

23/2.90/RH

Public Works (1896) Department.

G.O., No. 666.

DATED 17 December

S. Palanichamy

தமிழ்நாடு ஆவணக் கமிஷன்.
(ஆராய்ச்சைக் கூடம்)

ஆவணக்குறக்கான கோரிக்கை.
ஏட்டின் விவரம்.

தொகுதி எண். அ.ஆ.வ.ந. எண்.	ஏட்டின் எண்.	துறை.
1001068		PWD
+ 17 Dec 1906		Engineering
Tramway and wagons- kistna.		

தேதி: 13-2-90.

குறியீடு—(1) ஒரே கோரிக்கையில் ஒன்றுக்கு மேற்
பட்ட துறைகளோடு தொடர்புள்ள
ஆவணங்களைச் சேர்க்கக்கூடாது.
(2) கோரிக்கை இரட்டைப்படிக்காது
எழுதப்படவேண்டும்.

[Despatch Abstract.]

Expenditure: The Ex^{rs} of P.W. Accts. Authorized
to admit the — incurred on the two
works entered in the Completion Report
of the Nellore & for July 1896

7.6.12

19/12

BACK PAPERS.

G.O. No. Department Date

IRRIGATION.

Government (1896) of Madras. PUBLIC WORKS.

Recd.

Enclosures

Regd.

1896.

Spare copies

G.O., No. 1066 I., 17th December 1896.

DECEMBER.

Expenditure

The Examiner of Public Works Accounts authorized to admit the — incurred on the two works entered in the completion report of the Nellore division for July 1896.

FURTHER PAPERS.

G.O. No. Department Date

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.

READ—the following papers:—

From Major W. L. C. BADDELEY, R.E., Superintending Engineer, II Circle, to the Chief Engineer for Irrigation, dated Bezvada, 14th September 1896, No. 369 N.L.

I have the honour to forward, herewith, a copy of completion report for land compensation for Allur channel and Ulavapalla branch minor channel 3 miles 396 feet, left bank, and to request that you will be so good as to obtain the sanction of Government to the excess outlay over estimates being admitted by the Examiner, Public Works Accounts.

Memorandum to the Superintending Engineer, II Circle, dated 19th September 1896, No. II/57 N.L.

With reference to letter No. 369 N.L., dated 14th instant, from the Superintending Engineer, II Circle, the undersigned has the honour to observe that the meagre explanation afforded by the Executive Engineer is not likely to induce the Government to sanction the excesses on the two works entered in the completion report there-with forwarded.

2. From item 277 of the statement embodied in Proceedings of Madras Government, No. 881 I., dated 28th October 1892, it is observed that the sanctioned provision of Rs. 950 for the first item was reduced to Rs. 342. As this statement was compiled from information furnished by the Collector of Nellore, the necessity for the subsequent payment of Rs. 397 should be reported.

3. With regard to the excess on the second item, it should be stated whether the Revenue Department was consulted, in accordance with paragraph 22, chapter IX, Vol. I, Public Works Department Code, in framing the estimate, and the circumstances which necessitated the payment of the large amount of Rs. 721 for compensation for loss of produce should be fully explained.

(Signed) F. J. WILSON,
for Chief Engineer.

From R. N. H. REID, Esq., Executive Engineer, Nellore Division, to the Superintending Engineer, II Circle, dated 18th November 1896, No. 246 S.E.

In returning herewith the completion report received with your endorsement No. 403 N.L., dated 3rd October 1896, on Irrigation Chief Engineer's No. II/57 N.L., dated 19th September 1896, I have the honour to offer the following explanation:—

Item 21, Allur channel.—A copy of Collector's No. 4107/Ver., dated 8th November 1896, is enclosed, from which it will be seen that certain dues were omitted to be intimated to this office under outlay anticipated, and hence the excess.

Item 22.—Means of irrigation and means of communication to certain fields of Umamaheswarapuram shrotriem were cut off by the excavation of Ulavapalla branch channel in fasli 1297 or 1887. A long correspondence took place between the

Revenue Department and the Public Works Department Audit, at last ended in the restoration of means of irrigation in 1892 and means of communication in 1894. Loss of produce, &c., had to be paid for six years at the rate of Rs. 120 a year. The above were not foreseen at the time of making the original estimate, which only provided for land to be taken for the works, and not for loss of produce and means of communication cut off; hence the excess.

ENCLOSURES.

Monthly report of works completed during the month of July 1896, Nellore division.

Item number.	Class No. of estimate.	Name of estimate.	Sanction.			Amount of estimate.				Percentage of excess if any.	Remarks.
			Authority.	Number.	Date.	Amount of estimate.	Expended.	Saving.	Excess.		
21	49	Allur channel compensation (Sangam anicut system).	G.O., No. 881 I., dated 28th October 1892.			Rs. 342	Rs. 739	..	397	116	The provision made in the estimate is insufficient; hence the excess.
22	..	Ulavapalla branch channel minor channel 3 miles 396 feet, left bank, compensation (Sangam anicut system).	S.E. II. No. 382-2 of 1896-90.			15	723	..	708	4,720	The excess is due to Rs. 720-13-3 paid by the Revenue Department for loss of produce from fasli 1297 to 1302.

Copy of letter from the Collector of Nellore, to the Executive Engineer, Nellore Division, dated 8th November 1896, No. 4107/Ver.

In reply to your letter No. 633 M., dated 29th October 1896, I have the honour to state that of the total expenditure of Rs. 749-15-6, Rs. 363-13-6, were actually paid previous to the date of your reference of 1891, and the remainder Rs. 386-2-0, subsequent to that date. This latter amount belongs to two claims—one for S. No. 251 A. of North Mopur, for which Rs. 32 was awarded in August 1880; and the other for S. No. 250 of the same village, for which Rs. 351-2-0 was awarded for trees, a well and a house, on the 1st July 1891, separate compensation having been settled for land in the shape of fresh lands in exchange. Copies of these awards, viz., 241 of 1880 and 122 of 1891, were as usual forwarded to you. In verifying the figures furnished by you in 1891 under outlay anticipated, it was ascertained that no case was pending settlement at the time; and therefore no amount was estimated under outlay anticipated. The two cases already referred to in which compensation had been settled but not paid for, were not taken into account.

No. 519 N.L.

Forwarded to the Chief Engineer for Irrigation, with reference to his No. II/57 N.L., dated 19th September 1896.

(Signed) W. L. C. BADDELEY, Major, R.E.,
Superintending Engineer, II Circle.
24th November 1896.

No. 227 I.

Submitted to Government. In the circumstances reported, the excesses may be passed.

CHEPAX,
9th December 1896.

(Signed) W. HUGHES,
Chief Engineer for Irrigation.

4 No. 1066 I., 17TH DECEMBER 1896.

ORDER—No. 1066 I., dated 17th December 1896.

The Examiner of Public Works Accounts is authorized to admit the expenditure incurred on the two works entered in the Completion Report of the Nellore division for July 1896.

2. This sanction is registered as No. 151 I. of 1896-97.

(True Extract.)

(Signed) W. HUGHES,
Joint Secy. to Government,
Irrigation Branch.

To the Chief Engineer for Irrigation.
" Superintending Engineer, II Circle.
" Examiner, Public Works Accounts.

Est Md. Fakhilwan.

Public Works (1896) Department

PUBLIC WORKS DEPARTMENT,

IRRIGATION BRANCH.

Current No. 11111
PROCEEDINGS OF THE MADRAS GOVERNMENT.

Recd. 11/12/96
Under date the

Read the following

From Supp Eng. Div. N. 369 N. 2, 4/14. 9. 96
To do. 57 N. 2, 4/19. 9. 96
From do. 519 N. 2, 4/24. 11. 96.

No 227

Submitted to Govt.

In the circumstances
reported the excess
may be passed.

Order thereon

The Examiner of
P. W. Accounts is
authorised to admit
the expenditure incurred
on the two works
entered in the completion
report of the Nellore.
Div for July 196.

2. This sanction
is registered as No.
151 I of 1896-97.

To the Chief Eng. for I.
Superint II
E. J. W. 2

1/12/96
28/11/96

W.H.

9/12

Public Works (189) Department.

CURRENT No. 99 N.L.

Order

From

Major W.C. Daddley RE
Supg/Supg: 11 Cms

No. 519 M

Dated 24 November 1896

Received 26 - 11 - 96

Enclosures 2

Spare copies

SUBJECT.

Allen Channel Compendium
Forward copy of letter
from Nelson to: Engr
explaining certain details
of R. S. reg. 111. — C. R.

1371

26.11.96

7-22

27.11.96

27.11.96

[illegible][illegible]

Nelson DIVISION.

Monthly report of Praske completed during the month of July 1896

Item No.	Name of estimate.	SANCTION.		Amount of estimate.	Expended.	Saving.	Excess.	Percentage of excess, if any.	REMARKS.
		Authority.	No. Date.						
21	Alluvial channel compensation for	G.O.	881 28-10-92	Rs. 342	Rs. 739	Rs.	Rs.	116	The the the
22	Mamapalla Branch Channel prior channel 3 M. 376' Left Bank Compensation [unclear] [unclear] [unclear]	S.L.P.	262 & 1889-90	Rs. 15	Rs. 723			4720	The made by the of which
									R.H. W. Paul 6/5
									Executive Engineer Mellone Division

NOTES.

Reference to P. W. D. Code.

Chap. IX, paras. 38 to 43.

1. After the despatch of the monthly accounts a report should be submitted to the Examiner of all works and repairs completed during the month for which detailed reports in Form No. 45 A. or 45 C. are not required.

2. Separate forms should be used for works and for repairs.

3. The amount expended should be entered to the nearest rupee (omitting annas and pies), and should accord with the up-to-date outlay shown in the Schedule of Expenditure of the month in question and with the closing entry in the Register of Works.

4. In the case of contribution works, proposals should be submitted as to the disposal of the unexpended balance, if any.

5. When work has been executed for the Civil or Military Department, the countersignature of the Civil or Military authority concerned should be obtained to the form of certificate, Form No. 45 B. or 45 D., and the certificate should be attached to this monthly report.

P. W. D. Form No. 45 E.

Mellore Division.

Monthly report of *Works.*

Completed during the month of *July* 1896.

Forwarded to the Examiner *EE ENGINEER*
Office No. *25-13-96* dated *25-13-96* 1896
No. *25-13-96*

R 99.12.96 Executive Engineer.

Transmitted to the Superintending Engineer,
duly verified as this Office
No. *25-13-96*, dated *25-13-96* 1896

Examiner of Accounts.

Transmitted to *for record as*
this Office No. *25-13-96* dated *25-13-96* 1896

Superintending Engineer.

* Here enter works or repairs as the case may be.

Copy of letter No. *4107* dated *8th November 1896*
from the Collector of *Mellore* to the Executive Engineer
Mellore Division.

In reply to your letter No. *633* of *29-10-96*, I have the honor to state that of the total expenditure of Rs 749-15-6, Rs 363-13-6 were actually paid previous to the date of your reference of 1891, and the remainder, Rs 386-2-0, subsequent to that date. This latter amount belongs to two claims, one for S. No. 257 A. of the *Mopur* for which Rs 32 were awarded in August 1899, and the other for S. No. 258 of the same village for which Rs 354-2-0 was awarded for trees, a well and a house, on the 10th July 1891, separate compensation having been settled for land in the shape of fresh lands in exchange. Copies of these awards viz 241 of 89 and 122 of 1891 were as usual forwarded to you. In verifying the figures furnished by you in 1891 under 'outlay anticipated' it was ascertained that no case was pending settlement at the time and therefore no amount was estimated under 'outlay anticipated'. The two cases already referred to in which compensation had been settled, but not paid for were not taken into account.

(True copy) R. H. H. Reid 18/11.

Executive Engineer
Mellore Division

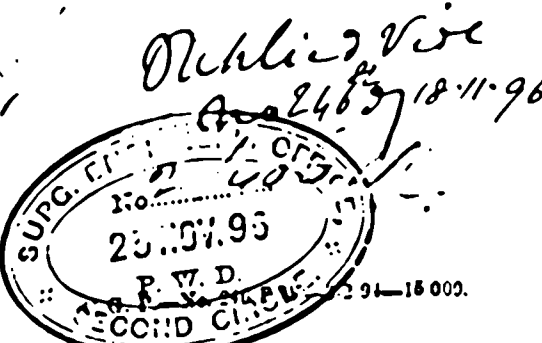
87
17/11/96

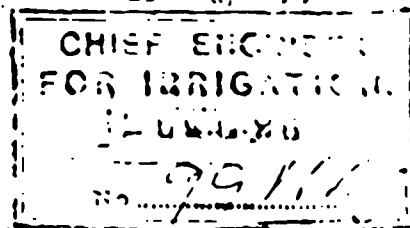


306.12
17-8-96

It is to be noted that the amount of Rs 32 awarded in August 1899 for S. No. 257 A. of the Mopur is not included in the total of Rs 363-13-6 paid previous to the date of your reference of 1891. This is because the award was made after the date of your reference.

H. B. Sankar



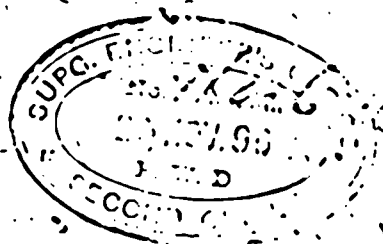


Letter from R. N. H. Red Esquire
Executive Engineer, Villore Division,
to the Supg. Engineer, Bangalore, of
18th November 96 No 246 SE.

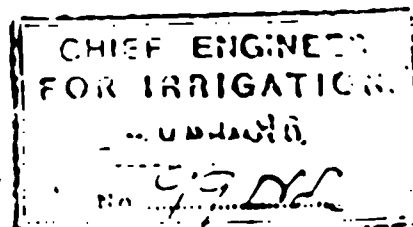
I returning herewith the
Completion Report received with
your endorsement no 403 N.L. of
3.10.96 on Irrigation Chief Engineer's
no II/57 N.L. of 19th September 1896. I
have the honour to offer the following
explanation.

Item 21. Alluvial Channel. A copy of
Collector's No. 407 of 8.11.96
is enclosed from which it
will be seen that certain
dues were omitted to be
intimated to this office
under outlay anticipated
and hence the excess.

Item 22. Means of irrigation and
means of Communication
to certain fields of Unamakesh
pouam Thotriem were cut
off by the excavation of Uman
palla Branch Channel
in July 1297 or 1887. A
long correspondence took place
between the Revenue Dept.
and the D.P. W. Audit at
last ended in the restoration
of means of irrigation in
1892 and means of Communication
in 1894. Loss of produce
had



had to be paid for 6 years at the
rate of 120 a year. The above
were not foreseen at the time of
making the original estimate
which only provided for land to
be taken for the works and not
for loss of produce and means
of communication cut off.
Hence the excess



N.O. 519 N.L.
24.11.96

Eaz

Forwarded to the
Chief Engineer for Irrigation with
reference to his no II/57 N.L. dt 19.9.96.

W. Baddley

Major R.E.
Supgr. II C. L.

Public Works (1896) Department.

CURRENT No.

Order

From The Chief Engineer for Irrigation

No. 57 N.L.

Dated 19. September 1896

Received

Enclosures

Spare copies

SUBJECT.

Allah Channel and
Ulavapaka branch minor
Channels Remarks on the
excesses entered in the Comp.
Report on the — and requests
explanation on the points
which necessitated the excess
on the

BACK PAPERS.

FURTHER PAPERS.

No.	Date.
8819	28.10.92

No.	Date.
-----	-------

Memorandum ^{II} 57 N.L. 4/19-98
 with reference
 to letter No 369 N.L.
 of the 14th inst from
 the Supp. Insp. D. C. C.
 the undersigned has
 the honour to observe
 that the message &
 explanation afforded
 by the E.E. is not
 likely to induce
 the Govt to sanction
 the release on the
 two works entered
 in the completion
 report therewith
 forwarded.
 2. From item 277
 of the statement em-
 bodied in P. No. 4
 No 881. J. of 28 Oct/92,
 it is observed that the
 sanction provision
 of No 950 for the first

Public Works (189) Department.

CURRENT No.

Order

From

The Supy Insp

to civil

No. 369 HK

Dated 14 September 1896

Received 16 —

Enclosures 1

Spare copies

SUBJECT.

Alur channel and ulum
-putta branch around
channel 32, 396 ft L. B.—
completion report for land
compensation for —
Forwards with remarks
a copy of —

P. W. 10
1,000-1-8-96

to civil

item was reduced
to Rs 342. As this state-
ment was compiled from
information furnished
by the Collector of Kullu
the necessity for the sub-
sequent payment of
Rs. 397 should be reported.
3. With regard to the
loss on the second
item, it should be
stated whether the
Rev Dept was instructed
in accordance with
para 22, chapter IX
Vol. I, P.W.D. Code,
in framing the estimate
of the circumstances which
necessitated the payment
of the large amount
of Rs 721 for compensation
for loss of produce
should be fully ex-
plained.

15/9

To the Supy Insp
10/9
1896

FURTHER PAPERS

G.O.	No.	Department.	Date.
Receipt	7502	NL	12 9 95
Issue	57	NL	19. 9 96
Receipt	992	NL	24 11 96
G O	681	J	28 10 92

Receipt for Cash.	No.	Department.	Date.
J	^{II} 57	N.L.	19-7-50
R	99	hL	24-10-76

Bezienswa

II CIRCLE,

Dated 14 September 1896.

From.

Major W. L. C. Baddley R. E. ^{Engineer,}

Superintending Engineer,

II Circle.

To,

The Chief Engineer,
For Irrigation.

Enclosure/ Sir,
C. Report.

I have the honor to forward
herewith a copy of completion report for
land compensation for Alluvial channel and
Mavapatla branch ^{minor} channel 3 miles,
396 feet Left Bank, and to request that
you will be so good as to obtain the sanc-
tion of Government to the excess outlay
over estimates being admitted by the
Examined P. & Accounts.

I have the honor to say,

Yours most ^{Sir} obedt Servt

John

13,490

13496
Certificate required
for Secretarial Engr.
to Civil

28TH OCTOBER 1892, No. 881 I., PUBLIC WORKS.

GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

READ—the following papers:—

From J. W. MARTIN, Esq., Superintending Engineer, II Circle, to the Chief Engineer for Irrigation, dated Bezvada, 1st September 1892, No. 326 N.L. Adverting to para. 11 of your Inspection Notes printed with G.O., dated 24th

March 1890, No. 192 I., I have the honour to forward the estimates and plans noted on the margin for three masonry bridges over Allur tank supply-channel, Sangam anicut system.

2. In regard to the necessity for the bridges, the Executive Engineer observes in his report as follows: "The necessity for these bridges is owing to the Public Works Department having increased the depth of water in the channel to six feet, thus rendering it impassable for bandies for the greater part of the year."

3. The Executive Engineer submitted designs for bridges made with iron rails. The amount of his estimates for three bridges is Rs. 6,940 against Rs. 7,860 for three masonry bridges. I am forwarding his designs and estimates for your information.

4. The designs for the masonry bridges have been prepared by me as I do not approve of the Executive Engineer's designs. In the first place his plans do not provide sufficient waterway. The waterway of the channel at 1 mile 101 feet and 2 miles 3,140 feet is 294 square feet, and at 3½ miles it is 264 square feet, while his bridges provide for only 216 square feet each. In the second place, I do not approve of having a prop under the centre of the bridge as proposed by the Executive Engineer, for such an arrangement is very unsightly; and, in the third place, I do not approve of a wooden flooring 2 inches provided on the design for iron bridges.

5. My own opinion in regard to masonry *versus* iron bridges is that, whenever the site is suitable, it is better to provide a masonry bridge than an iron one, for practically it does not cost anything to maintain the former description, while the latter requires to be looked after and painted from time to time; and, moreover, a masonry bridge always looks better than an iron one. In the present case it seems to me that the sites are very suitable for masonry bridges; consequently I consider the bridges should be of this description and not iron ones.

From J. W. MARTIN, Esq., Superintending Engineer, II Circle, to the Chief Engineer for Irrigation, dated Bezvada, 1st September 1892, No. 327 N.L.

I have the honour to bring to your notice that the Collector of Nellore has not yet furnished the information regarding the anticipated saving on the provision for land compensation, Sangam anicut system, called for in para. 4 of your memo. No. 11/21 N.L., dated 29th June 1891.

From,
The Superintending Engineer,
II Circle.

To,
The

Dated
Received

18

Enclosures.

NO.

SUBJECT.

2. Pending receipt of the above information, an estimate, amounting to Rupees 6,000, for a minor channel from Duvur canal, submitted by the Executive Engineer in December last, was kept back in this office.

3. The Executive Engineer now submits for sanction another estimate of Rs. 1,000 for minor branch channel from Kurlanadama tank supplied by a minor channel from the eastern channel, and proposes that the balance of Rs. 10,828 under tools and plant of Sangam anicut system may be transferred to works to meet the demands for the two works mentioned, as there is no probability of the balance available under tools and plant being utilized.

4. I have the honour to request that sanction of Government may be obtained for the necessary transfer of Rs. 10,828 from tools and plant to works, to provide for the above estimates and also for future requirements.

5. As the sum of Rs. 1,000 placed at my disposal in your memo. No. 18/II, dated 7th November 1888, under tools and plant has not yet been utilized, and as there is no probability of its being required, I request that this amount also may be transferred to works.

ENCLOSURES.

Report to accompany the plans and estimates for the improvement of the minor channel at 17 miles 2,168 feet, right bank, Eastern channel, Rs. 1,000.

The estimate provides for the improvement of the minor channel at 17 miles 2,168 feet, right bank, eastern channel, with a view to supplying the following areas with project water:—

	ACRES.
(a) Ayacut of Tunga tank of Utukur	642
(b) Bed of Tundala do.	144
(c) Ayacut of Tundala do.	464
(d) Do. Kurlanadama tank of Utukur	221
(e) Two pieces of land situated just above the bed of the Kodavandla tank of Utukur	99
Total	1,570

2. The minor channel is already provided with a head-sluice and discharges sufficient water for the above acreage. All that is necessary is that it should be widened to the needful extent and a new vent built.

3. The minor channel runs along an old varava or supply channel from the Maldevy drain, and at $\frac{1}{2}$ mile from its head there is on the right an existing vent which is large enough to supply the 608 acres which together constitute the bed and ayacut of the Tundala tank.

4. At 1 mile 1 furlong there is an existing drop which is 2 feet 3 inches wide which, with 2 feet on the crest, will discharge 21 cubic feet a second—a supply quite ample for 863 acres, the total of the ayacuts of the Kurlanadama and Tunga tanks.

5. Above this drop and regulator will be a vent which is designed to supply the 99 acres mentioned in para. 1 (e).

6. The 221 acres of the Kurlanadama tank ayacut will be supplied as at present, and the 642 acres of the ayacut of the Tunga tank will be irrigated by a channel taking off from the northern bund of the Kurlanadama tank where a suitable head-sluice will be built. This channel will run along the inner slope of the bund of the abandoned Kodavandla tank, pierce discharging over a drop where it leaves the outer slope of the southern bund of the Tunga tank, 726 feet on the right bank of the channel to supply 342 acres by means of an old irrigation channel.

7. The Kurlanadama tank was originally included in the list of tanks to be abandoned, but owing to the conformation of the tank which, like so many tanks near the sea consists of a bed and across the drainage of the country, and even if this were done the channel would be liable to frequent breaches and supply to over 800 acres would be cut off. It is therefore proposed to retain it and supply it with project water. The eastern channel has now its full ayacut to irrigate without the bed of this tank, and it may be allowed to be retained.

8. The yearly revenue is estimated thus—

Delta cess on 642 acres of the ayacut of the Tunga tank at Re. 1 per acre	Rs. 642
Delta cess on 221 acres of the ayacut of the Kurlanadama tank at Re. 1 per acre	221
Delta cess on 99 acres in the upper part of the Kodavandla vagu tank bed at Re. 1 per acre	99
Delta cess on 464 acres of the ayacut of the Tundala tank at Re. 1 per acre	464
Revenue kist and delta cess on 144 acres of bed of Tundala tank at Rs. 5 and Re. 1 per acre, respectively	864
Five per cent. on the auction value of 144 acres of the bed of the Tundala tank, taking the price as low as Rs. 20 per acre, i.e., 5 per cent. on (20 × 144) Rs. or Rs. 2,880	144
Total	2,434

9. Provision has been made for demarcation and for compensation for the land required for the channels.

1st August 1892.

(Signed) C. H. D. MARJORIBANKS,
Executive Engineer.

D.P.W. II Circle.

Report to accompany the plans and estimates for the minor channel, 2 miles 930 feet, right bank of Duvur Canal.

Amount of estimate	Rs. 6,000
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This estimate provides for the irrigation of some 730 acres of land in the village of Padamatipalem which, before the excavation of the Sangam delta project, were irrigated from the old Duvur channel, now called the Duvur canal. This canal takes off above the Kanigiri main canal on the left bank of the Pennér.

2. The lands in question were irrigated by a channel which took off at 2 miles 930 feet of the Duvur canal just above a regulator dam which was fitted with cast iron standards and planks. This regulator was dismantled. When the Kanigiri main canal was excavated it cut right across the Padamatipalem channel. It was proposed to irrigate the ayacut of the latter channel from the Duvur branch channel which takes off from the right bank of the Kanigiri main canal. It was found, however, that the lands in question were too high to be irrigated from the said branch channel, and hence, ever since the supply was interrupted, the 730 acres it is proposed to irrigate were either left uncultivated or sown with dry crops, the difference between the dry and wet rate, about Rs. 3,000, being remitted every year.

3. The supply to these lands can be restored by means of the present proposals, viz., to restore the regulator across the Duvur canal, build a new head-sluice, take the channel under the Kanigiri main canal in a syphon culvert, drop it into the Gundaveram channel, and then take the channel across the Duvur branch channel in an (iron trough) aqueduct.

4. The works are as follows:—

(1) *Excavation of channel.*—This old channel is still in existence, but has silted up year by year since 1883. The ryots have given a written agreement (kyfist) to clear it out on condition the masonry works are built by the Public Works Department. No estimate is therefore necessary.

(2) *Regulator across Duvur canal.*—This will be restored and fitted with wrought iron standards and shutters. Water will be held up to a height 5½ feet sufficient to ensure a proper head in front of the head-sluice of the channel.

(3) *The head-sluice.*—The old head-sluice is quite unsuitable and is in a ruined condition. The new head-sluice has been designed to discharge the quantity required, viz., 19 cubic feet a second with a head of 6 inches.

(4) *Road-tunnels to carry the Dornal road and a small branch road leading to the Turnavaya chattram.*

(5) *Syphon culvert under the Kanigiri main canal.*—The culvert will be 3 feet wide, 1½ feet to springing of arch, which is semi-circular; with a head of 0·16 it will discharge the quantity required, viz., 19 cubic feet.

5. The return will be Rs. 730 (the delta cess being a rupee an acre). This on the total cost of Rs. 8,000 is a return of 12 per cent. Of course this return is simply that which will be credited to the project. The land revenue will benefit by four times that amount. Even if only half the acreage is on the average cultivation, it would be expedient to carry out the works proposed since the source of supply to the lands in question was cut off by the action of the department. Early sanction is solicited from the funds for next year (1892-93). The siphon culvert should be commenced in January so as to have it finished before the commencement of next irrigation season, and prevent any delay in passing water to the Kanigiri reservoir.

(Signed) H. H. O'CONNELL
Executive Director

With reference to your memo. No. 11/47 N.L. of the 6th July 1892, and in continuation of my letter No. 327 N.L., dated 1st September 1892, I have the honour to forward herewith a statement of savings from provision for land compensation of Sangam anicut system, compiled from information furnished by the Collector of Nellore.

2. The statement shows a net saving of Rs. 1,000 per annum.

2. The statement shows a net saving of Rs. 22,056 under "B. Land," which the Collector states is due to the substitution of "land" compensation for "money" in as many cases as were possible.

3. To this may be added the following sums:—

Rs.	
1,000	Surrendered by me from tools and plant of the Sangam anicut system— <i>vide</i>
	para. 5 of my letter quoted above.
10,828	Balance now remaining at disposal of Government under tools and plant of
	the same system without any probability of its ever being utilized as previ-
	ously reported in para. 4 of the same letter.

11,828 Total.

4. These surrenders will increase the provision for future requirements under "works" of the Sangam anicut system by Rs. 27,548, as will be seen from the following statement, which gives the original sanctioned estimate amounts and the revised amounts of estimates as now proposed under the different heads of the above system:—

Sangam project estimate.

Details.	Original sanction.	Surrender as now proposed.	Addition as now proposed.	Total * as now proposed.
	B. LAND.			
Works	Rs. 24,50,000	Rs. 22,058	Rs. 27,548	Rs. 24,55,402
Establishment ..	4,85,000	—	+	6,336
Tools and plant	1,29,830	10,828	+	—
Loss by exchange	170	1,000	..	1,18,002
Total ..	30,65,000	..	..	170
		— 33,884	+ 33,884	30,65,000

5. From the sum now made available, I have the honour to request that a sum of Rs. 2,000 may be placed at my disposal to meet the requirements for unforeseen minor works, estimates for some of which are now in hand to the extent of Rs. 1,000.

ENCLOSURE.

STATEMENT showing probable savings on land compensation of the Sangam Project.

Item number in O.O., No. 195 I., dated 26th March 1890.	Name of work.	Estimate amount.	OUTLAY		Total.	Differ- ence.	Remarks by Collector.
			Up to date.	Antici- pated.			
1	2	3	4	5	6	7	8
17	Compensation for Kanigiri reser- voir	Rs. 2,46,440	Rs. 2,37,087	Rs. 3,903	Rs. 2,39,990	Rs. 6,450	
41	Eastern channel—						
42	Compensation for land, 1-6 miles	934	461	..	461	473	
43	Compensation for land, 2nd section	2,868	2,890	..	2,820	— 27	
92	Compensation for land, 3rd section	4,482	859	410	1,269	3,213	
93	Minor channel, 1 mile—	60	..	..	..	60	
96	Compensation for land Minor channel, 1 mile 3,664 feet—	7	7	Com- pleted	7	..	
98	Minor channel at 3 miles, 396 feet, left bank—	16	..	10	10	6	
108	Compensation for land Minor channel at 3 miles, 3,960 feet, right bank—	788	369	..	369	397	
124	Branch channel from minor chan- nel, 3 miles, 3,960 feet, right bank—	146	..	..	..	146	
137	Compensation for land Branch channel from minor chan- nel, 7th sluice (4 miles, 4,290 feet)—	316	..	..	..	316	
139	Compensation for land Minor channel, 5 miles 200 feet, right bank—	124	30	..	30	94	
143	Compensation for land Minor channel, 5 miles, 200 feet, left bank—	143	65	..	65	78	
147	Compensation for land Minor channel, 6 miles 410 feet, left bank—	257	0	..	9	248	
153	Compensation for land Minor channel, 9 miles 888 feet, right bank—	366	27	300	327	29	
163	Compensation for land Minor channel, 10 miles 6,050 feet, right bank—	27	4	..	4	23	
168	Compensation for land Branch channel at 68 feet—	127	4	..	4	123	
171	Compensation for land Minor channel, 10 miles 6,050 feet, left bank—	430	10	..	10	420	
176	Compensation for land Dampur tank bed, minor channel—	380	213	30	243	137	Difference since paid.
191	Compensation for land Minor channel, 13 miles, left bank—	714	122	..	122	592	Do.
195	Compensation for land Vavilla tank supply channel, 14 miles 1,893 feet, left bank—	244	110	..	110	134	
201	Compensation for land Minor channel, 15 miles 1,320 feet, left bank—	710	215	..	215	495	
206	Compensation for land Escape channel, 15 miles 2,960 feet—	71	40	31	71	..	Difference since paid
209	Compensation for land Dandigunta minor channel, 16 miles 2,168 feet, left bank—	1,336	66	..	66	1,270	No amount required as fresh lands had been granted.
219	Compensation for land Varini tank supply channel, 17 miles 1,320 feet, left bank—	283	..	283	283	..	No details given in the list and therefore no forecast can be made.
220	Compensation for land Varini tank compensation	1,859	6	200	206	1,653	
232	Minor channel, 19 miles, right bank—	163	2	2	4	159	
236	Compensation for land Branch channel from the above—	31	..	..	..	31	
248	Compensation for land Minor channel from sluice, No. 1—	31	..	..	..	31	

Statement showing the probable savings on land compensation of the Sangam Project—cont.

Item number in G.O., No. 195 I., dated 25th March 1890	Name of work.	Estimate amount.	OUTLAY		Total.	Difference.	Remarks by Collector.
			Up to date.	Anticipated.			
1	2	3	4	5	6	7	8
250	Minor channel from sluice, No. 2— Compensation for land ..	60	..	..	..	60	
252	Minor channel from sluice No. 2— Compensation for land ..	16	..	..	..	16	
256	Vanni branch channel— Compensation for land ..	236	263	32	326	— 189	Difference since paid.
269	Minor channel from Vadalalur tank along right bank, eastern channel— Compensation for land ..	1,378	37	656	693	786	Difference since paid.
277	Allor channel— Compensation for land ..	950	346	..	342	608	X
288	Purani tank supply channel— Compensation for land ..	190	6	2	7	183	
296	Zuvvaladinne branch channel— Compensation for land ..	1,013	755	..	766	268	
306	Minor channel, 1,320 feet, right bank— Compensation for land ..	18	20	..	20	— 2	
308	Branch channel, 1 mile 132 feet, right bank— Compensation for land ..	6	6	..	6	— 1	
311	Minor channel, 1 mile 1,650 feet, left bank— Compensation for land ..	27	14	..	14	13	
314	Minor channel, 1 mile 1,980 feet— Compensation for land ..	22	13	9	22	..	
316	Minor channel, 2 miles 4,960 feet, right bank— Compensation for land ..	104	..	104	104	..	
318	Minor channel, 3 miles 3,960 feet, right bank— Compensation for land ..	60	40	..	40	20	
319	Ikkapalle branch channel— Compensation for land ..	226	16	..	16	210	
322	Minor channel, 1,320 feet, right bank— Compensation for land ..	61	..	..	..	61	
333	Minor channel, 1 mile, left bank— Compensation for land ..	12	..	..	..	12	
336	Minor channel, 1 mile 3,026 feet, right bank— Compensation for land ..	43	..	43	43	..	Difference since paid.
339	Kamannab branch channel— Compensation for land ..	82	68	..	68	14	
346	Gogulajalli branch channel— Compensation for land ..	463	260	..	260	213	
352	Minor branch channel from left bank of minor channel at 3,620 feet, right bank— Compensation for land ..	25	..	25	25	..	
359	Minor channel, 3,960 feet, left bank— Compensation for land ..	196	1	..	1	195	
364	Minor channel at 1 1/2 miles, right bank— Compensation for land ..	66	1	16	16	60	
369	Minor channel at 1 mile 4,740 feet, left bank— Compensation for land ..	132	..	48	45	87	
373	Minor channel at end of extension— Compensation for land ..	69	..	..	..	69	
375	Ulavapalle branch channel— Compensation for land ..	840	203	..	203	637	
379	Allor branch channel— Compensation for land ..	267	254	..	284	— 17	
393	Minor channel, 1/2 mile, right bank— Compensation for land ..	74	74	Completed.	74	..	
416	Central channel— Compensation for land ..	1,300	1,029	60	1,078	222	
420	Minor channel, 1/2 mile, left bank— Compensation for land ..	73	62	..	62	10	
425	Minor channel, 1 mile, right bank— Compensation for land ..	236	241	..	241	— 7	
429	Minor channel, 1 mile, left bank— Compensation for land ..	165	123	..	123	42	
438	Minor channel, 3 miles, right bank— Compensation for land ..	477	366	..	366	111	

Statement showing the probable savings on land compensation of the Sangam Project—cont.

Item number in G.O., No. 195 I., dated 25th March 1890.	Name of work.	Estimate amount.	OUTLAY		Total.	Difference.	Remarks by Collector.
			Up to date.	Anticipated.			
1	2	3	4	5	6	7	8
441	Minor channel, 3 miles, left bank— Compensation for land ..	268	186	..	186	82	
445	Minor channel 14 miles, right bank— Compensation for land ..	281	120	63	173	108	Difference since paid.
452	Minor channel, 5 miles, right bank— Compensation for land ..	60	60	..	60	10	
455	Branch channel, 812 of above— Compensation for land ..	200	..	42	42	158	
457	Minor channel, 6 miles, left bank— Compensation for land ..	20	14	..	14	6	
461	Minor channel, 6 miles, right bank— Compensation for land ..	80	38	26	63	17	
464	Branch channel, 6 miles, right bank— Compensation for land ..	10	..	..	..	10	
466	Minor channel, 6 miles, left bank— Compensation for land ..	394	116	60	166	228	Difference since paid.
470	Branch channel, from 6 miles left bank— Compensation for land ..	164	..	164	164	..	
478	Southern channel— Compensation for land, 1-14 mile.	5,133	5,005	28	5,133	..	
479	Compensation for land, 14th mile to end.	5,096	4,953	115	5,068	27	Difference since paid.
629	Branch channel at 1,379 feet— Compensation for land ..	674	33	92	125	449	Since paid.
634	Branch minor channel at 2 1/2 miles— Compensation for land ..	614	93	421	614	..	
650	Branch channel, 2,466 feet from minor channel, 6 miles 186 feet, left bank— Compensation for land ..	128	1	227	228	— 100	
654	Minor channel, 6 miles 2,399 feet, right bank— Compensation for land ..	193	64	129	193	..	
659	Branch channel, 716 feet of the above— Compensation for land ..	301	297	..	297	4	
670	Branch channel, 7 miles 4,984 feet, left bank, minor channel— Compensation for land ..	443	318	60	368	75	
687	Minor channel, 10 miles 1,726 feet, right bank— Compensation for land ..	659	608	102	707	— 148	Difference since paid.
697	Minor channel, 11 miles 885 feet, left bank— Compensation for land ..	810	816	86	901	— 91	Do.
698	Branch channel, 3 miles 1,020 feet from the above— Compensation for land ..	338	767	..	767	— 429	
612	Minor channel, 12 miles 3,300 feet, left bank, Vegur tank supply channel— Compensation for land ..	17	..	..	..	17	
614	Channel from Vegur tank to supply Modigunta lands— Compensation for land ..	210	28	20	48	162	
639	Branch from 1 mile 4,696 feet from the minor channel, 14 miles 2,647 feet, left bank— Compensation for land ..	66	..	25	25	40	
644	Minor channel, 16 miles 3,200 feet, left bank— Compensation for land ..	687	362	23	376	312	
652	Minor channel at 203,400 feet, left bank— Compensation for land ..	160	63	24	77	73	Difference since paid.
669	Duvur branch channel— Compensation for land ..	472	468	..	468	4	
679	Duvur branch channel extension— Compensation for land ..	166	63	93	166	..	
690	Siddipurem low level distributary, 2,308 feet— Compensation for land ..	83	17	Complete	17	16	

Statement showing the probable savings on land compensation of the Sangam Project—cont.

Item number in G.O., No. 195 I., dated 25th March 1890.	Name of work.	Estimate amount.	OUTLAY		Total.	Difference.	Remarks by Collector.
			Up to date.	Anticipated.			
1	2	3	4	5	6	7	8
698	Siddipuram high level distributary, 2 miles 4,870 feet— Compensation for land	36	4	..	4	32	
704	Duvur distributary, 3 miles 435 feet— Compensation for land	12	11	..	11	1	
709	Annareddipollem distributary, 4 miles 287 feet— Compensation for land	11	11	..	11	..	
720	Minor channel, 6 miles 2,592 feet— Compensation for land	53	7	3	10	43	
723	Branch channel from minor channel, 5 miles 2,592 feet— Compensation for land	4	4	..	4	..	
726	Minor channel, 6 miles 3,302 feet— Compensation for land	16	9	6	15	..	
	(4) Drainage and Protective Works.						
733	Eastern channel, drainage channel, 6 miles 330 feet— Compensation for land	286	271	..	271	15	
736	Drainage channel, 9 miles 3,300 feet— Compensation for land	70	69	..	69	1	
740	Kadanuthala and Zuvaladinne embankment— Compensation for land	306	94	..	94	111	
744	Drainage channel, 14 miles 1,703 feet— Compensation for land	463	174	260	424	38	
748	Southern channel, Moidevi drain— Compensation for land	158	12	100	112	46	
761	Challipollem drainage channel— Compensation for land	600	451	..	451	149	
766	Drain, 13 miles 1,368 feet— Compensation for land	25	3	..	3	22	
762	Improving Vegur channel, right bank— Compensation for land	695	695	Completed.	695	..	
768	Duvur branch channel drainage channel from Annareddipollem tank to Kovur channel— Compensation for land	8	8	..	8	..	
..	Eastern channel— Compensation for land	394	..	86	86	308	Since paid.
..	Indupur tank minor channel— Compensation for land	460	133	..	133	317	
..	Allur channel, minor channel, 4 miles 330 feet, left bank— Compensation for land	232	443	60	493	261	
..	Ulavapalla branch channel, minor channel, 3 miles 2,706 feet, left bank— Compensation for land	20	..	..	..	20	
..	Eastern channel, minor channel, 15 miles 1,320 feet, left bank, branch minor channel, 1 mile 2,640 feet, left bank— Compensation for land	175	8	167	175	..	
..	Southern channel, minor channel, 14 miles 2,647 feet, left bank, minor branch channel, 10 feet, right bank, sub-branch channel, 2,640 feet, left bank— Compensation for land	60	..	60	60	..	
..	Minor branch channel, 4,000 feet, right bank— Compensation for land	360	..	360	360	..	
	Total ..	..	..	..	..	22,072	No details given and no forecast can be made.

Note.—The Collector states that "the large savings are due to land compensation having been substituted for money in as many cases as possible."

NELLORE,
31st August 1892.

(Signed) C. H. D. MARJORIBANKS,
Executive Engineer.

Office note from the Examiner, P. W. Accounts, dated 13th Oct. 1892, No. 1379 C.

No. 173 I.

Submitted to Government.

2. Owing to the alterations made in columns 3 and 4 of the statement of savings made by the Examiner of Public Works Accounts, the savings in the provision for land compensation in the estimates for the Sangam anicut project have been increased from Rs. 22,056 to Rs. 22,072. The latter sum added to the balance available for unforeseen works of the project will make a total of Rs. 22,388. From this sum the following estimates are recommended for sanction:—

	RS.
Allur tank supply channel—	
Three masonry bridges	7,860
Duvur canal—	
Minor channel, 2 miles 930 feet, right bank	6,000
Kanigiri tank, eastern channel—	
Minor channel at 17 miles 2,168 feet, right bank	1,000

Total ... ~~14,860~~ 14,860 vide G.O. No. 1020 Sd/-12-92

Rs. 2,000 may be placed at the Superintending Engineer's disposal to meet sanctions for minor channels which may be accorded by him subsequently. The balance available for unforeseen works will then be Rs. 4,628. 5328 vide G.O. No. 1020 Sd/-12-92

3. As the provision in the project estimates for tools and plant charges exceeds the requirements, the balance may be diverted for expenditure on works. It is therefore suggested that the sanction of the Government of India be applied for to the following re-distribution, by departmental heads, of the existing sanction for direct charges of the project:—

	Existing sanction.	Re-distribution.
	RS.	RS.
Works	25,03,800	25,14,084
Establishment	4,98,086	4,96,362
Tools and plant	1,29,944	1,19,384
Loss by exchange	170	170
Total ...	31,30,000	31,30,000

If sanction be accorded to this re-distribution, the balance available for unforeseen works will be raised to Rs. 14,812.

OOTACAMUND, (Signed) R. R. E. DRAKE-BROCKMAN, Lt.-Col., R.E.,
20th October 1892. Ag. Chief Engineer for Irrigation.

To the Acting Joint Secretary to Government,
Public Works Department, Irrigation Branch.

ORDER—dated 28th October 1892, No. 881 I., Public Works.

From the savings of Rs. 22,072 in the provision for land compensation in the estimates for the Sangam anicut project Rs. 2,000 are placed at the disposal of the

Superintending Engineer, II Circle, and the following estimates are sanctioned, the balance being credited to the lump sum available for unforeseen works:—

Capital Expenditure not charged to Revenue.

49. Irrigation.

Sangam Anicut Project.

I. Works.

(3) Distributaries.

Allur tank supply channel.

C. Works—

	rs.
1. Constructing a bridge at 1 mile 100 feet ...	2,430
2. Do. do. 2 miles 3,140 feet ...	2,700
3. Do. do. 3½ miles ...	2,730
Total ...	7,860

Eastern channel, minor channel, 17 miles 2,168 feet, right bank.

C. Works—

	rs.
4. Vent at 1 mile 660 feet, left bank ...	60
L. Earthwork—	
5. Excavation ...	45
Total ...	105

Minor branch channel from Kurlanadama tank of Utukur.

B. Land—

	rs.	rs.
6. Compensation for land ...	20	
C. Works—		
7. Head-sluice ...	260	
8. Vent at 726 feet, right bank ...	110	
9. Drop at 2,640 feet ...	180	
L. Earthwork—		
10. Excavation and banking ...	280	550
O. Miscellaneous—		
11. Demarcation stones ...	45	280
	45	
		895

Total, Eastern channel ... 1,000

Duvur canal.

Minor channel, 2 miles 930 feet, right bank.

C. Works—

	rs.	rs.
12. Providing shutters to regulator in Duvur canal ...	380	
13. Constructing head-sluice at 0 mile 0 foot ...	390	
14. Do. a road culvert at 0 mile 1,080 feet ...	210	
15. Do. do. at 0 mile 2,508 feet ...	260	
16. Do. a syphon culvert at 0 mile 2,840 feet ...	3,540	
17. Do. an iron aqueduct at 0 mile 4,718 feet ...	1,220	
		6,000
Grand Total ...	14,860	

2. This sanction is registered as No. 124 I. of 1892-93.

3. Ordered that a copy of these Proceedings be forwarded to the Government of India with a request that the re-distribution, by departmental heads, of the existing sanction for direct charges of the project, as proposed by the Chief Engineer for Irrigation, may be sanctioned.

(Here enter No. 882 I., Public Works, dated 28th October 1892.)

(True Extract.)

(Signed) R. R. E. DRAKE-BROCKMAN, Lt.-Col., R.E.,
Ag. Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Chief Engineer for Irrigation.
" Superintending Engineer, II Circle.
" Examiner, Public Works Accounts.
" Revenue Department.
Editors' Table.

Exd. A. D. Xavier.
Spare Copies

IRRIGATION.
ACCOUNT.

Govt. of {1892} Madras.
PUBLIC WORKS.

Dated October, 28th.

Recd.

Encl.

G.O., 28th Oct. 1892, No. 881 L.

OCTOBER.

Sangam Anicut Project

Estimates, aggregating Rs. 14,860, for certain works in connection with the —, sanctioned with remarks, and a copy of these Proceedings ordered to be forwarded to the Government of India.

10000

1866

Public Works (1896) Department.

G.O., No. 10689
A

DATED 18 December

[Despatch Abstract.]

Schedule of Demands. A plan to the Govt.
of India furnishing the total under
major heads in the for migration
for 1897-98. //

No.	Date.
1057-529.	15.2-96.

No	Date.

INDIAN TELEGRAPHY
Monthly Local 22/6
17/11/56
1444
Answers Works
15th instant
urgent
+ Can 11417
Sent 6.9.11/56
16.11.56
1705
96
RECEIVED
L. N.
Mrs. R.
At
Date
Sent to
At
From
Mrs. R.
Postmaster