Number 22.
Date 28.7.37

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MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

Cons. 14-7-37

G.O. No. 1342 Press Mis.

70-71

Dated 13-7- 1937

Not to be folded or roughly handled

No. 70. Read the following letter from Colonel C. E. FABER, Chief Engineer; to H. FORBES, Esq., Acting Secretary to Government, dated 8th June 1857, No. 1018.

SIR,

I have the honor to forward for the information of Government the accompanying letter from Captain Collyer Superintending Engineeer Central Circle No. 45, dated 4th April 1857.

2. The Contents of this letter may be divided as follows: From para. 1st to 15, a project for the construction of a line of irrigation and Navigation on the right bank of the Pennair i s discussed; this channel is proposed to be commenced at Somaswaren Pagoda, where the Pennair leaves the Eastern ghauts, and to be terminated at Kistnapatam a sea port on the Rampairoo river; its length would be 60 miles. It is supposed to be used as an irrigation and Navigation Canal from its head up to the 48th mile, the remaining 12 miles being used simply for the purpose of Navigation, as this portion of the District passed through by the Canal will be brought under the influence of the Pennair annicut situated at Nellore and its channels.

3. The estimated cost is set down as follows: For the Navigation Canal vide paras 8 to 16.

	Rupees.
1 Earth work for 60 miles...	2,40,000
2 Minor masonry works...	90,000
3 Locks (20 at 12,000 Rupees each)...	2,40,000
4 Aqueducts and bridges on Northern road.	50,000
5 Share of annicut	50,000
6 Cost of storing water to supply the deficiency which may be caused by lockage and evaporation	50,000
Total.....	7,20,000

4. The returns anticipated in consequence of the construction of this Canal would be set down to the Navigation Canals as follows: On the supposition of 80 tons of goods passing daily throughout the Canal 80 tons a day for 365 days at 8 pice per diem Rupees 73,020. The Superintending Engineer does not however state that the traffic would exactly amount or be limited to 80 tons, but he implies that it might be more, though at present, he does not think that it exceeds it.

5. The following portions of the estimate are entered under the head of "Irrigation".

	Rupees.
1 Earth work for 48 miles...	1,90,000
2 Minor masonry works for 48 miles of channel at Rs. 2000 a mile.	96,000
3 Roadways, occupation bridges, waste weirs &c. for 48 miles at 1,500 Rupees a mile...	72,000
4 Share of annicut	50,000
Total.....	4,08,000

6. The expected addition to the revenue to result from the construction of this irrigation channel is estimated as follows.

	Rupees.
38,400 Acres at Rupees 5 per acre	1,92,000
Deduct for ground out of cultivation and for repairs	40,000
Remaining	1,52,000
Add for Peshanum cultivation	47,720
Total additional revenue expected to be realized on the South bank of the river.	1,99,720

7. From these estimates it appears that the returns might be about 10 per cent. for the Navigation portion of the Canal, and 49 per cent. for the irrigation portion of it. But if the estimates be combined so as to form one amount and the returns also be similarly combined, we

shall have an estimate amounting to Rupees (11,28,000) eleven lacs and twenty-eight thousand Rupees, and returns amounting to Rupees (2,72,740) two lacs seventy-two thousand seven hundred and forty, the returns being (24) twenty-four per cent. on the amount of the estimate.

8. This project needs further examination, the rate for earth work can only be determined by actual examination of the country, after a trial line of levels have been taken. The Superintending Engineer has not calculated the returns from the passenger traffic, and these may (not improbably) be found to exceed those from the goods as estimated by him. There is every likelihood of much of the traffic of the Bellary and Cuddapah Districts finding its way to the Coast and to Madras by means of this and the Coast Canal, so that I cannot but think this a project worthy of being investigated, as soon as Government may think fit to order it, and surveyors and an Officer are available. I regret now to have to express the opinion that really qualified Officers cannot well be spared at present for the investigation of important projects of this description, as they are fully employed in the performance of the executive duties of the Department.

9. Preparations may however be made for the investigation by the employment of the first surveyor who may be available, in taking the necessary levels.

10. The observations made in para. 25 respecting a bridge at Nellore are well placed on record. It is of the greatest importance not only for the traffic of the country but for the comfort and even often times for the health of regiments and passengers that they should not be detained on the banks of large and unfordable rivers &c. In this instance in the nighbourhood of the Capital of a District, there is no doubt but that a bridge is much wanted. The District Engineer will be directed to prepare an estimate for this work.

11. The rest of the Superintending Engineer's letter calls for no comment at the present moment.

No. 71. ORDER THEREON, No. 1342; dated 13th July 1857.

The Chief Engineer submits a letter from the Superintending Engineer Central Circle, in paras. 1 to 17, of which he discusses a project for the construction of an irrigation and navigation canal on the right bank of the Pennair, from Somaswaren Pagoda to Kistnapatam, in the District of Nellore. The proposed canal is to be 60 miles in length, 48 of which is to be used both for irrigation and navigation, and the remaining 12 miles for the latter purpose only, the country through which this portion of the canal will pass being under the influence of the Pennair annicut and its channels. The cost of the canal, both for irrigation and navigation, is roughly calculated at 11,28,000 Rupees; and the returns at 2,72,740 Rupees, as shewn below, being exclusive of the returns from passenger traffic which, it is stated, have not been calculated.

Irrigation returns.

Additional revenue on the south bank of the river.....	Rupees	1,99,720
Navigation returns.		
80 tons a day for 365 days at 8 pice a ton per mile.... ...	„	73,020
Total.....	„	2,72,740

2. It appears from para. 7 of the Superintending Engineer's letter that, besides the additional revenue to be derived from the cultivation on the south bank of the river, there are 22,800 acres of land available on the north bank, which, if cultivated, would realize a revenue of 91,000 Rupees. This sum is not included in the calculations of the Chief Engineer, who has given the total returns at Rupees 2,72,740, instead of, as it appears to Government, Rupees 3,63,740.

3. The project it is stated will, when executed, afford the means of transit for the produce of the Bellary and Cuddapah Districts to the Coast, and to Madras by the Coast canal. The returns of revenue, as given above, are encouraging, if they can be relied upon; but it appears to the Government that more information is needed before any satisfactory conclusion can be arrived at regarding them. The cultivation returns are based on the area of cultivable land, on its capability, with improved irrigation, of producing one or more crops, and

on the rates chargeable accordingly. It is scarcely necessary to observe that other elements should enter into the calculation of the expected returns, besides the points above noticed. Not merely is it necessary to ascertain the area of cultivable land, but consideration should also be given to the quality of the soil, the proximity of the land to existing villages, the means of the agricultural community and the willingness of the Ryots to take up the lands at the rates specified. On all these points information is wanting; and it is desirable that the Engineer Officers should consult the Collector on the subject, when the project is again submitted for the consideration of Government.

4. In an order, dated 30th April 1857, No. 822, the Government decided that there were already a sufficient number of projects for the Budget of 1858-59, either estimated for, or approved for investigation; and to that order they desire to call the attention of the Chief Engineer. As the proposed canal however is a work of magnitude, the full examination of which will occupy some time, they will not object to permit its investigation whenever the Chief Engineer may be prepared to detach an officer for the purpose.

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

Central Office of Public Works

Fort Saint George,
8th June 1857.

No. 1018.

From,
The Chief Engineer.

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

Sir,

I have the honor to forward for the information of Government the accompanying letter from Captain Colleyer Superintending Engineer Central Circle No. 45 dated 1st April 1857.

2 The contents of this letter may be divided as follows: From para 1st to 15, a project for the construction of a line of irrigation and Navigation on the right bank of the Pennair is discussed — this Channel is proposed to be commenced at Somaswaren Pagoda, where the Pennair leaves the Eastern Ghauts, and to be terminated at Kistnapatam a Sea Port on the Pampairu River. Its length would be 60 miles. It is supposed to be used as an irrigation and Navigation Canal from its head up to the 48th Mile, the remaining 12 miles being used simply for the purpose of Navigation, as this portion of the District passed through by the Canal will be brought under the influence of the Pennair annicut situated at Nellore and its Channels. —

3 The Estimated cost is set down as follows:

For

Public.

Irrigation.

Letter-

For the Navigation Canal vide paras 8 to 16.—

	Rupees
1 Earth work for 60 miles	2,40,000.
2 Minor masonry works	90,000.
3 Locks (20 at 12000 Rupees each)	2,40,000.
4 Acqueducts and Bridges on Northern Road	30,000.
5 Share of Annicut	50,000.
6 Cost of storing water to supply the deficiency which may be caused by lockage and evaporation	50000.
Total	7,20,000.

4 The Returns anticipated in consequence of the construction of this Canal would be set down to the Navigation Canals as follows. On the supposition of 80 tons of goods passing daily throughout the Canal 80 tons a day for 365 days at 8 Rupees per diem Rupees 73,020.

The Superintending Engineer does not however state that the traffic would exactly amount or be limited to 80 tons, but he implies that it might be more, though at present, he does not think that it would be.

5 The following portions of the Estimate are entered under the head of "Irrigation"—

	Rupees
1 Earth work for 48 miles	1,92,000.
2 Minor masonry works for 48 miles of channel at Rupees 2000 a mile	96,000.
3 Roadways, occupation Bridges, waste weirs &c. for 48 miles at 1500 Rupees a mile	72,000
4 Share of Annicut	50,000
Total	4,08,000.

6 The expected addition to the Revenue to result from the construction of this irrigation channel is estimated as follows.

	Rupees.
38400 Acres at Rupees 5 per Acre	1,92,000.
Deduct for ground out of cultivation and for repairs	40,000.
Remaining	1,52,000.
Add for Peshanum cultivation	47720.
Total additional Revenue expected to be realized on the South bank of the River	1,99,720.

7 From these estimates it appears that the returns might be about 10 per Cent for the Navigation portion of the Canal, and 49 per Cent for the irrigation portion of it. But if the Estimates be combined so as to form one amount and the returns also be similarly combined, we shall have an Estimate amounting to (11,28,000) Eleven lacs and twenty eight thousand Rupees, and Returns amounting to Rupees (272,760) Two lacs Seventy two thousand seven hundred and forty, the returns being (24) twenty four per Cent on the amount of the Estimate.

8 This project needs further examination, the data for earth work can only be determined by actual examination of the County after a trial line of levels have been taken. The Superintending Engineer has not calculated the returns from the Passenger traffic, and these may (not improbably) be found to exceed those from the goods as estimated by him. There is every likelihood of much of the traffic of the Bellary and Cuddapah Districts finding its way to the Coast and to Madras by means of this and the Coast Canal, so that I cannot but think this a project worthy of being investigated, as soon as Government may think

Letter

think fit to order it, And Surveyors and an Officer are available.

I regret now to have to express the opinion that really qualified Officers cannot well be spared at present for the investigation of important projects of this description, as they are fully employed in the performance of the Executive duties of the Department.

9 Preparations may however be made for the investigation by the Employment of the first Surveyor who may be available, in taking the necessary levels.—

10 The observations made in para 25 respecting a bridge at Nellore are well placed on Record. It is of the greatest importance not only for the traffic of the Country but for the comfort and even oftentimes for the health of Regiments and passengers that they should not be detained on the banks of large and unfordable Rivers &c— In this instance in the neighbourhood of the Capital of a District, there is no doubt but that a bridge is much wanted. The District Engineer will be directed to prepare an Estimate for this work.—

11 The rest of the Superintending Engineer's letter calls for no comment at the present moment.—

Central Office of P. Works,
Fort Saint George,
9th June 1857.

I have the honor to be,
Sir,
Your most Obt Servt
A Cotton Colonel
Chief Engineer.

Capt R. Clerk Chief Engr

Public Works 1857 Department
Dt to Coms 14th July.
No. 1176

From The Chief Engineer

To The Secretary to Govt.
F. W. D.

Dated 8th
Received 9th } June 1857.
No. 1018.

Enclosure One.

S.E. No. 1342. 13th July

Forwarding for consideration and orders of Government a Report of the Superintending Engineer Central Circle upon a navigable and irrigable channel to Kistnapatam on the Sundaveram channel and Nellore Annicut.

No 70. 8/11

C/ June R13th C/ July R10th

9-6-57

There are plenty of useful prospects every where, but all would take up a certain number of days before already

Ex 2712.

No. 1342

Extract from the Minutes of Consultation
Under date the 13th July 1857.

Read the following
Letter from the Chief Engineer

/Recd under 8th June 1857 - No 1018/

The Chief Engineer
submits a letter from the
Superintending Engineer Central
Circle, in forwd the
Ho Ho
his discussion & project for the
construction of an irrigation
and navigation canal on
the right bank of the Pen-
-naur, from Somasoorum
Pagoda to Kistnapatnam, in
the District of Nellore. The
proposed canal is to be 60
miles in length, 48 of which
is to be used both for irrigation
and navigation, and the
remaining 12 miles for the
latter-

most plan & is respectfully
submitted by

that more information is needed before any satisfactory conclusion can be arrived at regarding them. The cultivation returns are based on the area of cultivable land, on its capability, with improved irrigation, of producing one or more crops, and on the rates chargeable accordingly. It is scarcely necessary to observe that other elements should enter into the calculation of the expected returns, besides the points above noticed. Not merely is it necessary to ascertain the areas of cultivable land, but consideration should also be given to the quality of the soil, the proximity of the land to existing villages, the means of the agricultural community, and the willingness of the

ryots to take up the lands at the rates specified. On all these points information is wanting; and it is desirable that the Engineer Officer should consult the Collector on the subject, when the project is again submitted for the consideration of Government.

4. In his order dated 30th April 1857, N° 822, the Government decided that there were already a sufficient number of projects for the budget of 1858/59, either estimated for, or approved for investigation, and to that order they desire to call the attention of the Chief Engineer. As the proposed Canal however is a work of magnitude, the full examination of which will occupy some time, they will not object to permit its

site investigation whenever the
Chief Engineer may be prepared
to detach an Officer for the
purpose.

Copies to the Chief Engr.
with an Encl. Disp.ch 14

Public Works 1857 Dep.t
D.t to Cons.s 14.th July.

N.o 1342.

Extract Mins.s of Cons.s
D.d 13.th July 57.

Calling the attention of the Chief Engr. to the decision of Govt., that there were already a sufficient number of projects for the Budget of 1858-59, relative to a project for the Construction of an irrigation & navigation Canal on the right bank of the Pennair in the District of Nellore; but observing that the proposed Canal being a work of magnitude, Govt will not object to permit its investigation, whenever the Chief Engr. may be prepared to detach an Officer for the purpose.

N.os 70 & 71.

c/ 4 July 58.