M.P.O. 1—77,006—8-6-31.

(1) Number of pages 98

(2) Date of repair 15-3-40

(3) Initials of the Referencer

MADRAS RECORD OFFICE.

98

Government of Madras.

Public works DEPARTMENT.

G.O. No. 1157-58 Press ~~Mis.~~

19-22

Dated 2 5 1870.

Not to be folded or roughly handled

Read the following papers:—

No. 19. Memorandum from the Officiating Inspector-General of Irrigation, to the Acting Joint-Secretary to the Government of Fort St. George, Public Works Department, Irrigation Branch, dated Simla, 2nd September 1869, No. 306-I.

THE undersigned has the honour to request that the Acting Joint-Secretary to the Government of Fort Saint George will be so good as to furnish this office for information with ten printed copies of the rules which obtain in that Presidency for the repair of tanks, together with forms of any statements which may be required to accompany repair estimates, showing revenue and expenditure for a certain number of years previously.

2. Any alterations of the existing standard rules which may have been introduced, and any of the rules which, in practice, are not strictly enforced, should be noted.

(Signed) J. C. ANDERSON, Colonel, R.E.,
Officiating Inspector-General of Irrigation.

No. 20. Memorandum from the Officiating Deputy Secretary to the Government of India, Public Works Department, (Irrigation,) to the Secretary to the Government of Madras, Public Works Department, dated Fort William, 14th February 1870, No. 306-1—I.

IN drawing attention to his letter, No. 306—I., dated the 2nd September last, the undersigned has the honour to request that the information and papers therein called for, regarding regulations for the repair of tanks, etc., may be furnished at an early date.

(Signed) J. C. ANDERSON, Colonel, R.E.,
Offig. Dy. Secy. to the Govt. of India.

No. 21. ORDER THEREON, 2nd May 1870, No. 1,157.

IRRIGATION, No. 2.

ORDERED that the following letter be sent:—

(Here enter No. 1,158, dated 2nd May 1870.)

(True Extract.)

(Signed) J. MULLINS, Major, R.E.,
Acting-Joint Secretary to Government.

Exd. E. C. Shunker.

which

PUBLIC WORKS DEPARTMENT,
FORT ST. GEORGE, *2nd May* 1870.

No. 22.

No. 1,158.

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,
PUBLIC WORKS DEPARTMENT.

IRRIGATION, No. 3.

SIR,—I am directed, in reply to the Memorandum, No. 306-I., of the 2nd September last, from the Inspector-General of Irrigation Works, to transmit ten printed copies of the rules which regulate the repair of tanks in this Presidency. These rules are laid down in Chapter V. of the Public Works Code, paragraphs 38, 39, 41, 44, 45 to 53; Chapter IX., paragraphs 19 to 22. In this Presidency also it is customary for the villagers to perform, without payment, certain minor conservancy work, and the nature of this work is indicated in Chapter XI., paragraphs 25 and 26. Chapter XXIV. relates to the sanction of expenditure, and as regards tanks, the following paragraphs regulate the procedure; paragraph 1 clause 1, paragraph 2 clause 1, paragraph 3 clauses 1 and 2, paragraph 4 clauses 1 and 2, paragraph 5 clauses 1 and 4, paragraphs 6 and 7. In addition to the provisions of the Code, the Circular Orders of the department require lists of ordinary estimates, that is estimates for the ordinary up-keep of Irrigation Works, to be prepared in the forms given at pp. 465 and 466 of the edition of 1857.

2. I am to state that the replies received from the Superintending Engineers show that the rules are generally attended to, so far as the altered circumstances of the Public Works Department, since the Code was drawn up, will admit of this being done. The Code itself is however imperfect, and also the provisions of the different Chapters are not always consistent, so that it has hardly been possible for the officers concerned to know exactly what course to follow. In the 7th Division it appears to have been the custom, at all events of late years, for the officers of the department to look to the Revenue Officers to inform them when tanks, or other Irrigation Works, required repairs; but, in most parts of the Presidency, it has been considered to be the duty of the Public Works Officers to keep themselves acquainted with the state of the works, and to estimate for such repairs as are necessary, or as could be carried out with the funds available, while at the same time any requisitions from the Revenue Officers have been duly attended to.

3. Some little time back it was discovered that the Irrigation registers prescribed in paragraphs 45 to 48 of Chapter V. of the Code had not been kept up in some districts, and orders were at once issued requiring the omission to be remedied. It is expected that the registers, which are of great importance both for determining what expenditure should be sanctioned and for ascertaining the results of outlay, will shortly be completed for those districts in which they have fallen into arrears.

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

Major, R.E.,
Acting-Joint Secretary to Government.

Exd. E. C. Shunker.

PUBLIC WORKS DEPARTMENT,
FORT ST. GEORGE, *2nd May* 1870.

No. 22.

No. 1,158.

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,
PUBLIC WORKS DEPARTMENT.

IRRIGATION, No. 3.

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

Major, R.E.,
Acting-Joint Secretary to Government.

Exd. E. C. Shunker.

No. 3643. Supg. Engr. Office 5th Div.
Madras 13th October 1869

From,

Lieut. Colonel J. Beau R.E.
Acting Supg. Engineer 5th Division

To,

Major J. Mullins R.E.
Acting Chief Engineer for Irrigation

Sir,

Enclosures 6
4 estimates
2 ayacut statts

In reply to Order No. 56 dated 21st September 1869 on a letter from the Officiating Inspector General of Irrigation dated 2nd September 1869, I have the honor to forward copies of the forms of estimate for the repair of Tanks in the North Arcot and Madras Districts, together with the form of Ayacut statement shewing the assessment, highest and average revenues of 5 years, to accompany the estimates.

2 In the Madras District the returns of revenue of a Tank, from which

which the power of the Superintending Engineer to sanction any estimates for its repair is determined, are generally entered at the head of the estimate, but the date and cost of last repair are sometimes omitted-

3 The Range Officer as a rule prepares the estimates on his tour through his Talugs, and these are submitted to the Collector for approval in the order of their importance, and sanctioned by the Superintending Engineer on their return from his Office- All emergent works for breaches and such disasters are sanctioned at once, and also such works as the Collector points out requiring immediate attention- The estimates which from want of funds are not carried out in one year, are brought forward generally for execution at the begining of the next season-

In

In this Division we apportion a certain amount of irrigation repairs in the first instance to each range according to their importance, retaining a reserve for unforseen contingencies and Monsoon works, though numerous estimates are sanctioned from time to time, in addition, according as they are submitted in the order of their importance by the Range Officers. Estimates are also prepared on the requisition of the Collector, Sub-Collector and Assistant Collectors-

4 These rules are in accordance with Chapters IV, V and XI of the Code para 4, para 7, para 50, and paras 2, 8, 10, 17 and 21-

5 The rules also laid down in Chapter XXIV of the Public Work Code are in force, though the Collector seldom exercises the powers of para 5 Clause IV- and the rule in para 6 Clause

III

III is seldom followed, the power being seldom exercised by the Collectors-

6 Under para I clause I, the Superintending Engineer records and sanctions repairs subject to the approval of the Collector- Under paras 2 and 3 clauses I, he sanctions Minor New works with the same approval- Under para 3 clause II, he approves of emergent works commenced by Range Officers- The Range Officers commence emergent works and report the circumstance to the Superintending Engineer under para 4 clauses I and II-

7 The rule as to the limit of the estimate not exceeding four years average revenue is strictly attended to, and the ayacut statements are filled up by the Collector- It will be seen from these remarks that the channel

of communication between the Range Officer and Collector is through the Superintending Engineer, and that the Collector does not obtain estimates direct from the former- He however accords or withholds his sanction, as he sees fit, to estimates forwarded by the Superintending Engineer- The necessity for each work also is either reported in a covering letter or at the head of the estimate submitted by the Range Officer.

8. As regards the way in which the estimates are made and the measurements taken to secure accuracy, I beg to say that it is only in the case of large and important estimates that levels are taken along the bank bund defining the difference of bright between the weak portions of the bank and sill of Calingulah.

The

The height to which the earth is to be raised to repair and strengthen the Work is determined in small estimates by the eye, with reference to the level of the highest water line.

I have the honor to be
Sir
Your Most Obedient Servant

Richard Delafield
Lt. Col. R.E.

Actg Insp. Engr. 4th Dist.

Revenue Irrigation

Detailed Estimate No of 1868/69
District Madras Taluq Trivellore
Village. Pattaparoomathoor

Work Repairing Pattaraparoomathoor Large Tank
Ayacut Canies Kgt Rs 5 Years Revenue average Rs.
Highest Revenue during the above period Rs.
Date of last repair
Cost of ____ do
Proposed by
Sanctioned by

Necessity or object of the work, This is a large and 1st class Tank and the bunds is very much worn of new revets up to Caliguley Consequently the present Estimate provides the putting the Tank bunds in good order. Readly the bank & improve & Raising the Caliguley to a height of highest water marks for diverting the Surplus water to Poodoor Tank as the Channel was put in thorough repair.

Particulars of works	Measurement L	Measurement Ft.	Measurement In.	Excellent Content
Commencing from South End Raising	300	3	8	1050
Widening up to Sluice required to yt	"	3	4	1462 — 8
Raising	600	3	8	2100
Widening up to Sluice to be required	"	3	12	5625
Raising	240	3	8	840
Widening up to Sluice to be required	"	3	12	5625
Raising	240	3	8	840
Widening up to Stone revetment	"	4	8	3240
Raising	216	3	8	756
Widening	"	4	8	2916
Raising	762	3	8	2667
Widening up to old Caliguley to be improved 20 yds	"	4	8	10287
Raising	609	3	8	2131 — 8
Widening	"	4	0	4872
Raising	100	2	12	275
			Total cubic yard of Earth work	38222.

From
The Asst Engineer
To
The Executive Engineer
For Doing Work

Dated 13 October 1869.
Page 114-3
2/10/Mm a No 3

Forwarded Specimen Forms of Estimates for the Repairs of Tanks in Mutta Taluq
Also a Plan of the Tank with the Points of Reference & Sections of the Bunds
Certificate
Measurements with Remarks
Plan & Calculations

Turfing	300	7—12	"	2325—
Do	600	9—8	"	5700—
Do	1218	12—	"	14616—
Do	609	9—8	"	5785—8
Total Cyds of Turfing				28426—8
New Stone revetment	600	"—8	1—	300—
In good order	396			
New Stone revetment	60	"—8	1—	30—
Do	100	"—8	1—	50—
Do	500	"—8	1—8	375—
Do	162	"—8	1—	81—
Do	609	"—8	1—	304—8
Total Cyds of New Stone				1140—8
Repairing & improving the Calingulam				
Bearing Body	Cft 54	3—	6—	918—
Do Wings	Do 60	1—6	3—	270—
Total Cft of				1188
Cubic Yards	Brickwork			44
Apron	22	4—	1—	88—
Total Cubic yards of Loose stone				88—

Revenue Irrigation — Rev Branch

Abstract Estimate No of 69/70

District Godavari Taluq Tuvellore

Village Patra paramthoor

Work. Repairing Patra paramthoor large tank and Constructing 10 yards Sluice to Patra paramthoor Tank.

Value of

Ayacut Cawnies — Acres Rs — 5 years average Revenue

Neglect revenue during the above period.

Date of last repair

Cost of

Proposed by

Sanctioned by

Necessity or object of the work to put the tank bund into a thorough state of repair.

Quantity	Description of charges.	Price	amount	Total
10238	Cubic yards of earthwork	@ " 1 "	6/10 "	
20706	Do Do	" 1 5	1833 "	
7278	Do Do	" 1 "	455 "	
28427	Squares of turfing	" " "	4 592 "	
1140	Cubic yards of Rough stone Revetment	" 15 "	1069 "	
			Total Rupees	4589

Calingulak

216	Cubic yards of Brick in Chunam	3 12 "	165 " "
88	" of Loose stone	" 15 "	83 " "
6	Grooved Stones 7×1×0-6	8 " "	48 " "
6	Do 3×1×0-6	5 " "	30 " "
6	Do 5×1×0-6	5 " "	30 " "
	Repairing Sluice		70 " "
	Sundries at about 5 per Cent		25 " "
	Total Rupees		451 " "
	Grand Total		5040

Abstract of Amount of Rent Demand

To Grande Collection

35 Cultivation of Paddy Common & Rent 1314 4 4
4 Ditto ditto Charities " 2 4 " 9 4 0
38 Cultivation of Garden " 1 6 9 " "
3 Ground Rent " 2 " " 6 " "
Carried over 5 " "
Brought over 1314
Total Collection Rupees 1319
Grand Total Rupees 1319

Received by Thirumalacharlu
Curnam Kunellur Village

Ab 1 Rent Office
3rd December 1873

Examined W. Appadorai
Assistant Engineer
Ag Sub Collector

Examined
Thomas Hall
Asst Engineer & Dy Collr

Ag: Sub Engineer 4th Division

A Statement of the Kommuntangal Puduppet village Conjeevaram Taluk.

Names of the irrigation works	Ayakut		Average cultivation of 5 years		Highest Beriz in 5 years		Remarks
	Extent	Apeksa	Extent	Apeksa including 2nd Crop	Extent	Apeksa including 2d Crop	
	Ks dch	R dP	Ks dch	R a P	Ks dch	R a P	
Kommuntangal Tank	60 88	193 15 10	56 4 14	219 " 8	56 2 12	264 " 6	Fasli 1274.

Examined
Thomas Hall
Ag: Sub Engineer 4th Division

Ag Sub Collector.

List of Estimates of Irrigation works in the District of North Arcot recommended for the sanction of the Superintending Engr.

No. of Estimate	Taluq	Village Number	Description of Works	Amount of Estimate			Agent		Number of working days employed during the above period	Date & cash of last repair		Explanation of necessity &c.	Remarks
				Rupees	Rupees	Total	Rupees	Rupees		Years	Amount		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
14 of 1868/69	Polore	172	Improving the bunds and constructing a sluice to the Selyantunga and Vettupalliam tanks	2500	-	2500	86	345	84	119	-	-	359	Both Departments advocate the necessity of the works provided for in the Estimate. The increase shown in Column 14 may be expected. It is therefore recommended for sanction.

North Arcot
Collectors Office
Chittoor 7th October 1868

Signed G. V. Mc Gregor
Ag: Collector

Sup Engr
Lt Col RE
Ag: Sup Engineer &c &c

Detailed Estimate No. 71 of 1866/67

District North Arcot

Taluq. Gudiattum.

Village No. 95. Nayrumpett.

Work — For Constructing an aequiduct across the Nayrumpett Spring channel for passage of Hill Stream.

L.	B.	D.	Cub. Feet.	Particulars of works.	Rate	Rs.	Amount	Rs.	Total
24	6	4	576	Foundation to sidewalls					
36	3	4	432	do- Wings					
			1008	Total Cubic feet					
Nearly			37	Cyds of Stone in Chunam		2	8	Cyds 92	8
24	3	6	252	Sidewalls					
24	1	6	9	27 do- on sides of Covering Stone					
36	1	6	3	6 189	Wings do				
54	1	1/2	2	6 157 1/2	Parapets				
8	31			6 84	Flooring over covering Stone				
				703 1/2	Total Cubic feet				
Nearly				26	Cyds of Bricken Chunam		2	8	do 91
50	3	6		175	Plastering Sidewalls				
39	8	6		331	6 Wings				
56	6	1/2		343	Parapet walls				
21	8			168	Flooring				
				1017	6 Total Square feet				
Nearly				10	Square of Plastering		2	8	do 25
				24	Granite Stone 8×1×—9		1	4	30
					Excavating Foundation and Forming banks				15 8
					Temporary dam Cuts & bailing water if need be				21
					diverting Stream				15
					Sundries				
					Total Estimate Rs Two hundred & ninety only				290

No. 3 or Chittoor Range officer
Chittoor 19 July 1867

Signed J. O'Shaughnessy
Asst Engr. Chittoor Range.

My Lr No. Engr. 4th Divn.

Abstract № 71 of 1866/67.

District North Arcot

Judicature Taluq.

Village № 95 Narayempette. Average revenue for Last 5 years highest revenue in that period.

date of Last repair. amount of Last repair.

Explanation of necessity

This Spring channel flows along the border of the Goddor river, this rovins, from the high ground & hills, flowing into the river. Crop the Spring channel breaching its bank conveying a great deal of silt into it and diverting the channel water into the river, this is an annual trouble to the Villagers & often is the cause of great loss in the failure of the crops from want of a sufficient Supply from the Spring channel - the proposed aqueduct will obviate all those evils by allowing free passage for the Ravine above & the Spring channel below.

Signed J. A. Stephens
Asst. Engr.

Abstract

Quantity	Description of charge	Rate Rs	Amount	Total
37/26	C. Yds of Rough Stone in channam	2 8 0	Cyd.	92 8 0
	Do Brickwork in channam	3 8 0	"	91 0 0
10	Sqrs of Plastering	2 8 0	Sqr.	25 0 0
24	Granite stones 8 x 1 x 0 9	1 4 0	each	30 0 0
	Excavating Foundation & forming bank			15 8 0
	Constructing a Temporary Dam Bailing water & if need be diverting Stream			21 0 0
	Sundries			15 0 0
	Total Estimate Rs Two hundred & ninty only			290 0 0

Chittoor Range Office
Chittoor 19th February 1867

Signed J. O'Shaughnessy
Asst Engr Chittoor Range

True Copy
Lt Col RE
Ag Superg Engr &c

Revenue Irrigation Repair

Detailed Estimate No 140 of 1864/65

District North Arcot

Taluq Arcot

Village Poothoor

Work — Repairing the bund of Poothoor puneib Tank which is in a very delapidated state.

Particulars	Measurements L	B	D.	Cubical Contents
Improving the bunds	150 —	4 — 8	2 —	1350 —
Do.	100 —	3 — 12	1 — 8	562 — 8
Cubic Yards of Earth work				1912 — 8
Turfing	250 —	5 —		1250 —
Square yards of Turfing				1250 —

Abstract

	Description of charges		Rate	Amount	Total
1912 — 8	Cubic yards of Earth work	at	"	1 . 1 1 9	8 6
1250	Square yards of Turfing	at	"	. 6 3 9 / 1 .	
	Superintendence & Sundries				158 11 9 6 6
	Total Estimate Rupees one hundred & seventy only				170 " "

Vellore Camp Office
Vellore 22. December 1865

Signed W. Howard
Executive Agent Irrigation Works
Vellore
Lt Col RE
Asst Superintendent

Revenue Irrigation — Repairs

Detailed Estimate No 420 of 1867/68

District North West Salug Palaon

Village No 30 Kheroonaly

Work Repairing the bunds of Kheroonaly Alumbary, Tank, which is now in ruined state.

Particulars	Measurements L	B	D	contents	Rate	Per Amount	Total
Closing the Breach at the old sluice	30	9	4	1080			
Do	10	3	1½	46			
Do	10	3	2	60			
Do	9	4	2	72			
Do	15	4	2	120			
Do	20	3	2	120			
Total Cubic Yards of Earthwork				1497	" 1 6/27	"	1405 6
Old Stone Revetment at the Slope on the 1st Breach	3/4	3	27		" 2 "	"	36 " 143 " 6
Sundries for clearing Jungle							2 4 6
Total Estimate Rupees							146 "

A true
17th August 68

Signed W. G. Bevan
Assistant Engineer Palaon

True Copy
Wilson Lt Col RE
Ag: Sup Engineer 4th Div

88

Detailed Estimate No of

District Taluq

Village

Works

Particulars of Works	Measurement			Total Cost
	Length	Breadth	Height	
1	2	3	4	5

Station
Dated

Name & Rank

Revenue. Abstract Estimate No of / Repairs

Agricultural No. of Range

District Taluq.

Village

Ayacut:- Sarga Govt. Acres. Rupees

Inam

Average Revenue of last 5 years

Highest Revenue during the last 5 years.

Date & Cost of last Repair

Work.

Prepared by

Quantity	Rate	Amount	Description of each Amount	Total	Amount required for current year's expenditure	Remarks

Station & Rate

Range Officer

No 92

Supt Engrs Office 2nd Div
Dayoonah 1st October
1869.

From Lieut Col F. J. Moberly RE
Superintending Engineer 2nd Div
To The Secretary to Government
N. W. P.

33

I do hereby certify that the Estimate provides every thing necessary and that no supplementary Estimate will be required -

Station & Date

Officer making Return

Retained in my Office -

I have the honor to be
Sir
Your most Obt Servant

F. J. Moberly Lt Col RE
Supt Engineer 2nd Div

No 1773

Madura
27th October 1869

From

Captain H. L. Prendergast R.E.
Off Superintg Engineer 8th Division

To

Major John Mullins R.E.
Offg Chief Engineer & Joint Secretary
to Government, Madras.

Sir

With reference to G.O. No 56 dated 21st
September 1869, I have the honor to report that
the rules laid in view regarding repairs to
Irrigation works are contained in paras 36 to 44
and 49 to 53 of chapter V of the P.W. Code,
also clause 1 para 1 of chapter XXIV -

2nd A form of estimate is enclosed, which at
head of the second page, gives the particulars
of Ayacut, the cultivated area, and revenue
of the highest year in the last 5, and of
the first year: the date of last repair: the
length of bund and the number of sluices
and Calingulas.

Encls 1
1 Form of Estimate

of the Range Officers have obtained statements of the works from the Tahsildars and fill in each year the figures of cultivation and revenue. In all cases (excepting sometimes when emergent repairs to breaches are estimated) the estimates, when framed by the Range Officers, have the particulars of aquent &c filled in according to the printed form, whether taken from the copy of Register or obtained from time to time from the Tahsildars. A complete register of each years operations is being made up as reported in my letter No 1328 dated 7th September 1869.

I have &c

Chas Pennycuick Captain R.E.

Offg Superintg Engineer 8th Dn

4

No. 1743

From

The Offg. Superintg. Engr.
8th Division

To

The Actg. Chief Engr.
for Irrigation, and
Joint Secretary to Govt.
Madras.

Dated 27th October 1869.
Received 2nd Nov.- " -
Encls. 1

Explaining the practice which prevails in estimating for and carrying out the repairs of Tanks in the Division.

24/10

Abstract Estimate No. of

District Taluq

Village

Work

Ayacut		Highest year.		Last year.		Last repair.		Length of bund.	No. of Sluices.	No. of Calingulahs.
Extent.	Revenue.	Extent	Revenue	Extent.	Revenue.	Year.	Amount.			

Quantities.	Description of work.	Rate.	Amount.	Amount of each part.

I do hereby certfiy that the above Estimate for

amounting to Rupees

provides for every thing

necessary, and that no Supplementary works will afterwards be required.

Range Officer.

REVENUE IRRIGATION.

Detailed Estimate No. of

District Taluq

Work Village

Particulars of work.	Measurements			Cubic Contents
	Length.	Breadth.	Height.	
1	2	3	4	5

47

No. 2689

Superintending Engineer's Office.
3rd Division.
Camp Kolevilla, Nilanilla Talook
Nawcoil District.
The 13th December 1869.

From,
The Superintending Engineer
3rd Division.

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

Enclosures.

Sir,

With reference to the Proceedings of Govt. No 687 20th September 1869 regarding the prevailing practice in estimating for and carrying out the repairs of Tanks I have the honor to inform you that my orders are always to take a longitudinal section with cross sections of the Bunds and as a rule I find that this order is obeyed. The forms of repair Estimates that are submitted are those laid down in pages 465 & 466 of Grant & C. Book and the rules laid down in Chapter XXIV of the P. W. Code are adhered to.

2. As regards carrying out the work endeavours are made to get the Villagers to carry out the works on Contract but seldom with success as they generally require advances and will then dawdle over the work obliging the Department to take it from them and to finish it departmentally.

I have &c &c

Lieut Col RE
Superintg Engineer 3rd Dn.

Public Works Department
Madras 21st October 1869

No. 132.

From,

The Superintending Engineer,
3rd Division.

To,

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

Sir,

I have the honor to forward herewith Estimate No. 56, Class XI, for the sum of Rs. 21,000 for the repairs of the Kaveri Anicut and Channels in the Salem and South Arcot districts as detailed in the accompanying Abstract.

Enclosures 3.
1 Form of Estimate
2 do - Plan
3 Certificate.

2. The Rules laid down in the Public Works Department Code for the preparation of Estimates for the repair of Tanks, Sluices and Channels are addressed to the Executive Officers in charge of Districts. Superintending Engineers are not therefore required to furnish Estimates for such works, but only to see that the Rules laid down are complied with by the Executive Officers.

3. Estimates for minor works are prepared by the Taluq Overseer, usually checked by the Sub-Collector and countersigned by the Collector. For more important works the Estimates are prepared by the Executive Officers, or by the Superintending Engineer, in communication with the Collector.

Public Works 1869 - 70 Sept.

From, No. 5334

The Superintending Engineer
3rd Division.

To,

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

No. 2689

Dated 13th December 1869.
Received 21st

Reporting on the prevailing practice of estimating for & carrying out the repairs of tanks.

4. The Revenue Statements prefixed to the Estimate are either obtained from the Tahsildar, at the time the Estimates are made, or from the Registers in the Range Offices which are written up from year to year from information furnished by the Tahsildar. The amount and date of last repairs can be obtained from the records in the Range Offices-

5. The Estimates, after being examined, and countersigned by the Supdg. Engr. are sent to the Collector for his approval, after which they are returned to the Range Officer to be carried out.

6. The rule is that Estimates for repairs to irrigation works should not exceed the highest years revenue of the work. There is no difficulty in adhering to this rule in South Arcot. In Salem the revenue derived from many of the tanks is so small that it is almost impossible to carry out any substantial repairs with a single years revenue.

7. Repairs include earth work to the bank, stone work to the revetment repairs of sluices and Calingulahs. It would be well if the amount allotted for repairs were available also for new sluices and Calingulahs, for banks often fine way owing to the want of proper masonry works.

8. Tanks properly repaired remain in good order for from fine to seven years. Some tanks are repaired more frequently, and some fifteen or twenty years may elapse before further repairs are made.

9. In South Arcot the repairs are usually undertaken by the Village Monigar or Mooneiff, and the work is paid for by measurement. The more important works are inspected by the Range Officers two or three times while in progress. All tanks are inspected after com-
-pletion-

10. A form of Estimate with completion certificate accompanies this letter

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

[redacted]

Ellwood Col: R.E.

Superintg. Engineer
5th Division.

10. A form of Estimate with completion

No 619.

From The Supg: Engineer
5th division.

To The Joint Secretary
to Government.
P.W.D.

P.W. Sec.d May/70 2 619

Dated 21st October 1869.
Recd: 22nd
No 132.
26/10 Encl.s 3.

Tanks — Reporting the practice prevailing in estimating for and repairing the tanks in the 5th division.

Answered with the next monthly return

5th Division D.P.W.

Agricultural — Repairs

Detailed Estimate No. of 1869-70

South Arcot District — No. 1 Range — Villupuram Taluq.

Work Repairing the bund of Hangiamoor Iganasy Tank

Ayacut Cawnies ——— 159 ——— Rupees — 855 — " — "

Five years average ——— " ——— 972 — " — "

Highest of 5 years ——— " ——— 1006 — " — "

Last repairs. None.

Remarks. As the bund of this tank is very weak and low for the whole length, the following estimate provides for repairing the same.

Description of Work	Measurements: Length	Mean Breadth	Mean Height	Contents
Widening from North	68	4	1	272
Raising	"	3	1	204
Widening	228	3¾	1¼	1068¾
Raising	"	3	1	684
Widening	304	3½	1½	1596
Raising	"	3	1	912
Widening	120	4	1	480
Raising	"	3	1	360

Total Cub: yards of Earth work ——— 5576¾

Abstract

Abstract

Quantity	Unit of measurement	Items	Rates per	Amount	Total
5576¾	C. yds	Earth work			11 C.yds 3198.
		Sundries			38.
		Total Amount of Estimate Rupees			323..

Measurements were taken on the 26th August 1858

(Signed) M. Manickum Moodaliar

Tahsg. Overseer of Villapuram

Range Office No: 1
Cuddalore 16th July 1869

(Signed) W. R. Purchas Lieutt R.E
Assistant Engineer
No: 1 Range South Arcot

(Signed) Charles Reade
Collector of South Arcot.

(Signed) E. A. Foord Col R.E
Superintending Engineer
5th Division.

Index:

The following are the Rules which obtain in the Madras Presidency for the repairs of Tanks.—

Rules for the preparation of Estimates for the repairs of Tank Bunds	Pages 124 to 128 — Foord's Book.
Mutter of existing repairs to Tank bunds	Pages 128 to 132 — Do —
Preservation of Tank bunds and Kudimeramut	Pages 137 & 138 — Do — also pages 50 & 51 Circular order Book & 34 & 35 Revenue Book & Standing orders Book.
Earth for the repairs of Tank bunds not to be taken from Tank beds	Page 24 Circular order Book.
Tank bunds to be planted with trees	Page 44 — Do —
The Erection of Ring bunds in front of Coolum sulahs of Tanks prohibited	G.O. No. 250, dated 12th January 59.
Definitions of repairs of Tanks and powers of Sanction	Chapter XXIV. New Code.
Repairs to minor Tanks not to be carried out by Soot if the Estimated Amount is less than 25 Rupees	Chief Engs Standing Circular No. CXXXI, dated 26th October 60.

× can be used

Method of executing repairs to tanks—

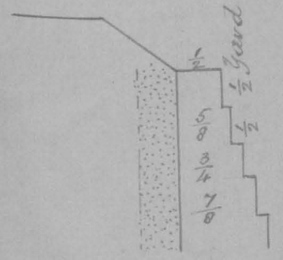
The tanks are marked by pegs & strings to indicate the section to be given to the bank & the widening is first executed

In examining the work, pits are measured through, if the Estimate has been correctly prepared, the work executed may be determined approximately by comparing the dimensions of the banks with those indicated by the Estimate—

The order contained in page 24 of the Circular Order Book with regard to digging of earth from outside the tank is seldom enforced in this Division as the earth within the tank is often better than that outside it & pits are generally dug within the tank for earth required for the repairs of its bund—

The banks are widened in rear and no new earth is allowed to be placed on the front slope of the old bank—

When the water near a bank is deep, & the bank runs at right angles or nearly so to the prevailing winds the bank is protected by a rough Stone revetment, if stone is procurable— The revetment is provided with a backing of 6 or 9" of chips or gravel to prevent water from playing on the Earth in rear through the interstices between the stones— The revetment is constructed 1 or 1½ foot above H W mark to protect the bank from weaves & is built in steps projecting



⅛ or 1/10 of a Yard beyond each other the revetment standing on its own base & not resting against the bank— Trees, Shrubs or grass are also used to protect the front slopes of banks—

Preservation of tank bunds and Embankment— The orders with regard to the protection of tank bunds by the Villagers & the putting up of Ring bunds around breaches when breaches occur are seldom enforced and the Villagers do not maintain their tanks as they should do—

The following forms accompanies the Estimates for repairs

Form

Form.

Tick of Estimates for Irrigation works recommended for Sanction in the Month of——

No.	Taluq.	Description of work.	Amount of Estimate Rs.	Total—	Ayant of Tank		Average Rainfall of the last 5 years	Highest Rainfall during the above period	Date & cost of last repair.		Extension of area likely to be irrigated	Order of the Supt. Irrigation
					Acres	Gunthas			Year.	Amount		

Supt. Irrig. Works 6th Div.

Tanjore 17 November 69.

J. F. Parker Capt. R.E.
Supt. Irrig. 6th Division.

Sup[t] Engs Office 6[th] D[n]
San Jose - 17[th] November 1869

No 950

From,
Captain R. H. Oakes. R.E.
Sup[t] Engineer 6[th] D[n]

To, Major J. Gwilliam. R.E.
Acting Chief Engineer &
Joint Secretary to Govt
D. J. S. D.

Sir,

As directed in G.O. No 56,
dated the 21[st] September, I have
the honor to enclose a Memo explain-
ing the practice in this Division in Estimating for
and carrying out the repairs of
Banks and the specific rules which
apply to the course pursued are
quoted. -

I have the honor to be
Sir,
Your most Obd[t] Serv[t]
H Oakes Capt[n] R.E.
Sup[t] Engineer 6[th] D[n]

Enclosure in a letter
from the Sup[t] Engineer
6th D. No 950, dated
17th November 1869.

No 1533. Rec[d]

Memo showing the rules
as well as the practice
which prevails in the
6th D. relative to the
repairs of Banks
of Tanks &c.

No 145

Supt Engineers Office 7th Division
Pani- mangalore 26th November/69

From

Colonel G. W. Walker R.E.
Superintending Engineer
7th Division

To,

The Chief Engineer
for Irrigation
Madras

Sir,

With reference to G.O. No 56 of 21st September, I have the honor to append copy of the form in which the Statements of Revenue and Outlay that accompany Estimates for Yank Repairs are prepared- The entries under the latter head are made in the Range Office when the Estimate is forwarded to the Collector for the Collector's office when it is sent to the Superintending Engineer for approval, and supply of funds-

2. The Rules laid down in the Madras Public Works Code have not been strictly conformed to since the office of District Engineer was abolished- The practice in the Coimbatore District is for the Yahsildars to keep Range Officers informed of the various works of Irrigation requiring their attention. These requisitions are immediately attended to in person, or by their Valork Overseers; who estimate or not according to the opinions formed by them on inspection- Sometimes works are brought to my notice by the Collector, or information of his Assistants, and reports and estimates are then called for by me-

From
The Chief Engineers
To
The Chief Engineer for
Irrigation
Madras

Dated 12 Nov 1869
Read 23 Nov 1869

No 950

Forwarded a Memo of Estimate for the Anicut across the Noyil River in the Coimbatore District to be submitted to the Secretary of State for the Sanction of Parliament.

With reference to the fixed amount allowed for Irrigation Repairs the Collector is expected to exercise some judgement as to the order in which Estimates are to be provided with funds. The above practice appears to me to be in conformity with that prevailing with respect to works other than Agricultural, with reference to which it is usual for the Department specially interested in any work to bring to the notice of the Public Works Agents the necessity for its being attended to. Revenue Officials should be better acquainted with the state of works on which the Land Revenue mainly depends, than Public Works Officials whose time may be Completely absorbed in executive duties detaining them at a distance from Irrigation Works requiring repair.

I have the honor to be
Sir
Your most Obed.t Servant
Chunther Colonel R.E.
Supg. Engineer 7.th Division

Revenue Return

	Ayacut Carried	Assessment	Cultivation	Assessment	Jamabundy
For Fusly 1274					
—"— 1275					
—"— 1276					
—"— 1277					
—"— 1278					

Public Works Return

Expenditure in 1866-67		Rs.
—"— 1867-68		"
—"— 1868-69		"

SUPERINTENDING ENGINEER'S OFFICE, 1ST DIVISION

DOWLAISHWARUM, 12th November 1869

No. 2988

From

Acting Superintending Engineer

1st Division

To

The Acting Joint

Secretary to Government D. P. W.

Irrigation Branch Madras

SIR,

Adverting to G.O. No 56 in the Irrigation Department dated 21st ult. I have the honor to forward herewith, the Forms and Rules in force in this Division for the repairs of Tanks, as far as I have been able to ascertain.

1 Detailed Form
1 Abstract
1 Detailed Abstract
2 Lists of Ayacuts
1 Sheet of Rules

I have the honorable
Sir
Your Most Obed.t Servt.

Wm. H. Nichols Major R.E.
Actg. Superintending Engineer
1st Division

From
The Actg. Superintending Engineer
1st Division

To
The Chief Engineer
for Irrigation
Madras

Dated 29th Nov. 1869

Sir

Reports the particulars procured from Joint Secretary Estimate for Repairs of Tanks &c.

The Rules regarding Tank Repairs.

Ordinary estimates in the Irrigation Department, ought to be confined to the repairs usually required to preserve the Tanks and other works of Irrigation in an efficient state, and to secure the ordinary revenue. These generally consist of earth and rough stone work, to repair damages caused by the rains and weather, and are seldom extensive. It is not necessary that the commencement of such repairs should be delayed till the estimate is sanctioned. On the contrary, they should be undertaken as soon as the weather will permit, but it is highly desirable that the estimate should be prepared and submitted for sanction as early as possible.

Every endeavour should be used to induce the inhabitants to take an interest in the preservation of the works of Irrigation, and that measures should be taken to prevent gross neglect on the part of the villagers. And that the ryots in all respects are aware that the Tanks, channels, Calingulahs, Sluices &c. are Public works, and that the Authorities of Villages in which they are situated, are responsible that they do not suffer injury, unless caused by operation of which it is not in their power to control.

When breaches occur or are likely and when delay would be caused by reference to the Collector, they consider it to be the duty of any officer or subordinate of the Engineer Department, who may be in the neighbourhood to give directions to the Thasildar or other officer of the Revenue Department, and to assist and superintend the

Dated 29 8 8

From
The Asst. Engineer
In Charge
To
The Executive Engineer
Division
Sir,
I have the honor to forward herewith
Enclosures 6
Estimate and Plan of
Repairs to Tanks
and Rules in force in
this Division for the repair
of Tanks.

the measures necessary for the remedy or prevention of injury to the Public works, and they are convinced that the Collector will always gladly give sanction to orders issued by the Engineer Department with such object. At the same time, the Board direct that on all occasions, the earliest opportunity be taken to communicate with the Collector on the subject.

Estimates for improvements only are not allowable in the ordinary accounts, but if a work needs repairs, and, in repairing it (or at the same time) improvement can be made, it may then be entered in the ordinary Estimates and executed.

No ordinary estimate is to exceed in amount the highest revenue of the work to which it belongs, and it is also distinctly understood that when any work has been for several years ruined and has consequently ceased to yield revenue, it can not be restored upon an ordinary Estimate.

Emergent works are such as require instant execution and do not admit of an estimate being forwarded for sanction.

It is required that the pits in the bed of tank from which earth is taken for repairs, should be dug at least one yard deep in order to get good soil. This rule is, however, never attended to, and the consequence is that the banks, though originally made of good soil, are for the most part repaired with silt alone, which does not add to their strength in any applicable degree.

The Board apprehend that a large majority of the tanks of any importance are so much filled up, that good soil can not be procured at so little depth as one yard, besides which, the soil being often saturated with water, its removal to reach the good soil is a very troublesome operation and more expensive than to bring the earth from a considerable distance without the tank.

The Board therefore direct that the earth for the repair of tank-bunds may be taken from any convenient place outside the tank, the preference being given to the more suitable soils, & that the silt of the tank-bed be on no account used for repairs, except in cases of peculiar necessity to be determined by the Collector & Civil Engineer.

The clearing of tank-bunds should be particularly attended to, when repairs are made, and should be provided for either in the Estimates or by village labor, as it may appear expedient.

The earth-work performed in the excavation of channels is never to be finally paid for, till the mounds or banks left for measurement, are completely removed and till all the excavated earth is carried to a proper distance from the channel banks.

Bunds of tanks are to be planted with the ravine shrubs suitable for the purpose:-

(a) In shallow reservoirs not holding more than three months water, the inner slope of the bank may be defended by Nela Avoche, Kal Avoche, Durkah grass, & Tavilay, but these will not grow in deep water of long duration.

(b) The exterior slope may be well preserved by planting Kuttalay, or what is much better, bamboo, along the foot of the slope.

Repairs WORK.

Total.

320 a

200 a

(c) These plantations should be performed by the ryots or Merassidars: they should be annually attended to, and kept close cut.

(d) Large trees should never be planted on the bunds, but palmirahs may be cultivated along the foot of the slope.

(e) The Sissoo tree would also thrive well in such situations, and if kept from growing large would be valuable.

This system would do much to relieve the Government from a heavy expenditure, and preserve the Tank-bunds in good order.

New masonry works within 500 Rupees each, when required for maintaining or increasing the utility and effect of existing tanks or channels are to be classed as ordinary.

Where tanks are accidently damaged, no time should be lost in taking the proper measures for their repair. It is a serious hardship to ryots to be kept from cultivating their land for three years.

Superintending Engrs Office
1st Division

No

From The officer in charge of No Range
District.

To The Superintending Engineer 1st Division
Dowlaishweram

Sir. I have the honor to request sanction and appropriation of funds for the below mentioned works:—

Name of work.	Amount of Estimate	Acres irrigated.	Dist. last years Revenue	Average revenue of the last 3 years.	Last repairs		Amount to be appropriated
					date	Amount	
Pakaly Channel	450	1971	12549	11250	1864/1865	900	450.

Supg Engrs Office
1st Division

(c) These plantations should be performed by the
or Merassidars: they should be annually attended

Form of detailed Estimate of the Probable expence of repairing Pakaty channel in the Godavery District.

Description of work.	Number	Measurement: Length	Breadth	Height or Depth.	Cubic feet.	Cubic yards.
Pakaty Channel						
Clearing silt from Head	1	80⅓	12	1.	a	964
Do Do " Do	2	154⅔	9	¾	a	1020
Do Do " Do	3	282½	8	½	a	1130
Do Do " Do	4	402⅔	6	⅓	a	805⅓
Do Do " Do	5	566	4	¼	a	566.
		Total Cubic of earth work				4485⅓

Abstract

Quantity or Number.	Description of work.	Rate.	Per	Amount.	Total.
	Kunuku Taluq.				
	Pakadu Village				
	Pakaty Channel				
4485⅓	Cubic of earth work	a 16	Cubic	420 8 a	
				29 8 a	
	Contingencies				450 a a
	Total Estimated Amount				

Superintending Engrs Office
1st Division

320 a a

200 a a

Repairs
W WORK.

Taluq.

Total.

List of Estimates for repairing irrigation works recommended for sanction.

Numbers	Taluk.	Description of work.	Amount of Estimate	Total	Ayacut of Tank. Acres.	Ayacut of Tank. Assessment	Average revenue of the last 5 years	Highest revenue during the above period	Date and cost of last repairs. Year	Date and cost of last repairs. Amount	Explanation of necessity &c.
1	Chicacole	Repairing Sylada Peddah Tank Caliugulah and Sluice	320	"	600	2,000	1,800	2,000	1864	300.	The Caliugulah and sluice being much injured, no water is retained in the tank, hence the falling off in the revenue. The bank is much washed. If the repairs be executed, 300 acres of the Ayacut land may be brought under cultivation & will yield an increase of 660 Rupees.
2	Berhampore	do Seidegam Tank and Caliugulah	200	"	400	1,800	1,600	1,800	1864/65	100.	As the Caliugulah has injury from want of repairs, the tank contains no water in it, and thereby the revenue is lessened. The bund also stands in the state of decay. If the repairs be executed, 30 acres of land may have good produce & will add 135 Rupees.
3.	Gomsoor.	do Roda Agoloo tundho.	100	"	300.	650	500	600	1865/66	80.	The tank bund is very weak. The loss will be effected in the original revenue, if the necessary repairs be not executed.
4	Berhampore	Clearing the silt in the bed of Jayamungalem channel	500	"	2,000	6,000	4,000	5,000	1863/64	350	From the head upto 400 yards the channel bed is silted up by the last floods coming down through the Goodahaddo river. The necessary repairs are to be done, or else the water may not be supplied to the early crops of the year.

Supt Engrs Office
1st Division

DEPARTMENT

Repairs
NEW WORK.

ABSTRACT ESTIMATE No.

TALUQ Chicacole. Berhampore & Gumsoor

DISTRICT Ganjam.

WORK. Repairing the under-mentioned Tanks &c. in the above Talugs.

Quantity or Number.	Description of Work.	Rate.	per Item.	Amount.	Total.
	Chicacole Talug.				
	Tillago Sylada.				
	Sylada Pedda Tank.				
2,815	Cyds of Earth work	a 1 3	Cyd.	219 14 9	
	Cutting Bushes &c.			15 a a	
	Caliingulah				
12 16/27	Cyds of Rough Stone in Chunam	1 12 a	Cyd.	22 a 7	
4	Sqrs of Plastering in do	2 4 a	Sqr.	9 a a	
10	Cyds of Loose Stone packing	a 12 a	Cyd.	7 8 a	
2	Repairing saulwood shutters in the Sumhogies	2 8 a	each	5 a a	
	Sluice				
7/6	Cyds stone in chunam	1 12 a	Cyd.	12 8 8	
3 18/100	Sqrs Plastering in chunam	2 4 a	Sqr.	7 12 6	
8 7/9	Cyds of Loose stone packing	a 12 a	Cyd.	6 10 8	
1	Repairing saulwood shutter	2 a a	each	2 a a	
				306 13 2	
	Contingencies			13 2 10	320 a a
	Berhampore Talug				
	Village Sunidigam				
	Sunidigam Tank.				
3,525	Cyds of Earthwork	a a 8	Cyd.	146 14 a	
	Caliingulah				
17 2/9	do of Rough Stone in chunam	1 8 a	Do	25 13 4	
5 13/20	Sqrs of Plastering in do	1 4 a	Sqr.	7 1 a	
22 2/9	Cyds of Loose stone apron	a 10 a	Cyd.	13 11 2	
				193 10 6	
	Contingencies			6 5 6	200 a a

Goomsoor Taluq
Village Limmabeddra
Boda agoolo Tank

133⅓	Cyds of earthwork				Cyds	76	10	a	
1300	Sqrs Turfing				Sqrs	20	9	a	
	Contingencies					2	13	a	
									100 a a

Berhampore Taluq
Village Sujeli
Payamungalum Channel

7250	Cyds of earthwork	a	1	1	Cyds	490	14	2	
	Contingencies					9	1	10	
									500 a a

Supg Engrs Office
1st Division

Form of Detailed Estimate of the probable expense of repairing the Tanks, channels &c. 83

Description of Work.	Number.	Measurements. Length.	Breadth.	Height.	Supl. contents. Squares.	Feet.	Cubic feet.	Cubic yards.
Sylada Peddah Tank							Cyds	
Raising and strengthening bund	1	200	5	1½	a	a	1500	
Strengthening	2	180	3	1	a	a	540	
Raising	3	600	2	½	a	a	600	
Strengthening	4	600	1¾	¼	a	a	175	
Cyds of Earth work								2815
Calingulah								
Repairing the body wall	1	20	4	½	a	a	40	
do " Apron	2	25	12	1	a	a	300	
Cyds of Rough stone in chunam							340	12 16/27
Plastering								
Repairs to body	1	20	5	a	1	00		
do Apron	2	25	12	a	3	00		
Squares Plastering					4	00		4
Repairing Lower apron with Loose stone	1	30	9	1	a	a	270	
Cyds of Loose stone work							270	10.
Repairing 2 saulwood shutters &c								2
rock wall in Sumbogies								
Sluice								
Repairing the wings	1	15	1½	3	a	a	67½	
do flooring	2	21	3	2	a	a	126	
Cyds of Rough stone in chunam							193½	7 7/8
Floor	1	21	3	a	a	63	a	
Side walls	2	21	5	a	1	05	a	
Rear returns	3	10	5	a	a	50	a	
Front do	4	20	5	a	1	00	a	
Squares Plastering					3	18	a	3 3/50
Repairing apron	1	20	6	2	a	a	240	
Cyds of Loose Packing							240	8 8/9
Repairing shutter								1

Berhampore Taluk								
Swidegam Tank								
Raising and Strengthening bund	1	300	3	1¼	"	"	1125	
Do " Do Do	2	200	3	1	"	"	600	
Do " Do Do	3	600	3	1	"	"	1800	
Cyds of Earth work							3525	3525
Calingulah								
Repairing apron	1	45	9	1	"	"	405	
Raising the bund	1	40	3	½	"	"	60	
Cyds of Rough Stone in chunam							465	17 2/9
Apron	4	45	9	"	4	05	"	
Bund	4	40	4	"	1	60	"	
Sqrs Plastering in chunam								5 13/20
Apron	"	50	6	2	"	"	600	
Cyds of Loose Stone Packing							600	22 2/9
Goomsoor Taluq								
Bodo Agoola Tank								
Repairing and Strengthening bund	1	100	2	¾	"	"	150	
Raising the bund	2	200	3	1	"	"	600	
Strengthening	3	300	2	½	"	"	300	
Raising	4	200	2	¼	"	"	100	
Strengthening	5	100	2½	¾	"	"	187½	
Cyds of Earthwork							1337½	1337½
Turfing bank	"	1300	1	"	"	"	1300	
Square yards Turfing								1300
Berhampore Taluq.								
Jayamungalem Channel								
Clearing silt from head	1	400	10	¾	"	"	3000	
Do Do " Do	2	700	6	½	"	"	2100	
Do Do " Do	3	1400	5	¼	"	"	1750	
Do Do " Do	4	400	4	¼	"	"	400	
Cyds of Earthwork							7250	7250

Supt Engrs Office
1st Division

which

Irrigation.

General No. of letter replied to } _____

Date of Despatch _____

No. 306 I.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT

Irrigation.

To

The ~~Joint Secy: to the Govt:~~
Madras Public Works Department
~~Irrigation Branch~~

FORT WILLIAM, 14th Feby 1870.
Rec'd 3rd March —

In drawing attention to his letter No. 306 dated the 2nd September last, the undersigned has the honor to request, that the information and papers therein called for, regarding regulations for the repair of tanks &c. may be furnished, at an early date.

I have &c.

H. Henderson Coll. R.E.
Offg. Dy: Secy: to the Govt: of India

Dr. 1870 Dept. (89) 2
Irr: of Hors for May
No. 306 Nos 85-8.

No.

115 / 116 D - 2 May 70.

No. 70

R. 16. Inward 1870 Pa. 11. of Mc

Berhampore Taluk

Irrigation.

General No. of letter replied to. }

Date of Despatch

It is requested that the reply to this Memo: be addressed to the Secy. to the Govt. of India in the P. W. Dept.

Pro Dept. for Mar. Dept.
No. 306 I. dt 3879.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

Irrigation.

To

The Acting Joint Secy. to the Govt. of Fort St. George P.W.D. Irrig. Branch.

SIMLA, 2nd Sept. 1869.

No 13 " "

The undersigned has the honor to request that the Acting Joint Secy. to the Govt. of Fort St. George will be so good as to furnish this Office for information with 10 printed copies of the rules which obtain in that Presidency for the repair of Tanks, together with forms of any statements which may be required to accompany repair Estimates, showing revenue & expenditure for a certain number of years previously.

Any alterations of the existing Standard rules which may have been introduced, & any of the rules which in practice are not strictly enforced should be noted.

J. C. Anderson Col. R.E.
Offg Insp. Genl. of Irrigation.

No. 56

Jpl. 115 & 1158-2 May 70

No 19
C.-L. Madras 1870 Dr. 11 April

Public Works Department

No 1157

Proceedings of the Madras Government

Under date the 2nd May 1870

Read the following

From the Offg Inspector General of Irrigation P.W.D. No. 306-I/2 dated 8th Sept 1869.

From — — a Secy to the Govt of India — — — a 306/1 of 14th Feby 1870.

Ordered that the following letter be sent

To 1158

The Secretary to the Government of India Public Works Deptt.

Sir

I am directed to reply to the Memorandum No. 306 I. of the 2nd September last from the Inspector General of Irrigation wor[ks] to transmit 10 printed copies of the rules which

which regulate the repair of Tanks in this Presidency. These rules are laid down in Chapter V of the Public Works Code, paras 38, 39, 41, 44, 45 to 53. Chapter IX paras 19 to 22. In this Presidency also it is customary for the villagers to perform, without payment certain minor conservancy work, and the nature of this work is indicated in Chapter X paras 25 and 26. Chapter XXIV relates to the sanction of expenditure, and as regards Tanks, the following paragraphs regulate the procedure; para 1 clause 1, para 2 clause 1, para 3 clauses 1 and 2, para 4 clauses 1 and 2, para 5 clauses 1 & 4,

Proceedings of

paras 6 & 7. In addition to the provisions of the Code, the circular orders of the Department require lists of ordinary estimates, that is estimates for the ordinary upkeep of irrigation works, to be prepared in the forms given at pp. 465 and 466 of the edition of 1857.

2 I am to state that the replies received from the Superintending Engineers show that the rules are generally attended to, so far as the attended circumstances of the Public Works Department since the code was drawn up, will admit of this being done. The code itself is however imperfect, and

and also the provisions of the different chapters are not always consistant, so that it has hardly been possible for the officers concerned to know exactly what course to follow. In the 7 Division it appears to have been the custom, at all events of late years, for the officers of the Department to look to the Revenue officers to inform them when tanks, or other irrigation works, required repairs; but, in most parts of the Presidency, it has been considered to be the duty of the Public Works Officer to keep themselves acquainted with

with the state of the works, and to estimate for such repairs as are necessary, or as could be carried out with the funds available, while at the same time any requisitions from the Revenue Officers have been duly attended to.

3 Some little time back it was discovered that the Irrigation registers prescribed in paras 45 to 48 of Chapter V of the Code had not been kept up in some Districts, and orders were at once issued requiring the omission to be remedied It is expected that the Registers, which

which are of great importance
both for determining what
expenditure should be sanc-
tioned and for ascertaining
the results of outlay, will
shortly be completed for
those districts in which
they have fallen into arrear.

Ley. 11/3/70

Desp[c] 9/5/70 lists 10 Copies
of the rules & specify statement

Cuds 3879 1858

Govt. of 1870 Madras.

PUBLIC WORKS.

To The Secretary to the
Govt. of India

Dated

Recd. Rec.

G. O. 2 May 1870. No. 1157 & 1158

Nos. 19 & 21 & 22

Tanks Paying orders on
~~the Municipalities~~ from the Govt. of
India calling for certain
~~for~~ information & papers re-
-garding the rules which re-
-gulate the Repair of Tanks in
the Madras Presy.

Tanks Ten printed copies of the
Rules which regulate the Repair
of Tanks in the Madras Presy,
forwarded to the Govt. of India
for the Enquiries.