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MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

Cons. 14-7-37

G.O. No.	1342	Press
		Mis.
Dated	13-7-37	185

Not to be folded or roughly handled

Fort Saint George, Public Works Consultation of 14th July 1857.

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 Engineer 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 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 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.....	<u>7,20,000</u>

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.....	<u>4,08,000</u>

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.	<u>1,99,720</u>

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

Fort Saint George, Public Works Consultation of 14th July 1857.

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 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.

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.

<i>Irrigation returns.</i>	
Additional revenue on the south bank of the river.....	Rupees 1,99,720
<i>Navigation returns.</i>	
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 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

Fort Saint George, Public Works Consultation of 14th July 1857.

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.

No.

Public.

Irrigation.

Central Office of Public Works

No. 1018.

Fort Saint George,

8th June 1857.

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 Collyer Superintending Engineer Central Circle No. 45, dated 15th 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 Tomaswaren Pagoda, where the Pennair leaves the Eastern Ghauts, and to be terminated at Elstnapatam a Sea Port on the Ramprains 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

Water

For the Navigation Canal vide paras 8 to 16. —

1 Earth work for 60 miles	Ruped 2,10,000.
2 Minor masonry works	90,000.
3 Locks (20 at 12000 each)	2,10,000.
4 Aqueducts and Bridges on Northern Road	50,000.
5 Share of Amnicut	50,000.
6 Cost of storing water to supply the deficiency which may be caused by leakage 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 ton Ruped 73,020.

The Superintending Engineer does not however state that the traffic would exactly amount or be limited to 80 tons, but he implied 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' —

1 Earth work for 48 miles	Ruped 1,90,000.
2 Minor masonry works for 48 miles of channel at Ruped 2000 a mile	96,000.
3 Roadways, occupation Bridges, waste weirs &c for 48 miles at 1500 Ruped a mile	72,000.
4 Share of Amnicut	50,000.

Total — 4,08,000.

6 The expected addition to the Revenue to result from the construction

Construction of this irrigation channel is estimated as follows:

38400 Acres at Ruped 5 per Acre	Ruped 1,92,000.
Deduct for ground out of cultivation and for repairs	20,000.
Remaining	1,72,000.
Add for Peshanum cultivation	1,77,20.
Total additional revenue expected to be realised 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 (Ruped 11,28,000) Eleven lacs and twenty eight thousand Ruped, and returns amounting to Ruped (2,72,760) Two lacs seventy two thousand seven hundred and forty, the returns being (2 1/2) 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 Chuddapah 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

amir uli...

latter

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

I regret now to have to express the opinion that specially 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. 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,
8th June 1857.

I have the honor to be,

Sir,

Your most Obedt Servt

W. S. S. Colonel

Chief Engineer.

Copy to the Inspector

of a kind and occur
 some time, see
 your book, for
 better illustration
 of the chief
 engineer may be
 prepared to do
 an office for the

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Q-6-57

There are plenty of useful
projects every where, but we
cannot take up a certain num-
ber every yr. & we have already

not than it is possible
to represent

(15. 21. 2)

N^o 1342

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

I read the following
letter from the Chief Engineer.

(Here enter 5th June 1857) 1018/

The Chief Engineer
submits a letter from the
Superintending Engineer, Central
Circle, in pages 1 to 17 of which
he discusses a project for the
construction of an irrigation
and navigation canal on
the right bank of the Penn-
ar, from Somaswaram
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

A
11/6

that more information is
needed before any satisfactory
conclusion can be arrived at
regarding them. The cultiva-
tion returns are based on
the area of cultivable land,
on its capability, with im-
proved 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 considera-
tion 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

(17)
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.

In an order dated
30th April 1857, N^o 522, the Govern-
ment 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

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

EE

1. Copies to the Chief Eng.
2. with an Encl. Disp. 14

Public Works 1857-2010
Dr. to Civil: 171 July 8

1857-2010

Contract 1857-2010
July 13th July 15th

Calling the attention of the
Chief Eng'rs 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 canal
on the right bank
of the river in the District of
the Lower, but observing that the
proposed canal being a work of
magnitude, Govt will not object
to submit it in investigation, where
ever the Chief Eng'rs may be
inclined to detach an officer
for the purpose.

1857-2010

July 20th