1

Public Works (1897) Department.

G.O., No. 523 I

DATED 4. June 1897

9/11/97

[Despatch Abstract.]

Lingala tank: Sanctioning an approximate revised estimate amounting to Rs 45,000 for restoring —, Cuddapah Division.

90/4

[P.W. 20. / 1500—20-11-96.]

Indexed.

BACK PAP

G.O.	No.	Department.	Date.	G.O.		artment.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

IRRIGATION.
ACCOUNT.

Government {1897} of Madras.
PUBLIC WORKS.

Recd. } 1897.
Regd.

Enclosures

Spare copies

G.O., No. 523 I., 4th June 1897.

JUNE.

Lingala Tank

Sanctioning an approximate revised estimate amounting to Rs. 45,000 for restoring —, Cuddapah division.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

Read—the following papers :—

From S. B. MURRAY, Esq., Executive Engineer, Cuddapah Division, to the Superintending Engineer, III Circle, Bellary, dated 9th April 1897, No. C./1336.

With reference to your No. 3729, dated 5th February 1897, I have the honour to inform you that there is no objection to raising the F.T.L. of Lingala tank from + 78·00 to + 94·00. By doing so, the capacity of the tank is increased from 19 million cubic feet to 72 million cubic feet, which is an enormous advantage. The tank has just been started as a famine-relief work and I have ordered it to be carried out on the larger scale, and not according to the sanctioned estimate.

A revised estimate will be prepared as soon as the overseer in charge of the work can spare the time. Meanwhile, I request you will approve of my action.

Enclosure.

From the Superintending Engineer, III Circle, to the Officer in charge of Cuddapah Division, dated Bellary, 5th February 1897, No. 3729.

[His No. C./ 579 of 8th January 1897.]

The estimate for Lingala tank has been forwarded for sanction, because it may be urgently required for famine relief, but the tank as designed will not hold nearly enough water for its ayacut of 140 acres even for one crop.

2. It looks from survey and sections as if the F.T.L. might be raised to + 94, and a contour at this level should be taken to see what the contents of the tank between it and the 78 contour are.

3. The undersigned is anxious to make all tanks in these Deccan districts capable of holding three years' supply to enable them to tide over the years in which they receive only a scanty supply. Three years' supply for 140 acres of first crop and one-fourth of that area, or 35 acres of second crop would be 123 million cubic feet. It is improbable that anything like this amount could be stored at Lingala tank even if F.T.L. is raised to + 94, but the catchment could supply the amount in one day, so the tank would certainly fill if it could be constructed.

4. Of course the cost will be greatly increased, but it would be a work eminently suited to famine labour, and far more beneficial than breaking road metal which is not wanted. Also the water-rate could be raised to Rs. 6 if cultivation was assured.

No. 380 I.

Copy forwarded to the Chief Engineer for favour of approval, with copy of this office letter to which it is a reply.

(Signed) W. HUTTON,
for Supg. Engr., III Circle.

17th April 1897.

To the Superintending Engineer, III Circle, dated 27th April 1897, No. III/32 C.D.

The undersigned is unable to approve of the Superintending Engineer's action in permitting the work on the Lingala tank to be put in hand on a scale corresponding to a full tank level 16 feet higher than sanctioned.

2. The capacity of 19 millions cubic feet is possibly small for the irrigation of 140 acres, and if more work is required for famine relief than is provided by the sanctioned estimate, there will be no objection to ask for the sanction of Government to raising the full supply level by a small amount and raising the bund to such a section that it will not require much expenditure in maintenance for many years to come. The Superintending Engineer's proposal would commit Government to an expenditure of perhaps Rs. 60,000 for the irrigation of 140 acres.

3. Apparently the Superintending Engineer contemplates restricting the irrigation to 140 acres and reserving in ordinary years a large quantity of water in order to ensure a sufficient supply in famine years. This would be an extremely extravagant system and cannot be recommended for the approval of Government.

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

From W. B. deWINTON, Esq., Superintending Engineer, III Circle, to the Chief Engineer for Irrigation, dated Bellary, 11th May 1897, No. 966 W.

With reference to your No. III/32 C.D., dated 27th April 1897, I have the honour to inform you that I sent a copy of it immediately to the officer in charge of Cuddapah division with the endorsement herewith attached, and have to-day (11th) received the reply of which I now enclose a copy.

2. You will see that his estimate for raising the F.T.L. of Lingala tank 16 feet is Rs. 45,000, of which Rs. 17,000 is for additional earthwork suitable for famine labour.

3. More work than is provided by the sanctioned estimate is certain to be required here, as relief workers are increasing daily, and no better way of spending the money which must unavoidably be spent on famine relief, could be found than on permanent improvements of irrigation tanks. Government is now "committed" to spending not Rs. 60,000, but many lakhs of rupees on repairing roads by famine labour which need no repair, and it is heart-breaking to see it. I was most gratified to find that there was one irrigation work in this part of Cuddapah which might be undertaken with beneficial results, and I am very much surprised and disappointed that you should disapprove of it. If you had seen, as I have, during the last few months, thousands of rupees being absolutely wasted on road work, you would not hesitate to sanction a work of the kind proposed at Lingala tank.

4. With regard to paragraph 3 of your memorandum, I do not think you quite understand what I propose to do with tanks in this circle. With an annual rainfall less than 30 inches everywhere, there is scarcely a tank in the circle which irrigates its full ayacut or surplusses more than once in three or four years. In the remaining years it irrigates only more or less reduced portion of its ayacut, with the result that large remissions have to be given. My object is to catch and store the one heavy tank-filling rain-storm of three or four years, and so enable the tank to tide over the years in which it receives only a small supply.

5. For this purpose, I calculate that the amount to be stored is roughly one million cubic feet per acre of catchment arrived at thus :—

First crop, full ayacut.

	CUBIC FT.
Two cubic yards per acre per hour for five months	194,400
Add 25 per cent. for wastage	48,600
Total annual supply ...	243,000
Total for three years ...	729,000

Second crop, one-third ayacut.

Two cubic yards per acre per hour for four months	155,520
Add 25 per cent. for wastage	38,880
Total annual supply ...	194,400
Total for three years ...	583,200
Of which one-third is ...	194,400

Therefore 729,000 + 194,400 = 923,400 or say roughly one million cubic feet of water is required per acre of ayacut to irrigate the whole ayacut with first crop and one-third ayacut with second crop for three successive years.

6. The advantages of this plan are—

(1) Increased certainty of cultivation.
(2) Consequent ability to charge higher rate of assessment.
(3) No remissions.
(4) Great indirect benefit to ryots.

The only disadvantage is that great care would have to be taken to avoid waste of water, as the ryots could never be trusted themselves not to use all the water in one year.

7. Of course, it is only in places where such projects have a good chance of giving a good return that I propose to undertake them in ordinary circumstances. They will often be impracticable owing to smallness of catchment, nature of ground, soil, land to be submerged, &c. But I think that in this period of distress a golden opportunity has come for putting the matter to a practical test by way of experiment. The money *has* to be spent on something, so why not spend it on something which may prove eminently useful, instead of wasting it on roads.

8. I hope, therefore, that you will reconsider your decision with regard to Lingala tank, and sanction my proposal to raise its F.T.L. by 16 feet. If not, I beg that your decision may be communicated by telegram.

ENCLOSURE.

From S. B. **MURRAY**, Esq., Executive Engineer, Cuddapah Division, to the Superintending Engineer, III Circle, Bellary, dated 7th May 1897, No. 802.

With reference to your No. 734, dated 4th May 1897, I have the honour to inform you that I am forming the bund of Lingala tank with the section that is required for a F.T.L. of + 94·00. The amount of the sanctioned estimate, *i.e.*, for a tank with F.T.L. + 78·00 is Rs. 12,600, and I now submit an abstract estimate, which may be taken as approximately correct, for a tank with F.T.L. + 94·00 amounting to Rs. 45,000. The increase is chiefly for—

	RS.	
(1) **Earthwork**	17,000	(approximately.)
(2) **Revetment**	5,000	(”)
(3) **Land compensation**	7,500	(”)
Total ...	29,500	

Endorsement No. 734, dated 4th May 1897, on memo. No. III/32 C.D., dated Ootacamund, 27th April 1897, from Chief Engineer for Irrigation, to the Superintending Engineer, III Circle, Bellary.

Copy forwarded to the officer in charge of Cuddapah division for *very early* report on what he is doing at Lingala tank, and what the probable cost of raising F.T.L. from + 78 to + 94 will be.

2. The Chief Engineer for Irrigation seems to imagine that the undersigned proposes to make tanks capable of holding three years' supply irrespective of cost; but this, of course, is not the case, and all such projects must be governed by the ordinary financial principles. Only in the case of famine-relief works, the undersigned considers that if a project can be made to pay, say, 2 per cent., it is worth undertaking.

(Signed) W. B. deWINTON,
Superintending Engineer, III Circle.

No. 114 I.

Note by the Chief Engineer for Irrigation.

Submitted to Government.

2. In the circumstances reported by the Superintending Engineer, the following telegram was sent to him on the 17th instant :—

> “Your No. 966 W., Lingala tank. Go on with work, but carry up bund regularly so that if famine stops it may be finished to smaller section at moderate expense.”

3. The approximate estimate of Rs. 45,000 may be sanctioned at present, pending receipt of a more complete estimate, but this recommendation is made merely for the reason that there is a difficulty in finding work suitable for famine relief, and large sums are now being expended on unnecessary and useless road work.

4. In December last, the Superintending Engineer showed me a long list of works on the famine relief programme, and informed me that not one of the projects was financially sound. This is to be expected in the Deccan districts where the rainfall is less than near the coast, and so distributed that there is rarely much run off. Such country is badly adapted for tank irrigation, the highest estimates of water-supply giving only enough for 20 acres of cultivation per square mile of catchment in a year of average rainfall. Looking at the matter from an economical point of view, the capacity of tanks should be limited to the supply they are likely to receive in an ordinary year, but in the case of the Lingala tank the Superintending Engineer proposes to take advantage of the necessity for providing work for famine relief and make the tank large enough to hold the largest supply it is ever likely to receive, and hold over a part of the supply in years of more than average to meet the deficiency in years of less than average rainfall. Assuming as a rough approximation that the rainfall in very bad, average, and very good years, are in the proportion 1, 2, 3 and the run off in proportion to the squares of these numbers, a tank of 2¼ times, the economical capacity will be occasionally filled. If the previous calculation of 140 acres as the area ordinarily irrigable by the rainfall in the Lingala tank basin be taken as correct, the corresponding supply would be 30 millions cubic feet, and 2¼ times this 68 millions which is but a trifle under the capacity proposed by the Superintending Engineer. The tank therefore is likely to fill in years of extraordinary rainfall or, if the water is husbanded, at the end of a succession of years of rainfall somewhat above the average.

5. There is obviously a difficulty in laying down a rule that cultivation shall be restricted to 140 acres and yet if it is not done, the tank will not be a famine protective work. Rain-fed tanks are of little use in famine years when it is usual to use up the whole annual supply. Scarcely any district suffered more in 1876–77 than Madura where there are 5,000 tanks in the Government taluks alone, and Chingleput also with its great number of tanks suffered very severely.

6. The large sum (Rs. 7,960) provided in the estimate for land compensation indicates that the tank bed will occupy a considerable area of valuable land. This is a point which will have to be considered. Seeing that the tank will rarely fill, some arrangement is probably feasible for letting out annually a large part of the area for cultivation or not acquiring it at all, but allowing the owners to retain it on a reduced assessment. The Superintending Engineer will be instructed to make inquiries about this.

28th May 1897.

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

Order—No. 523 I., dated 4th June 1897.

The following approximate revised estimate is sanctioned in supersession of the estimate of Rs. 12,600 sanctioned in G.O., No. 257 I., dated 15th March 1897 :—

33. Famine Relief.
Minor Works and Navigation.
Minor Works for which neither Capital nor Revenue Accounts are kept, P.W.D.
Original Works.
Cuddapah Division.
Restoring Lingala Tank.

	RS.
Estimate	45,000

2. This sanction is registered as No. 32 I. of 1897–98.

(True Extract.)

for ~~Under~~ Secretary to Government,
~~Irrigation Branch.~~

To the Chief Engineer for Irrigation.
" Superintending Engineer, III Circle, with estimate.
" Examiner of Public Works Accounts.

Exd. W. D'Moss.

H.E. the Governor

PUBLIC WORKS DEPARTMENT,
IRRIGATION BRANCH.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Estimate for restoring Lingala Tank
Cuddapah District

UNDER date the

[illegible] Act

READ the following

12[illegible]

Print [illegible]

From Supg. Engineer III Circle	No. 380. I. d/ 17. 4. 97
To ... do ... do ...	" 32. C.D. " 27. 4. 97
From ... do ... do ...	" 966. W. " 13. 5. 97
Endorsement of the Chief Engineer for Irrigation	" 114. I " 28. 5. 97.

Submitted to Govt.

2. In the circumstances reported by the Supg. Engineer the following telegram was sent to him on the 17th instant.

"Your No. 966. W. Lingala
"Tank. Go on with work
"but carry up bund regularly
"so that if famine stops
"it may be finished to
"Smaller Section at moderate
"expense."

3. The approximate estimate of Rs 45,000 may be sanctioned at present pending receipt of a more complete estimate but this recommendation is made merely for the reason that

Issue.

W.H. 31/5

31/5
97.

that there is a difficulty in finding work suitable for Famine relief, and large sums are now being expended on unnecessary and useless road work.

4. In December last, the Superintending Engineer showed me a long list of works on the Famine relief programme, and informed me that not one of the projects was financially sound. This is to be expected in the Deccan Districts where the rainfall is less than near the Coast, and so distributed that there is rarely much run off. Such country is badly adapted for tank irrigation, the highest estimates of water supply giving only enough for 20 acres of cultivation per square mile of catchment in a year of average rainfall. Looking at the matter from an economical point of view, the capacity of tanks should be limited to the supply they are likely to receive in an ordinary year but in the case of the Lingala Tank, the Supg Engineer proposes to take advantage of the necessity for providing work for famine relief and make the tank large enough to hold the largest supply, it is ever likely to receive, and hold over a part of the supply in years of more than average to meet the deficiency in years of less than average rainfall. Assuming as a rough approximation that the rainfall in very bad, average, and very good years, are in the proportion 1. 2. 3 and the run-off in proportion to the squares of these numbers a tank of $2\frac{1}{4}$ times, the economical capacity will be occasionally filled. If the previous calculation of 140 acres as the area ordinarily irrigable by the rainfall in the Lingala Tank basin be taken as correct, the corresponding supply would be 30 millions cubic feet and $2\frac{1}{4}$ times this 68 millions which is but a trifle under the capacity proposed by the Supg Engineer. The tank therefore is likely to fill in years of Extraordinary rainfall or, if the water is husbanded, at the end of a succession of years of rainfall somewhat above the average.

5. There is obviously a difficulty in laying down a rule that cultivation shall be restricted to 140 acres and yet if it is

not

I think this is sound. The point of view ~~A.S.H~~ to take is this: – Work must be found; money must be spent: choose the best work you can to spend it on, whether it pays or does not pay. From this point of view, tanks, even if they show no actual profit, will often be more useful and beneficial than piles of road metal.

A.S.H
30.5.97

not done, the tank will not be a famine protective work. Rain-fed tanks are of little use in famine years when it is usual to use up the whole annual supply. Scarcely any district suffered more in 1876-7 than ~~Madras~~ where there are 5000 tanks in the Government talugs alone, and Chingleput also with its great number of tanks suffered very severely.

Madura

6. The large sum (Rs 7960) provided in the estimate for land Compensation &c indicates that the tank bed will occupy a considerable area of valuable land. This is a point which will have to be considered. Seeing that the tank will rarely fill, some arrangement is probably feasible for letting out annually a large part of the area for cultivation or not acquiring it at all but allowing the owners to retain it on a reduced assessment. The Supg Engineer will be instructed to make enquiries about this.

W.H
E. J

A.S.H
30.5.97

JCW
This should be borne in mind [illegible] orders come
JCW
2/6/97

28/5/97

E. I. Form No. 1—500—3-12-96.

No: 523 I dated 4.6.97

14P

Order thereon

The following approximate revised estimate is sanctioned in supersession of the estimate of Rs 12,600 sanctioned in G.O. No. 257. I. dated 15th March 1897:—

A.S.H
30.5.97

33. Famine Relief.

Minor works & Navigation.

Minor works for which neither Capital nor Revenue accounts are kept. P.W.D.

Original Works.

Cuddapah Division

Restoring Lingala Tank.

Estimate Rs 45,000

2. This sanction is registered as No. 32 - I of 1897-98.

28/5/97

W.H
25.5.97

To

The Chief Engineer for Irrign
" Supg. Engr. Third Circle with estimate
" Exr of P. W. Accounts.

I 25/5/97

28/5

Public Works (1897) Department.

CURRENT No. 5479

16

Order vide

From The Chief Engineer for Irrigation

No. 114-I.

Dated 28-5-97

Received 3-6-97

Enclosures 7

Spare copies

SUBJECT.

Lingala Tank – approximate revised estimate for restoring – Submitted with remarks for sanction –

Reg. 4/6/97

5/6/97

5/6/97

BACK PAPERS.

No.	Date.

FURTHER PAPERS

No.	Date.

ublic Works (1897) Department.

Remp.
~~CURR~~ENT No. 31. 98

15

rder

From The Supt Engineer
3rd Circle

No. 966W

Dated 13 5 97
Received 15 5 97
Enclosures 3
Spare copies

SUBJECT.

Lungala Tank.
Reporting the circumstances under which it may be raised to its F.T.L by 16'

BACK PAPERS.

No.	Date.

FURTHER PAPERS.

No.	Date.

No 966W

Supt dg Engineer's Office,
III Circle, Bellary
~~Dated~~ 11th May 1897.
Desp 18th do

From
W. B. de Winton Esqre.,
Supt dg Engineer,
III Circle.

To
The Chief Engineer,
For Irrigation,
Ootacamund.

Sir,

With reference to your No. III/320.D dated 27 April 1897, I have the honour to inform you that I sent a copy of it immediately to the Officer in charge of Cuddapah Division with the Endorsement herewith attached, and have to-day (11th) received the reply of which I now enclose a copy.

2. You will see that his estimate for raising the F. T. L. of Lingala Tank 16 feet is Rs 45,000, of which Rs 17,000/. is for additional

Earthwork

Earthwork suitable for famine labour.

3. More work than is provided by the sanctioned estimate is certain to be required here, as relief workers are increasing daily and no better way of spending the money which must unavoidably be spent on ~ Famine Relief, could be found than in permanent improvements of Irrigation tanks. Government is now 'committed' to spending not Rs60,000/. but many lakhs of rupees on repairing roads by famine labour which need no repair and it is heart-breaking to see it. I was most gratified to find that there was one Irrigation Work in this part of Cuddapah which might be undertaken with beneficial

results

results, and I am very much surprised and disappointed that you should disapprove of it. If you had seen, as I have, during the last few months, thousands of rupees being absolutely wasted on road work, you would not hesitate to sanction a work of the kind proposed at Lingala Tank.

4. With regard to Para 3 of your memo, I do not think you quite understand what I propose to do with tanks in this Circle. With an annual rainfall less than 30 inches everywhere, there is scarcely a tank in the Circle which irrigates its full Ayacut or surplusses more than once in 3 or 4 years. In the remaining years,

years, it irrigates only more or less reduced portion of its Ayacut, with the result that large remissions have to be given. My object is to catch and store the one heavy tank filling rain-storm of 3 or 4 years, and so enable the tank to tide over the years in which it receives only a small supply.

5. For this purpose, I calculate that the amount to be stored is roughly 1 million cubic feet per acre of catchment arrived at thus.

First crop . full Ayacut C.ft

2 C.yds per acre per hour for 5 months — } 1,94400.

Add 25 % for wastage — 48,600.

Total Annual supply 2,43,000.

do for 3 years - 7,29,000.

Second crop 1/3 Ayacut

2 C.yds per acre per hour for 4 months — } 1,55520

Add

7P

Add 25 % for wastage — 38880

Total annual supply - 1,94,400

[illegible] ~~is~~ ~~Do~~ for 3 years — 5,83,200

of which 1/3 is — 1,94,400

c. ft.
Therefore 7,29,000
1,94,400
9,23,400 or say roughly

1 million c.ft of water is required per acre of Ayacut to irrigate the whole Ayacut with 1st crop and 1/3 Ayacut with 2nd crop for 3 successive years.

6. The advantages of this plan are

(1) Increased certainty of cultivation
(2) Consequent ability to charge higher rate of assessment.
(3) No remissions
(4) Great indirect benefit to ryots.

The only disadvantage is that great care would have to be taken to avoid waste of water, as the ryots

ryots could never be trusted themselves not to use all the water in one year.

7. Of course, it is only in ~~such~~ places where such projects have a good chance of giving a good return that I propose to undertake them in ordinary circumstances. They will often be impracticable owing to smallness of catchment, nature of ground, soil, land to be submerged &c &c. But I think that in this period of distress, a golden opportunity has come for putting the matter to a practical test, by way of experiment.

The money has to be spent —
on somethings, so why not spend it — ,
on something which may prove eminently useful, instead of wasting it on roads.

8. I hope, therefore, that you will reconsider your decision with regard to Lingala tank — and sanction my proposal to raise its F. T. L by 16'. If not, I beg that your decision may be — communicated by telegram.

I have the honour to be
Sir,
Your most Obedient Servant,
Hutton
13/5/97
Asst. Engineer,
for Supdg. Engineer, III circle

J.S.
13.5.97.

CHIEF ENGINEER FOR IRRIGATION.
20 MAY 1897
No. R 31 ed

P.W. E.4 / 5464/97

G. S. P

Letter No. 802 dated 7 May 1897,
from S. B. Murray Esqre., ~~Superin-~~
~~tending~~ Executive Engineer, Cuddapah Division,
to the Supt'dg Engineer, III circle, Bellary.

XI

Enclosure
1 Abstract estimate for Rs 45,000/.

With reference to your No. 734/4.5.97, I have the honour to inform you that I am forming the bund of Lingala Tank with the section that is required for a F. T. L. of +94.00. The amount of the sanctioned estimate, i.e., for a tank with F. T. L +78.00, is Rs 12,600 and I now submit an abstract estimate, which may be taken as approximately correct, for a tank with F. T. L. +94.00 amounting to Rs 45,000/.

The increase is chiefly for

(1) Earthwork — 17,000 (approximately)
(2) Revetment — 5,000 — " —
(3) Land Compensation — 7,500
Rs 29,500

Only in the case of Famine Relief Works, the undersigned considers that if a Project can be made to pay 2%, it is worth undertaking.

(signed) W. B. de Winton
Supt-dg Engineer
III circle

CHIEF ENGINEER
FOR IRRIGATION.
20 MAY 1897
No. R31 CD
1

(True Copy)

Hutton
12/5/97
Asst. Engineer
for Supt-dg Engineer, III circle.

I.S.
13.5.97

P.W. E.2
5484/97

Public Works (1897) Department.

IRRIGATION BRANCH.

III

ISSUE No. 32 CD

To

The Supg Engineer
3rd Circle

(Reply to letter No. 380-I, dated 17.4.97).

Dated 27. 4. 97
Despatched 28 do
Enclosures *

* Particulars of Enclosures.

SUBJECT.

Lingala Tank. Cuddapah Dt. States that he cannot approve of SE's action in permitting the work on the — to be put in hand on a scale corresponding to a full Tank level.

Ou
Wor
if
2

P. I. Form No. 13—2,000—23-2-97.

BACK PAPERS.

No.	Date.
R 26 C.D	12 4. 97

Sent to Government with No. I., dated 1897.

Printed with G.O., No. I., dated 189 .

REMINDERS ISSUED.

No. 1, dated 189 .
„ 2 „
„ 3 „
„ 4 „
„ 5 „

KEEP-WITHS.

FURTHER PAPERS.

No.	Date.
R 31 C.D	13-5-97

Papers
R 26 C.D/97
[illegible] 259/97

Send out today
RCS
23/4/97

A.E.
[illegible] of S.E.'s views
E.L.
27/4

RCS
23/4/97

3 P

III
No 32 C.D d/ 27. 4-97

S. E. III

S. E.'s No 380 I d/ 17 April 97

The undersigned is unable to approve of the Supd. Engineer's action in permitting the work on the Singla Tank to be put in hand on a scale corresponding to a full tank level 16 ft higher than sanctioned.

2. The capacity of 19 mills c. ft is ~~probably~~ possibly small for the irrigation of 140 acres and if more work is required for famine relief than is provided by the sanctioned estimate there will be no objection to ask for the sanction of Govt. to raising the full supply level by a small amount and raising the bund to such a section that it will not require much expenditure in maintenance for many years to come – The Supd. Engineer's proposal would commit Government to an expenditure of perhaps R 60,000 for the irrigation of 140 acres.

3. Apparently the Supd. Engineer con=

templates restricting the irrigation to 140 acres and reserving in ordinary years a large quantity of water in order to ensure ~~the~~ ~~irrigation~~ a sufficient supply in famine years - This would be an extremely extravagant system and cannot be recommended for the approval of Government.

Wht
27.4.97

27/4/97

P.W.S. 5
5469/97

Public Works (1897) Department.

CURRENT No. III / 26 C.D.

Soon

From the Superintg Engineer
3rd Circle
Bellary

Order

No. 380 I.

Dated 17 April 1897
Received 19/4/97
Registered
Enclosures 1
Spare copies

SUBJECT.

Lingala Tank:—

Forwards for approval letter from the Executive Engineer Cuddapah stating that there is no objection to raise the F.S.L. of —

Paper,

Dispose of approval.

23/4/97.

3578/97

ECG
19/4/97

Resubmitted
[illegible]
[illegible] 26/4/97 —

BACK PAPERS.

No.	Date.
R 175-1	15-3-97

FURTHER PAPERS.

No.	Date
L32CD	27-4-97
R31CD	13-5-97

Letter from the Deputy Engineer III Circle, Bellary No 3729 dated 5th February 1897 to the Officer in charge of Cuddapah Division.

His No C/579 of 8th January 1897.

Sanctioned in G.O. No 257-I 15-3-97

Capacity 19 million

The estimate for Lingala Tank has been forwarded for sanction, because it may be urgently required for famine relief - but the tank as designed will not hold nearly enough water for its ayacut of 140 acres even for one crop.

2. It looks from survey & sections as if the F.T.L might be raised to +94, and a contour at this level should be taken to see what the contents of the tank between it and the 78 contour are.

3. The undersigned is anxious to make all tanks in these Deccan Districts capable of holding 3 years supply to enable them to tide over the years in which they receive only a scanty supply - 3 years supply for 140 acres of 1st crop and $\frac{1}{4}$ of that area, or 35 acres of second crop would be 123 million cft. It is improbable that anything like this amount could be stored at ~~Lingala~~ Lingala tank even if F.T.L is raised to +94, but the catchment could supply the amount in one day, so, the tank would certainly fill if it could be constructed.

4. Of course the cost will be greatly — increased

BACK PAPE

increased, but it would be a work eminently suited to famine labour, and far more beneficial than breaking road metal which is not wanted. Also the water rate could be raised to Rs. 6 if cultivation was assured.

(True Copy)

Hutton

Asst. Engineer 17/4/97

for Supdt: Engr. III Circle.

Id.
17.4.97

Letter No. C/1336 dated 9th April 1897 from S.B. Murray Esqr. Exec. Engineer, Cuddapah Division, to the Supdt: Engineer, III Circle, Bellary.

With reference to your No. 3729 dated 5th February 1897, I have the honour to inform you that there is no objection to raising the F. S. L of Lingala tank from + 78.00 to + 94.00. By doing so, the capacity of the tank is increased from 19 million cft. to 72 million Cft., which is an enormous advantage. The tank has just been started as a Famine Relief Work and I have ordered it to be carried out on the larger scale and not according to the sanctioned estimate.

A revised estimate will be prepared as soon as the Overseer in charge of the work can spare the time. Meanwhile, I request you will approve of my action.

No. 380 Id/ 17 April 1897

Copy forwarded to the Chief Engineer for favour of approval, with copy of this Office letter to which it is a reply.

Hutton

17/4/97

Assistant Engineer

For Supdt: Engineer, III Circle.

Id.
17.4.97