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Government of Madras

Public Works DEPARTMENT

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*Proceedings of the Madras Government, Public Works Department,
26th July 1875*

No 676-A

Read the following papers —

No 797

MEMORANDUM

No 383, dated 1st May 1875

The following estimates have been submitted by the District Engineer, North Arcot —

Pudupady Tank, Estimate Rupees 2,820		Acres 510
Ayacut area		Rupees 2,498
" assessment		" 1,709
Average revenue		

No repairs have been executed in recent years

2 The area of the catchment basin is about 1 square mile, but the principal source of water-supply is the Palar, the overflow from which breached the tank. It has no regular means of disposing of surplus, and a pavement 87 feet long is to be provided. Flood waters from the Palar will be excluded by raising the road from Arcot to Chukramallur, in which apparently the head-sludge of the supply channel is situated. The longitudinal section shows the bund to be in extremely bad order and greatly in need of repair. But little increase of revenue is anticipated. The items of the estimate chargeable to Capital are—

Revetment		Rupees 870	Rs
Drainage		" 220	1,090
			1,730

and the remainder will be debatable to Revenue and amount to

2. Lucknapully Tank, Rupees 2,670		Acres 79
Ayacut area	{ Government }	" 22
	{ Inam }	Rupees 382
Ayacut assessment	{ Government }	" 114
	{ Inam }	" 304
Average revenue		

No repairs have recently been executed

The tank was under Dasabundum tenure and breached more than four years ago. The Dasabundumdars having failed to maintain the tank it has been resumed, and the District Engineer reports that if the work provided for be carried out, it is expected that the ayacut revenue which exceeds the average by Rupees 192 will be secured, and this would yield a return of more than 7 per cent on the outlay. The drainage basin is about 2½ square miles, and to dispose of the surplus in lieu of the two existing openings in the bund a surplus weir 100 feet long is to be provided, and in its crest wall five vents 4 × 2½ are to be allowed. This arrangement, with the repair and raising of the bund to 4½ feet above escape crest level, may be expected to render the tank safe. The distribution of the outlay will be as follows —

Capital—		Rs
New stone revetment with puddle		430
New escape weir		720
		1,150
		1,520
Revenue		

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It is mentioned that the estimate has been prepared at the special request of the Collector

3. Veppur Tank, Rupees 3,880

Ayacent area	Acres 272
" assessment	Rupees 1,563
Average revenue	1,553

No repairs have in recent years been carried out

The drainage basin is reported to have an area of 3½ square miles, but judging by the ayacent area and the apparent sufficiency of the supply it seems probable that this area is not far short of 6 square miles. However, though no other source of supply is directly mentioned, as a small surplus weir is to be built near the head of the Purnathoor supply channel, perhaps there is a source of supply outside of the catchment basin. If so, the regulation of this supply by a head-sludge would appear to be preferable

The tank has a calingulah of 60 feet total and 49 feet effective length, and thus being altogether insufficient, the villagers have had to cut the bank near the ends with, as a result, the breaches shown in the longitudinal section. The District Engineer calculates the surplus at 1,297 cubic feet per second as a maximum; but if, as supposed, the area draining into the tank has been underestimated, the surplus may amount to about 1,850 cubic feet a second, and the proposed additional escapes aggregating 75 feet with the calingulah converted into an escape of 60 feet effective length will discharge this with a head of between 30 and 31 inches, which a bund 51 inches above full tank level would allow, so that the arrangements proposed will do

The outlay will be distributable to Capital

New revetment	Rs 700
Two new surplus weirs	580
Total	1,280
Revenue	2,300

some dry stone will probably be required for the protection of the retaining wall of the 15 feet surplus weir.

4. Bomanankempolhem Tank, Rupees 1,150

Ayacent area	Acres 74
" assessment	Rupees 374
Average revenue	320

In 1872-73 Rupees 532 were expended on repairs

This tank is situated above the Railway. Its calingulah is of 48 feet total and 39 feet effective length, and is altogether insufficient for the discharge of the surplus from a basin of 2½ square miles, calculated at 1,021 cubic feet a second. It is intended, therefore, to add 60 feet to the length of escape. The outlay in 1872-73 was for closing a breach and repairing the damage sustained in 1872, but nothing was done to prevent accidents in the future, and the section shows that the tank was left in a very unsafe state

The estimate is divisible as follows —

Capital—	
New stone revetment	Rs 325
Extending escape weir	250
Total	575

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Revenue	Rs 575
5 Voolanthakul Tank, Rupees 2,250	
Ayacent area	Acres 63
" assessment	Rupees 357
Average revenue	466
Expenditure on repairs in 1871-72 Rupees 200	
1872-73	604

Some repairs were executed in 1871-72, the tank breached in 1872, and the breaches having been closed without the conditions of safety being attended to, it breached again in 1874, as was to be expected. The longitudinal section shows also that the earthworks were left in a very unsatisfactory state. The present estimate provides for the requirements of the tank according to its circumstances. The drainage basin is 6 square miles, so it is possible that the revenue will still further exceed the ayacent assessment, as more water will be retained and 25 acres per square mile would be a very moderate extent of cultivation under the tank. The present calingulah has a total length of 18 feet, of which 37 only are effective. One hundred and fifty feet of escape weir of a simple design are to be given in addition.

The items appertaining to Capital are—

New revetment	Rs 390
" escape weir	500
Total	890

and to Revenue the rest amounting to Rupees 1,360

Nearly seven years revenue will be expended on repairs and improvements, but a good deal of the money has been wasted from want of attention to the conditions of safety

6. Cattamanchy Tank Supply Channel, Rupees 1,910.

Ayacent area	Acres 156
" assessment	Rupees 1,102
Average revenue	1,050

The defective condition of the channel has necessitated an outlay of Rupees 1,053 in the four years up to 1873-74 on the repair of breaches, and the present estimate provides for removing the cause by the construction of two surplus weirs and for bringing the channel bank to a uniform level of 3½ feet above ordinary full supply level. The channel is supplied from the Chittoor river, and the town of Chittoor is said to be dependent upon it to a considerable extent for its water-supply. It has a head-sludge, and the surplus weirs are for the disposal of upland drainage.

The items chargeable to Capital are—

New stone revetment	Rs 210
Two surplus weirs	780
Total	990

and the rest to Revenue Rupees 920

7. Pattoor Tank, Rupees 3,320.

Ayacent area	Acres 67
" assessment	Rupees 405
Average revenue	403

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No repairs have recently been executed. This was a Pottabandam tank, and as is usually the case had been allowed to deteriorate so much as to necessitate the reconstruction, and now upwards of eight years' reconstruction is required. As the drainage area is 3½ square miles, probably no longer proper, and some increase of revenue will be obtained, otherwise it would be hardly worth while to spend the large sum required. The estimate provides for reconstructing the existing escape 50 feet in length, superadding a cut 10 feet wide by a surplus weir 100 feet long, bringing the bund to a proper level 1½ feet above full tank level, and rebuilding a sluice. The items chargeable to Capital are—

New stone revetment	Rs
New surplus weir 100 feet	200
And the rest to Revenue	1000
8 Chekadykupam Tank, Rupees 1,000	1000
Ayacut area	1000
" assessment	1000
Average revenue	1000
Active	1000
Revenue	1000

No repairs have been carried out for many years.

This tank has a catchment basin of 1 square mile and receives surplus by a 27 feet weir from the Chinglemathum tank. Having a sufficient surplus weir it has not breached, but its bund is out of repair and a sluice has to be rebuilt. The whole estimate is chargeable to Revenue.

9 Anavarthiganpett Tank, Rupees 1,200

Ayacut area	Active 71
" assessment	Rupees 240
Average revenue	240

No repairs have been carried out in recent years.

The tank is reported to have a drainage basin of about half a square mile, which is very small for the area of cultivation which would seem to be about 60 acres. It commands the Railway, and, as it has no regular means of disposing of surplus, it is intended to provide a dry stone escape 40 feet in length which will suffice for the area named, but should that have been underestimated the weir must be lengthened. An additional 20 feet will cost only some 25 Rupees. In the report the soil is said to be loose, yet the rate for earthwork is 1½ Annas a cubic yard. Again, at petty tanks of this kind, some cheaper form of protection than stone revetment should be adopted, namely or tank grass of some sort being substituted. The reconstruction of the old revetment may be allowed, and for this apparently the rate will be 6 Annas. Allowing 60 Rs. for tank grass, the total of the estimate will be Rupees 750 and will be chargeable to Revenue.

10. The earthwork rates in these estimates generally are higher than they should be.

Ootacamund,
17th July 1875

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

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AGRICULTURAL—ORDINARY—CAPITAL—MINOR NEW WORKS

ABSTRACT ESTIMATE, No 92 of 1874-75

District, North Arcot, Taluk, Arcot, Village, No 139, Pudupady

Work—Constructing revetment and simple escape of Pudupady Tank

Quantity	Description of Charges	Rate			Amount			Total
		RS	A	P	RS	A	P	
481	Revetment Cubic yards of new stone Sandries and petty superintendence	1	12	0	817	0	0	870
113	Simple Escape Cubic yards of new loose rough-stone work Sandries and petty superintendence ..	1	12	0	197	1	2	220
	Total							1,090

AGRICULTURAL—ORDINARY—REVENUE

ABSTRACT ESTIMATE, No 92 of 1874-75

District, North Arcot; Village, No. 139, Pudupady

Work—Closing breaches and repairing bund of Pudupady Tank

Quantity	Description of Charges	Rate			Per	Amount			Total
		RS	A	P		RS	A	P	
12,618	Tank Bund Cubic yards of earth work ..	0	1	3	Cyd	988	2	0	
14,000	Square yards of turfing ..	0	0	6	Syd	456	7	0	
7,333	Do of removing prickly-pear, &c Sandries and superintendence ..	0	0	6	"	229	2	6	
	Total					56	4	6	1,730

AGRICULTURAL—ORDINARY—CAPITAL—MINOR NEW WORKS

ABSTRACT ESTIMATE, No 110 of 1874-75

District, North Arcot, Taluk, Palmanur, Village, Lucknapully

Work—Constructing revetment and escape weir of Lucknapully Tank

Quantity	Description of Charges	Rate			Per	Amount			Total
		RS	A	P		RS	A	P	
303	Revetment Cubic yards of new stone revetment.	1	4	0	Cyd	378	12	0	
132	Do of puddling	0	8	0	"	49	8	0	
	Sandries					1	12	0	430 0 0

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WORK—Constructing new revetment and two surplus weirs—(Concluded)

Quantity	Description of Charges	Rate	Per	Amount.	Total
		RS A P		RS A P	RS A P
	<i>For 60 Feet Surplus Weir—(Concl'd)</i>				
7 1/2	Cubic feet of country wood shutters	2 0 0	C ft	15 2 8	
23 1/2	Cubic yards of loose stone apron	2 0 0	C yd	46 0 0	
11	Grooved stones, grooved one side	3 0 0	Each	42 0 0	
				604 14 8	
	For excavating, removing bund and sundries			45 1 4	
	Total				650 0 0
	<i>For 15 Feet Surplus Weir</i>				
47 1/2	Cubic yards of rough stone in chunam	2 8 0	C yd	118 12 0	
12 1/2	Do of brick in chunam	4 4 0	"	51 3 0	
3 1/2	Squares of plastering	2 8 0	Sqre	8 12 0	
3 1/2	Do of pointing	1 8 0	"	4 9 6	
1 1/2	Cubic feet of country wood shutters	2 0 0	C ft	2 2 8	
13 1/2	Cubic yards of rough stone revetment	1 8 0	C yd	20 0 0	
2	Grooved stones, grooved one side	3 0 0	Each	6 0 0	
				211 7 2	
	Sundries for excavating and filling under the apron, &c			15 8 10	
	Total				230 0 0
	Grand Total				1,580 0 0

AGRICULTURAL—ORDINARY—REVENUE

ABSTRACT ESTIMATE, No 106 of 1874-75
District, North Arcot, Taluk, Gornattum, Village, Veppur
WORK.—Repairing the Bund and Calingulah of Veppur Tank

Quantity	Description of Charges	Rate	Per	Amount	Total
		RS A P		RS A P	RS A P
6,200 1/2	Cubic yards of earth work	0 1 6	C yd	581 4 2	
1,139 1/2	Do of rebuilding old revetment, including sloping front slope and puddling hollows to allow the stones to rest on hard soil	0 6 0	"	539 11 6	
226 1/2	Cubic yards of removing sand	0 0 6	"	7 1 4	
7,016 1/2	Square yards of clearing bushes and prickly-pears and burying them	0 0 9	S yd	330 4 9	
10,070 1/2	Square yards of turving	0 0 6	"	314 11 2	
355	Cubic yards of puddling	0 4 0	C yd	88 12 0	
8,333 1/2	Square yards of planting navel in the Gornattum river bed contiguous to bank	0 0 6	S yd	260 6 8	
	<i>Repairing and improving Calingulah</i>				
12 1/2	Cubic yards of brick in chunam	4 4 0	C yd	51 8 6	
6 1/2	Squares of plastering	2 8 0	Sqre	16 11 0	
16	Grooved stones	3 0 0	Each	18 0 0	
8 1/2	Cubic feet of country wood shutters	2 0 0	C ft	17 5 4	
				2,255 15 5	
	For repairing the calingulah apron and sundries			41 0 7	
	Total				2,300 0 0

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WORK—Constructing revetment and escape weir of Lucknappilly Tank—(Concluded)

Quantity	Description of Charges	Rate	Per	Amount	Total
		RS A P		RS A P	RS A P
	<i>Escape weir</i>				
17 1/2	Cubic yards of brick in chunam	1 8 0	C yd	80 7 0	
156 1/2	Do of rough stone in chunam	2 10 0	"	411 12 2	
60 1/2	Do of loose rough stone work	1 4 0	"	63 9 6	
6 1/2	Squares of plastering two coats	2 8 0	Sqre	17 3 0	
8 1/2	Do of pointing in chunam	1 8 0	"	12 1 6	
10	Grooved stones	3 0 0	Each	30 0 0	
8 1/2	Cubic feet of country wood	2 0 0	C ft	17 12 0	
666 1/2	Cubic yards of earth work	0 1 6	C yd	62 8 0	
	Sundries for excavation, &c			95 5 9	
				21 10 3	
	Total				720 0 0
	Grand Total				1,150 0 0

AGRICULTURAL—ORDINARY—REVENUE

ABSTRACT ESTIMATE, No 110 of 1874-75
District, North Arcot, Taluk, Palmanur, Village, Lucknappilly
WORK.—Repairing Lucknappilly Tank Bund

Quantity	Description of Charges	Rate	Per	Amount	Total
		RS A P		RS A P	RS A P
2,584	Cubic yards of earthwork	0 1 9	C yd	282 10 0	
3,200	Do of earthwork for breach, including tamping	0 2 0	"	400 0 0	
1,577 1/2	Cubic yards of old stone rebuilding, including sloping the front slope to allow the stone to rest on hard soil	0 6 0	"	291 9 0	
2,741 1/2	Square yards of turving	0 0 6	"	83 10 6	
	Add for repairing sluices			70 0 0	
	For removing bushes			70 0 0	
	Sundries, &c			1,190 11 6	
				20 2 6	
	Total				1,520 0 0

AGRICULTURAL—ORDINARY—CAPITAL—MINOR NEW WORKS

ABSTRACT ESTIMATE, No 105 of 1874-75
District, North Arcot, Taluk, Gornattum, Village, Veppur
WORK.—Constructing new revetment and two surplus weirs

Quantity	Description of Charges	Rate	Per	Amount	Total
		RS A P		RS A P	RS A P
	<i>Revetment.</i>				
39 1/2	Cubic yards of new stone revetment	1 12 0	C yd	196 8 0	
	Sundries			3 8 0	
					700 0 0
	<i>For 60 Feet Surplus Weir.</i>				
135 1/2	Cubic yards of rough stone in chunam	2 12 0	C yd	372 10 0	
23 1/2	Do of brick in chunam	4 4 0	"	98 13 0	
7 1/2	Squares of plastering	2 8 0	Sqre	19 1 0	
7 1/2	Do of pointing	1 8 0	"	11 1 0	

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AGRICULTURAL—ORDINARY—CAPITAL—MINOR NEW WORKS

ABSTRACT ESTIMATE, No 103 of 1874-75

District, North Arcot, Taluk, Gonattam, Village, Bommanakur

Work—Constructing new stone revetment and extending escape weir of the Bommanakur Tank

Quantity	Description of Charges	Rate	Per	Amount	Total
	<i>Revetment</i>				
3214	Cubic yards of new stone revetment	1 0 0	C yd	321 4 0	
	Sundries			1 4 0	
	<i>Extending Escape Weir</i>				
44	Cubic yards of brick in chunam	1 4 0	C yard	19 2 0	
24	Squares of plastering two coats	2 8 0	Square	6 4 0	
12	Grooved stones	3 0 0	Each	36 0 0	
64	Cubic feet of country wood	2 0 0	C ft	12 0 0	
444	Cubic yards of rough stone in chunam	2 8 0	C yard	111 4 0	
4	Squares of pointing	1 8 0	Square	6 0 0	
3464	Cubic yards of earth work	0 1 6	C yard	32 8 1	
	Sundries for excavation, &c			231 2 1	
				25 13 11	
	Total				573 0 0

AGRICULTURAL—ORDINARY—REVENUE.

ABSTRACT ESTIMATE, No 107 of 1874-75

District, North Arcot, Taluk, Gonattam, Village, Bommanakur

Work—Repairing the Bommanakur Tank

Quantity	Description of Charges	Rate	Per	Amount	Total
2,881	Cubic yards of earth work	0 1 4	C yard	240 2 2	
533	Do of old revetment, including sloping front to hard surface to allow the stones to rest on	0 6 0	S yard	200 0 0	
3,983	Square yards of turfing	0 0 6	S yard	121 7 6	
	Sundries, &c			54 9 8	
				10 6 4	
	Total				573 0 0

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AGRICULTURAL—ORDINARY—CAPITAL—MINOR NEW WORKS

ABSTRACT ESTIMATE, No 4 of 1875-76

District, North Arcot, Taluk, Gonattam, Village, Voolanthakul

Work—Constructing New Revetment and Escape Weir of the Voolanthakul Tank Bund, &c

Quantity	Description of Charges	Rate	Per	Amount	Total
	<i>Revetment</i>				
2574	Cubic yards of new stone revetment	1 8 0	C yd	385 10 8	
	Sundries			4 5 4	
	<i>Escape Weir</i>				
974	Cubic yards of rough stone in chunam	2 8 0	C yd	243 5 4	
24	Squares of pointing	1 8 0	Square	3 4 6	
74	Squares of plastering two coats	2 8 0	"	18 12 0	
514	Cubic yards of new stone revetment	1 8 0	C yd	77 4 0	
1,4814	Do of earth work	0 1 6	"	133 14 3	
	Sundries for excavation, &c			481 8 1	
				18 7 11	
	Total				890 0 0

AGRICULTURAL—ORDINARY—REVENUE

ABSTRACT ESTIMATE, No. 3 of 1875-76

District, North Arcot, Taluk, Gonattam, Village, Voolanthakul

Work—Repairing the Voolanthakul Tank Bund and improving the Calingulah

Quantity	Description of Charges	Rate	Per	Amount	Total
	<i>Tank Bund</i>				
1,683	Cubic yards of earth work	0 1 4	C yd	390 4 0	
1,7414	Do of old stone rebuilding, including jelly filling into the interstices, and sloping bund to allow the stones to rest on hard surface	0 6 0	"	653 2 6	
18	Do of removing sand	0 0 6	"	0 9 0	
6,8114	Square yards of turfing	0 0 6	S yd	213 12 9	
	<i>Improving Calingulah</i>				
44	Cubic yards of brick in chunam	4 4 0	C yd	17 8 6	
24	Squares of plastering	2 8 0	Square	6 4 0	
14	Grooved stones	2 8 0	Each	35 0 0	
74	Cubic feet, country wood shutters	2 0 0	C ft	15 0 0	
24	Cubic yards of rough stone in chunam	2 8 0	C yd	6 10 8	
	Sundries for removing bund and excavation, &c			1,338 3 5	
				21 12 7	
	Total				1,360 0 0

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AGRICULTURAL—ORDINARY—CAPITAL—MINOR NEW WORKS

ABSTRACT ESTIMATE, No 191 OF 1874-75

District, North Arcot, Taluk, Chittoor, Village, Pattoor.
Work—Constructing stone revetment and two surplus weirs of the Cattamanchy Tank Supplying Channel, &c

Quantity	Description of Charges	Rate	Per	Amount	Total
<i>Revetment</i>					
164½	Cubic yards of new stone revetment	Rs 1 4 0	Cyd	205 13 0	210 0 0
	Sundries ..	..	..	4 1 0	
<i>For constructing 28 feet surplus weir.</i>					
130½	Cub yds. of rough stone in chunam	2 8 0	Cyd	314 12 0	430 0 0
174	Squares of pointing in chunam	1 8 0	Sqrs	26 4 0	
22½	Cub yds. of rough stone revetment	1 4 0	Cyd	24 2 0	430 0 0
	For excavation and sundries	..	..	26 14 0	
<i>Total ..</i>					430 0 0
<i>For constructing 45 feet surplus weir</i>					
84½	Cub yds. of rough stone in chunam	2 8 0	Cyd	210 13 4	350 0 0
24	Do of brick in chunam	4 0 0	..	96 0 0	
7	Squares of plastering two coats	2 4 0	..	15 12 0	350 0 0
5½	Do of pointing do	1 8 0	..	7 11 0	
	For excavation and sundries	..	..	12 11 8	350 0 0
<i>Total ..</i>					
<i>Grand Total ..</i>					920 0 0

AGRICULTURAL—ORDINARY—REVENUE.

ABSTRACT ESTIMATE, No 100 OF 1874-75

District, North Arcot, Taluk, Chittoor, Village, Pattoor.
Work—Repairing the Cattamanchy Tank Supplying Channel Band and closing breaches in it.

Quantity	Description of Charges	Rate	Per	Amount	Total
6,427½	Cubic yards of earth work	0 1 3	C yd	243 2 2	277 6 0
8,876	Square yards of turfling	0 0 6	S yd	277 6 0	
31½	Cubic yards of rubble masonry	0 4 0	C yd	7 14 0	284 7 10
	For raising and increasing the waterway of the vents in the 2nd tunnel over the channel in the road leading from the Chittoor to the Dispensary road and reforming its approaches	..	..	..	
	Sundries, &c	..	..	100 0 0	384 7 10
	Total	..	..	384 7 10	920 0 0

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AGRICULTURAL—ORDINARY—CAPITAL—MINOR NEW WORKS

ABSTRACT ESTIMATE, No 2 OF 1875-76

District, North Arcot, Taluk, Chittoor, Village, Pattoor

Work—Constructing stone revetment and new surplus weir of Pattoor Tank, &c

Quantity	Description of Charges	Rate	Per	Amount	Total
Revetment					
468½	Cubic yards of new stone revetment	1 4 0	C yd	585 10 0	590 0 0
	Sundries	..	..	4 6 0	
Surplus Weir 100 feet					
243½	Cubic yards of rough stone in chunam .	2 8 0	C yd	608 12 0	1,000 0 0
47	Cubic yards of brick in chunam	4 0 0	"	188 0 0	
13½	Squares of plastering two coats	2 4 0	Square	30 15 0	
21½	Squares of pointing in chunam .	1 8 0	"	31 14 0	
10	Grooved stones, grooved one side	3 0 0	Each	30 0 0	
10½	Cubic feet of country wood shutters	2 0 0	C. ft	21 4 0	
39	Cubic yards of loose stone work .	1 4 0	C yd	48 12 0	
				959 9 0	
	Sundries and excavation, &c	...	..	40 7 0	
Total		..	..	...	1,590 0 0

AGRICULTURAL—ORDINARY—REVENUE

ABSTRACT ESTIMATE, No 1 OF 1875-76

District, North Arcot, Taluk, Chittoor, Village, Pattoor.

Work—Repairing the Band and Calingulah of Pattoor Tank and rebuilding its sluice

Quantity	Description of Charges	Rate	Per	Amount	Total
	<i>Tank</i>	RS A P		RS A P	RS A P
2,829½	Cubic yards of earth work	0 1 6	C yd	265 4 3	
2,512½	Do do	0 1 3	"	196 4 7	
1,050½	Do of old stone revetment, including sloping front to hard surface to allow the stones to rest on	0 6 0	"	393 15 0	
6,390½	Square yards of turfling ..	0 0 6	S yd	199 11 4	
	Cutting benches in rear slope of the bund to land the new earth with the old ..	..		50 0 0	
	Sundries ..	..		14 12 10	1,120 0 0
	<i>Improving Calingulah</i>				
62½	Cubic yards of rough stone-in-chunam ..	2 8 0	C yd	156 14 0	
48	Do of repacking old stone revetment ..	0 4 0	"	12 0 0	
12	Do of new stone revetment ..	1 4 0	"	15 0 0	
7	Squares of pointing ..	1 8 0	Square	10 8 0	
	Sundries ..	...	...	15 10 0	210 0 0

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26th July 1875.

Work.—Repairing the Bund and Calingulah of Pattana Tank, &c.—(Concluded)

Quantity	Description of Charges	Rate	Fee	Amount	Total
	<i>Rebuilding Sluice</i>				
65	Cubic yards of rough stone in chunam	2 8 0	C yd	162 8 0	
251	Do of brick in chunam	4 0 0	C yd	102 0 0	
444	Cubic feet of cut stone dressed	1 0 0	C. ft	48 12 0	
31	Cubic yards of concrete in chunam	3 12 0	C yd	12 3 0	
61	Squares of plastering two coats	2 4 0	Square	14 1 0	
21	Do of pointing in chunam	1 8 0	"	4 2 0	
1951	Cubic yards of removing bund and relling, including tamping	0 3 0	C. yd.	35 10 6	
	Sundries for excavation, &c			19 11 6	
	Total				400 0 0
					1,730 0 0

Proceedings of the Madras Government, Public Works Department,
26th July 1875.

AGRICULTURAL—ORDINARY—REVENUE

ABSTRACT ESTIMATE, Nos 124 AND 125 OF 1874-75

For repairing the Bund and Sluice and constructing a loose stone weir to Anvarthiganpett Tank.

Quantity	Description of Charges.	Rate	Amount	Total
	<i>Repairs</i>			
2,347	Cubic yards of earth work, at	0 1 6	220 0 6	
543	Do of reconstructing revetment..	0 6 0	203 10 0	
4,314	Square yards of turfing	0 0 6	135 12 0	
	Planting panel above revetment		50 0 0	
	Repairing sluice		20 0 0	
	Sundries, &c		10 9 6	
				610 0 0
	<i>Constructing loose Stone Weir.</i>			
1,581	Cubic feet of rough stone	5 0 0	79 3 2	
	Excavation and sundries ..		10 12 10	
				90 0 0
	Total estimate ..			730 0 0

No 676-B

ORDER THEREON, 26th July 1875, No. 2,134-A.

IRRIGATION, No 66-A.

Account

THE following estimates submitted by the District Engineer, North Arcot, are sanctioned.—

	Capital	Revenue
	RS	RS
Pudupady Tank ..	1,090	1,730
Lucknapully do	1,150	1,520
Veppur do	1,580	2,300
Domanankenpollum Tank	575	575
Voolanthakul Tank	890	1,360
Cattamanchy Tank Channel	990	920
Pattoor Tank	1,590	1,730
Chekadykupam Tank Channel		1,000
Anavarthiganpett Tank Channel		730

(True Extract)

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

To the District Engineer, North Arcot
" Chief Engineer for Irrigation
" Controller of Public Works Accounts

Exd H. C. Shunker

5 Spare Copies will follow

AGRICULTURAL—ORDINARY—REVENUE

ABSTRACT ESTIMATE, No 2 OF 1875-76

For raising, widening, turfing and reconstructing the bund of Chekadykupam Tank, reconstructing a sluice, and repairing waste weir

Quantity.	Description of Charges.	Rate.	Amount	Total
1,124	Cubic yards of earth work	0 1 0	105 6 0	
1,012	Do of stone revetment with one-fourth new stone.	0 8 0	305 0 0	
4,273	Square yards of turfing	0 0 2	200 4 0	
	<i>Reconstructing a Sluice</i>			
814	Cubic feet of brick in mortar	16 0 0	130 3 10	
3571	Square feet of plastering	2 8 0	8 15 0	
91	Cubic feet of cut stone	0 8 0	4 14 0	
	Digging foundation, &c		5 15 2	
	Repairing waste weir		150 0 0	
	Sundries, &c		30 0 0	
			8 5 3	
	Total estimate ..			189 5 0
				1,000 0 0

* To be brought from a distance.

trans.

1877.

Memoirandum.

dated
1878.

The following estimates have been sub-
mitted by the District Engineer to the Board.

Principal works. Estimate Rs. 2,820

By grant amount Rs. 510

Assessment Rs. 2,310

Average revenue Rs. 1,707

No repairs have been executed in recent years.
The area of the catchment basin is about
1 square mile, but the principal source of
water supply is the Talab, the overflow
from which reached the tank. It has no
regular means of disposal of surplus,
and no permanent 84 feet tank is also provided.
The water from the Talab will be collected
by raising the road from the tank to the
main road which apparently the head
of the supply channel is situated.
The longitudinal section shows the tank
to be in a very bad order and greatly in
need of repair. A little increase of revenue
is anticipated. The items of the estimate

Chargalila Capital are

Revetment. Rupees 478
Escapes

and the remainder will be debited to Revenue
and amounts to 1,750

2. Lucknowpally Tank. Rupees 2,470

Ayacut area. Rupees 49

Sum do 53

Revetment Rupees 300

Sum do 114

Average revenue Rupees 304

The repairs have recently been executed.

The tank was under Dasa Bandula's management

and he has had more than 1,000 acres of land

Dasa Bandula's having fixed his interest

the tank it has been repaired, and the

District Engineer reports that if the work

provided for be carried out, it is expected

that the ayacut revenue which exceeds

the average by Rupees 172 will be secured

and this would yield a return of more than

4 per cent on the outlay. The drainage basin

is about 2 1/2 square miles, and to dispose of the

surplus in lieu of the existing drainage in

the bund a surplus water 100 feet higher than

provided and in its west wall 6 vents

6 x 2 1/2 are also allowed. This arrangement

with the repairs and raising of the bund to

4 1/2 feet above escape level will be

sufficient to render the tank safe. The distribu-

tion of the outlay will be as follows.

Capital Rupees 430

New stone revetment with flood gate Rupees 430

New escape weir 720

Reserve Rupees 1,520

It is mentioned that the contractors have been

appointed at the special request of the District

3. Topkur tank Rupees 3,880

Ayacut area Rupees 273

Revetment Rupees 1,662

Drainage Rupees 1,558

Repairs have in recent years been carried out.

The drainage basin is reported to be about

1 1/2 square miles, but judging by the extent

area and the apparent sufficiency of the supply

it seems probable that this area is not

far short of 2 square miles. However though

no other source of supply is directly mentioned

as a small surplus just is to be built
near the head of the Primative supply
channel. perhaps there is a need of sup-
ply outside of the catchment domain of
the regulation of this supply by a head
sluice would appear to be preferred.

The tank has a Calingulab of 60 feet total
and 49 feet effective length and the width
altogether insufficient. the village have
had to cut the head near the end with
as a result the bridges shown in the
longitudinal section. San District
Engineer calculates the surplus at 1277
cfs per second as a maximum but if
we suppose the area draining into the
tank has been under estimated the
surplus may amount to about 1800 cfs
a second and the proposed additional
escapes aggregating 90 feet with the Calin-
gulah converted into an escape of 60 feet
effective length will discharge the water
at head of between 20 and 21 inches which
at head 64 inches above F.T.W. we will
allow, so that the arrangements proposed will be

the outlay will be distributed to
Capital.

How investment. The price of
a new surplus weir $\frac{280}{1000}$

Reserve Reserve - 2.500

some day alone will probably be required
for the protection of the retaining wall
of the 10 feet surplus weir.

So. Bannarai Reservoir (Surplus 480)

Bygone area 2000 yds.

Efficient (Surplus 270)

Average Revenue 250

In 1872-73 (Surplus 532) were expended on
the same.

This tank is situated along the Railway.

The Calingulab is of 60 feet total and 49

feet effective length and is altogether in-
sufficient for the discharge of the surplus

from a basin of 24 square miles.

Calculated at 1000 cfs per second. It is estimated

therefore to add 60 feet to the length of

escapes. The outlay in 1872-73 was for

placing a stone and repairing the dam

undrained in 1873, but nothing was done

to prevent accidents in the future, and the section shows that the tank was left in a very unsafe state.

The estimate is divisible as follows.

Capital
New stone revetment. Rupees 325
Extending escape weir 250
575

Revenue Rupees 575

5. Taulanthakul Tank Rupees 2250

Ayacut area Acres 63

Improvement Rs 50

Average revenue Rs 60

Expenditure on repairs in 1871-72 Rs 200
1872-73 100

Some repairs were executed in 1871-72 the tank breached in 1872 and the breaches having been closed without the conditions of safety being attended to, it breached again in 1874, as was to be expected. The longitudinal section shows also that the earth works were left in a very unsafe & faulty state. The present estimate provided for the requirements of the tank

according

according to its circumstances. The average distance is 6 square miles and it is probable that the revenue will still further exceed the original estimate, as the water will be retained and secured for 6 square miles would be a very moderate extent of cultivation under the tank.

The present cultivation has a total depth of 6 feet of which 2 feet are effective. 200 feet of excavation of 1000 ft. deep are being now undertaken.

The estimated value of Capital

New revetment (Rupees 325)
" " " " (Rupees 250)
" " " " (Rupees 575)

and to Revenue the sum amounting to Rs 1000. It is to be expected that the revenue will be increased on repairs and improvements, but as a result of the money has been made from want of attention to the conditions of safety. The tank is by far the best of the kind in the district. The area of the tank is 63 acres. The improvement is Rs 50. The average revenue is Rs 60.

The defective condition of the channel has necessitated an outlay of Rupees 1058 in the 4 years up to 1875-76 on the repair of breaches and the present estimate provides for removing the cause by the construction of surplus weirs and for bringing the channel back to a uniform level of 3 1/2 feet above ordinary full supply level. The Channel is supplied from the Chittor river and the town of Chittor is and its dependent upon it to a considerable extent for its water supply. It has a head sluice and the surplus weirs are for the disposal of upland drainage.

The items chargeable to Capital and
 New stone revetment (Rupees 210)
 2 surplus weirs " 720

 930

and the rest to Revenue (Rupees 720)

1. Paltor tank (Rupees 3320)
 Ayant area : acres 67
 Assessment (Rupees 405)
 Average revenue " 403

re repairs have recently been executed. This was an extraordinary tank, and as is usually the case had been allowed to deteriorate so much as to necessitate its reconstruction and now upwards of 20 years have been needed to make it efficient. As the drainage area is 6 1/2 square miles probably under proper management some increase of revenue will be obtained otherwise it would hardly be worth while to spend the large sum required. The estimate is made for improving the existing weir to 30 feet in height, superseding the old 20 feet weir by a surplus weir 20 feet wide by a surplus weir 10 feet long, bringing the head to a higher level 3 1/2 feet above F.T.L., and substituting a sluice. The items chargeable to Capital are
 New stone revetment (Rupees 890)
 New surplus weir 100 feet " 1570

 and the rest to Revenue (Rupees 1730)

8. Chetradyt Rupam Tank. Papers 1000

Agri. area Acres 80.

Assessment Papers 349

Average revenue 288.

No repairs have been carried out for many years.

This tank has a catchment basin of 1 square mile and receives surplus by a 24 feet weir from the Chingfom tank. Having a sufficient surplus weir it has not breached but its bund is out of repair and a sluice has also to be built. The whole estimate is chargeable to Revenue.

19. The estimates in these estimates generally are higher than they should be.

Colacamund 3
14th July 1893
Lieut. Col. R. G.
Offg. Chief Engineer

To The Offg. Secretary S. P. S.
S. H. C.

2. 10 - 99 - 55

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9. Annamattigampett Tank. Papers 1290

Agri. area Acres 71

Assessment Papers 244

Average revenue 205

No repairs have been carried out for many years.

This tank is situated to lower a drainage basin of about half a square mile which is very small for the area of cultivation which would seem to be about 60 acres. It commands a large area and as it has no high dam or wall, the possibility of overflow is in order. It provides a large stream of water to feed the length which will result in the water being

An additional 20 feet will cost only
 some 25 Rupees. - In this & for the
 1. It is said to be lower up the side
 for construction is 12 inches a day is
 given. Again at the top of the
 tank to some changes found protection
 the wall is not so much - should be
 covered, & have a tank for the
 ground being substituted. The
 reconstruction of the wall is not
 may be allowed & for this reason
 the water will be better. - Allowing
 5000 Rs for tanks for the total
 of the scheme is 10000 Rs. - 10000 Rs
 & will be chargeable to the Government

Cir. 20.7.75 Dtd 23.7.75
 O.L. Sheet 14/10/75

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P. W. 1875 Sept.
No: 4850

From

The Offg. Chief
Engineers.

Dated 17 July 1875.
Recd. 25. - 1875.

E. 20. No: 797.

Memorandum submitted
for the repair of
locks in the North
West District.

P. 6. 21. 2134 & 26. 2. 25.

N 676 a.

Approved
S.H.B.

Proceedings of the Board of Commissioners.

Read the following:-

the offg. Chief Engineer (H. E. No 797 317 July 1875)
by C No 2134 & 26 July 1875
The following estimates
submitted by the District
Engineer, North West, were
sanctioned.

	Approved	Capital	Reserve
Indiscreetly done	1070	-	1750
Indiscreetly do	1150	-	1500
Wages do	1500	-	2,500
Manufacturing do	575	-	575
Boat launch do	870	-	1,360
Boat launch by lock channel	970	-	920
Boat launch	1,570	-	1,750
Boat launch	-	-	1,000

D. E. North West 6
of the 1st Div. with 530 Original P.W. 34
C. H. W. 5
SC Draft - 17-8-75 -

11/10/850
COUNCIL OF 1875, MADRID
PUBLIC WORKS.

M. M. M.
M. M. M.

ad
land
best
fact

U. S. No. 21348

No. 1715

Part of Land in the
west of - The estimate
relating to the 19730 per
sanctioned.