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MADRAS RECORD OFFICE.

Government of Madras.

Public works DEPARTMENT.

G.O. No. 866

6.3.64

Press
Mis.

Dated 30-3

1865.

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
30th March 1865.*

No. 603. Read the following letter from Captain J MULLINS, R. E., Consulting Engineer for Irrigation and Canal Company, to Colonel C. A. ORR, R. E., Secretary to Government, Public Works Department, dated Camp Chillakera, 7th March 1865, No. 220 :—

SIR,

1 Letter in original from Agent, General No. 622.
1 Do do do No 1,120
1 Do do from Collector of Nellore, No 695
1 Do do do with five enclosures, No. 1,091
1 Copy of letter to Agent, No. 430.
1 Do do to Collector of Nellore, No. 123.
1 Do do do, No 126.
To Agent, letter No. 430 of the 17th ultimo.

were as to the works in that Division which should, in the first instance, be planned, with a view to utilize the expenditure on the Somaishweram anicut, and information regarding the anicut itself was asked for The Chief Engineer, owing to his departure to England within a few days of the date of my letter, was unable himself to furnish a reply to my enquiries, but Mr. Henslowe

* No 106, 23rd ultimo.

has in part answered* them, and I have now therefore the honor to submit for the information of Government some particulars regarding the Nellore Division, which affect the works in progress or proposed.

Somaishweram Anicut.
Procs Madras Govt. No. 2,691, 7th September 1864.

2. The circumstances as regards design and sanction, and the state of progress of this work, in July last, were reported on in my letter No. 65 of the 5th August, paragraphs 39 to 50. Since then the quarries have been opened out, the railways improved, and the station buildings completed; and generally the subsidiary works, including also the preparation of bricks and collection of limestone have made fair progress, but at the anicut itself very little has been done. The block wells are very much in the same state as that remarked on in my previous report. Some few additional ones have been built up, but the attempt to get them down has not been successful, and several of them are so much out of the position, and so much broken, that it is intended to remove them and, as mentioned in paragraph 4 of the Agent's letter, no more block wells will be constructed, and in lieu of them circular wells will be substituted. Of these circular wells a few were being built up ready for sinking at the time of my visit. They are made of brick in mud, which is not, I think, an advisable arrangement, and it is one too which presents a remarkable contrast to the massive block wells, the use of which was advocated with a view to ensure great stability.

The only other work done in the bed of the river is the formation of a narrow bank of stone in rear of the line of wells, and which now extends nearly across to the north side, and is just wide enough to carry a single line of railway.

3. From paragraph 3 of the Agent's letter, it will be seen that the work contemplated for the current season is the putting down of a single row of wells and constructing a rubble apron below, so that by the end of this season the total amount of work done from the beginning, exclusive of the station buildings, will be equivalent to what could generally be executed in three or four months. The first expenditure at Somaishweram appears from the accounts to have been incurred in May 1863, so that the progress has been remarkably slow. It is true that there has been no immediate necessity for the completion of the anicut, seeing that the connected works have not as yet been sanctioned, but nevertheless a large establishment has been maintained, and its cost in proportion to the value of work done has been very great, as noticed in submitting the quarterly accounts of progress to Government, and therefore it would have been better had the Somaishweram works been pushed forward as fast as the labor obtainable in the neighbourhood would allow, for then, without occasioning an increase of rates, the anicut would by this time have been nearly if not quite finished.

4. The Chief Engineer has not up to the present time forwarded a revised plan and estimate for sanction, and I think that much of the delay in construction has arisen from the want of

2 *Proceedings of the Madras Government, Public Works Department,*
30th March 1865.

full instructions to the Executive Engineer of the Division and the Resident Engineer at the work; and retarded progress has not been the only evil, for in addition thereto the latter officer has been prevented, by this want, from making the best arrangements for carrying on the works. Paragraph 2 of my letter No. 430 of the 17th February to the Agent, contains remarks on this and other points. What has been wanted all along and is still much required, is the definite settlement of the design of this work, and thereafter full directions to the Executive officers as to the order in which the several parts are to be constructed and the work to be completed each year, and, if a section similar to that enclosed for the inspection of Government with my report of August last, and in which the mass of the work is sand covered with stone masonry, be adopted, it is of the greatest importance that the arrangements should be very carefully made, so as to lessen the risk of accident during the time the masonry covering is under construction.

Letter No 65, 5th August last, end of paragraph 46

5. I need not revert to the opinion already expressed regarding the section for this anicut, which the circumstances of its position and the materials most available would seem to indicate, further than to remark that my views have received confirmation by the want of success which has hitherto attended the attempt to carry out a design, for the execution of which there are no facilities, and the difficulties attending which will be still more felt when much skilled labor for stone masonry comes to be required.

Letter No 65, 5th August last, end of paragraph 47

6. The estimates for this section, amounting to Rupees 1,14,265, have been already before Government, and sanction has been deferred for the present. The length of the section is four miles.

Main Canal, first Section

Proc Madras Govt No 2,770, dated 22nd September 1864.

Second Section.

7. The estimates for the second section have been completed; its length is 10½ miles, and the estimated cost of the arrangements intended, under the instructions upon which the Executive Engineer was working last year, is Rupees 4,97,571, or Rupees 47,388 a mile. By incorporating, however, the Thalagarayapoorum tank in the line of the canal, and by crossing some two or three small valleys by single banks, a course which in the particular cases would, I have no doubt, be approved, and by a revision of the rates for rock cutting, which on further examination were found to be unnecessarily high, the estimates for this section can be reduced to Rupees 3,67,890, or Rupees 35,037 a mile.

Letter No 65, 5th August last, paragraph 54

Third Section.

8. The earthwork estimates for this section are in a forward state, and many of the masonry works have been designed, but the Executive Engineer could not tell me what the probable cost per mile would be.

9. The above sections are on the original low level line referred to in the 55th and following paragraphs of my previous report on this Division, and this line has been selected as far as Bogasamúdrum, the 29th mile. Since last year, however, there has been some correspondence having reference to the alternative line suggested by me in the letter just quoted, and information has been obtained as to the extent and value of the land in the valley of the Nulla Vagu, which would be submerged were the canal carried by a bund across the gorge of that valley, and the course and results of the correspondence will now be noticed.

Letter No 786, 20th September last.
Agent's „ 1,323, 27th do

10. The Chief Engineer, while admitting the advantages of keeping the canal on a high level, wished, before laying out a new line, for some definite idea of the terms on which permission to bund the Nulla Vagu would be given, and

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30th March 1865.

* No 123, 28th September.

as the first step towards the solution of this question, I wrote* to the Collector of Nellore to ascertain, as nearly as might be easily practicable, the value of the land which would be submerged, and the cost of transferring villages within the tank area to other sites; and the Collector was also asked his opinion as to whether he considered it would be advisable that the compensation to be given to Government for making over the site should take the form of irrigation to the imperfectly supplied lands of villages commanded by the tank and canal, and if so, what extent of land the Company might fairly be required to water free of charge.

11. In reply† to this communication Mr Dykes promised to have returns of the land prepared, and he stated (paragraph 4) that he thought the formation of the tank would be so

† No 857, 4th October.

advantageous to the country in its neighbourhood, that if five per cent. were paid by the Company on the capital expended, or amount paid by the Government, in making the site available, the Government would not lose by the arrangement, although (paragraph 6) the terms proposed were so favorable to the Company. The Collector, however, misunderstood the object of the formation of the proposed tank, and supposed it to be a reservoir, the water of which would all be available for cultivation, instead of, as intended, entirely or for the most part a means of carrying the canal across the valley, and it became necessary to explain therefore what the circumstances were, how the tank would be utilized, and what the views of Government were on the subject of submerged lands, and this was done in the letter as per margin ‡

‡ To Collector, No 126, 14th October

12. With his letter of the 10th February last, No. 58, the Collector transmitted the papers marginally noted,§ affording the information required regarding value of land, houses, and other property in the valley, as also some useful particulars (Statement B) of irrigated lands in villages commanded by the tank and canal. These papers unfortunately did not reach me until I returned to Madras, after my visit to Nellore.

§ Acting Deputy Collector's letter No 3, 21st January 1865.
Statement A, gross area and assessment of Government unoccupied and Patta lands within area of proposed tank, with rough estimate of trees, buildings, &c.
Enclosure No. 1 of above Statement, extent and value of Government waste lands and value of trees, wells, &c, thereon, within the tank area.
Enclosure No 2, extent and value of occupied lands within tank area.
Statement B, area and assessment of irrigated land below tank site down to Verur.

13. The information contained in Statement A. and its two enclosures may be briefly stated as follows:—

Extent of dittenu and Inám lands, which would be swamped, is 3,908 acres,						RS.
assessed at Rupees 7,954, the estimated compensation being						66,272
Buildings, numbers 1,574 dwelling houses, value						19,172
Do.	do.	16 Indigo vats	do.	...	...	2,250
Wells,	do.	80	do.	...	...	13,932
Trees,	do.	1,444	do.	...	...	1,899
Total...						1,03,525

The Government waste and Peramboke lands, which would similarly be submerged are 3,619 acres of wet, dry and garden lands assessed at Rupees 6,317.

Upon these lands there are—						RS.
Wells, numbers 55, value						13,278
Trees, do. 2,636, do						1,700
Nagalavelatur tank do.						1,000
						15,978

The Deputy Collector, in fixing the compensation to be paid to the Puttahdars or Inám holders, supposes that the net profits derived by them from their lands are equal to the assess-

4 *Proceedings of the Madras Government, Public Works Department,*
30th March 1865.

ment, and he has capitalized this estimated income at 12 per cent. This however, unless facilities were given for applying the capital to lands now uncultivated, would not be a fair arrangement, and the amount of compensation would have to be doubled nearly, unless it be considered merely as a means of enabling the present land-holders to make other lands as valuable to them as those they now enjoy, and in that case the data for the calculation vanish, and compensation would be dependent on the circumstances of the new land.

The Deputy Collector has also in Enclosure No. 1 of Statement A, and in paragraph 7 of his letter, added the assessment of waste lands to the estimated value of property upon them, whereas the former requires to be capitalized before it can be so treated.

The docket of Enclosure No. 2 of Statement A does not seem to agree with the contents of that document, or with the last paragraph of the Deputy Collector's letter, and the value of the Statement would have been greater had the difference between assessed, and average derived, revenue been shown for those villages. The entries in the column of Remarks refer only, it would seem, to wet lands thrown permanently out of cultivation.

14. On the receipt of these particulars of the lands in the valley of the Nulla Vagu, I communicated an abstract of the Statements, similar to that above given, to the Agent, and, after pointing out, as clearly as the information at my disposal enabled me to do, the considerations for and against the bunding of the valley, and expressing the opinion that, while there was not sufficient evidence in favor of the tank to enable me to recommend its adoption, the apparent advantages were such, I thought, as to render it advisable to complete the investigations. I requested Mr. Henslowe to inform me whether he was prepared to state that, in the event of its being advantageous to the Company to dam the valley, the compensation to be made to the Government for making over the site should, provided the Government acceded to the terms, be thus arranged, viz., that the Company should provide water free of charge to an extent sufficient to

First.—Reimburse the Government the revenue relinquished by allowing the formation of the tank; and

Second.—To pay five per cent. on the amount of compensation, which might be settled to be paid for property destroyed, or submerged and rendered useless, including, of course, the cost of removing villages, &c.

15. The Agent replies to this part of the subject in paragraphs 6 and 7 of his letter No. 106, wherein he states that the Chief Engineer "is not prepared to entertain the project of forming a tank, but proposes that the main channel shall drop by locks, and then pass over the valley by an anicut at the place proposed for the tank bund instead of lower down by an aqueduct," and that "the branch which has been lined out for the Caudlerue valley will have its head above the lock at the 10th mile, and run round the Nulla Vagu, irrigating that valley."

16. From this it will be seen that Colonel Cotton has decided to carry the navigation canal on the original low level line with, however, a small diversion, and a change of arrangement for crossing the Vagu, and the idea of bunding the valley has been abandoned. I believe the change of opinion, from that expressed in a former letter, has resulted from its being found that

although the high level channel, in connection with a tank, would not be actually longer than the line on the lower level, it would have considerably sharper bends. The levels do not show conclusively that there would be any difficulty in laying out the curves so as to suit navigation, but as the Chief Engineer proposes now to separate the irrigation channel from the canal of navigation, and as, moreover, the want of command of the former, when carried on the lower level was a great difficulty; and this will now be overcome, it appears to me that, so far as the irrigation is concerned, it is a matter of little or no moment that the lower route round the valley has been chosen in preference to the shorter by a bund across the gorge. Irrigation is the first thing to be secured, and the works on which it is to depend will be carried out far more easily, and at but comparatively little expense when disconnected from navigation, and if the Chief Engineer finds that a

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30th March 1865.

line for navigation on the lower level can be constructed throughout at a moderate cost, no doubt that part of the project in this Division will be carried out in due time, when the more urgently required irrigation works are in successful operation.

No. 604. ORDER THEREON, 30th March 1865, No. 866.

Ordered to lie over, pending the receipt of the estimates called for in G. O. No. 304, dated 2nd February 1865.

(True Extract.)

(Signed) CHARLES A. ORR, Colonel, R. E.,
Secretary to Government.

To the Consulting Engineer for Madras Irrigation and Canal Company.
„ Manager for do. do.

Exd. S. T. Augustin.

Recd. 28th Jan/65 No. 50
Mayadupett Dy Collector's Office

No 3

Vedanaipatti 73

21st January 1865

(Original)

S. Solasinga Modaliar

Ag Dy Collector of Mayadupett

To

J W B Dykes Esquire

Collector of Mellore

Sir

Agreeably to your letter No 885
dated 20th October 1864, accompanying
copy of a letter from the Consulting
Engineer to the Madras Irrigation
and Canal Company and of its
enclosure, and No 105 dated 17th December
1864. with copy of Engineer's letter forward-
ing a Map of the lands required for
Nallanagar Tank, directing me to inform
you of the extent and value of the lands
which will be submerged by the proposed
tank

W B D
28th Jan 65

Tank in the Vallanaga in Atmakuru

Salug and submit a rough estimate

of the probable cost of removing the villages

within the water-spread, and return

showing the average area of Irrigation

to date in the villages that will be affected

in the bed of and below the above

Tank; I have the honor to report that

I have proceeded to Vallanaga and gone

over the line of the Tank in company

with Mr. Stephenson, first Class Surveyor

of the Canal Department

2 On a rough measurement of
the land required by the Company

for the Tank in question, I observe

that 2,408^x-14-7 Gorus of land payable at

Vide Col
630-170 of
Statement
A

an annual assessment of Rs 14272-11-fall

within the mark of water-spread; and the Govt.
will

will have to incur the expense of

Vide Col
78 of Statement No 103,524-10-2 for compensating the
A

occupiers of land and for paying the

owners the value of houses, wells and

trees and I submit herewith two

Statements A with its enclosures

No 1 & 2 and B to that effect.

3 The Statement A shows the
names of Taluqs and villages, the

Graduation, Porampokan and their

difference of each village, the gross
extent and the amount of assessment

of the Govt. (unoccupied) and Pattah

lands that fall within the line of

the proposed Tank, the amount of

compensation and the rough estimated

value of the buildings and trees &c.

4 The enclosure No 1 shows the extent and value of Government waste Porampoke land, including, wet, dry and garden, that will be submerged by the proposed Tank and the amount of rough estimated value of wells & trees thereon.

5 The enclosure No 2 shows the extent and assessment of Dittam and Inam lands held by individuals within the bed of the Tank, the amount of compensation and value of houses, wells and trees to be given to the owners

6 Statement B shows the average area of irrigation to date in the villages that will be affected in the bed of and below (down to Viru's and the Ladam), the proposed Tanks.

7 The aggregate amount of Rs 6317.77 Rs 22296-3-8 in column 7 of the enclosure No 1 of Statement A will be the loss to the Government whilst that of Rs 103524-10-2 in column 11 of the enclosure No 2 as to be paid by them in ready money to individuals also on account of land required by the Canal Company; thus making the total

of Rs 125820-13-10.

8 In order to ascertain the amount of the total cost that the Government are likely to sustain in affording the land required by the Irrigation Company, for forming Nallavagu Tank, I have calculated the assessment of Porampoke lands with reference to the average amount of assessment fixed on different classes of lands of villages.

9 Nine villages, Errahalle, Enamadala
 Shrotrims, Billupada, Halayapallim,
 Rakinigi, Nagulavellaturu in Atmakur Taluq
 and Giralapada, China Gopavaram, and
 Pedda Gopavaram in Rapur Taluq and
 2245-7-14 ^{G. V. S.} Gorus of their lands payable an
 annual assessment of Rs 13162-11-17 and
 the buildings ^{via} thereon to the value of
 Rs 51542-1-6 and 162-6-11 ^{G. V. S.} Gorus of lands
 assessed at Rs 1108-5-1 and trees ^{via} to
 the value of Rs 1689-4-9 of four villages
 Telugarayapuram, Turupacampampadu
 and Chejerla in Atmakur Taluq and
 Velanapalle in Rapur Taluq lie within the
 water-spread. Of the above 13 villages,
 9 will have to be removed as they are
 situated in the bed of the Tank.

10 As to the lands of the above
 two Shrotrims had never been assessed,
 the assessment thereof is calculated with reference
 to

to rates prevailing in adjacent Govt
 lands of corresponding quality. 13%

11 In the event of lands particularly
 mentioned in the enclosure No 1 and 2 of
 Statement A being given up to the
 Irrigation Company, the above villagers
 and Shrotrims dare express their wishes
 saying that they prefer lands to ready
 cash payable to them as Compensation
 for their lands and their request being
 fair and advantageous to Government
 I recommend that it be complied with.
 Should this measure be found inadvisable,
 I think they are entitled to an
 adequate compensation and therefore
 recommend Rs 66242 as per column 4
 of the enclosure No 2 of Statement A
 may be given at once for all to the
 holders of lands as a capital, the
 interest of which at one per cent
 would pay them an equal sum
 derivable annually from their lands.

X The measure

In conclusion I respectfully beg
to state that the extent of lands under
the irrigation of Nallavagu, Kottithuram,
Pellur and Virur Channels and of Tanks
in their respective villages is about ^{by V.L.} 1520-9-4
Gorru assessed Rs 22456-13-3 as particularized
in Column 4 of the Statement B.

I have the honor to be

Sir

Your most Obedt. Servant

N. Srinivasan
Ag Dy. Collector.

No 58

Collector's Office
10th February 1865

Mr. P. J. Esq.
Collector of Police

Captain John Mullins & Co.
Consulting Engineer for Irrigation and
Canal Company Madras

With reference to the correspondence

Paragraphs 60 to 65 of the Consulting Engineer's letter to Government No 65 dated 5th August 1864, recorded in the Proceedings of Government, dated 7th September 1864, No 2891, Public Works Department.
From Consulting Engineer to Collector No 123 dated 28th September 1864.
From Collector to Consulting Engineer No 887 dated 14th October 1864.
From Consulting Engineer to Collector No 126 dated 14th October 1864.

noted marginally, I have the honor to inform you that the rough estimate has been prepared for the land in the Vallabgar, I regret

I have not had time to go into the calculations. Other business has occupied me, since I received the Deputy Collector's letter on the 2nd of last month. And now hearing that you are about to visit a fellow, I cannot

1865
From Mr. J. P. Esq.
of C. B. Esq.
to the Collector
of Madras

Dated 21st
Feb 22nd January 1865
Recd
17th 19/65

Enclosures 4

Informing that the lands required by the Madras and Canal Company for the proposed work in the Vallabgar, Company have been roughly measured the buildings & trees are situated thereon & the value and statement of A & B is that of the land submitted. The value is 5000 Rs. 1000 p. 100

on the letter and its enclosures as received
for your information.

N.3 dated 21st
January 1868 with
four enclosures.

2. Any such calculations must necessarily (requested to be returned)

be rough, and the amount is more likely

to be under estimated than over.

Statements will however give you an idea

of what is included by the project, &

on the spot, should you pass that way

to Lomehwarum, they will be more

exactly studied and tested than at a

distance.

My letter of the 14th October last,

was based on the supposition that the

river would be crossed by a double bank,

and the whole body of water thus retained

as a tank made available for irrigation.

It seems to me almost a sin

to

to treat the question otherwise.

5. I am perfectly sure that

any expense gone to for that purpose

will be amply repaid.

6. But if the Falla Vagu is the

made a vast body of stagnant water,

than the case of course is very different.

We should of course be great gainers.

Having such a body of water stored up

where the Villagers have often no water

to drink. The sides of our lake would

be surrounded by wells, & life and

property in stock would enjoy a security

that at present does not exist, but

otherwise there would be little direct

return to Government by the Falla Vagu

that would not, as you observe, be equally

accomplished

accomplished by the other line; & it is difficult to give an opinion how the expenditure should be borne.

7. It regards inferior advantages
there can be no doubt. To get across as you
proposed into the Rappahannock is worthy
of Government. It would be a boon
to that country such as those only can
realize who know the Rappahannock. It is
regards either the branch of the project,
or the construction of the same. I think it is
warrantable. I am certain, that, whether
the Rappahannock is a drop of rain or
water or not, its construction is what
could do more to improve the health
and the condition of the people than
any other measure I know of, and its
abandonment will materially affect
them.

the prosperity that is now manifesting
itself, on most sides, and most especially
where the Belmore Quint is utilizing
a portion of the turning --- floods of the
Pinnair lower down.

I have the honor to be,
Sir,
Your most Obedt. Servt.
Wm Dyer
Collector.

no. 111 A, 52. C

Consulting Engineer's Office,
 Irrigation and Canal Co.
 Madras 17th February 1865

To,
 Captain J. Mullins, R.E.
 Consulting Engineer, S.E.C.C.
 The Agent and Manager, S.E.C.C.
 Sir,

I have the honor to request that you will be good enough to obtain from the Chief Engineer for the information of Government, and as an accompaniment of my report on the visit to the Nellore Division just made, an expression of Colonel Cotton's intentions as to the works which should in the first instance be planned, with a view to utilize the Somaswar-ram amount expenditure. I believe that the Chief Engineer has instructed the Executive Engineer of the Division to plan an Irrigation Channel, on as high a level as may be found practicable, in order to Command as much as possible of the land South of the Pennair, and I should be glad to know what are at present the intended principal details of this Channel.

1065
 Mr. Mullins
 The Consulting Engineer
 Madras S.E.C.C.
 Dated 10th February 1865
 10779.19/65
 No. 58
 In conformity with a notice
 to Government as stated that
 the Nellore Division has been
 placed for the land in the
 Pennair, and a notice
 in regard to the
 from the 10th Feb 1865
 Madras S.E.C.C.
 10779.19/65

Fig the average fall per mile, the maximum depth of water, and the maximum discharge above the first branch Channel or Considerable sluice.

2. So little progress has ^{been} made at the Somai-

-waram since my previous visit in July

last, that I should wish to be able to inform

Government, what the Chief Engineer intentions,

with regard to this work, may be. I am not

able in the absence of the accounts to compare

the cost of the Establishment, permanent and

contingent, employed at Somaiwaram with the

work done, but I am afraid that, as was the

case up to the last quarter for which accounts

have been received, it will be found that the

Establishments are very much out of proportion

to the work, and that this latter will consequently

be found to be extremely costly. It would

seem to me to be very advisable that the

construction of the work should be vigorously

carried on, or that the Establishment should

be reduced proportionately and I need hardly add

that, in any opinion, efficiency and economy would

be promoted by the former alternative much

more than by the latter. To do this however it

is necessary, that the Resident Engineer should

have full instructions as to the way in which the

work

work is to be carried on, and, as a preliminary, the section of the work has to be finally settled, for without this information Mr Roberts cannot properly know what to do, or what his arrangements should be, and on the Northern side of the river especially the course to be followed will depend much upon the section to be worked out. The Government also would wish to know when the plan and estimate for the work will be submitted for sanction.

your letter of 13th of the 23rd September 1864. with Ch Engineer's report of the 20 Sept 64.

3. I have this day received from the Collector of Killore a report, with statements, showing the extent and value of land in the valley of the Rura-
vagu and its neighbourhood, which would be affected by the formation of a Tank there. Mr Dykes has not offered any opinion as to the terms on which he considers the valley might be made over to the Company, and a careful examination of the information which has been obtained of the locality will be necessary, before I shall be able to report to Government, but the following particulars will afford you at a glance a good idea of the circumstances. The lands of 13 Villages would be partly or wholly submerged and 9 Villages would require removal. The extent of Pettum (ie-rented) and Suam lands, which would be swamped, is

3908 acres as per ^{at} Rupees 7,954 the Estimated compensation being Rupees 66,272

Buildings N ^o 1574 dwelling houses	Value	19,172
" " 16 Indigo vats		2,250
Wells " 80		13,932
Trees " 1444		1899
		<u>103,525</u>

The particulars of waste lands ~~are~~ are 3,619 acres of wet, dry, and garden lands (i.e. lands so classified in the village accounts) as per at Rupees 6,317 or representing their annual value if cultivated.

Wells N ^o 55. Value Rupees	13,278
Trees N ^o 2636 Value Rupees	1700
Value of Nagavolatore Tank	1000

It is not stated to whom the ^{Total 15,978} lands belong, but probably they are the property either of the village community or of individuals. It would appear therefore that were the valley occupied as a Tank site Rupees 103,525 would have to be paid as compensation to tenants and for their wells, houses, trees &c. and that the Government would have to relinquish a revenue of Rupees 7,954 derivable from such lands, while the value of property on waste lands is Rupees 15,978 and the rent, though not now realized, is Rupees 6,317. Perhaps it would be fair to say therefore that about 1,20,000 Rupees will require to be disbursed and lands of the annual value of Rupees 10,000 taken out of the cultivable area. I must here note that I understood from Mr. East that the water spread of

of the Tank would be about 15 square miles or 9,600 acres, whereas the lands included in the statement which give the above information show 3,908 acres cultivated and 3,619 acres waste, or together 7,527 acres. Perhaps the 15 square miles may be rather in excess of the actual area, and on the other hand it is possible that village roads, water courses & the sites of villages may have been omitted from the returns.

4. Another statement shows that in 12 villages, which are situated below the Tank site, the lands under Channels are 2,948 acres, the assessment being Rupees 15,051, and the area under Tanks acres 1803 with a Revenue of Rupees 7,406.

5. I am not in a position to make any proposition with regard to the terms on which the Government would be prepared to make over the site for a Tank, but it seems to me probable that they would consent to do so in view of facilitating the carrying out of the Company's works, on the condition that they were reimbursed the revenue sacrificed from lands which have been regularly cultivated, and that 5 per cent on the compensation paid for land and property were returned, and this might, I think, be done without entailing any actual sacrifice on the Company. I cannot of course in the present stage of the investigations give in any way a decided opinion in favour of the formation of a Tank at all, but I am under the impression

3908 acres as per ^{at} Paper 7,954 the Estimated compensation being Paper 66,272

Buildings N: 157 1/2 dwelling houses	Value	19,172
" " 16 Indigo vats		2,250
Mills	80	13,932
Trees	1466	1899
The particulars of waste lands &c are 3610 acres of		103,525

The particulars of waste lands &c are 3,619 acres of wet, dry, and garden lands (i.e. lands so classified in the village accounts) assessed at Rupees 6,317 or representing their annual value if cultivated.

Wells. N ^o 55. Value Rupees	13278
Trees. N ^o 2636 Value Rupees	1700
Value of Nagulavelatōre Tank	1000

It is not stated to whom the wells on waste lands belong, but probably they are the property either of the village community or of individuals. It would appear, therefore, that were the valley occupied as a Sankh Seta Rupees 103,525 would have to be paid as compensation to tenants and for their wells, houses, trees &c and that the Government would have to relinquish a revenue of Rupees 7,954 derivable from such lands, while the value of property on waste lands is Rupees 15,978 and the rent, though not now realized, is Rupees 6,317. Perhaps it would be fair to say therefore that about 1,20,000 Rupees will require to be disbursed and lands of the annual value of Rupees 10,000 taken out of the culturable area. I must here note that I understood from Mr. East that the water spread of -

of the Tank would be about 15 square miles or 9,600 acres, whereas the lands included in the statement which give the above information show 3,908 acres cultivated and 3,619 acres waste, or together 7,527 acres. Perhaps the 15 square miles may be rather in excess of the actual area, and on the other hand it is possible that village roads, water courses & the sites of villages may have been omitted from the returns.

4. Another statement shows that in 12 villages which are situated below the Tank site, the lands under Channels are 2948 acres, the assessment being Rs. 15,051, and the area under Tanks acres 1803 with a Revenue of Rs. 7,406.

5 I am not in a position to make any proposition with regard to the terms on which the Government would be prepared to make over the site for a Tank, but it seems to me probable that they would consent to do so in view of facilitating the carrying out of the Company's works, on the condition that they were reimbursed the revenue sacrificed from lands which have been regularly cultivated, and that 5 per cent on the compensation paid for land and property were returned; and this might, I think, be done without entailing any actual sacrifice on the Company. I cannot of course in the present stage of the investigations give in any way a decided opinion in favour of the formation of a Tank at all, but I am under the impression

in that in no case would it be very disadvantageous to construct it, while it may be found that the advantages would be very considerable. I do not therefore by any means advocate the crossing of the valley by a dam, but I wish the possibility of such an arrangement to be kept in view while planning the works, and beyond that the general basis on which the Company would wish to take, and the Government to give, the site, should be settled, and thus the very best arrangement under the existing circumstances might be adopted.

6. It may be noticed that the contour of the valley would be about 15 miles (not 30, I think, as mentioned by Mr. East for the longest line from the bend site was but 6 miles) and that an Irrigation Channel on that line, or rather approximating thereto, would cost perhaps 12,000 Rupees a mile or 180,000. On the other hand there are 7,500 acres of irrigable land in the valley, which would be commanded by the Canal, and if 5,000 of these were irrigated at 4 Rupees an acre, and supposing 6 Rupees an acre to be the cost of the distribution works, the return on the expenditure would be not much under 7 per cent, so that the going round the valley would in itself be no drawback to the irrigation works.

7. In the 15 mile however, of the moderate fall of 6 inches a mile be allowed, the Channel would drop $7\frac{1}{2}$ feet and if similar to the

area say, 123 square miles or in round numbers 36 millions square yards and $36 \times 2\frac{1}{2} = 90$ millions Cubic yards.

27.
the Channel at the starting and terminal points were allowed and a Tank formed, there would be a reserve of 90 millions of Cubic yards, and taking 5,000 Cubic yards as the supply for an acre, the value of this water would, under ordinary circumstances, be Rupees 72,000 per annum and in the absence of other resources it might be worth a very great deal more. It may also be noticed that the drainage from the valley (area about 65 square miles) would, in ordinary years, amount to 100 to 120 millions of Cubic yards so that the Tank would in itself be of some value, and it is not simply a basin to be filled from the river.

8. The Chief Engineer has modified the proposed arrangements of carrying the line of navigation Canal across the Nulla Vagu, but though it may be well to ascertain what the cost of the plan for passing the Nulla Vagu water across by a Culvert or river would be, it would also be prudent, I think, to find out whether it would not be a more economical arrangement to carry the navigation and Irrigation by the Canal at any rate up to the East side of the Valley, for the advantage of the connection of the navigation with the reservoir at this point would be considerable, and it seems not unlikely that the cost of an Irrigation Canal round the valley and of a navigable Canal across its lower part, would exceed the cost of the Tank.

9 Supposing the terms which I have mentioned in para 5 above, to be such as both the Government and the Company would accept, the Navigation would by itself stand some what thus.

For the Tank

Value of water supposed 72,000

against the Tank

Interest on 1,000,000 supposed cost, at 5% 20,000

Loss of returns from the valley 20,000

lands 20,000

Less interest on

Cost of works 10,000 10,000

repayments (in water)

to Government Value 17,000

Total 27,000

(Difference 25,000)

so that, as far as I can judge, besides any possible advantages, in planning the Navigation works, which the formation of a Tank would give, and after appropriating to the use of Government lands, below the Tank site, which are now insufficiently supplied, such a quantity of water as would compensate the Government for loss of Revenue from submerged lands, the balance of advantage would seem to be sufficiently in favor

favor of the Tank project to make it worth while to investigate it carefully and thoroughly, and in the mean time that you should inform me whether you would be prepared to accept, on behalf of the Company, terms arranged on the principle I have suggested, in order that I may lay this part of the question before Government.

I have &c

/s/ Capt. J. Mullins, &c,
Consulting Engineer, &c, &c

/True Copy/

Wm Mullins Captain, &c,
Consulting Engineer, &c, &c

Consulting Engineer's Office,
Irrigation, and Canal Co.
No. 123.
Madras, 28th September 1864.

To,
From,
Captain J. Mullins, R.E.,
Consulting Engineer, S.E.C.C.
The Collector of Madras.

Sir,
1. Before applying to Government for definite orders on the subject of the terms on which they will be prepared to allow the Irrigation and Canal Company to bund the Kulla Vagu, I have the honor, to Mr. G. H. 2591-7 Sept 1864, with reference to paras 55 to 60 of my report No 65 of the 5th Memo to Government, and to the enclosed copy of a letter from the Chief Engineer on the same subject, to request that you will be good enough to ascertain, as nearly as may be easily practicable, the value of the land which would be submerged in the valley of the Kulla Vagu, and the cost of transferring the villagers, which would be below the level of the water of the Tank; and further should you agree with my suggestion that the Government, in return for the expenditure on these accounts, which might be entailed, might be compensated by the Company by the improved irrigation of the wet lands under the Kulla Vagu, the Pollaeru, the Poty, Theartum Channel

Enclosure in letter No.
220 of 14th March 1865 from
Mr. Mullins to S.E.C.C. & the
Secretary to Government.

1865/19/65

Received March 1865

Chained Yes; I should be glad if you would favor me with your opinion as to the extent of land which you consider that Company might fairly be called upon to water, or, should you consider that the arrangements between the Company and the Government would be better based upon some different principle; I should wish to be able to place your views fully before Government.

2 I have asked the agent to request the Executive Engineer at Bellary to give you or your Deputy Collector, all such information regarding the extent and position of the lands referred to, as the surveys and levels already taken or in progress may afford.

(1) I have Yes.

Wm. J. Mullins, P.E.
Consulting Engineer, S.P.C.

(1) True Copy!

Wm. J. Mullins, P.E.
Consulting Engineer, S.P.C.

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Enclosure in letter No.
220 of 7th March from
Cons Eng. for S. E. C. to
the Secretary to Govt. D. O. M.

7th March 1865

Proc-30 March 1865 - B. No 603

No 126

Consulting Engineers' Office,
Irrigation and Canal Dept.
Madras, 11th October 1864.

To,
Captain, J. Mullins, P. E.,
Consulting Engineer, S. E. C.
Sir,
J. W. B. Dykes, Esquire,
Collector of Villars.

1. In acknowledging the receipt of your letter No 857 of the 14th Instant, I have the honor to point out that the carrying of the Company's Canal across the Kulla Nagin by a single bank will not form a Tank, the water of which will in the ordinary way be available for Irrigation, though it will dam up a large body of water.
2. The level of the water in the Tank will be that of the water in the Canal and, generally speaking, the ~~canal~~ Tank water will be that which will be distributed, but nevertheless it will be the case that, when the supply from the river fails, the Tank water will act to a certain extent as a reserve. For instance suppose the river water entering the Canal at Somaswarani to become reduced in quantity, so that, instead of sufficing to maintain a depth of 6 feet in the Canal that

that depth would become reduced to 3 feet. The Canal at its maximum depth will carry 100,000 Cubic yards per hour, and at 3 feet say 35,000 Cubic yards per hour, and suppose the quantity of water which the Tank will retain between its full level and one yard below that to be 12 Millions of Cubic Yards. Under these circumstances the diminution of the depth of water in the Canal from 6 to 3 feet, instead of at once following the failure of the supply in the river, will be deferred for $\frac{12,000,000}{35,000} = 342$ hours or for rather more than a week. It may also be noticed that when the supply of river water has failed altogether, and the Tank has been drained to the level of the sole of the Canal, the Tank water below that level could be distributed by a low level sluice, but as in that case, before any river water could again pass to the lower side of the Canal, the Tank would require to be refilled to the level of the Canal bottom it would not always be deemed advisable to carry out such an arrangement.

3. Informing your opinion moreover it should not be forgotten that the lands to which you refer, as now being frequently left waste, will ⁱⁿ all probability be irrigated whichever way the Canal is constructed, and that the benefits to the people, and to the Government by the recovery of the dry ^{lands} as aforesaid on the recultivation of the lands, will be the same in either case, and

such considerations taken generally have induced the Government to enter into the present agreement with the Company, by which all land required in the ordinary course for the Canal is given free of charge, and a guarantee of 5 per Cent on the ^{loan} or rather on the capital subscribed, also. The State therefore has already consented to pay largely in view of the benefits to the Public likely to accrue from the carrying out of the Company's works, and if any further concession is to be made, it will be necessary to show that in the particular case there are peculiar grounds for giving more than has already been given, and the Government have declined to consider that submerged lands placed under water for the convenience or economy resulting from the construction of the Canal with a single, in lieu of a double, bank should be given to the Company free of charge. It must also be remembered that the Company have, in their water rate, a sufficient inducement to provide for the irrigation of all lands for which water may be procurable.

4. I can offer no opinion as to the saving to the Company which would result from the permission to throw a bank across the Nulla Vaga and to connect the Canal on either side directly with the Tank so formed, because there are no data at present upon which to form an opinion. However it may be assumed that the saving will be considerable and if the advantage

in other respects be of moment, it would only be fair that the Company - the chief gainer by the arrangement should bear at least a considerable part of the cost of purchasing the land which would be submerged, and the question then would be in what way should this share be borne, whether by paying for the land or reimbursing the Government, should the State make the purchase, by irrigating some of the wet lands of the neighbouring villages free of charge?

5. In the absence of definite information regarding the value of the area of land which would be submerged, I cannot make a definite proposition, but I may observe that besides all other advantages the Company would be enabled to make use of a large quantity of water, at the very times when it would be of most value to them. (This quantity, of course, I cannot at present determine, but probably above the level of the sole of the Canal, the tank would contain 16 to 18 millions of Cubic yards. Take the lower estimate and suppose an acre to require 5,000 Cubic yards for irrigation, which is rather more than double what the Chief Engineer supposes to be necessary for a 3 months' crop; the area that could be irrigated from this quantity would be 3200 acres which, at 1/2 Rupee the acre, would amount, to 1,600 Rupees yearly.

6. My estimate of the quantity of water may be too large, but at this stage the discussion that would matter any little. Its value to the Company

Company would depend much upon the sufficiency or otherwise of the river supply, and it might be necessary to consider that on the average $\frac{3}{4}$, or $\frac{5}{8}$, or $\frac{1}{2}$ only, of the water would be needed, or useful to the Company, but I have said enough to show that it is probable that the Company will derive some, if not very great, benefit from the construction of the tank, and that there is therefore no necessity for enabling them to obtain this benefit free of all cost to themselves, and to make clear the considerations which will probably influence the Government in deciding the principles upon which the terms will have to be settled, and if you will kindly favor me with your opinion after considering what has herein been stated, I shall be able to apply to Government to define generally the arrangements which they will be prepared to sanction.

I have &c. &c.
Majr Capt. J. Mullins, R.E.
Comd. Engrs. for S.E.C.
True Copy
Wm Mullins, Captain, R.E.
Consulting Engineer S.E.C.

No. 154

Collector's Office,
Assayage,
4 October 1864.

From,

J. W. B. Dyke, Esquire,
Collector of Bellary

To,

Captain John Mullins, B. E.
Consulting Engineer, Irrigation and
Canal Company

Sir,

I have the honor to acknowledge the receipt of your letter of the 28th ultimo requesting to be informed as early as possible what would be the probable value of the lands submerged, and amount of compensation to be paid, were a tank formed where the Madras Irrigation & Canal Company cross the Kalla wagu in the Estimation Taluk in this District, and what are the arrangements I would recommend should be made in that case between the Company and the Government -

Enclosure in letter No.
220 of 17th March 1865 from
Consulting Engineer
the Secretary to Government

17th 9/19/65

Pres. 30th March 1865 - 1864/65

2 The near approach of the monsoon
will I fear prevent the requisite information
being collected as soon as I could wish.

But no delay shall take place that can
be avoided. And I trust before the

middle of next month the requisite estimates
will have been prepared and forwarded.

3 I myself however am about
applying for leave of absence for a couple
of months, and therefore will give you
at once the arrangements that in my opinion

should be adopted between the Government
and the Company in respect to this tank.

4 Of the benefits to the District
of such a work it is scarce necessary
to speak. It is simply life to the
people. And I am of opinion that
the

452.
the whole cost of providing the tank
should devolve on Government, and the
Company be allowed the full water rate
on the additional area irrigated, after
deducting interest on the Capital sunk by
Government at 5 percent.

5 In addition to the information
you have applied for, I will have returned
drawn up showing what has been, the
average area of irrigation to date in the
Villages that would be affected by
the proposed tank. This would be the
basis of the accounts between the Govern-
ment and the Company. And, the boundaries
of these Villages having been recently
demarked, the officers of the company
will have no difficulty in estimating
what

what would probably be the returns on
their outlay. The ryots will take all the
water they can give, and be glad to pay.

4 Rs. an acre.

6 I am proposing terms very
advantageous to the Company. I do not
think however Government will be losers.
The Returns shall show the total area,
set apart for irrigation and left year
after year unutilized for want of water.
And these figures alone will indicate
a fair return to Government in the ryot
rates on these lands, when the tank comes
into play; & if the Company gets 4 Rs
an acre, the country generally gets
on an average from three quarters to a
ton of paddy thrown into the market.

476
7 It is in the immediate neighbourhood
of the proposed tank I have had to remit
25 percent of the revenue this year in every
village for want of water. The people had
not water to drink. It is not exaggeration
to say that to form a tank in such a
country is life to the people. And to truly
estimate the return to Government, it must
be considered that there is no such thing
as isolation. The impulse given by
the rice cultivation is an influence that
spreads out on every side. And with
only an eighth of the neighbouring taluk
of Rajmura in occupation, I have no
fear of a loss to Government by a
tank in the taluk. For every
additional

additional acres of wet, there will be a
dozen acres of dry occupation.

Have the honor to be,

Sirs

Your most Obedt Servt.

Wm Dykes
Collector

Wm Dykes

Statement showing the names of Taluqs and villages, the Guduattu, Porampokku and remainder

At of each village the gross extent and the amount of assessment

Names of Taluqs	Names of villages	Guduattu	Deduced Porampokku		Remainder						Government Land									
			Extent	Assessment	Chromo			Garden			Total		Dry		Wet					
					Extent	Assessment	Extent	Assessment	Extent	Assessment	Assessment	Extent	Assessment	Extent	Assessment					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Atmakuru	1 Telugusayapuram	1086	1815 5 2	41 12 12	237 12 6	19 3	109 2 1	58 4	108 7 10			24	9 4	214 3 11	998 6 15	538 10 10	25 4 8	492 13 3		
	2 Chijerla	1688	3 1368 11 4	290 8 13	1889 5	220 4	1421 10	28 11 11	891 1 1			248	78 11	2023 2 1	937 12 10	574 10 3	192 45 2	3669 12 7		
	3 Sirupucambhampar	668	15 640 7 3	80 12 18	686 14	32 13	278 14 6	10 1 1	164			42	14 2	1442 14 6	431 1 9	3195 8 3	86 4 2	1642 7 8		
	4 Tumpu Enaballi	166	8 17 10 9	21 5	79 14 9	13 14	52					13	14	52	115 5 4	432 9 8				
	5 Enamodala	294	12 120 8 9	10 4	37 17 9	9 4	34 1 9					9	4	134 4 9	266 2 10	984 7 7				
	6 Halkundi	583	12 322 2	100 10 4	524 10 8	16	85					16		85	426 4 2	2264 8 1	8 12	6 11 3		
	7 Nagulavollata	1271	72 79 18 6	79 12 14	399 5 4	84 9	437 13	6 15 3	165 8			94	8 42	512 13 8	1436 13 4	5069 11 1	29 12 13	724 1 10		
			5732	14 39438 13 9	628 5 10	3868 11	398 15	2428 9 10	51 2 3	1125 8 7			450	15 3	3452 2 5	4191 13 6	23092 15 8	315 13 5	6368 14 7	
	1 Shrotrama																			
	1 Kilayapallam	326	2081 9 7	80	460	22 11	1303 7 3	2 2	42 8	17 5		245 14 4	246 2	1621 9 7						
2 Pallupadu	372	1871 7 11	104 15 4	472 4 8	280 2	1125 9 2			17 11 12		243 11 1	247 12 12	1399 3 3							
		698	3953 1 8	184 15 4	932 4 8	446 13	2428 14 5	2 2	42 8	35 12	549 4 5	542 15 12	3020 12 10							
	Total	6431	14 43371 15 3	810 4 14	4797 15 8	878 12	4857 8 3	53 4 3	1068 7 35 12		549 4 5	964 15 10	8494 75 2	4191 13 6	23092 15 8	315 13 5	6368 14 7			
Paiapur	1 China Gopavaram	336	14 1088	5 53 4 11	314 6 4	13 14	78 14 7					13 14		78 14 7	287 3 15	1471 3 6	6 4 1	128 3 3		
	2 Vedana parti	1441	13 13889 11 9	260 62	1692 7 9	158 4	1015 11	8 4 11	125 73 9			164 8 11	1141 7 9	1571 10 9	10209 5 8	18 4 6	262 5			
	3 Hanupisupalli	320	4 1438 11 8	44 2 7	207	23 1	108 1 10					23 1		108 1 10	246 13	1194 1 5	1 9	34 6 4		
	4 Peda Gopavaram	305	5 1526 9	34 14 12	159 10 8	16 4	72 12 7					16 4		72 12 7	249 9	1213 5 4				
		Total	2953	10 18781 8 7	394 8	2373 8 9	209 7	1278 7	8 4 11	125 73 9			214 11 11	1401 4 9	2264 12 1	11084 15 8	26 1 7	425 14 3		
		8681	14 58222 6 4	1019 13 11	1239 3 4	688 6	3746 10	59 6 14	1181 8 11			669 12 14	4853 7 2	6456 9 7	34180 15 3	341 14 12	6794 12 10			
	Grand total	9385	2 14 62173 7 10	1204 12 15	7171 8 5	1085 3	6132 15 3	61 8 14	1193 14 4	38 12	549 4 5	1181 12 10	7876 3	6456 9 7	34180 15 3	341 14 12	6794 12 10			

of the Govt. Patta lands that fall within the line

of the proposed Tank, the amount of compensation

				Total of Columns			
Garden		Total		Dry		Wet	
Extent	Assessment	Extent	Assessment	Extent	Assessment	Extent	Assessment
12		12		13		14	
18 12 9	312 12 8	1020 8	4361 4 9	997 9 15	5662 12 11	30 10 12	
36 12 15	589 10 8	1020 8	9774 6 3	1158 0 10	7146 4 2	202 10 13	4
25 11 4	528 10 10	522 4 15	5276 10 9	463 10 9	3352 6 9	96 5 3	1
15 7 12	253 3 10	130 13 0	695 11 8	129 3 4	484 8 2		
8 12 6	152 3 8	274 15 0	1134 11 0	275 6 10	1075 9 6		
19 12 14	307 4 0	446 9 8	2688 7 4	442 1 2	2349 8 1	0 8 12	
29 5 14	480 15 7	1095 13 15	6277 12 6	1124 6 4	5307 8 1	38 12 0	
149 5 8	2657 2 0	4637 0 1	32119 0 4	4580 12 6	25321 9 7	368 15 9	7
"	"	"	"	226 11 0	1303 7 0	2 2 0	
"	"	"	"	250 2 0	1125 9 2		
"	"	"	"	486 13 0	2429 3 2	2 2 0	
149 5 8	2657 2 0	4637 0 1	32119 0 4	5369 9 6	27932 10 0	369 1 8	17
3 13 3	65 4 9	264 4 3	1664 11 6	271 1 13	1130 2 1	6 4 1	
16 15 1	252 1 7	1526 4 0	10724 12 3	1667 14 9	11224 15 8	28 9 1	
4 12 10	95 2 5	280 2 13	1023 9 10	269 12 0	1002 3 3	1 9 0	
4 10 3	80 4 5	253 13 12	1293 9 6	265 4 9	1286 1 8		
30 8 1	492 13 2	2321 5 12	15000 11 1	2474 3 1	15363 6 8	34 6 2	
179 13 10	3149 15 2	6978 5 12	47125 11 5	7064 15 7	41885 0 3	401 5 10	7
179 13 10	3149 15 2	6978 5 12	47125 11 5	7521 12 8	43314 0 8	403 4 10	7

8 & 12				Particulars of Patta land			
Garden		Total		Dry		Wet	
Extent	Assessment	Extent	Assessment	Extent	Assessment	Extent	Assessment
15		16		17			
597 15 1	16 12 9	313 12 8	1065 1 4	6575 8 8	317 10 2	1905 3 3	
661 2 8	34 1 15	589 10 8	4394 13 6	11772 6 4	478 0 0	2845 1 3	
806 7 8	25 0 0	528 10 10	585 3 0	5719 9 0	225 12 3	1423 14 3	
	15 7 12	253 3 10	224 11 0	737 12 0	8 2 11	310 1 3	
	8 12 6	152 3 8	282 8 0	2168 13 0	16 9 6	245 9 11	
6 11 3	19 12 10	337 4 0	462 9 3	2693 7 0	188 12 7	999 4 5	
892 2 6	29 5 14	480 15 7	1190 8 2	8880 10 0	573 2 9	253 0 0	
394 7 2	149 5 8	2657 2 0	15107 10 4	35373 2 9	1873 14 6	10180 2 4	
42 8 0	14 5 0	275 10 4	246 2 0	1621 9 7	"	"	
"	14 11 12	278 11 1	264 13 12	1399 3 3	"	"	
42 8 0	35 0 0	549 4 5	573 15 12	3020 12 10	"	"	
436 15 2	184 6 2	3206 6 5	5621 1 0	38572 15 7	1873 14 6	10180 2 4	
128 3 3	23 15 3	65 4 9	281 5 3	1743 10 1	187 9 13	1068 9 0	
389 2 9	16 15 7	252 1 7	17 11 0	11866 4 0	380 9 15	2379 10 6	
36 6 0	24 12 13	95 2 5	276 3 13	1631 11 8	82 1 12	391 10 10	
"	4 12 3	80 4 5	240 1 12	7366 6 1	134 6 0	866 11 3	
551 12 0	30 8 14	492 13 2	2539 1 7	16407 15 10	984 11 8	4576 9 7	
946 0 2	179 13 10	3149 15 2	7064 15 7	57981 2 7	2658 9 12	14686 11 11	
988 11 2	212 14 6	3699 3 7	8160 2 7	55000 13 5	2658 9 14	14686 11 11	

and the rough estimated value of the buildings and

traces &c.

572.

column 12.

offet			Garden			Totat		
Extent	Assessment	Extent	Assessment	Extent	Assessment	Extent	Assessment	Extent
18		19		20				
22 11 11	442 18 2	10 10	190 4	350 6 13	2439 9	215		
142 3 10	2841 8 9	25 15 1/2	452 7 1	848 1 1/2	8140 14 1	99		
86 4 2	1572 9 8	218 7 13	385 13 11	330 8 2	3482 3 10	115		
—	—	15 7 12	253 3 10	98 2 12	563 5 7	—		
—	—	6 8 10	107 9 4	73 2	353 3 10	26		
— 8 12	6 11 3	12 4 1	211 11 8	200 12 2	7217 11 4	129		
24 2 1	577 13 3	12 3 2	201 15 8	551 8 10	3350 12 11	258		
275 13 9	5561 3 1	100 13 1/2	1824 14 5	2250 9 10 1/2	17526 3 10	842		
—	—	—	—	—	—	—		
—	—	—	—	—	—	—		
—	—	—	—	—	—	—		
275 13 9	5561 3 1	100 13 1/2	1824 14 5	2250 9 10 1/2	17526 3 10	842		
4 5 2	88 9 11	3 7 13	56 2 4	195 6 12	1213 5 8	11		
16 1 11	215 11 11	9 6	146 10 8	406 1 9	2742 2	499		
—	—	2 8	39 10 4	84 2 4	431 5 2	83		
—	—	2 5 8	37 1	186 11 8	703 12 3	45		
20 8 12	304 4 11	14 3 13	278 3 7	822 6 1	5090 7 1	939		
296 4 5	5865 8	118 1 3 1/2	2084 7	3072 15 11 1/2	22636 10 11	1941		
296 4 5	5865 8	118 1 3 1/2	2084 7	3072 15 11 1/2	22636 10 11	1941		

Relinquished land

Dry		Wet		Garden		Totat	
Assessment	Extent	Assessment	Extent	Assessment	Extent	Assessment	Extent
21		22		23		24	
8 1	1217 1 4	28 13	50 1	6 11 15	123 12 4	224 13	1390 13 9
13 5	516 15 10	31 12 2	128 1 11	8 4 3 1/2	135 9 4	137 13 11 1/2	1280 15 1
1 4	885	—	—	8 8 7	142 12 11	121 9 11	1024 12 11
—	—	—	—	—	—	—	—
15 8	99 3 9	—	—	2 5 7 2	43 7 9	29 5 2	144 15 6
7 2	682 5 2	—	—	7 8 9	125 3 4	135 15 11	807 15 6
13 10	1204 4 25	5 10 13	129 4 7	17 12	298 15 11	281 9 3	1612 8 10
11 1	1603 5	39 13 12	807 11 8	48 7 10 1/2	852 3 7	931 2 7 1/2	6264 15 6
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
10 1	4603 5	39 13 12	807 11 8	48 7 10 1/2	852 3 7	931 2 7 1/2	6264 15 6
1 10	89 12 2	1 14 15	39 9 4	4 6	9 2 2	13 7 15	118 7 8
5 2	5673 9 2	2 2 12	47 11	7 9 1	103 6 11	809 15	5826 11 1
9 4	422 2 2	1 9	34 8	2 12 5	55 8 1	87 14 9	572 3
7 8	226 4 4	—	—	2 3 11	43 3 5	47 9 1	269 7 9
1 8	839 11 11	5 14 11	121 10 4	13 4 4	213 4 7	958 8	8126 10 9
12 7	10996 12 3	45 10 7	929 5 10	61 12 1/2	1065 8 2	1889 2 15 1/2	1299 10 3
12 7	10996 12 3	45 10 7	929 5 10	61 12 1/2	1065 8 2	1889 2 15 1/2	1299 10 3

Land situated out of the line							
Land not assessed				A portion of			
				Pamphokee in Column 4			
				Inams			
				Dry			
				Wet			
Extent	Assess-ment	Extent	Assess-ment	Extent	Assess-ment	Extent	Assess-ment
25		26		27		28	
445 4 3	2532 6 3	41 12 2	237 12 6	19 3	109 2 1	5 6 4	105
361 14 15	2352 9 2	285 7	1852 9 7	200 8	1300 3 3	27 11 4	570
90 3 2	708 10	80 12 15	686 14	32 13	278 14 6	10 2 1	184
32 10 4	122 6 5						
172 9 12	636 7 11						
109 11 9	582 14 6	26	138 2	8 8	413 2 6		
262 14 2	1314 6 9	19 12 14	99	24 8	122 8		
1475 3 15	8307 13	453 7	304 6 5	285	8 1855 14 4	43 3	839
		20 14 8	120 3 5	70 8 4	445 7 4		
		25	112 8	81 2	373 1		
		45 14 8	232 11 5	151 10 4	818 8 4		
1475 3 15	8307 13	499 5 8	3247 10	436 10 12	2674 6 8	43 3	839
58 8 8	332 14 4	40	1 6 9	11 2	63 4 4		
331 11 8	2156 2	205 3 14	1334 1	15 4 4	1015 10	7 14 4	118
81 2	380 4 5	27 10 7	129 10 6	22 9	105 72 4		
69 9 3	320 5 6	16 6 8	74 8 7	11 8	52 14 6		
520 15 3	3189 10 5	249 8 13	1539 10 7	201 7	1234 9 2	7 14 4	118
2016 3 2	11494 7 3	70 2 15	73 15 24 1 4	486 7 8	3095 7 6	57 1 14	958
2016 3 2	11494 7 3	748 14 5	4786 12 9	638 2 4	3911 15 70	57 1 14	958

of the proposed Tank							
				Pattah Land			
				Dry			
				Wet			
Extent	Assess-ment	Extent	Assess-ment	Extent	Assess-ment	Extent	Assess-ment
29		30		31		32	
112		24 9 4	214 3 71	311 4 8	1489 13 71	22 11 71	442 132
129		227 12 3	1871	474 8	2825 15 9	142 3	2841 57
		42 74 1	442 14 6	214 1	1309 4 1	8 4 2	1042 78
				3 85	13 3 10		
				7 12	28 9 7		
		8 8	445 2 6	138 7 12	719 10 5		
		24 8 02	122 8 2	253 11	1257 1 7		
147		328 3 8	2695 12 11	1400 5 9	7983 1 4	281 2 18	4956 10 7
		40 8 4	445 7 4				
		81 2	373 1				
		151 10 4	818 8 4				
147		449 15 12	3574 5 3	1400 5 9	7983 1 4	281 2 18	4956 10 7
		11 2	63 4 4	102 15 3	582 1		
83		164 2 14	1134 2 3	373 6 3	23408 3	15 2 10	189 4
		22 9	105 12 4	48 14 8	228 10 3		
		11 8	52 14 6	60 1 5	300 12 4		
83		209 5 14	1336 1 5	583 3 3	3452 11	15 2 10	189 4
610		534 9 6	4057 14 4	1985 8 12	1145 2 3	266 57	5746 1 7
610		689 3 10	4890 8 10	1985 8 12	1145 2 3	266 57	5746 1 7

Total of Columns 26, 30, 34, 38 & 39

Dry		Wet		Garden		Total	
Extent	Assess. ment	Extent	Assess. ment	Extent	Assess. ment	Extent	Assess. ment
10		41		42		43	
959 215 5453	25 28	492 13 3	16 129	313 12 8	2071 41	6257 12 11	
919 11 14	5612 11 10	193 15 2	3469 12 7	34 1 15	589 15 3	1124 12 15	9602 11 11
404 10 13	2901 8 7	86 4 2	1642 4 8	25 4	528 10 11	518 15 3	5702 11 1
31 8 8	118 3 10						
44 1 4	243 2 10					31 8 8	118 3 10
307 3	1594 14 6					74 1 4	243 2 11
564 14 8	2498 15 10					307 3	1594 14 6
						564 14 8	2498 15 10
3259 4 14	18735 6	285 4 12	5635 1 6	45 14 12	1402 6 11	3616 11	6258 12 8 11
3259 4 12	18735 6	285 4 12	5635 1 6	45 14 12	1402 6 11	3618 11	6258 12 8 11
140 10 5	803 13 6					140 10 5	803 13 6
1494 2 13	10104 4	19 5 6	239 2	14 15 9	224 15 3	1258 4 12	10566 1 10
98 6 9	469			3 4 6	10 4	98 11 13	445 10 4
133 9 5	636 2					133 9 5	636 2
1866 13	12013 1	14 5 6	234 2	15 4 13	231 9 10	1899 7 9	1248 11 11
5124 1 14	30448 7	302 13 2	5842 3 6	81 3 9	1664	9 55 18	2 9 3828 4 11
5124 1 14	30448 7	302 13 2	5842 3 6	81 3 9	1664	9 55 18	2 9 3828 4 11

Land situated within the line of the proposed Tank

Government Land		Relinquished Land		Garden	
Apportionment of Poramboke in Col 4		Dry		Wet	
Extent	Assess. ment	Extent	Assess. ment	Extent	Assess. ment
44		45		46	
		12 14	73 38		
5 10 8	36 11 5	4 1 6	26 8 2		
21 5	79 14 9			2 5 12	45 9 9
10 4	37 12 9	26 15 8	99 5 9		
44 10 4	396 8 8	15 1 4	79 11	7 8 9	125 8 4
60 1	307 5	202 1 2	934 9 1	5 10 15	129 4 4
		15 1 4	79 11	14 12	278 15 11
14 10 8	851 4 7	260 15 14	1203 8 8	5 10 15	129 4 4
8 9	1 8 339 12 4			26 15 7	457 2
79 15 2	357 12 8				
13 9	12 699 9 3			10 15	129 4 4
310 15 6	1537 13 14	260 15 14	1213 5 8	5 10 15	129 4 4
53	11 312 15 7	5 1 4	28 7 2	14 15	39 9 4
33 2 4	358 6 8	1 12 8	11 2 1		
18 8	44 5 6	65 1 8	224 3 1	9 34 8	2 12 2 53 8 1
18 8 4	85 2 1	19 6 9	104 9 4		2 4 11 43 3 8
145 3 3	833 13 10	91 4 9	441 5 9	3 4 15	73 15 4
3 17 1 15	1885 2 5	352 4 4	1084 11 5	9 2 12	203 3 11
45 2 9	2384 11 8	352 4 4	1084 11 5	9 2 12	203 3 11

Individual Holdings

Pattah Land

Dry		Wet		Garden		Total	
Extent	Assess ment	Extent	Assess ment	Extent	Assess ment	Extent	Assess ment
5	7	5	8	5	7	6	5
1	36 42					1	36 42
3	8 19 1					3	8 19 1
11	10 12 7 4 10 2					11	10 12 7 4 10 2
79	28 29 13 5			15	7 12 25 3 10	94	10 4 55 1
58	13 6 2 14			8	6 10 10 7 9 11	65	4 32 11
52	9 11 27 9 5			12	4 1 2 11 11 8	65	6 8 1 9 11
26	1 8 1 29 14 5	24	2 8 9 13 3	12	5 2 20 15 8	297	13 11 20 9 11
443	8 13 22 14 1	24	10 12 6 14 8	46	7 9 7 14 9 1	544	11 2 35 9 2
84	12 11 48 6 4	4	5 2 8 8 9 11	3	7 13 58 2 7	92	9 9 63 1 3
7	3 12 32 2 3			1	2 4 16 15 2	9	5 82 5
33	3 4 16 3			1	11 4 32 13 9	34	14 8 19 6
44	4 11 36 5 14 11			2	5 8 27 1	46	15 3 41 2 15
199	8 5 10 5 4 8 8	5	4 2 11 11 13 11	8	11 18 14 3 2 6	213	7 4 13 12 9
643	1 2 32 1 9 8	29	14 14 4 19 6 5	55	2 6 9 14 11 4	758	2 6 19 18 11
672	1 2 32 1 9 8	29	14 14 4 19 6 5	55	2 6 9 14 11 4	758	2 6 19 18 11

Compen sation.	Crown Dry		Wet		Garden		Total	
	Extent	Assess ment	Extent	Assess ment	Extent	Assess ment	Extent	Assess ment
61	62		63		64		65	
302	"	"	"	"	"	"	21	38 152 . 1
158	"	20 3 8	131 6 9	"	20 9 4	"	"	"
421	"	"	"	"	"	"	13	14 . 52 . 6
452	"	13 14	52 . 6	"	"	"	9	4 . 34 . 9
275	"	7 4	34 1 . 9	"	"	"	7	8 . 29 13 6
418	"	7 8	39 12 6	"	"	"	40	3 48 5 8
174	"	63 1	315 5	8 15 3	16 8	"	"	"
299	"	113	148 57 2	11 6	7 15 3	"	121	13 11 7 58 5 6
156	"	212	89 15 11	2 2	42 8	17 5	245	10 4 14 5 9 12 12 1 2 3
189	"	457	8 2	"	"	"	17	11 2 27 3 10 1
325	"	24	16 58 1	2	2	42 8	35	12 54 9 4 5
299	"	429	1 22 23	2 7 10	1 3	22 2	35	12 54 9 4 5
515	"	2	12	15 10 2	"	"	"	262 5 8 22 12 4 6
885	"	"	"	"	8 5 13	7 5 6	"	394 3 3 30 11
763	"	"	8	2 5 6	"	"	"	2
335	"	4	12	19 14 11	"	"	"	2 12 15 10 3
139	"	8	"	34 13 11	5 13	7 5 6	"	5 13 7 5 6
489	"	121	14 8	61 9 4	8 5	19 21 57	"	8 2 5 6
489	"	114	4	22 61 1 5	10 7	22 5 7 8 35	12	54 9 4 5
							392	9 . 34 5 13 4

Total of Columns 60 & 68													
Compen sation	Dry				Wet				Garden				
	Extent		Asses ment		Extent		Asses ment		Extent		Asses ment		
	66	67	68	69	70	71	72	73	74	75	76	77	78
1246	8	1	3842										
11	23	11	8	152	8	3	1		20	9	4		
433	11	10	12	74	10	2							
282	93	8	348	13	11				13	7	12	253	3
332	68	1	8	251	2	3			6	6	10	107	9
4103	60	1	11	319	26				8	12	6	11	3
6018	324	7	8	1609	3	3	31	1	3	7	62	13	11
11133	887	7	5	2789	12	6	32	9	15	7	90	2	6
8551	156	2	12	874	13	11	2	2		42	8	14	3
18684	169			752	8	2				14	11	2	73
25720	323	2	12	1651	8	1	2			42	8	35	12
129	912	10		4441	47	34	11	13	532	10	8	81	8
61	87	8	10	502	1	4	5	2	88	9	11	3	7
19	7	3	12	39	2	3	1	4	13	33	9	1	2
165	33	11	4	165	5	11				1	11	4	32
843	79			385	13					2	5	8	37
8889	207	8	5	1092	6	5	9	15	122	3	5	8	11
25373	794	15	10	3882	3		3	14	912	5	11	55	2
	1120	2	8	5532	11	1	210	5	14	954	13	11	90

Buildings													
Total	Compen sation in Columns 61 & 66		House		Indy. Val.		Total		House		Indy. Val.		
	Extent		Asses ment		Number		Value		Number		Value		
	70	71	72	73	74	75	76	77	78	79	80	81	82
68	3842	302											
24	11	8	141	7	4	1424							
11	10	12	74	10	2	621							
108	84	602	19	5018		204	112610		3	450		107	157610
74	8	35812	2987		25	921			2	300		27	1251
72	14	8	537	7	5	4484			175	2475	9	6	177
364	12	13	2874		21481		375	4233	10	2		582	78231
866	8	10	40548	2	3622		957	12112	13	9	11	1510	963
145	9	12	1216	2	3	10132		122	1675	4	1	150	123
488	11	12	11262	2	8551		142	1633	8	2	300		141
362	5	8	2242	4	8	16884		264	2318	12	3	250	267
1028	14	5	6598	124	54914		7246	75213	9	9	14	1251	1231
95	5	9	644	1311	5381		124	1289	2				120
9	11	13	89	10	11	745							1
35	6	8	198	5	8	1682		138	1184		1	150	139
81	6	3	422	14		3523		150	1293	13	3	211	100
221	13	1	1337	12	5	11308		358	5857	15	2	357	360
888	5	14	5712	4	6	44588		1310	15862	12	13	1810	1323
1250	11	6	4984	9		66742		1574	19171	9	4	2150	1570

Treas		Mills		Total of Columns 74, 75 and 76	Total of Columns of 71 and 74	Total of Columns of 56 and 78
Number	Value	Number	Value			
	73		76	77	78	79
					302	575 3 8
		2	500	500	1924	2286 10 6
					621	420 5 6
17	24 8			1600	2819	9412 9 2
23	34 2	3	175	1460	4447	8382 2 1
134	115 7	19	170 12	2645 12 6	9128 12 6	12640 4 1
382	543 5	23	369 13 8	1209 12 11	33545 12 11	3896 10 3
489	720 4	47	7079 14 8	20305	55635	73919 2 1
166	242 14	13	2205 6	4276 8	14409 8	14749 4 9
186	508 8	15	2956 12	5398 12	13949 12	14309 8 8
352	451 6	28	5163 2	9695 4	28359 4	29058 13 3
111	1491 10	45	11245 8	29980 15 5	84944 4 8	102977 15 4
34	51 12	9	1191 7 3	2623 5 3	8011 5 3	9138 2 2
		1	83 2	233 2	948 2	1935 7 8
45	45 6			1379 8	3031 6 2	3870 2 8
254	352	5	1412 9	3036 8 6	7659 8 6	6899 2 3
335	427 4	15	2082 2 3	4272 5 9	18580 5 9	21842 14 6
1292	1167 8	62	8467	24577 6 2	45165 6 2	95762 17
1441	1898 14	80	10922 2 18	37252 10 2	103524 10 2	124820 13 10
Nagula vellaturu Lank				1000		
21st January 1865				A. Polansky		

Enclosure of Letter
N 3 to the Collector

Enclosure N of the
Statement A

Shows the extent
and assignment of
lands held by
individuals within
the Park the sum
of compensation and
value of house of

MR 9/19/60

Pres. 80 March 18 B. N. 603

No 2

Shows the extent & assessment of Eritnam and other lands held by individuals within the bed of the tank, the amount of compensation and value of houses, wells and trees to be given to the owners.

Number	Names of Taluqs	Number	Names of Villages	Land		Compensation	Houses		Buildings		Wells		Trees		Total Value	Total of Columns 3 & 9
				Extent	Assessment		No	Value	No	Value	No	Value	No	Value		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Attakina	1	Telugubayapuram	6	6	2	302									302
2			Chajala	24	11	8	171	1	7	1424				2	500	1924
3			Turupucampahad	11	10	12	74	10	2	621						621
4			Turupucampahad	10	8	2	602	1	9	5015	104	1126	10	3	450	6619
5			Enamadala	74	2		358	12		2987	75	951		2	300	4447
6			Adkiriyi	72	14	8	537	7	5	4480	175	2673	9	6	2	69125
7			Nagubavallatam	3	13	13	2574	1		21451	578	7253	10	3	23	33525
			Shrotrina	666	8	13	4354	2	1	36280	752	12004	13	9	11	55385
1			Kalayapallam	75	9	12	1216	2	3	10133	127	1675	4	1	150	14409
2			Pallapadu	186	11	12	1026	2	3	3551	142	1633	8	2	300	13919
				362	5	8	2242	4	6	18684	264	3308	12	5	450	28359
			Total	1028	14	5	6574	12	7	54964	1216	14313	7	9	14	84944
2	Raipur	1	China Gopana	295	5	9	646	13	10	5338	120	1380	2	9	1191	3801
2			Vedanafronte	7	10	10	89	10	11	745			1	83	2	978
3			Ranupuripallam	55	6	8	178	5	8	1652	133	1184			45	3031
4			Pedu Gopana	31	6	3	422	14		3323	100	1290	13	6	5	6559
			Total	221	13	1	1357	12	5	11305	358	3857	15	6	300	18580
				388	5	14	5712	4	6	47383	1310	15862	13	3	1	75165
			Grand total	1250	11	6	7954	9		66272	1574	19171	7	3	2250	103524

21st January 1865

Chas. J. P.

214

Enclosure of letter
to the Collector

Enclosure of
Statement
A

Shows the extent
and value of Gosh
creek and Swamp
lands and the amount
of high estimated
value of mallee trees
thereon

ATV 9/9/65

Dec 30 March 65 B.V. 603

Shows the extent & value of Government waste, Pampoke land including wet, dry and garden & that will be submerged by the proposed tank and the amount of rough estimated value of wells & trees thereon

Name of Taluq	Name of Village	Land		Wells		Trees		Total value in Columns 4 & 5	Total of Columns 6 & 7
		Extent	Assessment	Number	Value	Number	Value		
Attamkin	1. Selagurayapuram	12 14	73	3	8	1	200	200	273 3 8
	2. Chijesta	20 3	129	4	4	11	233	233	362 14 4
	3. Pirapucamp - pad	11 11	99	5	6				99 5 6
	4. Pirup Errahalli	25 15	97	5	2	10	2190	2190	2793 7 2
	5. Enamadala	145 13	574	10	10	10	3326	3326	3933 14 1
	6. Pakuvayi	155 10	912	15	7	14	3019	3019	4520 7 7
	7. Nagulanattur	293 4	1685	6	4	13	3125	3125	5350 13 4
	Total	665 8	3571	7	5	48	12161	12161	17334 1 8
	8. Chottem								
	1. Kalayapallam	59 1	337	12	7				337 12 7
Rajpur	2. Billupadu	79 16	359	12	8				359 12 8
	Total	139 0	699	9	3		2572	2572	699 9 3
	Total of Rajpur	804 8	4271	2	8	49	10161	10161	13762 8 3
	1. Shiva Gopavaram	89 3	642	7	11	1	578	578	1126 12 11
Rajpur	2. Vedanapatti	66 3	434	12	8	3	193	193	522 8 9
	3. Hanupurpalli alias Gattapadu	136 0	729	4	7	3	45	45	838 12 8
	4. Reda Gopavaram	62 2	339	9	9				339 9 9
	Total	353 10	2046	4	11	7	1116	1116	3262 8 9
Rajpur	Total of Rajpur	1029 2	5617	14	4	55	13278	13278	17000 8
	Grand total	1158 3	6317	7	7	55	13278	13278	21296 3 8
	Total of the whole of the Pampoke land							1000	
	Total of the whole of the Pampoke land							22296	3 8

21st January 1865

This is correct and col. 3
 total 6 the former being an
 annual rent the latter
 a valuation

Enclosure to the
Collector's letter 13

Statement

B

showing the area of
area of irrigation
to date in the village
that will be affected
on the bed of and
below, down to Curran
and the Piedmont
the proposed route

7/27/919/85

Proc. 30 March/85 B. 12 603

Statement showing the extent and assessment of lands under the irrigation of Channels and Tanks of

Extent and Assessment of lands under the Irrigation of Channels and Tanks																	
Number	Names of Villages	Kolihetham alias Chajera Chah.		Pelluru Channel		Vidur Channel		Potat		Tanks		Grand total		Remarks			
		Extent	Assessment	Extent	Assessment	Extent	Assessment	Extent	Assessment	Extent	Assessment	Extent	Assessment				
1	Chajera	114	138	2032	8	1				114	138	2032	8	1	Sub 8 forces of lands paying an assessment of Rs 200 out of 231-10-12 acres under the irrigation of Chajera Chah are under cultivation since 1259. In consequence of irrigation there being blocked up by encroachment of Chajera Channel crops of 219-5-3 are sapped. 3231-9-4 under the irrigation of Pelluru Channel are under cultivation as the irrigation thereof has been blocked up by encroachment of Chajera Channel running through the same. The lands under the irrigation of Pelluru Channel are usual under its supply.		
2	Surupamkham	104	612	1893	1	8				104	612	1893	1	8			
3	Pelluru									76	142	1230	13	9			
4	Mamuduru									89	3	14	893	1		6	
5	Patapadi									83	4		701	15		4	
6	Pumillaipadi									29	15	3	405	10		9	
7	Vidur																
8	Thatepate																
9	Mahamadipar																
10	Surupapallam																
Total		219	44	3925	9	7	219	5	3	3231	9	4	481	15	8		
11	Chotaim	15	6	8	200										15 6 8 200		
12	Vettagantiapallam																
Total		15	6	8	200												
Grand total		234	10	12	4125	9	7	219	5	3	3231	9	4	489	5		

N^o 220

Consulting Engineer's Office,
Irrigation and Canal Co.
Camp Chikakeira, 7 March 1865

From

Captain J. J. Mullins, V.E.
Consulting Engineer, I.C.C.

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

Dear Sir,

To. Genl. Letter N^o 130
of the 17 Ultimo.

* N^o 106-23 Ultimo.

Sommaswarani ancient 2.

On 9 N^o 2591-7 Sept 64.

1. In the second week in February I visited the Nellore Division with the Chief Engineer and Agent of the Irrigation and Canal Company but, before making a report on the results of the inspection, I thought it best to ascertain, through the Agent, what business transactions were as to the works in that Division, which should in the first instance be planned, with a view to utilize the expenditure on the Sommaswarani ancient, and information regarding the ancient itself was asked for. The Chief Engineer, owing to his departure to England within a few days of the date of my letter, was unable himself to furnish a reply to my enquiries but Mr. Henslow has in part answered them, and I have now therefore the honor to submit for the information of Government some particulars regarding the Nellore Division, which affect the works in progress or proposed.

2. The circumstances as regards design & sanction, and the state of progress of this work, in July last, were reported on in my letter N^o 65 of the 5 August, paras 39 to 50. Since then the quarries have been opened out, the railways improved, and the station buildings completed, and generally the subsidiary works, including also the preparation of bricks and collection of limestone have made fair progress.

progress, but at the present stage very little has been done. The block wells are very much in the same state as that remarked on in my previous report. Some few additional ones have been built up, but the attempt to get them down has not been successful, and several of them are so much out of position, and so much broken, that it is intended to remove them and, as mentioned in para 4 of the Agents' letter, no more block wells will be constructed, and in lieu of them Circular wells will be substituted. Of these Circular wells, a few were being built up ready for sinking, at the time of my visit. They are made of brick in mud, which is not, I think, an advisable arrangement, and it is one too which presents a remarkable contrast to the massive block wells, the use of which was advocated with a view to ensure great stability.

The only other work done in the bed of the river is the formation of a narrow bank of stone in rear of the line of wells, and which now extends nearly across to the north side, and is just wide enough to carry a single line of railway.

3. From para 3 of the Agents' letter it will be seen that the works contemplated for the current season is the putting down of a single row of wells and constructing a rubble uprow below, so that by the end of this season the total amount of work done from the beginning, exclusive of the station buildings, will be equivalent to what could generally be executed in 3 or 4 months. The first expenditure at Somnawaram appears from the accounts to have been incurred in May 1863, so that the progress has been remarkably slow. It is true that there has been no immediate necessity for the completion of the works, seeing that

that the connected works have not as yet been sanctioned, but nevertheless a large establishment has been maintained, and its cost in proportion to the value of work done has been very great, as noticed in submitting the quarterly accounts of progress to Government, and therefore it would have been better had the Somnawaram works been pushed forward so far as the labour obtainable in the neighbourhood would allow, for then, without incurring an increase of rates, the amount would by this time have been nearly if not quite finished.

The Chief Engineer has not up to the present time forwarded a revised Plan and Estimate for sanction, and I think that much of the delay in construction has arisen from the want of full instructions to the Executive Engineer of the Division and the Resident Engineer at the work, and retarded progress has not been the only evil, for in addition thereto the latter Officer has been prevented, by this want, from making the best arrangements for carrying on the works. Para 2 of my letter No 130 of the 17th February to the Agent contains remarks on this and other points. What has been wanted all along, and is still much required, is the definite settlement of the design of this work, and thereafter full instructions to the Executive officers as to the order in which the several parts are to be constructed, and the work to be completed each year, and, if a Section similar to that enclosed for the inspection of Government with my report of August last, and in which the map of the work is sand covered with stone masonry, be adopted, it is of the greatest importance that the arrangements should be very carefully made, so as to lessen the risk of accident during the time the masonry covering is under construction.

Letter No 65-5 August
last end of para 16

5. I need not repeat to the opinion already expressed regarding the section for this ancient which the circumstances last end of 1864 of its position and the materials most available would seem to indicate, further than to remark that my views have received confirmation by the want of success which has attended the attempt to carry out a design, for the execution of which there are no facilities, and the difficulties attending which will be still more multiplied when much skilled labour for stone masonry comes to be required.

6. The estimates for this section amounting to ^{1st} Section 1,142 65 have been already before Government, and no sanction has been deferred for the present. The length of the section is 4 miles. ^{2nd} Section 2770 2/22 3/11/64

7. The estimates for the second section have been completed; its length is 10 1/2 miles, and the estimated cost of the arrangements intended, under the instructions upon which the Executive Engineer was working last year, as Rs. 97,571 or Rupees 17,388 a mile. In incorporating however the Thalagarayapooram Tank in the line of the Canal, and by crossing some 2 or 3 small valleys by single banks, a course which in the particular cases would, I have no doubt, be approved, and by a revision of the rates for rock cutting which on further examination were found to be unnecessarily high, the estimates for this section can be reduced to Rupees 3,67,890 or Rupees 35,037 a mile. ^{Letter No 65-5 Sept 64 last para 64}

8. The earthwork estimates for this section are in 3rd Section a forward state, and many of the masonry works have been designed, but the Executive Engineer could not tell me what the probable cost per mile would be.

9. The above sections are on the original low level here referred to in the 65th and following paras of my former report on this Division, and this level has been selected as far as Bogavamidram, the 29th mile. Since last year however there has been some correspondence

having

Letter No 786-20 Sept 10
of 1323-24 - do

1323-28 Sept

No 857-4 Oct

having reference to the alternative line suggested by me in the letter just quoted, and information has been obtained as to the extent and value of the land in the valley of the Kulla Vagu, which would be submerged over the Canal carried by a bund across the gorge of that valley, and the course and results of the correspondence will now be noticed.

The Chief Engineer, while admitting the advantages of keeping the Canal on a high level, wished, before laying out a new line, for some definite idea of the terms on which permission to bund the Kulla Vagu would be given, and as the first step towards the solution of this question, I wrote to the Collector of Mallore to ascertain, as nearly as might be easily practicable, the value of the land which would be submerged, and the cost of transferring villages within the Tank area to other sites, and the Collector was also asked his opinion as to whether he considered it would be advisable that the Compensation to be given to Government for making over the site should take the form of irrigation to the imperfectly supplied lands of villages commanded by the Tank and Canal, and if so what extent of land the Company might fairly be required to water free of charge.

11. In reply to this communication Mr. Dykes promised to have returns of the land prepared, and he stated (para 1) that he thought the formation of the tank would be so advantageous to the country in its neighbourhood, that if 5 per cent were paid by the Company on the Capital expended, or amount paid by the Government, in making the site available, the Government would not lose by the arrangement, although (para 6) the terms proposed were so favorable to the Company. The Collector however

misunderstood.

misunderstood the object of the formation of the proposed tank, and supposed it to be a reservoir, the water of which would all be available for cultivation, instead of, as intended, entirely or for the most part a means of carrying the Canal across the valley, and it became necessary to explain therefore what the circumstances were, how the tank would be utilized, and what the views of Government were on the subject of submerged lands, and this was done in the letter as per margin.

12. With his letter of the 10th February last, 1858, the Collector transmitted the papers marginally noted, affording the information required regarding value of land, houses, and other property in the valley, as also some useful particulars of irrigated lands in villages commanded by the Tank and Canal. His offers unfortunately did not reach me until I returned to Madras, after my visit to Bellary.

13. The information contained in Statement A and its two enclosures, may be briefly stated as follows.

Extent of delta and Inam lands, which would be swamped, is 3908 acres, assessed at Rs. 79 5/4,

the estimated compensation being	66,272
Buildings, & 15 1/4 dwelling houses — Value —	19,172
160 Indigo vats —	2,250
Wells — 80 —	13,932
Trees — 1 1/4 —	1,899
	Rupies 1,03,525

The Government waste and perambolar lands, which would similarly be submerged are 3,614 acres of wet dry and garden lands, assessed at Rs. 6,317.

Upon these lands there are

Wells — 4355 — Value —	137,78
Trees — 2636 —	1,700
Nagavallur Tank —	1,000
	159,78

To Collector No. 126-11
Date

* The Deputy Collector's letter 743
21 Jan'y/58. Statement A affords
a statement of forest uncultivated
& proposed lands within area
of proposed tank, with rough
estimate of trees building
Enclosure No. 1 of about 100
acres extent & value of forest
waste lands & value of trees
wells &c. thereon, within the
tank area
Enclosure No. 2 extent & value
of irrigated lands within tank
area.
Statement B - area & assessment
of irrigated land
Statement C - list of land & its
assessment to Government

The Deputy Collector, in fixing the compensation to be paid to the pattahdars or Inam holders, supposes that the net profits derived by them from their lands are equal to the assessment, and he has capitalised this estimated income at 12 per cent. This however, unless facilities were given for applying the capital to lands now uncultivated, would not be a fair arrangement, and the amount of compensation would have to be doubled nearly, in order to be considered merely as a means of enabling the present landholders to make other lands as valuable to them as those they now enjoy, and in that case the data for the calculation vanish, and compensation would be dependent on the circumstances of the new land.

The Deputy Collector has also in enclosure No. 1 of Statement A, and in para 7 of his letter, added the assessment of waste lands to the estimated value of property upon them, whereas the former requires to be capitalised before it can be so treated.

The docket of enclosure No. 2 of Statement A does not seem to agree with the contents of that document, or with the last para of the Deputy Collector's letter, and the value of the Statement would have been greater had the difference between assessed, and average derived, Revenue been shown for those villages. The entries in the column of remarks refer only, it would seem, to wet lands thrown permanently out of cultivation.

14. On the receipt of these particulars of the lands in the valley of the Kulla River, I communicated an abstract of the Statements, similar to that above given, to the Agent and, after pointing out, as clearly as the information at my disposal enabled me to do, the considerations for and against

the bunding of the valley, and expressing the opinion that, while there was not sufficient evidence in favour of the Tank to enable me to recommend its adoption, the apparent advantages were such, I thought, as to render it advisable to complete the investigations. I requested Mr. Rowland to inform me whether he was prepared to state that, in the event of its being advantageous to the Company to dam the valley, the compensation to be made to the Government for making over the site should, provided the Government acceded to the terms, be thus arranged, viz; that the Company should provide water free of charge to an extent sufficient to

1. reimburse the Government the Revenue relinquished by allowing the formation of the Tank, and

2. to pay 5 per cent on the amount of compensation, which might be settled to be paid for property destroyed, or submerged and rendered useless, including, of course, the cost of removing villages &c.

15. The Agent replies to this part of the subject in paras 6 and 7 of his letter No 106, wherein he states that the Chief Engineer "is not prepared to entertain the project of forming a Tank, but proposes that the main Channel shall drop by locks and then pass over the valley by an aqueduct at the place proposed for the Tank bund instead of lower down by an aqueduct", and that "The branch which has been lined out for the Conallene valley will have its head above the lock at the 10th mile, and run round the Nulla-Vagu irrigating that valley".

16. From this it will be seen that Colonel Cotton has decided to carry the navigation Canal on the original low level line with, however, with a small diversion, and

and a change of arrangement for crossing the Tager, and the idea of bunding the valley has been abandoned. 18786-20 Sept. (1) I believe the change of opinion, from that expressed in a former letter, has resulted from its being found that although the high level channel, in construction would be more correct and satisfactory, the low level line is more correct, and is considerably shorter bends. The level is not so conclusively that there would be any difficulty in laying out the curves so as to suit navigation, but as the Chief Engineer proposes now to separate the Irrigation Channel from the Canal of navigation, and as moreover the want of command of the former, when carried on the lower level was a great difficulty, and this will now be overcome, it appears to me that, so far as the irrigation is concerned, it is a matter of little or no moment that the lower route round the valley has been chosen in preference to the shorter by a bund across the gorge. Irrigation is the first thing to be secured, and the works on which it is to depend will be carried out far more easily and at but comparatively little expense when disconnected from navigation, and if the Chief Engineer finds that a line for navigation on the lower level can be constructed throughout at a moderate cost, no doubt that part of the project in this Division will be carried out in due time, when the more urgently required irrigation works are in successful operation.

(1) I have the honour to be,

Sir,

Your most Obedient servant,

W. H. M. L. M. Captain, R.E.

Consulting Engineer, S. C. C.

7th February 1865
25th
22nd - 1865 - 29th

1865. 6th

1865
19th March
10 9 19
One for D.C.
The Secretary to the

1865
March 1865
14th

One: 7 12

Reports on the results
of the investigations of the
works in the mill
Division 1865
1865-30 March 1865

21st, 1865

Ordered to be over

presenting the receipt of
the estimated cost

for in G.O. No. 10 dated
23 February 1865.

1865
1865
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The Secretary General
to the Council of the
British Association

Manager for the
1865

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