M.R.O. 1—77,006—9-6-37.

(1) Number of pages_____

(2) Date of repair_____

(3) Initials of the Referencer_____

MADRAS RECORD OFFICE.

Government of Madras.

Public works **DEPARTMENT.**

G.O. No. 459-462.	2520-21	Press / ~~Mis.~~
Dated	25-10-	1842.

Not to be folded or roughly handled

Proceedings of the Madras Government, Public Works Department, 25th October 1872.

Read the following papers:—

No. 459. From the Deputy Secretary to the Government of India, Public Works Department, (Irrigation,) to the Acting Under Secretary to the Government of Madras, Public Works Department, Irrigation Branch, dated Simla, 9th September 1872, No. 768-I.

I AM directed to acknowledge the receipt of your letter No. 1,169 of the 7th ultimo, submitting an explanation from Mr. Thornhill in reference to the estimate of land irrigable from the Madras Water Works Project, furnished by him when Collector of the Madras District to the late Colonel Anderson in 1868, which, two years later, was shown by his successor to be excessive and for which he has been blamed.

2. The explanation is to the effect that the information asked from him by Colonel Anderson, in a demi-official note, was a "statement showing the entire area of land to which water could be led from the Red Hills and Sholaveram Lakes when completed, *supposing the supply of water in them to be unlimited*;" that he proceeded to the locality himself and directed the inquiry in person; that the reports of the officials employed were examined, and the statement prepared in his office and submitted to Colonel Anderson; that the statement is as nearly accurate as such a statement could be expected to be, and that the fault lies not in the statement but in the supply of water not being unlimited as it was supposed to be; that the Government of Madras could not have been misled by it (paragraph 12), as it was never laid before Government until quoted by Mr. Blair in his letter of 9th December 1870; and that it is easy to understand why neither the Board nor Government took any notice of Mr. Blair's mention of the statement, as the nature of the inquiries on which it was based was sufficiently well known to render any notice of it unnecessary.

3. The Government of Madras considers no blame whatever is attributable to Mr. Thornhill; but no opinion is given as to who is to blame for the great error which took place in estimating the income to be derived from the works.

4. Amongst the documents received from Madras was the letter in question from Mr. Thornhill; and in the Madras Government's letter, No, 2,172, dated 23rd August 1871, furnishing explanations as to the mistakes in the computation of revenue as well as of expenditure, the following words are used :—

"From the statements furnished at an earlier period by the Revenue authorities of the district, the Government were led to believe that 8,714 acres were already watered by the tanks, and that there were 14,905 acres of waste land capable of being brought under cultivation, etc.

"Unhappily these calculations have proved to be absolutely fallacious. The irrigated area, the rate of assessment which could be imposed, and the amount of water available for irrigation have all been overstated.

* * * * *

"It would be superfluous to enter here upon a detailed analysis and comparison of the financial calculations and results which have been produced by the several authorities who have successively handled the question."

5. From Major Mullins' Report, when Acting Chief Engineer for Irrigation, contained in Proceedings of Madras Government, 26*th April* 1870, the above figures are quoted "as given by the Collector of Madras," and it is not clear, therefore, how the Collector's statement could not have been before the Government until it was quoted by Mr. Blair in his letter of the 9*th December* 1870, Major Mullins' Report being dated 21*st January* 1870, and the Madras Government's order thereon the 26th April following.

6. Again, in the Report of the Committee appointed to report on the anticipated returns dated 14th July 1871, paragraph 6, it is said, "although the conclusions arrived at by the Acting Collector of Chingleput and the Acting Director of Revenue Settlement were far less favourable to the project than had been looked for," etc., etc., Mr. Thornhill himself was President of that Committee, the Members of which were Major Ryves, then Acting Chief Engineer for Irrigation, and Mr. Banbury, Acting Director of Revenue Settlement. It is to be supposed that all the papers connected with the subject were laid before the Committee, and therefore Mr. Thornhill's original statement must have been there also, though no allusion to its figures is made. The statement in paragraph 12 of Mr. Thornhill's letter seems, therefore, to require further explanation.

Mr. Blair, Mr. Banbury.

7. In the absence of any opinion from the Government of Madras to show *who* was blamable for the statements of returns which were adopted by that Government, the Governor-General in Council thinks it undesirable, without further explanation, to ask the Secretary of State to "withdraw" the expression of censure used in his despatch.

8. Further explanation is therefore requested, and should be accompanied by a *complete* copy of the documents submitted with letter from the Government of Madras, No. 2,172 of the 23rd August 1871, the originals of which have been forwarded to the Secretary of State.

No. 460. From the Chief Engineer for Irrigation.
(Here enter No. 214, dated 3rd October 1872.)

No. 461. ORDER THEREON, 25th October 1872, No. 2,520.

IRRIGATION, No. 30.

ORDERED that the following letter be sent:—

(Here enter No. 2,521, dated 25th October 1872.)
(True Extract.)

Major, R.E.,
Acting Joint Secretary to Government.

Exd. E. C. Shunker.

PUBLIC WORKS DEPARTMENT,
OOTACAMUND, 25*th October* 1872.

No. 462.

No. 2,521.

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,

PUBLIC WORKS DEPARTMENT.

IRRIGATION, No. 31.

SIR,—With reference to letter No. 768-I., dated 9th September, I am directed to forward a note by the Acting Chief Engineer for Irrigation from which it will be observed that this Government was not misled by Mr. Thornhill's statement of the land which might be brought under the influence of the Cholaveram and Red Hill Tanks in estimating the probable returns from the Red Hill Project, the estimate for which was submitted to the Government of India on the 30th April 1866, while Mr. Thornhill's statement was dated 5th December 1868.

2. The Government were misled relative to the probable returns from the project by Mr. Fraser's statements relative to the probable return from new lands to be brought under irrigation, and the probable quantity of water likely to be available for irrigation, and not by any statement regarding the area which might be brought under the influence of the tanks and which is in excess of the area for which water for a double crop is likely to be available.

3. Under the explanation here afforded, I am directed to repeat the request that Mr. Thornhill's explanation may be transmitted to the Secretary of State with the opinion of this Government that no blame whatever attaches in this matter to Mr. Thornhill.

I have the honour to be,
Sir,
Your most obedient servant,

Major, R.E.,
Acting Joint Secretary to Government.

Exd. E. C. Shunker.

No. 214.

No. 460. *Note by the Acting Chief Engineer for Irrigation.*

In paragraph 6 of Mr. Fraser's original report on the Madras Water Works Project, he states that from 20,000 to 25,000 acres of land are lying waste between the tanks and the sea; but in paragraph 20 he proposes to supply only 8,571 acres, from which he anticipates a return of Rupees 60,000. The latter figures are accepted by Government in G. O., No. 1,102, dated 11th April 1866, and are repeated in letter No. 1,376 of 30th April 1866, to the Government of India.

With No. 50, 26th February 1866.

2. Mr. Thornhill's letter No. 400, with which he submits certain statements showing that 'the waste land amounts to cawnies 11,272* with an assessment of Rupees 33,835, and that the possible increase of revenue, including Tirvajasty and second crop, will reach Rupees 82,160,' is dated 5th December 1868.

* 1·33 Acres.

3. In paragraph 12 of the Superintending Engineer's letter No. 2,790, dated 30th August 1869, it is stated that in December last (*i. e.*, in 1868) Mr. Thornhill, the Acting Collector of Madras, forwarded a list of ten tanks, with an aggregate ayacut of 5,849 cawnies and Rupees 25,184 assessment, which might be brought under the influence of the Red Hill and Cholaveram Tanks were water available for irrigation; and in paragraph 29 of his letter No. 5,047 of 15th January 1870, the Superintending Engineer mentions that, in a letter to Colonel Anderson, the Collector of Madras had stated that 11,272 cawnies of waste land, assessed at Rupees 33,835, might be brought under cultivation if water were available, and that a probable increase from this land and from second crop cultivation may be expected, amounting to Rupees 82,160. These papers were submitted to Government with the Acting Chief Engineer's note dated 21st January 1870, No. 17, and hence though Mr. Thornhill appears to have been mistaken in supposing that the information was not laid before Government till the 9th December 1870, in Mr. Blair's letter No. 527, he is right in the conclusion he draws that the Government of Madras could not have been misled by his statements in estimating the probable returns from the original project, which was submitted to the Government of India on the 30th April 1866, and in which the probable return from the project was stated as likely to be considerably in excess of the Rupees 60,000, computed by Mr. Fraser at Rupees 7 per acre, while the actual return per acre estimated by Mr. Blair is from Rupees 3-10-6 to Rupees 3-11-8.

In G. O. No. 1,100 of 26th April 1870.

G. O. No. 939 of 29th May 1871, Revenue Department.

No. 1,376.

4. It must be conceded therefore that the figures given in paragraph 11 of letter No. 2,172, dated 23rd August 1871, to the Government of India, are erroneous and were not those on which the original returns from the project were based.

5. The return looked for from the original project from irrigation only was upwards of Rupees 60,000 as shown above, while the return estimated by Mr. Blair from irrigation only was Rupees 22,705, and hence the quotation from the Committee's Report, given in paragraph 6 of

Paragraph 41 of his Report in G. O. No. 1,518 of 5th June 1871.

letter No. 768-I., dated 9th September, is correct in every respect and bears no reference whatever to Mr. Thornhill's statements which are supposed to have misled the Government.

6. The Government were misled by Mr. Fraser's original statement that the difference between the assessment on dry and wet cultivation in the vicinity of Madras was Rupees 5 per acre, and that as the land to be brought under the influence of the tanks then paid nothing, Rupees 7 might be taken as the probable return from the land, while Rupees 3½ is now found to be the average amount which may be realized per acre. Again, Mr. Fraser calculated upon 60,000,000 cubic yards of water being available for extra irrigation; the quantity now estimated to be likely to be available is 45,000,000 of cubic yards of water; in arriving at this quantity, however, 45,000,000 of cubic yards have been struck off for evaporation, this is probably a higher margin than is necessary.

In paragraph 7 of Major Ryves' note in G. O. No. 2,171 of 2nd August 1871.

83,000,000	Cubic yards are said to be available for irrigation; of this 4,980 × 7,500 =
37,350,000	are required for existing cultivation, leaving
45,000,000	available for extra cultivation.

7. The probable returns from the project depend upon the quantity of water which may be obtained, and hence upon the area which may be irrigated; the area under the command of the tanks and which is suitable for irrigation is in excess of that for which a water-supply for two crops is likely to be available.

OOTACAMUND,
3rd October 1872.

(Signed) R. F. OAKES, Major, R.E.,
Acting Chief Engineer for Irrigation.

All communications should be addressed to the Secretary.

No. 768 I.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

IRRIGATION.

To

The Acting Under Secretary to the Govt. of Madras,
Public Works Department,
Irrigation Branch.

Simla, 9th September 1872.

Sir,

I am directed to acknowledge the receipt of your letter No. 1169 of the 7th ultimo, submitting an explanation from Mr. Thornhill in reference to the estimate of land irrigable from the Madras Water Works project furnished by him when Collector of the Madras District to the late Colonel Anderson in 1868, which, two years later, was shewn by his successor to be excessive and for which he has been blamed.

2. The explanation is to the effect that the information asked from him by Colonel Anderson in a demi-official note, was a "Statement shewing the entire area of land to

which water could be led from the Red Hills and Cholaveram Lakes, when completed, supposing the supply of water in them to be unlimited", that he proceeded to the locality himself and directed the enquiry in person, that the reports of the officials employed were examined and the statement prepared in his office and submitted to Colonel Anderson, that the statement is as nearly accurate as such a statement could be expected to be and that the fault lies not in the statement but in the supply of water not being unlimited as it was supposed to be, that the Government of Madras could not have been misled by it (para. 12) as it was never laid before Government until quoted by Mr Blair in his letter of 9th December 1870, and that it is easy to understand why neither the Board nor Government took any notice of Mr Blair's mention of the statement as the nature of the enquiries on which it was based was sufficiently well known to render any notice of it unnecessary.

3. The Government of Madras considers no blame whatever is attributable to Mr Thornhill, but no opinion is given as to who is to blame for the great error which took place in estimating the income to be derived from the works —

4. Amongst the documents received from Madras was the letter in question from Mr Thornhill, and in the Madras Government's letter No. 2172 dated 23rd August 1871, furnishing explanations as to the mistakes in the computation of Revenue as well as of expenditure the following words are used:—

"From the statements furnished at an earlier period by the Revenue authorities of the District, the Government were led to believe that 8,714 acres were already watered by the Tanks and that there were 14,905 acres of waste land capable of being brought under cultivation &c."

"Unhappily these calculations have proved to be absolutely fallacious. The irrigated area, the rate of assessment which could be imposed and the amount of water available for irrigation have all been overstated."

× × × × ×

"It would be superfluous to enter here upon a detailed analysis and comparison of the financial calculations and results which have been produced by the several authorities who have successively handled the question."

5. From Major Mullin's Report, when acting Chief Engineer for Irrigation, contained in Pro: of Madras Government 26th April 1870, the above figures

figures are quoted" as given by the Collector of Madras", and it is not clear therefore how the Collector's Statement could not have been before the Government until it was quoted by Mr Blair in his letter of the 9th December 1870, Major Mullins's Report being dated 21st January 1870 and the Madras Government's order thereon the 26th April following.

6 Again in the Report of the Committee appointed to report on the anticipated returns dated 14th July 1871 para: 6 it is said, "Although the conclusions arrived at by the Acting Collector of Chingleput and the Acting Director of Revenue Settlement were far less favorable to the Project than had been looked for" Mr Thornhill himself was President of that Committee the Members of which were Major Ryves, then Acting Chief Engineer of Irrigation, and Mr Banbury, Acting Director of Revenue Settlement. It is to be supposed that all the papers connected with the subject were laid before the Committee and therefore Mr Thornhill's original Statement must have been there also, though no allusion to its figures is made. The Statement in para: 12 of Mr Thornhill's letter seems therefore to require further explanation.

Mr Blair
Mr Banbury

7. In the absence of any opinion from the Government

Government of Madras to shew who was blameable for the Statements of Returns which were adopted by that Government, the Governor General in Council thinks it undesirable without further explanation to ask the Secretary of State to "withdraw" the expression of censure used in his Despatch.

8. Further explanation is therefore requested and should be accompanied by a complete copy of the documents submitted with Letter from the Government of Madras No 2172 of the 23d August 1871, the originals of which have been forwarded to the Secretary of State.

I have the honor to be,
Sir
Your Most Obedt Servt

For. Rundall Coll. R.E.

Deputy Secretary to the Govt of India

N° 214

Note by the Ag Chief Engineer for Irrigation

In para 6 of Mr. Fraser's original Report on the Madras Water Works Project he states that from 20000 to 25000 acres of land are lying waste between the tanks and the Sea, but, in para 20 he proposes to supply only 8571 acres from which he anticipates a return of Rs 6000. The latter figures are accepted by Government in G.O. N° 1102 dated 11th April 1866 and are repeated in Letter N° 1376 of 30th April 1866 to the Government of India.

2. Mr. Thornhill's Letter N° 400 with which he submits certain statements showing that the waste land amounts to Kanis 11272 with an assessment of Rupees 33835 and that the possible increase of Revenue including Tirvagasty and 2nd Crop will

N° 214

Note by the Ag Chief Engineer for Irrigation

In para 6 of Mr. Fraser's original Report on the Madras Water Works Project he states that from 20000 to 25000 acres of land are lying waste between the tanks and the Sea, but, in para 20 he proposes to supply only 8571 acres from which he anticipates a return of Rs 6000. The latter figures are accepted by Government in G.O. N° 1102 dated 11th April 1866 and are repeated in Letter N° 1376 of 30th April 1866 to the Government of India.

2. Mr. Thornhill's Letter N° 400 with which he submits certain statements showing that the waste land amounts to Kanis 11272 with an assessment of Rupees 33835 and that the possible increase of Revenue including Tirvagasty and 2nd Crop will

will reach Rs 82160" is dated 5th December 1868

3. In para 12 of the Superintending Engineers Letter No 2790 dated 20 August 1869 it is stated that in December last (ie in 1868) Mr. Thornhill, the Acting Collector of Madras forwarded a list of ten tanks, with an aggregate Ayacut of 5,849 Cawnies, and Rupees 25,184 assessment which might be brought under the influence of the Red Hill & Cholaveram Tanks were water available for Irrigation and in para 29 of his Letter No 5047 of 15th January 1870 the Superintending Engineer mentions that in a Letter to Colonel Anderson the Collector of Madras had stated that 11272 Cawnies of waste land assessed at Rs 33835 might be brought under cultivation if water were available and that a probable increase from this land and from 2nd Crop cultivation

In GO 1100 of 26th April 1870

Ld No 939 29th May 1871 Revr Dept

cultivation may be expected amounting to Rs 82160 - These papers were submitted to Government with the Acting Chief Engineers note dated 27th January 1870 No 17 and hence, though Mr. Thornhill appears to have been mistaken in supposing that the information was not laid before Government till the 9th December 1870 in Mr. Blairs letter No 527, he is right in the conclusion he draws that the Government of Madras could not have been misled by his statements in estimating the probable returns from the original Project, which was submitted to the Government of India on the 30th April 1866 and in which the probable return from the Project was stated as likely to be considerable in excess of the Rupees 60000 computed by Mr. Fraser at Rs 7 per acre, while the actual return

No 1376.

per

per acre estimated by Mr. Blair is from Rs 3-10-6 to Rs 3-11-8.

4 It must be conceded therefore that the figures given in para 11 of Letter No 2172 dated 23rd August 1871 the Government of India are erroneous and were not those on which the original returns from the Project were based.

5 The return looked for from the original Project from Irrigation only was upwards of Rs 60000 as shewn above, while the return estimated by Mr. Blair from Irrigation only was Rs 22705 and hence the quotation from the Committees Report given in para 6 of Letter No 768 I dated 9th September is correct in every respect and bears no reference whatever to Mr. Thornhill's statements which are

Para 41 of his Report in GO 1518 of 5th June 1871.

are supposed to have misled the Government.

6 The Government were misled by Mr. Fraser's original statement that the difference between the assessment on dry and wet cultivation in the vicinity of Madras was Rs 5 per acre and that as the land to be brought under the influence of the Tanks then paid nothing Rs 7 might be taken as the probable return from the land, while Rs 3 2/3 is now found to be the average amount which may be realized per acre. Again Mr. Fraser calculated upon 60,000,000 cubic yards of water being available for Extra Irrigation; the Quantity now estimated to be likely to be available is 45 millions of cubic yards of water, on arriving at this quantity however 45 millions of cubic yards have been struck off for Evaporation, this is probably a higher margin

Quantity of Water Supply made available for existing cultivation leaving 45,000,000 cubic yards available for extra cultivation.

Quantity of Water Supply made available for existing cultivation leaving 37,350,000 cubic yards available for extra cultivation.

margin than is necessary

7. The probable returns from the Project depend upon the quantity of water which may be obtained and upon hence the area which may be irrigated; ~~and~~ the area under the Command of the Canals and which is suitable for Irigation is in excess of that for which a water supply for two Crops is likely to be available.

Octacamund
3rd October/72

H. F. Hall Major RE
Ag Chief Engineer for Irrigation

To
The Secretary to Govt
PW Dept

P. Dr. 1872 Depart
Public Works Irrigation
Nos 5046.
The Acting Chief Engineer
for Irrigation
To
The Secretary to
Government
of Madras

No 214

Dated 3d Oct 72
Recd 4th Oct 72
Rec'd 16th

Note on the Government of Madras Letter requesting further explanation regarding the Estimate of Canal navigable from Madras Waterworks Project furnished by the Chief of Madras

No 460
Rec'd 16 Oct 72

No 1520 dated 25th Oct

No 252 Read the following
from the Secy Govt India P.W. No 768 I dated 9th Sept 72
Chief Engr for Irrigation — 214 dated 3d Oct 72
Ordered that the following
letter be sent

P.W. No 7

To

The Secretary to
Government of India
P.W.

Sir,

With reference to
Letter No 768. I. dated
9th September, I am di-
-rected to forward a note
by the Acting Chief Engineer
for Irrigation from which
it will be observed that
this Government was not
misled by Mr Thornhill's
statement of the land which
might

J. W. S

might be brought under the influence of the Chaveram and Red Hill Tanks, in estimating the probable returns from the Red Hill Project the estimate for which was submitted to the Government of India on the 30th April 1866 while Mr Thornhill's statement was dated 5th December 1868.

The Government are unwilled relative to the probable returns from the Project by Mr. Fraser's statement relative to the probable return from new lands to be brought under Irrigation and the probable quantity

quantity of water likely to be available for Irrigation and not by any statement regarding the area which might be brought under the influence of the Tanks and which is in excess of the area for which water for a double crop is likely to be available.

Under the explanation here afforded I am directed to re-iterate the request that Mr. Thornhill's explanation may be transmitted to the Secretary of State with the opinion of the Government that no blame whatever attaches

to

in this matter to Mr. Thornhill.

G

H.F.

GWW

14584 +5046

Govt. of [1872] Madras.

PUBLIC WORKS.

Secretary to the Govt.
F. Orlebar

Dated

Recd. 16-9 Encl.

G. O 25 Oct 1872. 2520-2521.

Nos. 457-460-461 & 462

Madras Water Works Project.

Passing orders on papers regarding the Estimate of Land irrigable from the Madras Water Works Project.

Affording certain information regarding the Estimate of Land irrigable from the Madras Water Works Project and stating that no blame whatever attaches to Mr. Thornhill in the matter.

Desp. 29/10/72 with ref. of the note by the Chf. Engr. for Mrs.

30

Rep. 16 Oct/72