

2. Date of receipt 28-7

M.R.O. 1-22,400-28-11-20.

MADRAS RECORD OFFICE.

Government of Madras.

Sublime W. S. S. S.
DEPARTMENT.
Cons. 28-7-27

G.O. No. 1607

Press
Mis.

16-11

Dated 23-7-18 57

Not to be folded or roughly handled

Fort Saint George, Public Works Consultation of 28th July 1857.

No. 10. Read the following letter from Colonel C. E. FABER, Chief Engineer; to H. FORBES, Esq., Acting Secretary to Government, dated 25th June 1857, No. 1521.

SIR,

I have the honor to forward for the information of Government the documents as per margin* on the subject of the formation of a new Tank in the neighbourhood of the Villages of Gowravaram and Moosoonoor in the Nellore District.

2. The construction of this work was originally suggested by the late Captain Best. It appears to have been first brought before the Revenue Board D. P. W., so long ago as in Extract Minutes of Consultation, No. 96, under date 1st March 1855.

3. It has lately been reported upon by the District Engineer, the Collector of Nellore and the Superintending Engineer of the Circle, during his recent tour of inspection.

4. In this letter No. 49,† the District Engineer has confined his observations to the following points.

- * 1. Letter from the Superintending Engineer Central Circle, dated 31st March 1857, No. 40.
- 2. Letter from the Collector of Nellore No. 6, dated 13th January 1857, with 2 Enclosures.
- 3. Abstract estimate.
- 4. Survey Plan.
- 5. Plan of sluice.
- 6. Plan of Calingulah.
- 7. Section of bund.
- 8. Cross sections of bed of Tank.
- 9. 6 Plans of bridges.
- 10. 1 Contour Survey Plans of the proposed Gowravaram and Moosoonoor Tank.
- 11. 1 Letter from the District Engineer Nellore, No. 816, dated 15th May 1857.

† Dated 7th January 1857.

1st. The cost of constructing a very large tank having a waterspread of 20 square miles.
2nd. The Revenue to be expected from the irrigation and the excess of this revenue over and above that of the lands now cultivate within the area, which will be either covered or irrigated by the water of the new tank.

3rd. The present state of Trunk road No. 6 in the neighbourhood of the proposed site, and the contingency of its repair being postponed for several years i. e. until the tank bund is completed and the Trunk road let over it, his conclusions are that the construction of this work will cost Rupees (3,29,200) three lacs, twenty-nine thousand, and two hundred, that at the end of, and after the tenth year subsequent to the full completion of the work, the annual Revenue will exceed the present revenue by nearly Rupees (90,000) being 29 per cent. on the cost, that the average annual revenue for the first 10 years will exceed the present by Rupees (60,000) sixty thousand, which is 20 per cent on the cost, while with reference to the third point he concludes "that the entertainment of the project will materially postpone the completion of the Trunk road, which is of far more importance to this and to the adjoining Districts, than the tank can be."

5. The Collector of Nellore in his letter No. 6, dated 13th January 1857, reports that he considers the project to be one of very doubtful advantage in a fiscal view, that lands now under Cultivation and yielding a revenue of Rupees (3,791) three thousand seven hundred and ninety-one, will be submerged and that the Ryots are reluctant to bind themselves definitively to any thing beyond cultivating additional lands to the extent of Rupees (7,450) seven thousand four hundred and fifty, a very insignificant amount, compared with the amount of the estimate for the new and expensive reservoir.

6. The Collector also observes that the want of population (and consequently of labour) and stock required to reclaim and cultivate all the subjacent irrigable land, is such, as to render the prospect of even a very moderate return, from so large an expenditure as Rupees (3,29,200) three lacs twenty-nine thousand and two hundred, extremely uncertain and remote.

7. The Superintending Engineer in his report No. 40, dated 31st March 1857, reviews the District Engineer's and the Collector's observations and calls attention to a circumstance not noticed by Lieutenant Mullins viz. that there is not sufficient water obtainable to fill the tank, even once, except when the annual fall of rain exceeds the average, Captain Collyer clearly shews that while the tank is capable of holding 155 millions of cubic yards, the water obtainable from the streams which empty themselves into the basin may be variously estimated as follows:

1st. On the supposition that one half of the rain fall is available to fill tanks and that all the tanks which now intercept the drainaig, are filled but once during the year.

Fort Saint George, Public Works Consultation of 28th July 1857.

180 Millions of Cubic Yards.

2nd. On the supposition that only one third of the rain fall is available, to fill tanks, and that all the tanks which now intercept the drainage, are filled but once during the year.

80 Millions of Cubic Yards.

He points out that there are already about 30 tanks having an aggregate Area of water spread of about 40 square miles, and that these being situated so as to intercept the drainage flowing towards the proposed tank, must first be filled; he has however taken it for granted that they are filled only once in the year; as it is highly probable however, that they are filled at least twice during the irrigation season, as most small tanks tolerably well placed are so, I subjoin the results of a calculation based upon this supposition:

1st. Quantity of water available for the large tank on the supposition that $\frac{1}{3}$ of the rain fall is available, and that all the tanks which now intercept the drainage are filled twice in the year.

60 Millions of Cubic Yards.

If even small importance be attached to this last calculation, it is apparent, that the District Engineer's design is for much too large a tank, and that on this account his estimate cannot be recommended for execution.

8. The Superintending Engineer Central Circle does not recommend the construction of the tank; he considers that more good may immediately be effected by improving the existing tanks of Moosenoor, Tallapollem, and Gowraveram, the works which he proposes are detailed in his 11th and 12th paras.

9. Having given his reasons for relinquishing the idea of forming a gigantic reservoir, the Superintending Engineer proceeds in para. 15 to describe the works required for constructing that portion of Trunk road No. 6 which was to have gone over the bund of the reservoir. The estimate for this work he states in a postscript to amount to about (Rupees 38,000) Rupees thirty-eight thousand, for the road and bridges of which (Rupees 21,735) Rupees twenty-one thousand, seven hundred and thirty-five, have already been sanctioned for the earthwork and metalling. As I quite concurred in the opinions of the District Engineer and the Superintending Engineer, I obtained a detailed estimate from the latter amounting to Rupees (42,890) (21,735) twenty-one thousand seven hundred and thirty-five which forms part of the estimate for this road, sanctioned in Extract from the Minutes of Consultation No. 200, dated 2nd May 1854, amounting to Rupees (1,17,113) one lac seventeen thousand one hundred and thirteen, and numbered 120 in Statement No. 2 of the Budget for 1857-58, there remains to be sanctioned for expenditure, in the official year 1858-59, a sum of Rupees (21,155) twenty-one thousand one hundred and fifty-five. I have the honor therefore, to recommend that this sanction be granted, as the estimate is prepared upon moderate but sufficient data, and the designs of the bridges are approved of by both the Superintending Engineer Centre Circle and myself.

10. This authorization is the more earnestly to be desired, that the want of continuity in Trunk road No. 6 as a 1st Class communication, has rendered the vast sums allotted to the re-establishment, renovation and completion of the Madras and Calcutta Road, of late years, of comparative inutility.

11. Lieutenant Mullins reports very forcibly on the heavy disadvantage, under which the trade of Nellore labours, by the break in the road created by the Irrigation project now under consideration, and I trust that with the explanation now submitted the Government will consider the question of a new tank, conclusively and finally disposed of, as inexpedient and expensive.

No. 11.

ORDER THEREON, No. 1409; dated 23rd July 1857.

1. The letter above recorded relates to the formation of a new tank near Gowraveram in the Nellore District, and the construction of the portion of Trunk road No. 6, in the neighbourhood.

Fort Saint George, Public Works Consultation of 28th July 1857.

2. The waterspread of the tank, which it was first proposed by the late Captain Best, to construct, is no less than 20 square miles, and its cost is estimated at Rupees 3,29,200; the return anticipated by the District Engineer is 60,000 Rupees per annum for the first 10 years, and 90,000, Rupees afterwards.

Chief Engineer, paras. 5, 6.
Collector of Nellore, to Chief Engineer,
No. 6 of 13th January 1857, paras.
2, 3.

The Collector of Nellore considers the project to be of very doubtful advantage in a fiscal point of view, while there is a

great want of population and consequently of labour to reclaim the subjacent irrigable land.

3. The Superintending Engineer Captain Collyer, further shews that, in all probability, the water supply for so large a tank would be utterly insufficient. He therefore, with the Chief Engineer, recommends the abandonment of the project.

Chief Engineer, para. 9.
Superintending Engr., para. 15.

In this the Government fully concur, and proceed to consider the question of the construction of that portion of Trunk road

No. 6, which would have gone over the reservoir bank.

4. On 2nd May 1854, an estimate of Rupees 1,17,113 was sanctioned "for the construction, in part of the road between Covoor and the Mudugunda river, north of Ongole." Of this gross sum Rupees 21,735 was that appertaining to the part of the road from Gowraveram to

Extract Minutes Consultation, 2d May
1854, No. 200, P. W. D.

	Sq. Yds.
• Water way.....	484
Utmost ascertained fall in 24 hours 9 inches which would require.....	416
of water way to drain it. Thus the present is allowed more than is ne- cessary	
Superintending Engineer, to Chief En- gineer, No. 40 of 31st March 1857.	

Moosanoor. This however provided for earth-work and metalling alone. The District Engineer has now caused an estimate to be prepared for making a bridged road; no less than 5 streams it appears have to be crossed; and the bridges, for which plans and estimates are now forwarded, will afford more than sufficient water-way for any quantity of rain which is likely to fall.

5. Lieutenant Mullins gives forcible reasons for the necessity of this charge being sanctioned; and shews that while the trade of Nellore labours under heavy disadvantages owing to the present break in the road; an excellent communication will, on the completion of this interval, be open from Madras to Tungatoor. He is supported

	Rs.
Amount of estimate.....	42,890
Amount formerly sanctioned.	21,735
Amount for which sanction is now requested and granted.	21,155

by the Superintending Engineer and Chief Engineer, and the Governor in Council is pleased to sanction for entry in the Budget of 1858-59, a sum of Rupees (21,155) twenty-one thousand, one hundred and fifty-five, for the road in question. The

Government observe that the exact distance for which sanction is requested should have been specified and the mileage shewn.

6. In para. 18 of Captain Collyer's letter he mentions that advantage might be taken of the Ooppidivagoo to make a navigable Canal to the East Coast Canal; which would cost a very small sum of money. The Chief Engineer makes no remark respecting this. The Government desire that the project may be reported upon in time for entry if necessary, in the Budget of 1859-60.

(Signed) H. FORBES,
Acting Secretary to Government.

Central Office of C. W.

Fort Saint George

25 June 1857.

Nr. 1521

From, Colonel ...
The Chief Engineer.

To, The Secretary to Government C. W. D.

"Revenue Irrigation"

Sir,

Enclosures 15

I have the honor to forward for the information of Government the documents as per margin on the subject of the formation of a new Tank in the neighbourhood of the villages of Gouravaram and Hossonoor in the Nellore District.

1. Letter from the Superintending Engineer Nellore dated 15th March 1857.

2. Letter from the Collector of Nellore dated 13th January 1857 with 2 Plans.

3. Abstract Estimate

4. Survey Plan.

5. Plan of sluice.

6. Plan of Galingulah.

7. Section of lands.

8. Cross sections of bed of Tank.

9. 5 Plans of Bridges.

10. 1 Plan of Survey of the proposed Gouravaram & Hossonoor Tank.

11. Letter from the District Engineer Nellore Nr. 815 dated 15th Aug 1857.

The construction of this work was originally suggested by the late Captain Best. It appears to have been first brought before the Revenue Board C. W. so long ago as in Extract & Minutes of Consultation Nr. 96, under date 1st March 1855.

It has lately been reported upon by the District Engineer, the Collector of Nellore and the Superintending Engineer of the Circle, during his recent tour of inspection.

In his letter Nr. 19, the District Engineer has confined his observations to the following points:-

1st. The cost of constructing a very large tank having a waterspread of 20 square miles.

2nd. The revenue to be expected from the irrigation and the excess of this revenue over and above that of the lands now

* 24th January 1857.

now cultivate within the Area, which will be either covered or irrigated by the water of the new tanks.

3rd The present state of Trunk Road No. 16, in the neighbourhood of the proposed site, and the contingency of its repair being postponed for several years i.e. until the tank bund is completed and the trunk road let over it. his conclusions are that the construction of this work will cost Rupees (3,29,200) three lacs, twenty nine thousand and two hundred. That at the end of, and after the tenth year subsequent to the full completion of the work, the annual revenue will exceed the present revenue by nearly Rupees (90,000) being 29 per Cent. on the cost, that the average annual revenue for the first 10 years will exceed the present by Rupees (60,000) Sixty thousand, which is 20 per Cent on the cost, while with reference to the third point he concludes "that the entertainment of the project will materially postpone the completion of the Trunk Road, which is of far more importance to this and to the adjoining Districts, than the Tank can be."

5 The collector of Nellore in his letter No. 16 dated 13th January 1857 reports that he considers the project to be one of very doubtful advantage in a fiscal view, that lands now under cultivation and yielding a revenue of Rupees (3,791) three thousand seven hundred and Ninety-one, will be submerged and

73
and that the Ryots are reluctant to bind themselves definitively to any thing beyond cultivating additional lands to the extent of Rupees (7,450) seven thousand four hundred and fifty, a very insignificant amount, compared with the amount of the Estimates for the new and expensive, reservoir.

6. The collector also observes that the want of population (and consequently of labour) and stock required to reclaim and cultivate all the subjacent irrigable land, is such, as to render the prospect of even a very moderate return, from so large an expenditure as Rupees (3,29,200) Three lacs twenty nine thousand and two hundred, extremely uncertain and remote.—

7 The Superintending Engineer in his report No. 10 dated 31st March 1857, reviews the District Engineer's and the collector's observations and calls attention to circumstances not noticed by Lieutenant Mullins, viz. that there is not sufficient water obtainable to fill the tank, even once, except when the annual fall of rain exceeds the average; Captain Collyer clearly shows that while the Tank is capable of holding 155 millions of Cubic Yards, the water obtainable from the streams which empty themselves into the basin may be variously estimated as follows:—
1st On the supposition that one half of the rain fall is available

available to fill tanks and that all the tanks which now intercept the drainage, are filled but once during the year.

180 millions of Cubic Yards.—

2nd On the supposition that only one third of the rain fall is available, to fill tanks, and that all the tanks which now intercept the drainage, are filled but once during the year.

80 Millions of Cubic Yards.

He points out that there are already about 30 tanks having an aggregate area of water spread of about 40 square miles, and that these being situated so as to intercept the drainage flowing towards the proposed tanks, must first be filled; he has however taken it for granted that they are filled only once in the year; as it is highly probable however, that they are filled at least twice during the irrigation season, and most small tanks tolerably well placed, are so, I subjoin the results of a calculation based upon this supposition:—

1st Quantity of water available for the large tanks on the supposition that $\frac{1}{2}$ of the rain fall, is available, and that all the tanks which now intercept the drainage are filled twice in the year.

60 Millions of Cubic Yards.

If even small importance be attached to this last calculation, it is apparent, that the District Engineer's design is for much too large a tank, and that on this account his Estimate—

cannot be recommended for execution.

8. The Superintending Engineer Central Circle, does not recommend the construction of the Tank; he considers that more good may immediately be effected by improving the existing tanks of Hoosenoor, Tallapollem, and Gournaveram. The works which he proposes are detailed in his 11th and 12th paras.—

9 Having given his reasons for relinquishing the idea of forming a gigantic reservoir, the Superintending Engineer proceeds in para 15 to describe the works required for constructing that portion of Trunk Road No 6 which was to have gone over the bunds of the reservoir. The Estimate for this work he states in a postscript to amount about (Rs. 38,000) Rupees thirty eight thousand for the road and bridges of which (Rs. 21,735) Rupees Twenty one thousand seven hundred and thirty five, have already been sanctioned for the earth work and metalling. As I quite concurred in the opinion of the District Engineer and the Superintending Engineer, I obtained a detailed Estimate from the latter amounting to Rupees (Rs. 42,890) Forty two thousand eight hundred & ninety. Deducting from this the amount of Rupees (21,735) twenty one thousand seven hundred and thirty five, which forms part

part of the Estimate for this road, sanctioned in Extract
from the Minutes of Consultation N. 200 dated 2nd
May 1854, amounting to Rupees (11,713) one Lac seventeen
thousand one hundred and thirteen, and numbered 120 in
Statement N. 2 of the Budget for 1857/58, there remained
to be sanctioned for expenditure, in the Official Year
1858/59, a sum of Rupees (21,155) twenty one thousand
one hundred and fifty five. I have the honor therefore
to recommend that this sanction be granted, as the Estimate
is prepared upon moderate but sufficient data, and the
designs of the bridges are approved of by both the Superin-
tending Engineer Leventis Leirle and myself.

10 This authorisation is the more earnestly to be
desired, that the want of continuity in Trunk Road N. 6,
as a 1st class communication, has rendered the vast sums
allotted to the reestablishment, renovation and completion
of the Madras and Calcutta Road, of late years, of
comparative inutility.

11 Lieutenant Mullins reports very forcibly on the
heavy disadvantage, under which the Trade of Mallore labours,
by

by the break in the road created by the Irrigation Project
now under consideration, and I trust that with the
explanation now submitted, the Government will consider
the question of a new tank, conclusively and finally
disposed of, as inexpedient and expensive.

M.
Central Office of Public Works,
Port Saint George,
25th June 1857.

I have the honor to be,
Sir,
Your most Obedt. Servt.
W. Leirle
Colonel
Chief Engineer.

W. Leirle

Extract from the Minutes of Court.
Under date the 23^d July 1857

Here enter No 1521 of 25 June
1857.

1. The letter above recd relates to the formation of a new Tank near Gowravaram in the Nellore District, and the construction of the portion of Trunk Road No 6, lying in the neighbourhood of the said Tank.
2. The waterspread of the Tank, which it was first proposed by the late Captain Hest. to construct, is not less than 20 square miles, and its cost is estimated at Rs. 3,29,200. ; the return anticipated by the District Engineer is 60,000 Rs per annum for the first 10 years, and 90,000 Rs, afterwards.




Pub: Printed by D. Chapman
Drogheda 28th Aug 1861

from the Chief Engineer.

of the Secretary to Government

25

Received of _____
the sum of _____
for _____
this _____ day of _____ 1857

16 Dec. 1891
Chester 13521
J. E. Mc. Nag. 23rd Aug

Information for information providers

Reports & other documents of the

Sept. 8. Eng. L. B. on tour of inspection

tion regarding the formation of a

new tank in the neighborhood.

the village of Gauravaram and

What a row in the News

Richardson.

15 July 1882

Ch. Aug. p. 5. 6.
Ch. of N. H. & Ch. Aug.
no 16 of 13 Jan 1857 P. 2. 3

Ch Eng. p 7 -
Lup S Eng p 15 -

Dec 2 May 1884 Honolulu
and -

* Sq ft
 Water way. 484.
 Almost a certain
 fall in 24 hours
 9 inches which
 would ~~require~~ ^{require} 416 Sq ft.
 of water way to drain it. Thus
 the percent is allowed more
 than is ~~in all likelihood~~
~~absolutely~~ necessary.
 Sup. Eng. & Ch. Eng. No 40 of 31
 March 1857.

feasible means for the
 rectify of this change.

being sanctioned, & shows
 that the mode of labour under heavy disadvantages
 an excellent ^{communication} with, ^{being} ~~the~~ break in the road;

on the completion of
 this interval, be open
 from Madras to
 Linyatou. He is sup-
 ported by the Supts Eng^r
 and Chief Eng^r; and
 the Govt in Council is
 pleased to sanction
 for entry in the Budget

of 1838-39, and for
~~Expenditure after taking~~
~~1838~~, a sum of 21,155
 twenty one thousand
 one hundred and fifty
 five, for the road in execution.

The Govt observe that
 the exact distance for
 which sanction is requir-
 ed should have been
 specified and the
 mileage shown.

6 Supra 18 Sept.
 Collyer

	Rs
Amount of Est.	42,890
Amount formerly sanctioned	21,735
Amount for which sanction is now requested & granted	21,155

17
 letter he mentions that
 advantage might be taken
 of the Coddidivagoos to make
 a navigable canal & the
 S.C. Canal; which would
 cost a very small sum
 of money. The Ch: Eng^r?
 makes no remark resp^s
 this - the Govt desire that
 the project may be report-
 ed upon intine for
 entry of necessity, in
 the Budget of 1839-40.

Mth
 July 11. *BR*

9 Copies to the Chief Eng^r.
 with 16 Encl. *Dir: 24*

Philadelphia 1857 Sept 10th
Dear Sir 28th Aug.

Wm 11409.

Contract to build a Coar.

Sept 20th & Aug 1857.

P

From Capt. Aug 18th 1857
N 209 in 6

Amount for entry
in the Budget of 1858-59,
a sum of \$2155 for
the construction of that
portion of Hunt's Road
No 6, between 6th Avenue
and 11th Avenue, in the
District of Columbia.

Wm 11409.

15 July 1857