illegible] limited [illegible] have re- [illegible] -curred i- [illegible] made to [illegible] finance [illegible] -bles - [illegible] the excite- [illegible] probab- [illegible] is now [illegible] former- [illegible] N. 29 la- [illegible] latter, which are likely to be found to err on the side of being too low, amount to 14. 75 lakhs - the great object which the

To Supt Engrs Godry
Kistna & Penner
No 874 dy 2 Sept 75
F. 9. 17 Aug 1874-337. 338.

C E No 1441.5
Fam.
Rec

The Government
of Madras
No. 2144 A.I.
Dated 21
Rec'd 28 July 1875

Conveys certain observations on the ordinary Draft for Irrigation works in the Madras Presidency for 1875-76.

No 215

Cir. S. 13. 75 Dtd 14.8.75
P.R. Short & Ackt

P.W. 661/25.
Dt 14 October 75
No 2931

16

the Govt had in view in authorising for larger ordinary grants was the ability to put a stop to wholesale damage from causes ascertained and preventable.

The expenditure on works yielding no direct return will at least for some time to come lie for river conservancy and for flood banks. The need of the former has been illustrated by many papers which have been submitted to Govt. In the Godavery considerable outlay in this direction has been incurred in past years on works many of which ought to have been treated as new rather than as repairs, though they were met from the repair grant. In the Kistna very little has been attempted. In Tanjore much has been done but entirely as repairs, and there the works are so comparatively simple and inexpensive that probably it will be considered that no change of system is required, though even there also a distinction should be made between new

new works and repairs whenever permanent works costing any considerable amount and required for radical improvements of the rivers are found necessary. As regards flood banks the cost of these has in too many cases been charged to Irrigation instead of to Agriculture generally. In most Districts and indeed it may be said in all in which new systems of irrigation have not been established, very little has been done, and the rivers have had much their own way, doing at intervals great damage which, as regards public works, has been made good without the concurrent removal of preventable causes. Take the Pooniar river in South Arcot for instance: directly the most cursory enquiry into the circumstances was made it became apparent that embanking is a necessity. A few detached flood banks have in the past been thrown up without much regard to levels, but in the case of a river like this, the flood waters of which spread over the country and pass over into other lines of drainage injuring or obliterating irrigation works, roads, villages and private property of all kinds, adequate treatment is essential. The cost of 100 miles of flood bank for 50 miles of river is roughly estimated at 3 Lakhs, but there will soon be detailed information on which to prepare a regular estimate. For the right bank of the Pennair in the lowest 20 miles or so of its course an estimate amounting to Rs [illegible] for raising and strengthening the flood banks, as evidenced the necessary by the flood of 1874, has just been submitted to Govt. - The Godavery and Kistna need attention and outlay, the former to avoid, the latter to avert repeated, damage. The Palar in South Arcot needs partial embanking and the Sambraporny in Tinnevelly must be similarly treated so that the conditions of

× Saved in G.O. No. 2741 of 21st Sept. 1875.

of safety of the numerous works within the reach of flood waters may be circumscribed, and that it may not be necessary to spend thousands of Rupees repeatedly where about an equal sum spent in the right way once for all would probably suffice.

As regards repairs of irrigation works on the one hand, and on Miscellaneous works on the other hand, in only a few Districts has such a record been kept as will show at once the proportion between the two kinds of outlay, but for these it is exhibited below.

	average of 5 years from 1870-71 up keep of irrigation works	Miscellaneous
Godavery	Rs 1,32,185	38,550
Kistna	" 1,14,500	3,764
Tanjore	" 65,245	85,860

In some districts the distinction has not been properly maintained, and it is comparatively recently only that definite instructions have been given on this subject - No additional funds have been asked for on account of the maintenance of works not giving any direct return - It is hoped that the above remarks coupled with the papers in Pro: Madras Govt. No. 495 of the 17th February last, and with the information contained in the Proceedings on the narrative of the effects of the floods of 1874 will demonstrate sufficiently that there is much which must be done, and that to do it within a reasonable time will require energetic measures -

× No 2760 dated 29th Sept 1875.

2ndly With regard to drainage - that the need of which is due to irrigation has, so far as the investigations have gone, been found to be very small, and if any attempt at debiting charges on its account in the case of the Godavery Delta be made, there can be but little doubt that a considerable refund of debits against the Delta irrigation will have to be made - The main drains

were originally large enough to carry off all the surplus irrigation water, though numerous branch and minor drains were needed to render certain lands fit for wet cultivation. How the cost of drainage of villages, necessitated by the physical circumstances of their sites and not to irrigation, is to be provided for is under consideration in the Financial Department. Such works however as these latter will exercise no material influence upon the amount to be provided under Agricultural for non remunerative or Miscellaneous works. In the Godavery Delta the general drainage has been charged to the Capital account of the Delta system of irrigation as already mentioned, and its cost in relation to the total expenditure will not be very considerable. The Kistna Delta is however differently circumstanced, and there the cost of general drainage will be a very material item of the improvements. The funds will have to be provided

it is thought to be provided under Agricultural and divided between Irrigation and Miscellaneous in such proportion as the circumstances may show to be equitable.

3rd. As regards establishments the amount entered is simply a per centage, on the scale at present in force, added to the charge for Conservancy establishments, which latter is not part of the executive establishment proper of the Department. The system of charging all establishments to Provincial and then crediting this Fund with per centage charges for work done for other funds is of such recent introduction that the results are not yet fully known, but as far as information is at present available it appears to be more than probable that Provincial funds will be left with an undue share of the cost of establishments, and that consequently a readjustment of the percentage charged to other funds in the direction of an increase will be required.

the average per centage for 1874-75 under the old arrangement was 2%.

As to increased means of supervision there has been no proposition to this effect recently made. Representations have on several occasions been made by this office on the inadequacy of the Public Works Establishments in particular Districts, and it would be good economy to make them efficient as early as may be possible.

4thly That such a report as is referred to in para 4 of the letter from the Govt. of India would be of great value is unquestionable, but there are no means available for its preparation. Not only have the officers of the Department their current work to attend to, work which is more than they can get through, but there is much else done in connection with the Capital and Revenue accounts, the tanks have not yet been grouped, though for professional purposes this grouping is known to be of very great importance. It is a matter of very great difficulty to get a connected account of even individual

Circular No 50 dated 15th June 1875.

important works, and though instructions have been issued with a view to the collection of the necessary materials, it is not the understood that anything towards the compilation of the reports will be done until a special officer can be spared to edit the papers. Similarly there is other work to be done which probably will have to await the services of a special officer; the preparation of a Code is a case in point. At the present moment several officers are urgently needed to take charge of Ranges and sub-divisions and it appears useless to hope that while current work cannot be properly got through, officers or time can be found for anything else.

Possibly the accompanying statements, the one showing the number of tanks on the registers in each District with the irrigated area and revenue of the year 1873-74, the other giving a list of the estimates for repairs and improvements to irrigation

works sanctioned by Government, owing to the amounts being in excess of the limits of sanction by District Officers may be of interest. The rule is that not more than the average revenue of an irrigation work can be spent on local sanction within any five years, and the instructions of this Office are that when a work cannot be properly repaired under the rule on District sanction, a complete estimate must be submitted for the sanction of Government.

Letter No. 1476 dated 13th Oct 1874.

I have the honour to be
Sir
Your most obedient
humble servant
Lieut Colonel R.E.
Chief Engineer for Irrigation

Calcutta
20th September 1875

To
The Secy: to Government
P.W.D.

	= constructing 2 Sluices	1150	May 1st	*	—	657	* Average revenue not given.	
—do—	—D°— D°— bund of Annathanum							
	= pettai Tank	1150	" 1st	*	—	602		
Cuddapah	Escape to the Budwail Raychervoo tank	1284	" 12th	1837	1190	—		
North Arcot	Improving Thorapady Tank and its							
	supply and constructing an addi.							
	= tional surplus weir	1427	" 29th	*	6130	—		
South Arcot	Restoring the Sellinpollium Aniout	1338	" 19th	125	700	—		
Coimbatore	Repairing Coorchy Tank	1688	June 23rd	1039	—	160		
—do—	Nunjacalacoorchy Aniout repair	1688	" 23rd	1362	—	102		
—do—	Repairing Palvoyputtum Aniout	1688	" 23rd	4918	—	540		
Kurnool	Goodoor large tank	1791	July 4th	465	—	600		
—do—	Vapadimma tank	1791	" 4	75	—	21		
—D°—	Gubbur large and small tanks	1791	" 4th	261	—	377		
North Arcot	Thembully Tank	1799	" 6th	729	—	2630		
—do—	Mustarasacoopum Tank	1799	" 6th	576	—	1960		
—do—	Bingarappah Tank of Vasanthapuram	do	" 6th	787	—	2090		
—do—	Coopooreddy Tangle	do	" 6th	126	—	140		
—do—	Goodanagarum Tank	do	" 6th	*	—	2000		
—do—	Bodireddipattadai Spring Channel	do	" 6th	383	—	260		
—do—	Ramacoopum Tank	do	" 6th	391	—	1040		
—do—	Pengaraguntah Tank	do	" 6th	150	—	1000		
Nellore	Iswaravaka Tank	1997	" 21st	4134	1200	—	⊛ For Fusli 1281	
North Arcot	Tirupanamoor Tank	2023	" 28th	2414	—	5730		
—do—	Selery Tank	"	" 28th	221	—	490		
—do—	Moram Tank	"	" 28	394	—	1260		
—do—	Puthramathy Camenareddy Tank	"	" 28	225	180	900		
Coimbatore	Caniempollium Channel	2127	Augt 3	727	—	1650		
—do—	Dallipollium —do—	"	" 3	513	—	450		

North arcot	Keelvembaukum tank		2244	Augt.	14	900	670	2910
do:	Keershaut Tank		"	"	14	1206	—	1950
do:	Pomaveram do:		"	"	14	531	470	1050
do	Serinthamungalum Tank		"	"	14	170	365	570
do:	Areonum Tank		"	"	14	381	—	1410
do:	Narasingapooram Tank		"	"	14	313	—	600
do	Cotaramungalum Tank		"	"	14	402	390	780
do	Thookivakum do:		"	"	14	454	355	780
do	do small do:		"	"	14	263	260	300
do	Mustavacacoopum Tank		2269	"	17	512	—	210
do	Moonjoorpat do:		"	"	17	907	—	1360
do:	Covelay large do:		"	"	17	1468	—	1920
do:	Troombedu Iwarroocury Tank		"	"	17	318	—	510
do:	Agrum do:		"	"	17	385	—	430
do	Covilcoopum do:		"	"	17	214	—	410
do:	Keenurmali do:		"	"	17	303	—	330
do:	Gubbur large and small tanks		"	"	17	644		950
do	Keelpakum large do:		"	"	17	577	—	730
do:	Keelpakum Chittary do:		"	"	17	43	—	145
do:	Mamundoor do:		"	"	17	185	—	280
do:	Mangalum large do:		"	"	17	181	—	263
do	do: Chittary do:		"	"	17	67	—	220
do	Malicodungaloor do:		"	"	17	233	—	400
do:	Mambut do:		"	"	17	142	—	315
do:	Karany do:		"	"	17	352	160	560
do	Thuthipat tank		2335	"	20	623	—	560
do:	Chittary do:		"	"	20	348	146	420
Coimbatore	Pollium tank		2336	"	20	2302	—	600
Kurnool	Markapur tank		2378	"	21	5100	—	1293
Salem	Andevanahully tank		2394	"	24	88	—	100
Coimbatore	Soondacoypollium chamel from the Ambra-vatty		2396	"	24	1070	—	828 × Assessment

Salem	Erranampett Yagalary Tank		1874						
do:	Moothumputty Reed Saibo Aniout	2407	Augt.	25	785	—	3940		
do:	Gollangotta Vepalanathum Tank	do:	"	25	435	—	690		
do:	Kananamthoor Tank	do:	"	25	332	—	350		
do	Paramoothumputty	2429	"	27	459	—	768		
Kurnool	Musalimadugu	do:	"	"	27	251	—	547	
Salem	Annasagarum Kissa Tank	2494	Septr.	3	⊙ 1221	660	5116	⊙ Nearest Revenues.	
Cuddapah	Cothacotta tank	2539	"	8	1832	1340	2300		
Chingleput	Serusari large tank	2652	"	17	‖ {36 / 76}	—	365	‖ R236 for Govt. Canda and R76 for Rama do.	
do:	Theelalum and Cumminipet Kissa tank	2288	Augt.	18	535	—	912		
do:	Valamoor tank	2918	Oct.	13	764	—	1239		
do	Thundry do	"	"	13	335	—	1013		
do	Nunjeepuram tank	"	"	13	875	—	1112		
do	Kattoogoodalore	2918	"	13	260	—	985		
do	Koorovady large	do:	"	"	13	363	—	674	
do:	Peroongoly	do:	do:	"	13	126	—	314	
do:	Oorgathoor	do:	do:	"	13	851	—	1000	
do:	Gubbur large and small tank				13	1022		1060	
do:	Thalacananjary tank	"	"	13	97	—	1550		
South Arcot	Seroomathuray spring pond and channel	3021	"	23	2041	—	2580		
Salem	Thandoocaranhully tank	3190	Novr.	11	250	870	900		
Cuddapah	Yerragoontlapully Galwany tank	3202	"	12	43	—	220		
North Arcot	Codoocanthangal tank	3228	"	14	718	160	940		
do:	Vencatasamoodrum tank	"	"	14	139	265	695		
do	Pasomathoor small tank	"	"	14	189	—	530		
do:	Athicoopum tank	"	"	14	156	—	490		
Bellary	Thondapand tank	3395	Decr.	3	113	—	140		
do:	Toomergoody large tank	"	"	3	* 199	—	400	* Highest Revenue.	
Chingleput	Chengatur tank	113	1875 January	14	1768	1467	2830		
Tinnevelly	Manur Channel	126	"	15	*	1550	—		
North Arcot	Rummasamudrum tank	585	March	2	403	—	1070		
do:	Calingoor tank	"	"	2	1159	1740	1050	* Average Revenue not given.	
Salem	Aniout across the Veeraganoor	16 Mis:	Feby	3	*	—	192		
North Arcot	Vellimalay tank channel and surplus weir	334	"	6	243	730	900		

Salem	Attiepolium tank		1875					
North Arcot	Valithangeypooram Tank		1474	May 27	863	1890	1250	
do	Chinglenatham	do.	1470	"	26	615	115	1220
do	Cadambanthangle	do.	"	"	26	87	—	715
do	Poondysamudrum	do.	"	"	26	227	—	460
do	Vullapooram	do.	"	"	26	55	—	214
do	Ponapáttum	do.	"	"	26	1525	1900	1950
do	Thapoor	do.	"	"	26	928	475	820
do	Jumboocolum	do.	"	"	26	519	1750	2130
do	Moneyampett	do.	"	"	26	366	550	810
do	Thagaracoopum	do.	"	"	26	310	—	625
do	Casavancoopum	do.	"	"	26	311	—	650
Chingleput	Injoor Chamel from the Palar		1550	June 3	3	3726	—	2560
do	Vellampakum Tank		1545	"	2	313	—	546
Cuddapah	Ganjicoontah Anantharayan Tank		1594	"	7	574	—	2390
do	Pallavole Chamel		"	"	7	1236	—	2380.
	do Tank							
	Cheravoe	do.						
	Irantiamum tank	Calingulah	1639	"	16	5266		360
								150
Arnoor	Thamadapalli tank							
Salem	Bustee Tank		1656	"	12	615	—	2465
do	Chinnamanagarum Marali Tank		1666	"	12	103	—	392
do	Woodenhully Tank		"	"	12	123	—	360
Cuddapah	Ramapooram Pundivari Spring Chamel		1874	July	3	234	—	1033
South Arcot	Clearing Gramum Chamel		1908	"	6	41	—	180
Coimbatore	Road bridge crossing the Periacolum chan-nel converted into a head sluice		1930	"	7	1088	—	212
Chingleput	Repairing Malepedu tank bund		1912	"	6	1818	1700	—
						75	—	220
		Total				139898	45488	212782

Miscellaneous

			No. and date of sanctioning Order			Sanctioned outlay.
Godavery	Alterations and additions to the river defen-ces at the Rakarapurru		1874			
Chingleput	Flood bank north of Cortaliar above the Thamarapauttum Anicut		1192	May	4	2000
do	do	South of do. above and below the Anicut	1222	"	7	5330

Kistna	Makeshift head sluices to supply channels in Divi Island	1265	1874 May 11		8209
Coimbatore	Sand Sluices on the Nunjacalacoorchy Channel	2325	August 19		1180
Cuddapah	Constructing a groyne on the left bank of the Pennair river	2838	October 6		1470
Godavery	Drainage of twelve Villages Central Delta forming the Rali Sub Section	548	1875. Febry. 25		6160
Chingleput	Constructing a channel to supply the Government Farm at Sydapett with water	1205	April 30		1200
Godavery	Restoring the water supply of the Munsub-dar of Rampah	1239	May 3		1610
Coimbatore	Protective Works to the Cauvery river near Kampapooram	1471	" 26		2500
Godavery	Wall on the river side of the Dowlaiswaram Workshop	1665	June 12		1368
Cuddapah	Constructing a groyne for the protection of Devagudi on the Pennair	1776	July 12		2210
			Total		40235

Coimbatore
20 Feb 1875

Examined
Chief Engineer for Inspection

Lieut Colonel RE

360
1560

4665

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9 Engineer's Office.
1 Division.
E, Kistnapatam Taluk
Cuddapah District.
January 18 7 .

ineer

3rd Division.

at

ment

Fort Saint George.

[illegible] No 2603 of 1874
[illegible] to submit the
Manual of Specifications
with regard to
the [illegible]

manufacture of the work
be executed under the

hold a Branch Sub-
to be open on the
the Secretary
[illegible] can be
the public and
Resident Chief
a Copy thereof.

Obedient Servant
Executive Engineer

Kistna	Makeshift heads & sluices to supply channels in Divi Island	1265	1874 May 11	820
Coimbatore	Sand sluices on the Nunjacàlacoor channel	2325	August 19	1180
Cuddapah	Constructing 4 groynes on the left bank of the Penniar river	2838	October 6	1470
	Annicut Villages Central Delta		1875 Feb 25	6160

No. 1605

Superintending Engineer's Office.
3rd Division.
Camp Rajampeta, Vellumpeta Talook
Cuddapah District.
The 24th November 1871.

From,
The Superintending Engineer
3rd Division.

To,
The Secretary to Government
Public Works Department
Fort Saint George.

Enclosures.

Sir,

With reference to G.O. No 2603 of 12th October 1871, I have the honor to report that, in my opinion, Nadi Baramut or Cultivary labour should be enforced in each District and that an Act is required to be passed to enforce it.

2. The following is the nature of the work which I consider should be carried out by the Villagers.

1st.— To fill up properly all holes made by rats or other vermin, all gullies, hollows or other inequalities caused by rain, the treading of cattle &c upon the bunds of tanks and channels, and to dig white ants nests and in paying such general attention that any slight damage may be at once repaired.

2nd. To check the growth of prickly pear or any similar plant and pernicious weed

and to clear away such trees and underwood as, in the opinion of the Range Officer or his Superiors, may be considered injurious.

3rd To clear out the deposits from tanks lining from River Channels, outside head sluices or in the bed of a river and from spring Channels to such an extent as will afford a sufficient opening for the supply of water to flow to the filter.

4th To open and close bunds for the examination and repair of any masonry work reported to be in bad order, provided the cost of such work does not exceed Rs 25.

5th To clear and repair the Earthwork of Main and branch Channels and clear away the accumulations in all Channels issuing from tanks which obstruct the flow of water to the fields.

6th To construct ring bunds at breaches, to watch the bunds of tanks during heavy weather, to turf or otherwise protect the parts rabbit on by the waves which appear likely to burst the Calingulahs clear for the free and full discharge of surplus Water; and generally to perform minor duties of this nature to prevent breaches and other accidents.

7th On the Channels from the Tungabhadra, to give assistance in labor and materials at the same rates as in former years, as otherwise, in consequence of the reduction of Assessment and the rise in rates, the quantity of work to be done would be much greater than the money funded would admit of carrying out.

I have &c &c

Lieut Col RE
Superintending Engineer 2nd Div

No 747

Superintg Engineer's Office 6th Div
Tanjore 1st December 1871

From

Captain J. C. Hawkes R.E.
Offg Superintg Engineer 6th Div

To

Colonel J. Carpendale R.E.
Secretary to Government
P.W. Department

Sir,

With reference to my C. No 2603 dated 12th October 1871, regarding opinion of Superintending Engineers on the subject of customary labour I have the honor to call attention to the replies of Captain Cates to questions put by the Public Works Commission in April 1869 and also to a memorandum of Captain Cates on the subject, submitted to the Commission. I am not aware that any other works have been customarily carried out by ryotwar, than those mentioned by Captain Cates.

2 I consider that a continuance of the practice is very desirable in this Division, and, in order to this, I believe it will be necessary to enforce it by legislative enactment. The act I think

think will not be obnoxious to the people,
so long as only the ancient privileges
customarily carried out by them are
enforced, and I believe the custom
may be resumed without much
difficulty.

I have the honor to be
Sir
Your most obedient Servant
John Austin Captain R.N.
Agent for Superintending Engineers &c &c &c

think will not be objectionable to the people, so long as only the works hitherto customarily carried out by them are enforced, and I believe the custom may be resumed without much difficulty.

P. W. 1871 Rebate 6

Encl: £5729.

The Chief Engineer
(3rd Division)

Encl.

7931-32

14-10-1875

The Secretary to
P.W.D. Peshawar

Dated 12th December 1871
Received 4th Jany 72.
No 747.

To be dealt with as
ref. No 2603. Dated
12th October 1871, on
the subject of customary
labour.

The Kohat Deputy Co
14/10/75 No 2931

P. W. 1875 Dept.
No: 6601

From

The Chief Engr.
for Irrigation

Dated 20 Sept. 1875
Read 16 Oct. 1875.

G. O. No: 1194.

Note on Govt. of India's letter offering certain observations on the ordinary grant for Irrigation works in the Madras Presy. for 1875-76.

No 214

G.I. No 2931-32. 14-10-75

Statement showing the number of Tanks in the irrigated area and the net Revenue of each district in the Madras Presidency for 1873-74

Districts	No of Tanks in District	Irrigated Area	Revenue	Remarks
1. Ganjam.	2,778	192,770	917,279	
2. Vizagapatam.	622	65,148	250,647	
3. Godavery	2,164	667,282	2242,724	
4. Kistna	895	191,153	1021,647	
5. Nellore	932	222,254	902,606	
6. Cuddapah	4,972	135,293	904,311	
7. Bellary.	1,378	125,140	711,166	
8. Kurnool	600	28,573	248,577	
9. Madras	8			
10. Chingleput	2,396	226,976	971,240	
11. North Arcot	3,878	266,115	1208,020	
12. South Arcot	3,541	370,285	1624,415	
13. Tanjore	941	940,618	3693,103	
14. Trichinopoly	2,158	227,126	761,053	
15. Madura	5,783	160,823	554,577	
16. Tinnevelly	2,661	166,199	1340,273	
17. Combatore	293	103,236	602,899	
18. Nailgherry	—	40	90	
19. Salem	2,980	106,606	477,536	
20. South Canara	—	"	"	
21. Malabar	—	388,171	1165,177	
Total —	38,982	4583,888	19232,465	

(Signed) John Mullins Secy.
Chief Engr for Irrigation

Statement showing
the Irrigated Area
the Number of Tanks
and the Net Rese.
Area of each Tank.

(34)

No. 232.

Suffg. Engrs. Office, 5th Div.
Amahpettah, 27th Jan. 1892

From
Captain J. Vertue R.E.
Actg. Suffg. Engrs, 5th Div.

To
The Executive Engr.
5th Division.

Sir,

I have the honor to forward herewith a Statement showing the Irrigated Area, the Number of Tanks and the Net Rese. Area of each Tank.

2. The Tanks in this Division are generally in a very bad state of repair. Many of the Bunds require Ramping to prevent overflow, and the Sluices require repairing. The Tanks have been neglected for many years, but I hope to get them all into thorough repair during the next Season, or less, by the Rules laid down in the Standing Orders of the Board of Revenue.

3. To fill up gullies or other inequalities

Statement showing

Rec'd 12 Oct/71 Rl 203

P. W. 1871.

From,

No. 5647.

The Superintending Engineer

3rd Division.

To,

The Secretary to Government.

Public Works Department.

Fort Saint George.

No. 1665

Dated 24 November 1871.
Received

Reporting on the matter in which Hindu Maramat or Customary Labour shall be enforced in each District

To be Replied to Qr

14/10/75 No 2931

Revd

2931-32 Mo

14-10-1875

No. 252.

Suffg Engrs Office 3rd Divn.

Arnakpettah, 27th Jan. 1872

From

Captain J. Partin R.E.

Acting Suffg Engr 3rd Divn.

To

Colonel J. Carpendale R.E.

Secy to Government, P.W.D.

Sir,

With reference to G.O. No. 2631 of 12th October 1871, I have the honor to report that the practice of giving to Villagers the carrying out of Ordinary Repairs is very common in this Division, and that there is no indisposition on the part of Ranging Officers in this respect, rather the reverse.

2nd As regards customary labor I would say that it seems to have been at one time prevalent every where but that it has now fallen into almost complete desuetude. It seems, more or less, to have comprised the following Items as laid down in the Standing Orders of the Board of Revenue.

"I. To fill up gullies or other inequalities

caused by rain, the treading of cattle &c. upon the bunds of tanks and channels.

II To check the growth on bunds of the prickly-pear and any similar rank and pernicious weed.

III To clear away such underwood from the bunds of tanks as may be considered by the Range Officer to be injurious.

IV To clear out the deposits from tank sluices and from river and spring channels to such an extent as will afford a sufficient opening for the supply of water to flow to the ryots fields.

V To clear and repair the earth work of petty and branch channels and clear away the accumulations in all channels issuing from tanks which obstruct the flow of water to the fields.

VI To keep in order the supplying channels of tanks to such extent as is sanctioned by local custom.

VII To watch the bund of all tanks during rainy weather, to turf the parts picked on by the rowers which appear leaking

to open and close the Calingulahs, and generally to perform minor duties of this nature to prevent breaches and other accidents.

VIII To construct temporary dams at breaches and where requisite to temporarily strengthen the bunds of tanks during the season of cultivation. And in general by that constant care and attention which Residents on the spot can alone exercise to preserve the works of Irrigation on which they and the Government have a common interest, from those small injuries which, if unchecked will lead to serious loss and expence.

IX To uncover the sluices in tank bunds, so as to enable the Officers of the Department of Public Works to inspect them in case they should require Repair"

3 This practice appears to have been handed down from old times and no doubt it is pronounced excellent, one is much so that could it be revived by

legislative enactment, I think action in the matter would be advisable. I very much doubt however, whether in the present temper of the people, and the ideas they have acquired as to their rights, the benefit resulting from the legalisation of compulsory performance of such work would not be almost completely neutralised by the necessary evasion of the obligation, and the trouble and time lost in enforcing it, and furnishing defaulters, and unless indeed the penalties for non-fulfilment of the duty were extremely severe, I feel sure that it would in very many cases be wilfully neglected, and any ordinary penalty willingly paid. I think therefore that for reviving this practice the day has passed, and the object sought must be gained by other means.

5th. I would recommend that

1st. It should be distinctly given out that certain classes of works must be kept in repair by the Ryots themselves, and that Government will not repair them. Such

for instance, as

Minor Supply Channels

Do. Drainage &c.

Certain Minor Masonry Works and

others as may be agreed on.

2nd That all 3rd class Tanks with their works be either made over to the Village to be kept therein kept in repair, a Slight Enhancement if thought proper on the Poonjah Rate being levied on the land under them – or that their Bunds be levelled, and the beds be cultivated with dry crop – the latter I think the preferable plan.

3rd That the Collector, and other Subordinate Revenue Officers, so far as may be considered proper may be vested with power to Compel labor in cases of great emergency, as certified by the Officer of the Department Public Works requiring the labor.

4th That a per-centage of the annual cost of Repairs be levied from the Ryots

5 As regards the 1st and 2d. if these be conceded the Department would at once be freed from the necessity of looking after an enormous number of works, which now take up much valuable time, to say nothing of the money expended on them.

6 As regards the 2nd proviso—if taken into account, the cost of repairing these miserable Bunds—the amount of damages due to their continual breaching and the amount lost to Government by remissions of Revenue granted I think it would be found that, as a rule, they are a very thing but remunerative works.

7 In the matter of the 3rd proviso it may be said that no legislative enactment is required. No doubt a Collector still has some moral influence, and in some cases, owing to his peculiar character, that influence may be very considerable, but it seems to me to be decreasing year by year, and there can be no question that much more ready obedience will be paid to orders, which can be enforced at once. Any abuse of this power may be readily checked by the rendering of periodical Returns setting forth the extent to which it has been applied.

8 As regards the 4th point—the utter indifference of the Ryots to preserve and protect Government works is very well known—Bunds are trodden down by Cattle—Fences and Plantations are destroyed—Embankments are lowered to render easier the paths over them—Cuts are made in Bunds in order to pass water to fields—Bunds and Bushes fall into Channels and are allowed to lie there, accumulating silt and gradually deteriorating the Channel, and many other acts of omission and commission must be recorded against the Ryots by every one who has had the smallest experience of District work.

9 That such a state of things should be checked there can be no doubt, and in the absence of resort to customary labor enforced by Law it seems to me there is only one way of securing it—viz—by levying from the Ryots a per-centage of the

cost of Repairs. Whether this should be levied on the whole annual cost, or on the excess above a certain amount, or in any other way, is a mere matter of detail; all I mean to do is to affirm the principle, which I feel very sure is a correct one. The Ryots see that all these damages are Repaired at the cost of Government, and are utterly reckless how great they are, and I consider that a despotic Govt. their proceeds will alone make them pay some attention to the conservation and protection of Government work.

10. I cannot see, moreover, the slightest hardship in it, the care and protection of property being no more than every Landlord has a fair right to expect from a Ryot; the Tax will, under any circumstances, bear very lightly, and the Ryots have it in their own hands to reduce it to a minimum, or even to extinguish it altogether if the percentage be levied only on the excess over a specified sum.

11. I need scarcely point out that under any circumstances Government must be a gainer, either by the amount levied or by the time and labor saved to Establishments, it being not that the manual labor saved is far more profitably employed in the cultivation of the land, than in repairing works.

12. In conclusion, it should not be forgotten that, even if all here suggested be carried out, Ryots will only be doing a part of what, until very lately, had the sanction of immemorial custom, they were wont to perform cheerfully and ungrudgingly.

I have the honor to be

Sir

Your Most Obt. Servt.

James Bertram Capt. R.E.

Acting Suptg. Engineer, 5th Div.

Fo 153

Superintending Engineer
Office 2nd Division
Camp Mettupalaiyam
13th February 1872.

From

Colonel F. J. Moberly RE
Superintending Engineer 2nd Division

To

Colonel J. Carpendale RE
Secretary to Government
Public Works Department

Sir,

In reply to G.O. No 2603. 12th October, I have the honor to observe that, so far as my experience goes, all members of the Department Public Works would prefer to entrust the charge of executing repairs of irrigation works to the Villagers, as Contractors, rather than to outsiders who cannot have the same interest in the good condition of the works in some parts of this Division, notably in the 3rd range - Vellore - the villagers have lately undertaken the duty - and in numerous cases I have pointed out to the villagers, that as I have no means of procuring labour, I must, if they would

P. W. 1872. No 529.

Read Copy of No 203.

Sent to Superintending Engineer 2nd Division.

Public Works Department
Madras
29 31-32
14-10-1875

Superintending Engineer 2nd Division
Camp Mettupalaiyam
No 232

Referring on the accompanying Carriage and Horse Hire Contingent Bill for the month of September 1875 preferred by Lieutenant Colonel Baker and Officers of the 2nd Battalion Royal Sappers and Miners (Queen's own) now undergoing the Course of Instruction at the Government Survey Office Guindy

I have the honor to be
Sir
Your most obedient Servant
H. Pitt Lieut Col
14/10/75 [illegible]

not execute their own repairs, cancel the estimates and transfer the allotment to other works where the people would stand assistance - the threat has been in some instances effectual -

2. I beg to point out that previous to 1855-56. there were two sorts of customary labor - paid and unpaid - for the latter I would refer to a very useful summary drawn up by Mr. Brandis and published in the District Gazette of November 7. 1856. A distinction is there made in the case of commutation of customary unpaid labour authorized in B.C.O 18 November 1856.

* Revenue Board's Circular order

3 When the charge of the Executive is in the Revenue Department, the Officers of that Department called on the villagers, as a matter of course, to execute such repairs as were considered necessary. Here was no body else, to do it - the Tank diggers, who have since the commencement of the large canals worked regularly under us, in those days were cultivators, as many of their class still are in the upland talugs -

4 The heads of villages undertook the work and received some advances; they partitioned the job among the employers of coolies, who were to all intents and purposes slaves, fed all the year rounds by the ryots. If there had been no repairs to do, the coolies would have idled - so that we may fairly say that all the money paid by the State was profit to the ryots - It therefore did not matter much to them that a part was appropriated by the disbursing Officers -

5 Now matters are changed; the coolie need not be content with a bare subsistence and idleness; he may get payment from the Department Public Works, and though generally willing to assist in cultivation, can in some degree make his own terms - the ryots have therefore lost a part of their power, though not all their capacity to molest - in consequence of this the coolie is generally unwilling to work under the ryot of his own village; he prefers another master whom he can control

or desert if he pleases; from this employer, he obtains an advance which the Public Works Officers refuse to make.

6 I made a point of accompanying Mr. Hannyington over the Dindigul Division and found that in every case the villagers first demand was for an advance; they prefer to work under the Labourer, because they think that he would advance money, and restore to them the old power which they formerly abused. I see no reason to believe that, unless some authority is exercised beyond what existing laws give, the Revenue Department can be a lot more successful than we are in procuring the assistance of the villagers. Mr. Hannyington pointed out to the villagers the necessity and advantage of our having their co-operation, and desired them to consult together before the estimates for next season are put in hand.

7 If, however, I am right in my statement as to customary paid labor, we have a very sufficient instrument

in the power of granting or refusing remissions of revenue. I have no wish to interfere with the proper Officers but would suggest that they should be required in all cases to enquire from the Public Works Officers or subordinate whether the loss of crop has been produced by the neglect of the ryots, or by causes beyond their control.

8 I think that we may fairly claim this, as the deterioration of irrigation works is generally attributed to the Department of Public Works who have to bear the blame of natural action, and human apathy.

9 The notice which I have mentioned above contains a list of works extracted from Chapter XI Para 25 Public Works Code.

10 The Government in Order No. 986 of 29 March 1867 have authorized the Collector to decide in what cases certain petty repairs should be executed without payment, besides (as I understand the Order) those enumerated in the general list. Mr. Boswell holds that under this order he has discretionary power to call for payment for the works mentioned above

11 For example the Shave Mahomed-pett tank was breached in July 1869, the villagers constructed a ring bund, and secured enough water to save their crops. Mr. Boswell called on me to pay for this bund, because the villagers had constructed it when the Overseer had failed, and because it was said to have cost Rs 250.

12 I inspected the Tank myself, and reported to Mr. Boswell that he had misunderstood the information, as no body had imputed any neglect to the Overseer that the ring bund was worth only Rs 50; and that the breach had been caused by the neglect of the villagers who had left a cattle path lower than the rest of the bank - Twice since, Mr. Boswell has pressed for payment; repeating only the claim of its cost, and ignoring my explanation, though tacitly admitting its correctness at least on the other two points -

13 Supported by this the villagers have for 2 seasons refused to give any aid in rebuilding the sluice which was carried away in the breach; and have only helped this year on my insisting that the cut, which was made for their temporary supply, should be closed.

14 With the means which we possess in this country ring bunds can be constructed only if begun before the water has acquired force; or, after the tank is considerably emptied, to hold the supply from a further fall of rain; they may therefore be considered as generally of a petty nature; the other works mentioned in the previous seven clauses are clearly trifling jobs, requiring as clause VIII says "that constant care and attention which resi-dents on the spot can alone exercise."

15 On the whole therefore I see no reason for any further legislative action. If Public Works Code Chapter XI Para 9 includes, as I believe it was intended to do, works paid as well as unpaid for, we have only to ask the cordial co-operation of the Revenue Officers to obtain all that is wanted - if neglect of our requisitions for aid

is attended by refusal of remission as was done when the charge of the repairs was in the hands of the Revenue Department, the ryots would, I believe, not hesitate to make the necessary arrangements for getting their irrigation works put into good order—

I have the honor &c
Sir
Your Most Obedt Servt
Elsworth Coll. R.E.
Supt Sirkarmadevi

Rec'd 29 March 1872
" Col. Farewell

No 260 Supt Engineers office 7th D.
Coimbatore 5th March 1872.

From,
Lt. Coll. W. Farewell R.E.
Offg Supt Engineer 7th D.

To,
The Secretary to Government,
P.W. Madras.

Sir,

In accordance with the orders conveyed in G.O. No 2603 dated 12th of October 1871, I have the honor to report that, as a rule, nearly all the Irrigation works in the Division not requiring skilled labor for the purpose, are repaired under Departmental supervision, by the laboring population of the villages in their vicinity, who in most cases, are the servants of the land holders interested in the works.

2. But few and very petty so called Contractors are to be met with in the daily Irrigation Division, and these men invariably employ the same class of villagers residing in the villages adjacent to the work they may contract for. I do not myself, nor do the Range Officers generally approve of employment of these sort of hands as it has been found on close

Rec'd 29 March 1872
" Col. Farewell

To the Secretary
to Government
Public
Madras

2931-32 Rec'd
14.10.1872

Rec'd 12th April 1872
Returned 19th "

Reports this
Division and
the Cuddapah
Coimbatore &
Salem Divns

To the Collector
14/10/72
2931

that though they pay their laborers exactly the same rates as given by this Department, they work a shorter time and do less work than when employed by the Departmental Officers, thus showing that the only way in which the Contractor can make a profit is, by being able occasionally to scamp work in some way or other.

3. "Enforced customary labor" differs in almost every Collectorate and Taluk, it Chiefly consists of clearing trenches from Channel banks, and slight repairs to Channel and Tank banks, constructing ring bunds, & so forth; in some instances in the same Taluks, some Channels are maintained at Government expense, while others are cleared of Silt by the tenants of the land benifiting by the work; it is difficult to understand why they should be so ready to do such work at their own cost, while they see similar work all round them executed by, and charged to the State, doubtless their mode of procedure must be advantageous to them or they would not adopt it.

4. In reference to the whole question of Customary Labor, I beg very respectfully to state that I am convinced its existence saves Government little or nothing, while it most assuredly entails great hardship on only a very small, and that the most industrious and long suffering portion of the population.

I have the honor to be,
Sir,
Your most obt. Servant,

W. Hudson Lt. Col. R.E.
Offg Supg Engr 1st Div.

Enclosures &c.

With reference to Government Order No. 2603 dated 12th October 1871, I have the honor to enclose a precis prepared in this Office of the replies of the Range Officers to the several questions put by Government on the subject of Customary labor.

2. The points for report are:-
1. The exact nature of the works which have been hitherto or in former years carried out by enforced Customary

customary labor in each Dietrich.

ii Whether any objections exist to the continuance of the practice or its reinstitution.

iii The expediency of enforcing the same by legislative enactment.

3. None of the Officers are certain as to the nature of the works that used to be carried out in former years as customary labor. There appears to be no doubt however that a great deal used to be done formerly by the ryots which is now done for them by the State and that the practice has been gradually falling into disuse and is now only a shadow of what it was at one time.

4. As regards the works of customary labor now carried out the Range Officers statements are conflicting. Whilst the Cheingleput Dietrich

Dietrich, one Officer enumerates several works which he says are performed and readily too by the ryots, while another says, that very little is done, and that little indifferently.

5 The replies from the Officers of the North Arcot Dietrich shew, that the ryots contribute but little as customary labor. It is certain that as a rule, the ryots take no interest on their irrigation works, and that except in very rare instances, they abstain from applying any early remedy to avoid damages, knowing that when the injury attains sufficient magnitude, the Government will intervene and put matters straight for them.

6

6. It is clear I think that the ryots will not if they can help it perform these Minor works of conservancy which are essential for the preservation of their works and that a law is necessary but the exact nature of that law is a matter on which all are not agreed.

7. The system of executing labor is objectionable on many grounds. It would be extremely distasteful to the people, and would be a return to a system long since abandoned as being unsuited to the times. I think the far better plan would be to raise a money cess for irrigation Conservancy.

I have the honor to be
Sir
Your most obedt Servt
J. G. Stuart Captain &c.
Ex. Engr in ch. Superintt Agra Divn.

Précis of replies from Range Officers on the subject of Kudi Maramut

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III Closing breaches.
IV Cleaning silt from river channels

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I have the honor to be

Sir

Your most obed[t] Serv[t]

D. Wm Stuart Capt[n] R.E.

Dr. Exec[r] in ch. Sudukoti Road Div[n]

Prov[l] October 1874 Dist.

2931-32

14-10-75

P. W. No 2715

From No. 1662.

Rec[d] Copy in charge of Sub Engr's office 4th Dec[r]

To

The Chief Engr for Irrigation.

Dated 28th Rec[d] 3 Dec[r] 74

Rec[d] 5th " " 74

Encl: 1. Ch[t] 5200

Submits Precis of replies from Range Officers on the subject of Kudumaramut in the Chingleput & North Arcot Districts

Ack[d] Rep[d] with C.E. 14/10/75 No 2931

Précis of replies from Range Officers on the subject of Kudi Maramut

Chingleput District

Mr Goodchap. States that in his Range the execution of Ordinary Repairs used to be entrusted until 1871/72 to ryots but the work was not satisfactorily executed.

Believes that the following works used to be carried out in former years under the Kudi Maramut System.

I. Turf revetment to tank and channel banks.

II Removing prickly pear &c. from tanks and channels prior to repair.

III Closing breaches.

IV Cleaning silt from river channels

Precis of replies from Range Officers on the subject of Kudi Maramut

Chinglput District

Mr Goodchap. States that in his Range the execution of Ordinary Repairs used to be entrusted until 1871/72 to ryots but the work was not satisfactorily executed.

Believes that the following works used to be carried out in former years under the Kudi Maramut system.

1. Turf revetment to tank and channel banks.

once spun ... should be upheld, but in lieu of exacting labor a small money cess should be collected from the ryots by the Revenue Department and the money

b It is clear I think that the ryots will not if they can help it perform these minor works of conservancy which are specified as the proper and but the law is all are 7. The labor many be exte people return since a amount the

Port Calder 5th Feb 1873.

2931-32

14-10-75

P. P. No 215

Recd No 1862.

Madras Engrs no change of Executive officer this date

To The Executive Engr for Irrigation.

Dated 28th Recd 4th March 73 Encl: 1 C.F. 5206

Submits Precis of replies from Range Officer on the subject of Kudi maramut

Also Chingl Nartt & Guntoor

enactment to re-introduce the system

states that his experience has been very small, but that to the best of his knowledge it has been

Lieut. Dr Re

Executive Engr

and keeping Spring Channels all
the year round.

V. Keeping in repair all jungle streams
and drainage Channels.

So far as he is aware Kudi Maramut-
has not been systematized in his part
of the District and thinks that there
would probably be great difficulty in
now reinstituting the System as the
ryots appear to ignore the authority
of Government to enforce it, and a
Road cess having been introduced
still stronger exception to the measure
is most likely to be taken.

Is of opinion that it will
be necessary to resort to a Legislative
Enactment to re-introduce the system

States that his experience has
been very small, but that to the best
of his knowledge it has been

customary.

Lieut. J. Dr
Ex

customary in the District

I. to Remove prickly pear &c. from
tank embankments.

II to keep Sluices far from deposit.

III to Temporarily close breaches in
Tanks

IV. to attend to the opening and
closing of Shutters in waste weirs

V. to fill pots

VI to perform work on embankments
to prevent Cattle
destroying

Under the Kudi Maramut System.

Is of opinion that the principle
of requiring villagers to execute small
timely Repairs, and thus to prevent works
once put in order, from deteriorating,
should be upheld, but in lieu of
exacting labor a small money cess
should be collected from the ryots
by the Revenue Department and the
money

money made over to the P.W.D. to be
laid out by the latter Department
as occasion requires on the work for
which it was collected.

As far as his experience goes Mr Ottmann
the following are the works of
customary labour, which at the present
time are carried out by villagers towards
maintaining Agricultural works.

i. Tanks- preventing erosion,
Constructing ring bunds to breaches,
closing temporarily very petty breaches
regulating and banking up Calingulahs,
clearing bunds, and maintaining them
free of prickly pear &c.

ii. Supply Channels and Spring Channels
yearly petty clearings only-

iii. River Channels, yearly petty
clearings, and the entire opening out
of the portions of the Channels
situate

situate in poor beds in much cases
averaging from one to two miles in
length and from one to three yards
in depth which yearly become filled
up by the river floods.-

It not aware that customary
labor at any time comprised other
than the works noted above- The
ryots render their services readily; he
therefore deprecates any action in the
matter.- Points out that the Govern-
ment allotment for Agriculture &
repairs is a very trifle, compared with
the requirements- but that notwith-
standing the insufficiency of the works
which it thus caused the full revenue
is collected. While the Government
must fail on their part to fulfil their
obligations he does not think that
the demands on the villagers should

be

be increased and suggests that it is desirable under present circumstances to let well alone as regards customary labor.

Mr Leggatt. Reports that hardly any works have to his knowledge been carried out in his Range by enforced customary labor, though as a rule he refused to carry out works estimated to cost Rupees 25 and less for closing breaches in tanks during the Monsoon repairing revetments turfing slopes and stopping leaks temporarily in masonry works.

That the only works besides the usual ring bund in front of breaches which have been done by villagers in a few cases are the closing of a small breach or two in their village Tank and channel and they were indifferently done.

Advocates

Advocates the enforcement of Kudi Maramat by legislative enactment and recommends that a money limit of Rupees 30 be fixed for works which should be of the description above referred to, to be carried out.

North Arcot District.

Mr Stephens. Reports that the system of employing village Contractors in Repairing Irrigation Works is already in force in his Range and that he does all in his power to foster the system.

Is not aware of the nature of the works that need to be carried out as customary labor, but that at present villagers do very little more than

1. Clearing beds of rivers and Spring channels
2. Constructing turfed banks to Kalingulahs of Tanks.

Has

has made enquiries from several intelligent Monigaro as to how the ryots would like a legislature enactment enforcing Kudi Maramut and finds that they are much opposed to such a measure and would rather pay an additional cess to secure their personal liberty.

The reasons assigned are.

1. That they would be called away from their cultivation which would languish and result in loss to them.

2 That a skilled laborer (Mudda or Woodpan) would do more work and finish it off better than any ryot.

3. That the act will be a powerful engine in the hands of corrupt Monegars and Officials for extortion and annoyance.

4. That it would lead to constant disputes

disputes amongst the ryots themselves.

5. That the litigation which would follow would take them away from their work to the Kutcherry either as offenders or witnesses.

Believes that these objections in which he fully concurs convey the general opinion of all ryots.

Considers that it would be premature to introduce the proposed act now. The villagers would look upon it as an oppression and an infringement of their rights. Recommends the levy of a cess of about an anna on the Rupee for Irrigation Concerns.

Mr. Smithers. Writes that he has always been in favor of giving over small works of irrigation to the villagers most concerned in them, as a means of popularizing the Department and letting the Villagers know that the money raised

raised amongst them is expended for their benefit.

I'm not aware what the nature of the work supposed to be carried out by forced labor was, Mr Smither has apparently misunderstood the other points of enquiry - He says that he never experienced any difficulty in commanding hajl labour and that he has never seen any necessity for enforcing it, and does not recommend their being done.

States that the system of giving over ordinary irrigation repairs to the villagers for execution was adopted by him as far back as 1864 - when he was taltook Quercer in the Wallajah Range, but that except in a few instances the system did not work well. The villagers were dilatory and the works had to be taken away from them and given to Contractors for completion. Parthasarthy Iyengar

That the Ryots in North Arcot are poor and are not extensive land owners, and take no interest in the preservation of their irrigation resources, and that under these circumstances if works are given to them, the result will be delay bad work and annoyance to the Supervising Officers. Thinks that matter would be improved if the Revenue Officials - co-operated which they are far from doing at present with the P.W.D and impressed upon the villagers the advantages that will accrue by their taking an interest in their work.

That another bar to the system recommended by Government working properly is, that the ryots will not undertake work without advances and the P.W.Dpales do not allow advances.

That

That in the current Official year he offered the ordinary irrigation repair works first to the villagers, but that with few exceptions none came forward.

Reports that customary labour is seldom performed and thinks that it must be enforced by a legislature enactment.

Recommends that a money limit should be fixed for the classes of works, to be carried out by the villagers as customary labor.

Mr Bevan Reports that for some years past he has been in the habit of offering all irrigation repair works to the villagers, but that as he was unable to make any advances of money, they as a rule declined to undertake them and those who did accept them usually took two seasons to complete the

the works, giving much trouble by requiring frequent measurements and payments.

Instances the Anacaroor Tank, the repairs of which were given to the villagers for execution by Captain Hasted R. E. in August 1869 and which are still incomplete.

Is of opinion however that every effort should be made to induce the Ryots to undertake Agricultural repair works, and that Range Officers should be permitted to make advances of money on certain conditions on the security of the Moneagar or two of the respectable inhabitants of the village who should also be required to guarantee under penalty.

States that as regards customary labor, the ryots do not dispute their liability but shirk it whenever practicable and

and thinks it necessary that measures should be taken for enforcing it.

Considers that the following works should be done by ryots as customary labor.

I. Watching embankments during heavy floods- Opening Escapes and taking other measures to prevent breaches

II. Constructing ring bund to breaches when they do occur.

III. Protecting the embankment from the water wash when the tanks &c. are full.

IV. Repairing the embankment at Cattle crossing.

V. Filling in gutters made by the rain fall in the embankment.

VI. Removing bushes &c. from embankment &c.

VII. Clearing out Spring Channels Protecting Slips in the embankment during heavy freshes by stakes and grass.-

VIII. The ryots should be held responsible for any preventible injury caused by Government works within their limits.-

Supt. Engineer's Office
4th Division
Madras
25th March 1872.

} J. L. Steele Capt. R.E
Ex: Engr in charge Supt. Engr's Office
4th Div.

a report as to the nature &c. of the works hitherto carried out by enforced customary labor in this Division, I have the honor to report as follows:-

2 I may premise by saying that on taking charge of this Division, in March 1871, I at once abolished the system that had prevailed here of recent years of giving out works of ordinary agricultural repairs to contractors - and the

No 374 Superintg Engineer's Office &c
Madura 29 April 1872

From
Lieut. Colonel K A Roberts RE
Superintg Engineer 8th Divn

To
Colonel G. W. Walker RE
Offg Secretary to Government &c

Sir,

As directed in G O, 12th October 1871, No 2603, on the subject of Agricultural repairs, and calling for a report as to the nature &c of the works hitherto carried out by enforced customary labor in this Division, I have the honor to report as follows:-

2 I may premise by saying that on taking charge of this Division, in March 1871, I at once abolished the system that had prevailed here of recent years of giving out works of ordinary agricultural repairs to Contractors - and the

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VI. Removing bushes &c from em:
bankment.
VII. Clearing out Spring Channels
Protecting Slips in the embankment
during heavy freshes by Stakes and
grass.

VIII

result of entrusting the execution of these repairs to the Villagers personally concerned therein, has been most satisfactory, and has enabled me to effect a reduction of 25 per cent in the rates of the District. By the arrangements now in force the Nattamgars of the village are the actual contractors for the works to be executed in connection with agricultural repairs in that village.

3. There can be no doubt but that the introduction of the contract system has been a fruitful source of scamped work, excessive rates, and lavish expenditure. For it is manifest that those who are personally interested in the proper execution and efficient working of any particular irrigation work are much less likely to scamp that work than contractors, whose sole object is to make as much clear profit as they can out of the estimate for that work. And not only this, but as the villagers have a pecuniary interest in the improvements of their tanks, they can afford to work at cheaper rates than a contractor is prepared to do.

4. Of course there may be cases when the work to be executed is beyond the competence of the villagers. But that such instances must be rare, is proved by the fact that in former days it was the bounden duty of the villagers to keep their irrigation works in repair.

5 I would suggest, therefore, as a step beyond the order of Government, in the 4th above quoted, that, instead of the villagers being allowed the choice of undertaking, or not, irrigation repairs included

in the estimates prepared by this Department for the same, it be ruled that no remission of Revenue will be allowed in those instances where, from disinclination on the part of villagers to undertake such repairs, the Revenue has been more or less jeopardized. In this Division this rule is the more urgently necesary, as we have no Mudidens or tank diggers. But even if we had, I opine that it is a direct premium on the inefficient maintenance of irrigation works, to allow the repairs of these to be dependent upon the laissez-faire of ryots, who will frequently prefer to risk their crop, because they know they are safe of a remission of rent in case of crop-failure, rather than be at the trouble to carry out the needful repairs. I trust

therefore that the Government will be pleased to make the rule absolute and not optional, as suggested in the G.O. under notice.

6. With regard to customary labor, there is also no doubt but that up to the time of the transfer of Executive powers to District Engineers the practice of Kudimara[illegible] must was in full force. But with the soreness entailed by the lopping of so important branch of the Collector's duties as the Maramut Department, and the consequent antagonism between this Department and the local Revenue Authorities, the District Engineers, who had not been invested with powers to enable them to insist on the continuance of customary labor, were powerless in the matter. And the result has been that although

every single bank and irrigation work in the Division has its maximum granted for the express duties inter alia of Kudimaramut, the maximum continues, although the work for which it was in part or wholly granted, ceases to be carried out.

7. It is sad to think of the effects of this unfortunate antagonism between the two Departments, and it would be an interesting task to ascertain precisely the loss of Revenue it has entailed, the increase it has caused in the rates of labor and provisions, and the additional taxes that have been necessitated to provide for the Revenue that has thus escaped by remissions caused by the abandonment of customary enforced labor.

8. In the Public Works Code chapter XI, the duty of village authorities to enforce performance of minor works of conservancy according to local custom is distinctly enunciated, and the details of such work is succinctly explained. Yet, as I have before remarked, as the District Engineers had no power to enforce these rules and could obtain no assistance from the Revenue Department in this respect, the rules have gradually become almost a dead letter.

9. For instance, the closing of Tank breaches which, up to the time of the transfer of Executive power to District Engineers, had ever been considered apart and parcel of customary labor, was discovered "to be a practice which the ryots of the District are not

"required to perform by local usage."

10 That the revival of Kudimaramut is most urgently necessary, and that it should be enforced, if necessary, by special enactment appears to me beyond all cavil. The cost of maintaining works of irrigation is a question of daily increasing importance, and which demands the immediate attention of Government. For although the profits from these works are continually increasing owing to the rise in prices, the benefit of the same unfortunately all goes, in consequence of the mode of assessment, into the hands of the ryots; while the cost of repairs, owing to the rise in the value of labor, also goes on increasing and has to be borne by the Government, thus making

the repairs costly, far beyond the original proportion between revenue and cost of maintenance. Moreover as the land-tax has been considerably reduced of recent years, the consequence is that there is an ever increasing number of irrigation works which it is not worthwhile to repair. It is high time that a stop should be put to so unsatisfactory a state of affairs, and by the re-introduction of customary enforced labor, it can at least be mitigated considerably.

11 It appears to me, however, that the time has now come for going further into this direction. I would strongly recommend that all rain-fed tanks, with an ayacut of 10 cawnies and under lie at once handed over to the charge of the villagers, through their Nattamgars

on the condition that they pay the Poonjah tax on the same for ale times, i.e. independently of the season being good or bad, precisely in a similar manner as the house holder pays for his house, horse, cart or dog, and that any improvements that they may effect in the said tanks, by the planting of Carovaila trees on the external slope of the bund, and any gains that they can make in fishing the tank, shall at all times be the property of the said villagers -

12. By this system not only would both this Department and the Revenue Department be freed from a considerable amount of vexatious detail in connection with these petty irrigation works, but the Government would, I believe,

be the gainers in the way of Revenue. Let us take the case of a rain-fed tank of 10 cawnies of which the Revenue at 3 Rupas per cawny - Rs. 30.
Fishing of — Do — /say/ —— " 6
Total Rupees. — 36.

This is the nominal revenue; but it is found by actual experience that in consequence of remissions allowed for want of rain, breaches &c, it is only once in three years that the Revenue is obtained from such tanks. We thus have the annual revenue reduced to Rupees 12. From this, however, has to be deducted the cost of maintenance repairs. Allowing for the tank to be repaired once in 10 years, at a cost that, considering the state of disrepair into which these tanks have fallen, may fairly be estimated at Rupees 100, i.e. at an average

cost of Rupees 10 per annum; we thus have the Revenue of the tank in question reduced at once to Rupees 2, and this is I believe about the real state of the case - a result arrived at by the deliberate abandonment of customary enforced labor.

13. On the other side of the picture we obtain from the Punjah tax on the tank in question a constant average Revenue of Rupees 10, from which no deductions have to be made, and which entails no trouble in its collection.

14 With regard to the rain-fed tanks irrigating a greater extent than 10 cawnies, I would hand the whole of these also over to the villagers through their Nattamgars, with the proviso that all gains by the planting of tank

banks with Karoovaila trees, and by the fishing of the tanks, should be the property of the Villagers, who in return would be called upon to execute repairs of every kind so ever, and who would have to pay, in all seasons, the full ayacut Punjah Kist for the tanks in question. I would refer you in this connection to my letter No 1155, dated 8th July 1871, paras 5 & 6. and its enclosure.

X C No 3266. Transfer to Records.

15 For all channel fed tanks, and irrigation works generally other than rain-fed tanks, I am of opinion that the ryots should be called upon to execute, by enforced customary labor, emergent repairs of every kind, the cost of which amounts to Rupees 25 and under. All river channels unprovided with Head sluices should be cleared

by this labor at the time of freshes coming down the river, so that the supply due thereto may be obtained without fail.

16. In the Vellore tank in the Tenkarai Taluk of the Tinnevelly District, there is a Tamil inscription, on a granite pillar that was erected during the time that the Mahommedans held the country, to the effect that in consideration of the manium granted for the purpose, all emergent repairs, the turning of water into the tank, clearing the channel, watching tank bund, regulating calingulahs and sluices, and turfing the front slope of bund, are to be carried out by the villagers. This practice, I am informed, was in full force up to 1857-58, but for the reasons

already stated, on the transfer of Executive powers to District Engineers, customary enforced labor fell into abeyance, and although the manium is still continued, the work for which it provides is not carried out.

17. With this information before them, it is hoped that the Government will be in a position to decide what steps should be taken for the re-establishment of customary enforced labor, the immemorial custom of the country, and the re-introduction of which, as it appears to me, is of a daily increasing importance, and is urgently demanded in order to relieve the country from the number of direct taxes with which it is at present burthened, and which are a constant source

of vexation to the Community.

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

Rich.d Roberts Lieut. Col: RE.
Superintg Engineer 8th Dn.

No. 1873 dated 29th April 1872
From Superintg Engineer 8th Dn.
To Secretary to Government PWD
Dated 29 April 1872
Received 3rd May
Reports as to the mode of carrying out Agricultural repairs by enforced customary labor in this Division.
No 374
No 2214
No 203

Superintending Engineer's Office 1st Dn
Dow Cairn Encampt 28th May 1872

No 65

From

Lieutt Colonel J. F. Fischer RE
Ag. Superintending Engineer
1st Division

To

Colonel G. W. Walker RE
Ag. Secretary to Government
Pub. Works Department
Madras

Sir,

With reference to your Memo No 57, dated 21st May 1872, calling for an early reply to the Order of Government on the suggestion of the Public Works Commission to entrust the execution of minor irrigation repairs to Villagers who may be willing to undertake them, and to report the nature &c of the works hitherto carried out by enforced Customary labour, I have the honor to annex for the information of Government an abstract of replies received from consulting of the Range Officers on the subject

2 I must apologise for the delay there has been in despatching of this matter owing

* No 2603, dated 12 October 1871.

Abstract of Opinions of Judges assembled in Council

Opinions

1) Bengal

No 1 Bengal Judges { Hath that as the law now stands there is no power to enforce
a satisfactory report as to unpaid customary labour
is little or no unpaid customary labour in the District
opinion that the enforcement of customary labour by the powers now known
Regular and other roads does not obtain in the Bengal Provinces under
the following minute given by Mr Randall on the subject.
Memorandum by the Hon'ble Mr Randall on the subject
the subject of Act X of 1859 passed in Council
such a case does not exist applicable to the present state of things
where irrigation works have already been constructed and it seems
Can be nothing the benefit of irrigation projects must be very much
however that some provision is necessary to compel villagers to
in irrigation works, as we all know from bitter experience
Public Works Department should possess powers of enforcing
supplying for the repairs of their banks, channels and other
Collector's powers, to carry out the work when the Zamindar
the Act and likewise take some effectual steps to have
several things proper to attach to the powers on which
proper defence. Mr Randall refers to some other

No 3 Bengal

No 3 Range Godavery, Contd

No 4 Range Godavery Dt

finished off in a very short time drag slowly on for a very unnecessary length of time - Legislation is doubtless required, regarding the boundary and breadth of channels, and drainages throwing the onus of proving who erected on the party or parties to whose fields water was flowing when the bund was cut. At present bunds are often erected, especially in the early part of the season when channels are running full, but convictions are rarely obtained, except against some cooly who was merely the agent or servant of some wealthier ryots. If these two things: first enforcement of repairs by ryots when called upon by this department: and second, clearer laws regarding damages, by throwing, not the onus of proof on this Department, but the onus of disproof on the ryots concerned, were enacted, the works should be kept in better order, and irrigation under our channels would be more regular and equitable.

States that on further consideration the matter appears to him that closure of field sluices in channel bunds is a form of Customary imposition - borne in this Delta which should be enforced.

Informs minor Irrigation repairs have not been carried out by Contractors and that no work have been carried out by Customary Labour, but if the system is introduced the result will be beneficial both to the Government and to the ryots - States that under the present system of repairing Minor Irrigation work, it can hardly be expected that ryots will take any interest in conserving them, the consequence is works are allowed to fall into disrepair, either thro' the Villagers wholly neglect, which is very often the case or from other causes the works are either repaired at the expense of Government, or the ryots

No 2 Range Ganjam Dt

Informing that some of the Irrigation repairs have been executed by Villagers to which the works belong, some have been solely by Contractors and some by Contractors and villagers.

States that the system of enforced Customary labour on Minor Irrigation works has not been carried out in the District: apprehends it will be a hard matter to enforce this Customary labour from ryots unless irrigation works are first put into a thorough efficient order so as to start Keeping in a condition, as to demand heavy repairs only once in 7 or 10 years, when the ordinary wear and tear would perhaps amount to nothing more than a very trifling sum, say less than 5 Pr Cent of the revenue under the works to which extent the least man of the village should be enforced by legislative enactment to see to its being allowed to by the Ryots

No 1 Range Vizagapatnam Dt

ryots concerned will most probably get a remission -

I have the honor to be
Sir
Your most obedient Servant
[illegible] Lieut. Col. R.
Asg. Supt. Engineer 1st Dn

P.W. 187 & Kilkis
Rsono No 2728.
Lieut Col J. P. Fuller RE
Actg Supt. Engineer 1st Div
To Col G.D. Walker RE
Secretary to Govt
P.W.D.

Dated 28th May 1872
Rec'd June 7 1872

Annexes for the information
of Government an abstract of
replies received from some
of the Range Officers
on the subject of
customary labour

To be Kept with G.O.
No 2931 of 14 October 72

I am submitting for
the views of the
various Officers examined
before the public works
Commission with a
memorandum on the
subject of customary
labor and some of the
remarks it elicited. I
would suggest that
the orders of Government
be solicited on the

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following points.-

1. As to the drafting of an Act, within the scope of which the Collector and District Engineer combined may from time to time declare certain works to be brought.

2. As to a joint report by Collector and District Engineer or by Special Commissioners appointed for the purpose, on every important system of irrigation works defining the duties and works to be executed by the cultivators without fragment.

and the terms upon which such work can be equitably enacted, such report being embodied in a register which should be referred to in the draft act.

The general principles to guide District Officers in determining the nature and extent of the work can be laid down by Government and ~~this~~ assent be obtained in each case before a work is brought within the scope of the Act.

3. As to the abandonment of all small tanks to the ryots, on the

District Engineer certifying that their breaching would not endanger others lower down: that their retention was in no way professionally desirable, and on the Collector's approval being given, the conditions of the transfer being in each case settled by the Revenue Authorities and communicated to Government for approval.

Now that the bank registers are complete District Engineers will probably gladly avail themselves of any such permission as this, and during the process of framing the now being insisted on, an opportunity will occur for stating my opinion of the works.

If the introduction of legislation be thus gradually carried out existing custom where found to work well need not be disturbed, while where further powers are felt to be needed they will be supplied.

An Act could also in this manner be applied tentatively and open to modification

as the working of it indicated to be necessary I see no difficulty in the way though I do not feel competent to draft the act myself. or concisely get sufficiently to indicate the limits within which free labor should be applied. At present I feel in doubt as to the shape the Act would take and therefore as to that the Register should assume.

O.L.S.

The Government in their order No. 2603 under date 13th October 1871 resolved to request Superintending Engineers to report after careful enquiry (1) the exact nature of the works that had hitherto, or in former years been carried out by enforced customary labor in each district, (2) whether any objections exist to the continuance of the practice or its

A/S.

reinstitution, (3) as to the expediency of enforcing the same by legislative enactment.

On the first point The Supt Engineer 1st Division gives no reply. the replies of the Range officers are to the effect that the supply of "customary labor" has been neglected.

The Supt Engineer of 2nd Division refers to the Public Works Code, but this describes rather work that might fairly be held to come under the term "customary labor" than what has actually been carried out in the district.

The Supt Engineer of the 3rd Division details the nature of the work which he considers should be carried out by the villagers not what has been customarily carried out.

The Supt Engineer of the 4th Division says none of the officers are certain as to the nature of the works that used to be carried out - Mr. Ottman details the following as work which is carried out by customary labor at the present time-

Sand Cs - Preventing Erosion. Ring bunds to breaches, closing petty breaches, regulating and banking up Calingulahs clearing

and maintaing bunds
clear of prickly pear &c.

Supply and Spring Channels.

Yearly petty clearings only.

River Channels. Yearly petty clearings and entire opening out of the heads in the river beds.

Mr. Leggatt says Ring bunds in front of breaches, and the closing of small breaches comprise all that the Villagers do.

Mr. Stephens says the beds of river and spring Channels are cleared and Calingulahs are banked but no other work is done.

The Supt Engineer of the 5th Division refers to the Board of Revenue Circular, but does not report what he has ascertained on enquiring whether been actually done, but says it appears to have comprised the work there laid down.

The Supt Engineer of the 6th Div. refers to a Memorandum by Captain Oakes on the subject, that officer defines the work usually done as follows:-

1. The closing of a breach in river or tank bank if costing less than 25 Rupees.

2. Channels are cleared if irrigating less than

25 varies if the estimate falls within 5% of the Revenue derived from a small channel, or if within 1/2% of that derived from a large channel.

All repairs to channels and tanks valued at less than 25 Rupees (masonry works excepted) Commissions when needed at the heads of channels in river beds.

The Supt Engineer of the 7th Division reports that some channels are cleared by customary labor while others are not clearing basics and partly repairs to channels or tank bunds constructing ring bunds &c are also carried out by customary labor.

The Supt Engineer 8th Division states that the "closing of tank breaches" was formerly part and parcel of the work done by customary labor but does not describe as the result of his enquiries what else has been customarily done.

With reference to the 2nd point on which Government desired information viz whether objections exist to do

continuance or revival.

The following officers object to the system altogether.

The Supt Engineer of the 1st Dn

" " " " 7th "

" " " " 11th "

all others would revive it in some form or other.

The following officers recommend legislation to enforce the obligation.

The Supt Engr of the 3d Dn

" " " " 4th "

" " " " 6th "

" " " " 8th "

while the following officer limits to the power already conferred on the Collector of granting remissions or otherwise if exercised

would be sufficient.

The Supt Engineer of the 2nd Dn

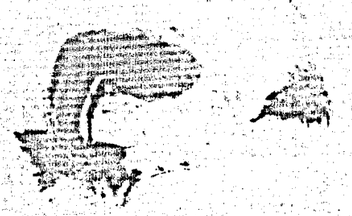
The undermentioned officers would commute "customary labor" for a money cess.

The Supt Engineer of the 4th Dn

" " " " 5th "

Gnw

The above have to be considered together with the Reports of Collectors forwarded by the Revenue Board —



[illegible]

To be Referred to
14/10/75 at 2 p.m.

Executive Engineer in charge
[illegible] Division Poona

Says unpaid labour
barely procured - thinks it
might be secured by a few
simple rules if backed by
Revenue Authorities - Recom-
-mends no Remission where
failure to supply labour is
proved. Suggests an irrigation
cess, to form part of
District Irrigation Repair
Fund, at a fixed per cent
-age on the Assessment.

c/ Mr. J. Gamelin Collector
& Magistrate Dharwar

Customary labour Restric-
tion mean the amount of
Statutory repair to public
Works

works which it has been
possible to enforce, it is
almost unknown in Ganjam.
Recommends abandonment
by Government of all tanks
of which average revenue
does not exceed 100 Rupees.

Mr. H. Sewell Ag. Principal
Assistant Collector Rajahmundry

pays unpaid labor has been
revived up to the limit of
Rupees 20- No "act" needed
no cess recommended Sluices
to be managed by Revenue
Authorities.

Mr. J. Fraser Collector of
Godavery District

Small distributory channels,
and most under tanks
cleared

see page 8-

cleared, bunds across
irrigation channels if
permitted are put up
and removed, by unpaid
labor:- There would be great
difficulty in reviving more
than the above - No act
needed, No cess recommended.
would fix certain duties
have them carried out under
Collector, if not, the cost
to be recovered as a revenue arrear.

Mr. J. G. Horsfall Offg.
Sub Collector of Godavery

unpaid labor is frequently
given, but not exacted &
objects to a cess and an
"Act"

Assistant Collector of Godavery

unpaid labor to the extent of 20 Rs is expected - thinks no act needed, if no more work is required than is now cheerfully given - very strongly objects to commutation of unpaid labor for a cess - (see page 2) says tanks & bunds are quite neglected - would give over small tanks to Ryots & cease to expect labor up to 20 Rupees

Sgd C S Sage Esquire
Deputy Collector &c

Recommends a cess of 8 annas per acre to form a fund

7

fund to be allotted to Collectors or Dy Coll and that villagers be compelled to give the required labor.

Sgd C S Thornhill
Collector of Kistna Dated

Customary labor as he understands it - mukuroo thinks an act advisable (see his evidence) does not advocate a cess - all irrigation repairs should be under Revenue Rules - would calculate the proportion of labor to be expected by the "area" not the "assessment"

Mr Powell Collector
Krishna District

objects to a cess, recommends
a system which he fully
describes and incorporates
in a short act. recommends
a sum should be settled by
Government from the re-
venue for annual repairs
on which District officers
could draw without restric
tions by budget or otherwise:
all repairs to be under
P.W.D.

Lt Col Colonel J. F. Prideaux R.E
Superintending Engr 2nd Division

It is not customary to
exact "unpaid labor":
when benefit is obvious, it-

it is willingly executed.
thinks an "Act" advisable,
would define the descrip
-tion of work to be done
"without payment" & "with
payment" and give to
Village authorities the
powers they have lost
for enforcing labor from
individuals for the public
good. objects to a cess.

Captain J. C. Haslett, Asst. Engineer
Krishna

Referring to (Tanjore)
unpaid labor for clearing
channels, customary. thinks
a cess advisable; would
hand over small channels
and tanks to Collectors
to repair out of cess - thinks
cess should be uniform and
levied

levied on assessment — sums
for 100 Rs as the limit for
works to be handed over to
the Collector Village
Mr. J. W. B. Bayles
Collector of Salem

unpaid labor irregular but
frequent, quotes instances, he has
sanctioned it, by refusing water
but would legalize it — would
not commute it for a cess,
because its real value is in
the description of labor it re-
presents — not Marketable but
close labor, would regulate
the amount of the "Labor" by
the assessment

Mr. J. C. Brighton Collector Salem

unpaid labor customary, no
further powers necessary to secure
the smallest amount now
given, but if further demands
are made, further powers would
be needed & would suggest
the punchayet

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Mr. J. C. Brighton Collector Salem
(continued)

Recommends an
Act, and gives a sketch
of it objects strongly
to a money Cess —

Mr. A. Stokes Collector Nilgiris

Customary labor
universal. Villagers do
what they cannot
induce Govt to do —
Does not recommend
a Cess, labor for
money is wanted —
recommends an Act —

Mr. L. Rundall
Offg. Deputy Director of Revenue Settlements

Recommends re:
proposal of remission and
if necessary have an
Act enpowering repairs
to be carried out
at defaulters' cost -
objects to a cess as
relieving the Ryots from
the call for labor which
fairly devolves upon them

Mr. W. R. Smith - Board Secretary
Director of Revenue Settlements

Would commute
customary labor for
a cess -

Mr. George Yard Digman
Collector of Guddapah.

In every District
(Tanjore, Trichinopoly
Madura Vizagapatam
Godavery, North Arcot
Cuddapah) obligation
to contribute unpaid
labor recognized but of
late years not enforced,
In Trichinopoly there
has been a voluntary
Cess, but it only meets
the cost of up keep
and establishment -
occasionally emergent
repairs are paid from
it

it- The money value of the Channel work done by unpaid labor is very heavy- In Cuddapah labor is furnished at the will of the head Reddy who fines defaulters.

Government could not undertake such work would limit it such work as Tanks to clearing and filling up gullies- No difficulty in reviving Customary labor

labor- Such legislative Enactment unnecessary Section 6 Act I of 1858 sufficient- Customary labor not to be defined varies, is to be determined by local Evidence- Opposed to Commutation would give up some small Tanks altogether, Others to the people who should be compelled by an Act to furnish labor to Govt for payment- Strongly opposed to an irrigation Cess as a breach of faith- Owned part with the

Capital fine Tank &c
for that are given to per?
the
"The Irrigation poly Tahsildar
Opposed to a money Cess,
for the work done by Cus-
tomary labor is such
that it must be done
promptly, and it could
only be done well by
those personally interested.
In S. Circle and Irrigation poly
Consists of -
1 Clearing Channels
2 Raising banks & field borders.
3 Protecting with bushwood Tank Bund &
Channel slopes.
4 Corumboos ___

Mr. E. Storr Ag. Sub Collector
Cuddalore.

Unpaid labor
Customary - apportioned
according to holdings,
enforced by fine by
the head Reddy, a
limit of 20 Rs. appears
to be acknowledged.
Legislation unnecessary,
thinks a money Cess,
unless very high,
would not be an equivalent
for the labor now performed
On small tanks it
would be practically
impossible to supervise
the expenditure of the
money and no commu-
tation therefore ought in

this case to be tried.

Mr. J. Von & Hardinge
Acting Mr. Asstt Collector - Cuddapah.

Unpaid labor customary,
enforced by head Reddy
by fines, would enforce
it by an Act, limit
to 20 Rs. value; Reals
to a cess.

V. Sadagopa Row
for Collector Cuddapah.

Unpaid labor cus:
1 / tomary, objects to com:
2 / mute in, as relieving
3 / Rights of their obligation
in times of emergency,
4 / it is enforced by fine
by a Reddy, one body per
2 Acres of holding in the
chank usually employed -
would not legislate

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Customary labor
usual in the case of
river channels, rare
in the case of tanks.
it is enforced by the Chief
men of the village -
& it ought to be
enforced by legislative
enactment: is opposed
to commutation.

Unpaid labor

customary it comprises.

1- Closing Calingulahs
2- Clearing channels
3- Repairing and filling creeks and clearing from bunds.
4- Clearing silt for channels of all sorts
5- Unexpected accidents

considers an act essen-
-tial, objects to commu-
-tation for a year.

P. Sounder Ron. Labourer
Vellipad Pattoh.

Unpaid labor cus-
-tomary. Legislative en-
-actment unnecessary,
objects to commutation.

I. Mccarthey - (Sounder) Bellary.

Unpaid labor should
fall into desuetude if

Government cannot af-
-ford to keep Irrigation
works in a thoroughly
efficient state of repair,
Land settlement should
be revised.

Mr. H. E. Sullivan Collector
Bellary.

Customary labor,
exacted more or less
all over the District,
more usual with Chan-
-nels than tanks because
-cause the loss due to
neglect in the latter
case is a remote con-
-tingency. Thinks there
would be great difficulty

in reviving customary labor where the legality would be questioned as it probably would be: considers it obsolete and an unnecessary custom.

Mr. I. Kelsall Acting Head Assistant Collector Bellary.

To some extent unpaid labor is given not exacted: could not be revived without an Act. Under Shooty tank, each acre of holding, gives a days labor. Do not in favor of legalizing customary labor which it would be difficult to define would commute it for a cess.

Unpaid labor is voluntarily given by cultivators on the banks of the Huggry and Tungabudra for branch channels. Sanctions are neglected. It is exacted by a self constituted body of cultivators and is sufficient for the purpose, defaulters are fined and their supply of water cut off.

It might be revised without difficulty, would recommend an Act to enforce it, but it must define the description and amount of labor accurately for each work. would not commute it for a money ceco-

Mr H. S. Clayton Special Collector

Unpaid labour exacted for tanks and channels but not for clearing the large Coorgabudra channels would legis- late for its enforcement, defining customary labor, providing for the commutation of

it for a money ceco at the option of the Revenue authorities; averse to a general commutation it would be very dis- tasteful to landholders.

Mr L. A. Collector

Unpaid labor voluntarily given throughout the district for trifling tank repairs and small channel clearances. there is no organization to secure the due execu- tion of customary la- bour. An act advis- able, defining the

term and fixing penalties.
Commutation into a
money ceso unadvisa-
-ble and distasteful
to land holders.

Captain J. R. Hunter R.E. Executive Engineer
Howrah.

Unpaid labor has
fallen into desuetude.
would commute it
for a money ceso.

Unpaid labor not
customary, an act
would be necessary
to revive it, is opposed
to a commutation for
a money ceso.
A ceso called "Local Annual"

annual

annual on the district
intended to defray the
expenses attending the
repair of tanks.

Unpaid labor
not exacted, channels
attended to better than
tanks because the latter
entail a remote loss, the
former an immediate
one, there would be great
difficulty in reviving it.
An act would be ne-
-cessary but the revival
of unpaid labor is unp-
-practicable and inex-
-politic. Commutation

for a money cess would
be distasteful.

Mr. P. B. Liggitt Madras.

Would commute
unpaid labor for a money
cess. it is now exacted
only in exceptional cases
and then unsatisfactorily.
there would be great
difficulty in reviving it.

Mr. W. H. Bradley Asst. Collr. Engr.

Unpaid labor is
exacted to a limited
extent but the practice
is dying out: would
commute it for a money
cess.

Unpaid labor is
customary throughout
the Range, but to a very
limited extent - it is re-
-gulated by the headman
of the village. Sub Ma-
-gistrate fines defaulters.
would rather commute
for money cess than
legislate for enforcement.

Mr. J. D. Rhind Collr.

Considers unpaid
labor customary in
Bellary, Coimbatore
Madura, Canara, Malabar
North Arcot. all tanki

work handed over to
Department Public Works
Channel clearances and
temporary dams attended to.

Would commute the
labor for a money cess
to be administered as
a municipal fund.

In North Circ. Cus-
-tomary labor much
neglected, except for
river channels - necessity
alone maintains the
partial fulfilment
of the obligation as to chan-
-nels - this is managed
by Head Kyots among
themselves water being
cut off from defaulters.
Would not revive the system.

Mr. J. O'Shaughnessy Asst.
Engineer - South Central

Unpaid labor
has fallen into desuetude
except in the matter
of clearing channels,
would revive the
system, no special
act required, Com-
-mutation for a
money cess imprac-
-ticable.

Mr. A. Wedderburn Collector of
Coimbatore

Customary labor
is a regular practice
in these talooks - Do
not other than Sec. 1 of

1858 is necessary. ccco
not needed when work
is done voluntarily.
Act 1 of 1858 provide
what is necessary where
it is not.

Mr. A. Ramalingam Pillai & Engineer
Coimbatore

Customary labor
was customary but
has been commuted.
for a money payment,
think legislation pre-
-ferable to commu-
-tation, would,
1. Define Kudi Maramat
2. Extend Act 1 of 1858
3. Legalize a voluntary
commutation.

Mr. C. F. Galton Actg Head Assistant
Collector Coimbatore

Customary labor
has lapsed, but
could be resumed
does not advocate
further legislation,
but would increase
the penality now
laid down. would
define customary
labor in each district.

Mr. C. F. Ballard Collector

Customary labor
in connection with
Irrigation works un-
-known with roads

it has lapsed, could not be revived. There being no Irrigation work &c. Also act needed, for Roads w. the Road cess act it answers. would commute the obligation in case of Irrigation work by a money cess.

2. Hon. R. Ross Thinks the Customary labor for the unusual not exacted. -fer would be difficult to -ta revive, would have) an act, would commute 1. D. for money cess and) 2- C considers it a most (desirable) change. 3- Le

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Customary labor not usual, would be difficult to revive- would legislate and enforce it for "isolated work", but would commute it for money cess on all "systems of work": the cess would be distasteful to the people.

Customary labor is exacted still: would amend Act 1 of 1858 so as to define it.

objects to commutation
it might be agreeable
to the wealthy but would
be a hardship to the
poorer classes.

Mr. J. B. Donnegan Sub Collector Kimberley

Customary labor
have fallen into disuse
there might be some but
no insuperable difficulty
in reviving it. think so
an act may be dispensed
with if the Collector
be urged to enforce
the obligation with as
little oppression as
possible. A definition
of customary labor is
what is really wanted.

perhaps an amendment
of act 1 of 1858 might
suffice. A cess would
be easier to adjust
but would prefer
Customary labor, it
is said to have been
commuted in Sin-
-nevelly and the people
would object to its
reintroduction

Mr. L. S. Read Collector
Salt Pans

Unpaid labor
not exacted customarily
but often given volun-
-tarily. the Monegars
are supposed to enforce
it, but have not

sufficient authority, there would not be great difficulty in reviving it systematically; would legislate for the enforcement would not prefer a money ceas: the people would not understand it.

Mr. F. F. Holloway asks Colle-tor to Board.

Unpaid labor recently revived with success. all Minor Channels cleared by it, the Ryots ought not to be expected to repair or restore, but only to keep up. Labor is exacted by the Head of the village and the call is mostly obeyed. think there would be a difficulty in reviving customary labor systematically. People contribute labor now proportionately to acreage and carry out Department Public Works exteriorly. Would legislate for the enforcement of customary labor opposed to a general cess, would give the people the option of commuting.

Mr. C. A. Palmer

Would revive customary labor

strengthening the hands of the District officers by legislation; to oppose a race-meeting would to a race-meeting would regard it as an injustice.

Major Walker: Applicant to the District Engineer for approval and [illegible].

Mr. Rio: there would be no great difficulty in revising customary labor would legislate for its enforcement. Petty labor could not be commuted for a money cess but the latter might be levied in addition.

Mr. R. Lee: Section 1 Collects of Cargos.

Kudi Duramat moral within certain limits which Mr. Lee terms defines principally a money limit would legislate for regulating it. Under "commutation" would be most unacceptable. Would in the Act carefully define the "description" and "limitation" of work constituting customary labor for each District to which the Act was to apply. Money cess would be no relief to the ryot as his labor must be employed.

Customary labor exists to a very limited extent, could easily be revived, an act required, money cess would be most unacceptable.

H. Wells. Kadir Civil and Sessions Judge Shahjahanpur.

Customary labor has always been and is customary. Proportion of labor fixed by the Zamindars themselves legislation necessary to strengthen the hands of the Revenue Authorities, commutation for money cess, very undesirable, would be unacceptable to the people.

M. C. Bunbury Collector of Shahjahanpur.

Customary labor exists still to a considerable extent in irrigated districts, it could be easily systematized. a brief act for each province is necessary. objects to a cess in toto it would be viewed with distrust would not command labor and would not be adequate in amount unless out of proportion to land tax.

Colonel F. R. Tolputt R.E. Superintending

Would make repairs by village communities on Department Public Works Establishments Compulsory: urges the revival of customary enforced labor and would give over all rain fed tanks to the villagers, those irrigating under 10 Cannies in consideration of the dry schiot being paid regularly regardless of season: those irrigating more than 10 Cannies to be kept in repair by the villagers who would have all they would make by fishing or planting, but must execute all repairs of every kind and pay schiot at rate regardless of season.

Would force ryots to execute emergent repairs of every kind, not exceeding in value 25 Rupees to all irrigation works, other than rain-fed tanks on all river channels unprovided with head sluices should be cleared by customary enforced labor.

Asst. Col. R. I. E.

Disapproves "Contract system" for repair of Irrigation works reports

that some channels are kept clear of silt by village. others by Govt. considers the system of customary labor saves Govt. very little and entails great hardship on the laboring population.

Captain J. A. Faddel R. E.

Refers to Captain Dalzell's evidence before the Commissioners for the work usually included under customary labor. Recommends a continuance of the practice and that it be enforced by law. thinks there would be no difficulty in doing so.

Captain J. A. Faddel R. E.

The practice of giving out repairs to villages is very commonly followed. thinks enforcement of obligation by law would be more vexatious than useful. Recommends Govt. to decline to repair certain works and let it be known to give over all 3rd class tanks to villagers at dry rates to do as they please with them. would vest power in Revenue officer to compel labor when emergently asked for by Dept. Public Works.

That a % age of cost of repairs be annually

deducted from villagers to secure the execution of petty repair.

Captain J. E. Hunt R.E.

Considers legislative enactment necessary to secure the labor but thinks a money cess for irrigation conservancy the better plan.

Colonel P. L. Mahony R.E. Supt Engineer

Thinks customary labor should be enforced and by law defines what he considers ought to be done by villagers.

Colonel F. J. Mahony R.E. Supt Engineer

Recommends repairs on Department Public Works estimates being entrusted to villagers.

Suggests that Revenue officers should withhold remission only after enquiry of the Department Public Works officers as to whether the loss of crop is due to villagers remissness. Thinks further legislative enactment unnecessary.

Colonel J. F. Wilson R.E. Supt Engineer

Deprecates any "forced labor" system thinks that the Govt ought to execute all repairs themselves.

Captain H. C. Beadon

Gives no opinion being new to the District.

Mr. Field Bunds

Would compel villagers to carry out their repairs or payment when called upon by the Department Public Works.

Would legislate, so that in the event of interference by bunds or otherwise by the villagers, the onus of disproof should lie with the men benefitted. Limits the closing of field sluices in channel bunds should be classed under "unpaid customary labor".

"Customary labor" not usual.

L. Ranze Cadoux

" " "

Would compel villagers to execute repairs up to 5% of the revenue by law.

| | | |

No 2931 Public Works Dept.

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Proceedings of the Madras Government
Under date the 14th Octr 1895
Read the following

From
The Govt of India - (H. D. Lr No 31 dated 2 31st July 95)
" Ch. Engr for R- (" " " 1199 " 20th Sept 95)

These Proceedings will be communicated to the Revenue Dept. in order that the information regarding the present state of and the proposed action in connection with the Cauvery

Names.	Has action on Collr's suggestion been abandoned?	Can the Cauvery be abandoned?	Would it be desirable to abandon it?	Would it be desirable to construct a canal	
Beckley.	Engr.	Yes.	Yes	No.	No. - Block 10
Saye.	No	No	No	Yes	20 - " 10
Mobely	No	Yes	Yes	No	3 = 10
R. Smith	—	—	—	Yes	3 = 10
Hamilton	No	—	No	Yes	Nos — 2 = 10
Lyall	—	No	—	Yes	3 - 3 - 4 - 0 =
Dowsand	Yes	—	No	Yes	4 - 4 - 5 -
O. Shaughnessy	—	Yes	No	No	5 -
Chystie	Yes	No	Yes	No	
Oakes.	Yes	Yes	Yes	No.	

How can Govt obtain the opinion of Collr & Engineer?
Can the System be abandoned? Engineer's opinion
Would it be desirable to abandon it? Engineer's opinion
Would it be desirable to construct a canal? Engineer's opinion

subject of customary labour may be furnished as early as possible.

2. It is considered that if 12 Lakhs be set apart annually as the amount to be devoted to Major and Minor new works of irrigation and under Miscella-neous, it will be proper to allot about 8 Lakhs to the former class and the remainder to the latter. As regards repairs it has been pointed out by the Chief Engr. for Irrigation that no additional funds have been asked for on account of Miscellaneous works, and that

× i.e works not yielding a direct return.

that as hitherto only in a few Districts can the distinction between this class of Agricultural, and irrigation, works be attended to, information showing how the sum of 15 Lakhs required for Repairs Agricultural will be expended is not forthcoming, but the instructions given will it is hoped secure the preparation of the Budget estimates of 1876-77 so as to show exactly what is intended in this respect.

3. The subject of the incidence of cost

of

of drainage works remained necessary by other causes than the presence of artificial irrigation is under consideration in the Financial Dept., and these papers will be communicated to that Dept. in continuation of G.O. No. 2840 dated 2d October 1875.

4. The proposed provision for establishments other than Conservancy having been determined with reference to the per centage charge recently introduced in accordance with the wishes of the Govt. of India, it does not appear to be practicable at the present time to suggest any other arrangement, and the question whether any increase of supervision will be found necessary or desirable is one which cannot be settled in immediate connection with Agricultural works only, seeing that we thus presidency the general Establishment supervises now kept of all kinds and classes.

5. The Govt. concur with the Chief Engr. for Irrigation in considering that [illegible] report

Pr. No. 1927 d/17 Jan 1874.

reports as those con-
templated in para 7
of the foregoing letter
from the Govt. of India
cannot immediately
be prepared. However
though they might pos-
sibly enable the cir-
cumstances of irrigation
works in this Presidency
to be the better under-
stood, they can hardly
be necessary to decide
the really very simple
question whether funds
are to be provided to
maintain existing works
in a state of efficiency,
to carry out such im-
provements thereto as
have been very clearly
demonstrated
to be
essential to their safety,
and to prevent repeated
waste of money, and
also to enable such
extensions to be execu-
ted as circumstances
from time to time may
show to be necessary
to secure the objects
for which the works
were planned and
constructed. The nar-
rative of the floods
of 1874 and their effect
upon irrigation works
afford very cogent
support to the arguments
contained in Proceedings
Madras Govt. No. 495
of the 19th Feb. last

cont'd

and the Hon'ble the Governor in Council feels that stronger evidence can hardly be adduced in any case, but that if information in greater detail be required it will be found in the Proceedings of Govt. containing the reviews of the large numbers of estimates for the repair and improvement of irrigation work referred to in the statement submitted by the Chief Engr. for Irrigation. In those cases in which capital outlay has been deemed to be essential

expenditure

Chf Engr for Irrign
Rev. Dept
Fin. Dept.

Cattell

expenditure on repairs alone would have merely led to a great waste of money and to the repetition, on the recurrence of heavy rainfall, of the expensive accidents of past years.

6. Ordered that a copy of these Proceedings be transmitted to the Govt. of India in partial reply to their Secretary's letter above recorded.

Dy. 23/9

Genl.

Docket No 2932 dy 14 Oct/75

Copy of the above Inwarded to the Govt of India.

No. 219. Read the following letter from Major C. J. SMITH, R.E., Officiating Consulting Engineer for Railways, to Major-General G. W. WALKER, R.E., Secretary to Government, Public Works Department, dated Madras, 4th October 1875, No. 548:—

With reference to the Proceedings of Government, No. 2,495, dated 1st September 1875, I have the honor to submit, for the sanction of the Government of India, four estimates of the cost of reconstructing bridges between Perambore and Avady on the South-West Line of the Madras Railway, amounting in the aggregate to Rupees 20,846.

3 Miles 11	Telegraph Posts...	Capital ...	3,734	6,002,	Plan No. 263.			
		Revenue...	2,268					
8 „ 20	„ ...	Capital ...	2,913	3,944,	„	„	199.	
		Revenue...	1,031					
10 „ 8	„ ...	Capital ...	3,918	5,625,	„	„	200.	
		Revenue...	1,707					
11 „ 2	„ ...	Capital ...	3,642	5,275,	„	„	207.	
		Revenue...	1,626					

2. With reference to the necessity for these works, the Agent and Manager quotes as follows from the Chief Engineer's letters:—

Bridge at 3—11 miles. "Both the arches of the present bridge are cracked, its foundations are 4 feet 9 inches in sandy clay, and it has no flooring; I therefore consider it expedient to pull down the present bridge and, with a view to increasing the waterway, replace it with a 12 feet opening."

Bridge at 8—20 miles. "The abutments of the existing arch are so low that but very little waterway is allowed; experience having proved this to be insufficient, it is proposed to replace the arch by a girder and so increase the waterway."

Bridge at 10—8 mile. "The present bridge requires complete renewal, and, as the new foundations are to be carried down to a considerable depth, it is considered desirable to substitute one 12 feet span for two 6 feet arches and thus save the pier."

Bridge at 11—2 mile. "Both the arches of the present bridge are cracked, and the foundations are only 3 feet deep; I therefore propose to substitute a 12 feet opening for the double 6 feet arch."

3. The amount which has been charged to Revenue in each case represents the probable cost of the original structure; the difference between that amount and the total cost of the new work having been charged to Capital in accordance with paragraph 17 of Sir Charles Woods' despatch, No. 17, dated 9th March 1864. This is virtually charging to Capital the cost of *improvement* only in accordance with the principle subsequently laid down by the Government of India in letter, No. 212 G.R., dated 8th February 1872.

G. O., No. 519, dated 26th February 1872.

4. The necessity for these works was considered at several meetings of the Railway Committee held at Royapoorum, and the Consulting Engineer approved of estimates being submitted. It would appear that a good many of the minor bridges on this portion of the line were originally built with foundations of insufficient depths, with the result that the arches have cracked and the bridges become unsafe. It is now proposed to carry the foundations to a depth of 10 feet, to substitute girders for arches, and to provide floorings with deep curtain walls. A single 6 feet rail girder opening is being rebuilt at mileage 5—12, but, as the entire cost of this is borne by Revenue, it does not appear necessary to submit the estimate for the sanction of the Government of India. The estimate (Rupees 3,965) will be found in the monthly schedule for July.

necessity