1. Number of pages.
2. Date of report. 28-7
3. Number of Letters.

M.R.O. 1—22,409—23-11-30.

MADRAS RECORD OFFICE.

Government of Madras.

Judicial DEPARTMENT.

Con 24.8.57

G.O. No. 1607 Press Mis.

16-11

Dated 23—7— 18 57

Not to be folded or roughly handled

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 Gowraveram 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. 5 Plans of bridges.
10. 1 Contour Survey Plans of the proposed Gowraveram and Moosanoor 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 ad- "joining 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 Cultavation 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.

now

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 ½ 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) forty-two thousand, eight hundred and ninety. Deducting from this the amount of Rupees (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.

2. The waterspread of the tank, which it was first proposed by the late Captain Best, to reconstruct, 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. 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.

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

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. 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.

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

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 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.

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 necessary

Superintending Engineer, to Chief Engineer, No. 40 of 31st March 1857.

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 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.

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

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

25th June 1857.

No. 1521.

From,

The Chief Engineer.

To,

The Secretary to Government P. W. D.

"Revenue Irrigation"

Enclosures 15

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 Gourravaram and Koodanoor in the Nellore District.

1 Letter from the Superintending Engineer Central Circle dated 31st March 1857.
2. Letter from the Collector of Nellore. No. 61 dated 13th January 1857 with 20 Encls.
3. Abstract Estimate
4. Survey Plan.
5. Plan of Sluice.
6. Plan of Calingulah.
7. Section of bunds.
8. Cross Sections of bed of Tank.
9. 5 Plans of Bridges.
10. 1 Contour survey Plan of the proposed Gourravaram & Koodanoor Tank.
11. Letter from the District Engineer Station, No 815 Dated 15th May 1857.

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 his letter No. 9, the District Engineer has confined his observations to the following points:—

1st The cost of constructing a very large tank having a water spread 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

*17th January 1857.

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

3d. 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 (9,000) being 2½ per Cent. on the cost, that the average annual Revenue for the first 10 Years will exceed the present by Rupees (6,000) Sixty thousand, which is 2 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

7

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 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

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 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 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 Tanks, he considers that more good may immediately be effected by improving the existing tanks of Noosenoor, 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 Sands of the Reservoir. The Estimate for this work he states in a postscript to amounts about (Rs 38000) Rupees thirty eight thousand, for the road and bridges of which (Rs 21735) 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 opinions of the District Engineer and the Superintending Engineer, I obtained a detailed Estimate from the latter amounting to Rupees (42899) Forty two thousand eight hundred & Ninety Deducting from this the amount of Rupees (21735) 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:o 200 dated 2:nd May 1857, amounting to Rupees (1,7,113) one Lac Seventeen Thousand one hundred and thirteen, and numbered 120 in Statement N:o 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 authorisation is the more earnestly to be desired, that the want of continuity in Trunk Road N:o 6, as a 1:st Class communication, has rendered the vast sums allotted to the Reestablishment, Renovation and completion of the Madras and Calcutta Roads, of late years, of comparative inutility.—

11 Lieutenant Mullins reports very forcibly on the heavy disadvantage, under which the trade of Nellore 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 Bank, conclusively and finally disposed of, as unexpedient and expensive.—

I have the honor to be,

Sir,

Your most Ob:t Serv:t

Colonel

Chief Engineer.

N.

Central Office of Public Works,

Fort Saint George,

25:th June 1857.

Pub: Works Dept.

13

No 1409

Extract from the Minutes of Govt.

Under date the 23rd July 1857.

Read the following letter from the Chief Engineer

Nos 1521 of 25th June 1857.

1. Submitting above recorded plate of Formation of a new Tank near Gowravaram in the Nellore District, and the construction of the Kootan of Tank Road No 6, lying in the neighbourhood of the said Tank.

2. The waterspread of the Tank, which it was proposed to take up for cultivation, by Captain Meeks Establishment, is nearly flat & consequently wide, and the cost is estimated at Rupees 21,320. : the annual assessment of the district Engineer is 60,000 Rupees annum for the first 10 years, and 90,000 Rupees afterwards

6.... 2nd May 54 . No 31-32.
" 5. March 56 : 2-3.

Pub: Works 1857 Department
Dto Cons 28th July
No 1561

From
The Chief Engineer

To
The Secretary to Government
F.W.D.

Dated 25th June 1857
Received 6th July
16 Encls &c
Returned No 1521
S.E. No 1149 23rd July
Enclosures 15

Forwards for information Orders Reports & other documents of the Supt. Engr &c. on tour of inspection regarding the formation of a new Tank in the neighbourhood of the villages of Gowraveram and Moosanoor in the Nellore District.

No 10.

C 15 July 218

The Collector of Nellore considers the project of very doubtful advantage in a fiscal point of view, while there is a great want of population and consequently labour to reclaim the adjacent injurable land.

Ch Surv. p 5.6.
Coll. of Nellore & Ch. Surv. No 6 of 13 Jan 1855 P. 2.3

3. The Supt Surv: Capt Hollyer, further shews that in all probability, the water lodged by so large a tank would be utterly insufficient in all probability. He therefore, with the Ch: Surv: recommends the abandonment of the project. In this the Govt. fully concur, & proceed to consider the question of the construction of that portion of Trunk road No 6 which would have gone on the Reservoir bank.

Ch Surv. p 7.
Supt Surv p 15

4. On 2d May 1854 an Estimate of Rs 1,17,113 was sanctioned for the construction, in part, of the road between Gooty and the Mudgumda Revd. N.E. Ongole. Of this sum Rs 21.735 was that appertaining to the part of the road from Gooravaram to Moosanoor. This however provided for Earthwork and metalling alone: the District Surv: has now caused an Estimate to be prepared for making a bridged road; which * shall have the requisite Bridges, for which plans and estimates are now forwarded, with * more than sufficient waterway for any quantity of rain which is likely to fall.

2d May 1854 No 200 P.W.D.

5. Lieut. Mullins Supt

* waterway. Sq ft 484.
Almost ascertained fall in 24 hours 9 inches which would require 416 Sq ft. of waterway to drain it. Thus 16 percent is allowed more than is absolutely necessary.
Supt Surv. & Ch Surv. No 40 of 31 March 1855.

forcible reasons for the necessity of this charge being sanctioned: & shews that the Raiyats of Kellai labour under heavy disadvantages for want of an Excellent ~~Road~~ communication with, owing to the breaks in the road; on the completion of this interval, be open from Madras to Tanjore. He is supported by the Supt Engr and Chief Engr?; and the Govt in Council is pleased to sanction the sum for entry in the Budget of 1858-59, ~~and for Expenditure after todays 1858~~, a sum of Rs 21.155/ twenty one thousand one hundred and fifty five, for the road in question.

	Rs
Amount of Est	42.890
Amount formerly sanctioned	21.735
Amount for which sanction is now requested & granted	21.155

The Govt observe that the Road distance for which sanction is now granted should have been specified and the mileage shewn.

6 Separate Govt Letters to Colgrs

letter he mentions that advantage might be taken of the Poppidivagoo to make a navigable canal to the E.C. Canal; which would cost a very small sum of money. The Ch: Engr? makes no remarks respg this - the Govt desire that the project may be reported upon in time for entry if necessary in the Budget of 1859-60.

Mr
July 11.

4 Copies to the Chief Engr. with the Encls. Dispatch

Public Works 1857 Dept.
Do. to Cons 28th July.

No. 1439.

Extract Mins. of Cons.
Of 23d July 57.

From Chief Engr. 8th July 58
No 269 in b

Sanctg. for entry in the Budget of 1858-59, a sum of Rs 21155 for the construction of that portion of Trunk Road No 6, between Gouraveram and Moosanoor, in the District of Nellore.

No. 10-11.

c 15 July 1218