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MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No.	419	Press
B.P. No.		Mis.
Dated	13 - 2 -	1875
		195

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
13th February 1875.*

Read the following papers:—

No. 325. From Major J. BEATTY, R.E., District Engineer, Godavery, to Lieutenant-Colonel J. MULLINS, R.E., Chief Engineer for Irrigation, dated Dowlaishweram, 14th November 1874, No. 2,597.

I HAVE the honor to forward you, herewith, fourteen tracings showing the progress made with the surveys of the Gowtami and Vasista branches of the Godavery.

1. Copy of letter, dated 27th October 1873, to Mr. Ellis.
14 Sheets tracing. Despatched by banghy.

2. The survey of the Gowtami branch is shown on six sheets, and that of the Vasista branch on seven sheets. On a 14th sheet is given an index tracing from the Revenue Survey Map, one inch to the mile.

3. I found that the surveys had all been plotted to the scale of 500 feet to an inch, and I have not yet had them altered to the scale of 16 inches to a mile as directed in your memorandum, No. 184-C., of 23th February 1874, paragraph 39, but this I propose to have done if you still consider it necessary, in preparing copies, to show the survey work to be carried out in the dry season now commencing.

4. The work is in a very incomplete state, and there is still a large amount of surveying and plan drawing to be done before these charts can be brought into a tolerably finished condition.

5. The surveys of either bank of both branches were made quite independently of each other, and on no uniform plan. In the preparation of those of the left bank of the Gowtami and the right bank of the Vasista, made some three years since, the Range Officers of the Eastern and Western Deltas had no special instructions from the District Engineer, and were guided only by the printed orders of Government on the subject. If they had been instructed by the District Engineer to bring into their surveys all shoals and lunkas up to the centre line of the river, and to specially note nanul growth everywhere, all would probably have been done that could be desired. But as it is, important shoals and lunkas in the bed of the river, which should have been shown in the surveys prepared by the Officers of Nos. 1 and 3 Ranges, have still to be surveyed, and the position of all nanul wherever growing. The first surveys made by No. 2 Range were destroyed by fire, and the second set were prepared under special instructions, which I find it necessary to send you in order to account for the exceedingly incomplete nature of the second set of surveys made by that range. My predecessor apparently quite misunderstood the nature of the work required, and impressed on the Range Officer the importance of a correct survey and levels of the *river embankment*, with offsets at every 100 feet to the river margin, while the position of sets, nanul planting, sand-shoals, cultivated lunkas in the bed of the river, etc., etc., were not mentioned, and consequently not noted. In consequence, too, of the surveys having been done at different times, and under different instructions, I have had difficulty in fitting the two sides of each branch together.

6. I request further instructions on the size and scale of map to form the permanent record. It seems to me that a large scale than 500 feet to an inch will

be inconveniently large, but possibly you may prefer a larger number of sheets and a larger scale.

7. The work that I propose for the present season is—

To have a traverse made, with the theodolite, along one bank of either branch to fix the bench-marks on either side of the Central Delta, and by triangulation to fix points at intervals on the opposite banks; (2) to begin at the anicut and work downwards, taking note of the position, dimensions, and bearings of all groynes, sets, nanul planting, shoals, cultivated lunkas in the river's bed, and the position of any wild nanul growth in the bed at a distance from the berms.

8. I propose to place the whole work this season under the direction of Mr. Ellis, the Sub-Engineer now in charge of the Central Delta, as his work is lighter than that of the Officers of the Eastern and Western Deltas, and he is therefore better able to superintend it.

9. Mr. Ellis would employ on the surveys required two of his present establishment:—Taluk Overseer T. Venkataswamy Chetty and Delta Superintendent C. Somannah; and to assist them in the work twelve lascars will be needed, six men for each of them, and a monthly allowance of 5 Rupees for contingencies, such as boat hire, poles, pegs, etc.

10. I cannot spare a man during the working season from the other ranges, where the few men able to survey are wanted for the surveys in connection with the revision of project estimates, land plans and schedules in taking up land, as well as the superintendence of work.

11. I therefore ask sanction to a temporary establishment of two Surveyors, one for each branch of the river, to work in communication, the one with the Taluk Overseer, and the other with the Delta Superintendent, to hasten the completion of the charts and copies of them. The Surveyors would of course each need six Survey lascars to assist them in the work.

12. The number of miles to be shown in the chart is as follows:—

Gowtami to Yanam	39
Of this in the remaining three miles not shown in the tracings, the right bank has yet to be surveyed and fixed with reference to the left bank, and all shoals, lunkas, etc., shown.	
Vasista to Nursapore	44
Several large lunkas and a good deal of minor details have yet to be surveyed.	
Vaniteyem branch from aqueduct to sea	20
Banks and margins have been completed; bed still to be done.	
Vurda Gowtami from above Annampilly to the 49th mile; banks and river margin surveyed; bed has still to be examined	10½

Total Miles ... 113½

which will be shown on about nineteen sheets if the 500 feet scale is retained, and as four copies of each, together with four index maps, will be required, the total number of large plans wanted will be about 80.

13. The charts that are to form a permanent register in each of the offices shown in the margin should, I think, be drawn on paper and mounted on cloth; and as the labor merely of preparing 80 large plans is considerable, I ask the assistance of a temporary draughtsman in order that this work may be carried on as rapidly as possible, and not interfere seriously with the ordinary duties of the district establishment.

Chief Engineer.
District Engineer
No. 1 Range.
No. 2 Range.
No. 3 Range.

14. As you have already decided that the scales of the chart and of the index map should be multiples of one another, it has now to be considered whether the scale of the chart is to be altered from 500 feet to an inch to 330 feet to an inch, or if it will be sufficient to alter the index map scale from 5,280 to 5,000 feet to an inch.

15. If the establishment asked for above be granted, viz:—

2 Surveyors, at Rupees 60 each,
24 Lascars, at „ 6 each,
1 Draughtsman, at „ 40,

and 5 Rupees a month for contingencies, the work will probably be completed within six months, if competent Surveyors and a Draughtsman can be obtained, which is doubtful. The lascars would only be entertained until all out-door work is finished.

Without the assistance of the temporary establishment I fear that the work cannot be completed so soon, and it will in that case certainly greatly interfere with the ordinary work of the range.

No. 36.

Note by the Chief Engineer for Irrigation.

The proposals made by the District Engineer, Godavery, in connection with the charts of the Gowtami and Vasista branches of the Godavery, appear to have been well considered and may be sanctioned.

2. The reasons given in paragraph 39 of the Notes of Inspection for the adoption of certain scales for the charts

G. O., No. 1,906, 15th July 1874.

were that more than one scale had been used, and that inches to the mile scales

were preferable to others, because then the Revenue Survey Maps would work in with them. The District Engineer now reports that 500 feet to the inch has been the scale adopted throughout, and there need be no alteration.

3. It may be noticed with regard to the latter part of paragraph 7 of Major Beatty's letter, that wild nanul growth within the proper river alignment should all be extirpated, but as yet this proper alignment remains in many places doubtful.

4. The establishment proposed to be employed is—

12 Lascars at 6 Rupees each, to work under two members of the existing establishment belonging to the Central Delta, per month	72
2 Surveyors for the Eastern and Western Deltas, at 60 Rupees each	120
12 Lascars for do do do	72

Proceedings of the Madras Government, Public Works Department,
13th February 1875.

One Draughtsman	...	...	...	...	40
Contingencies	...	...	...	...	6
					310
For six months	...	...	...	...	1,860

It is of so much importance that this work should be finished as soon as possible, that it will be well to give Major Beatty the means of making up for the lost time.

5. Having been in camp for, with the exception of a few days, the last three months, I have been unable to examine the tracings of the work already done which have been forwarded by the District Engineer, but they will be looked into on my return to Madras, and any instructions that may appear necessary will be issued.

CAMP, TRIPATTOOR, (Signed) JOHN MULLINS, Lieut-Colonel, R.E.,
9th January 1875. Chief Engineer for Irrigation.

No. 326. ORDER THEREON, 13th February 1875, No. 419.

IRRIGATION, No. 19.
Establishment.

His Excellency the Governor in Council is pleased to sanction the employment of the establishment detailed in paragraph 4 of the foregoing note for the completion of the charts of the Gowtami and Vasista Godavery, and it is hoped that they will be finally completed at the expiration of the six months for which this establishment is to be employed. The charge will be met from the provision for Temporary Establishments, and will be shown in the accounts to the debit of 'Miscellaneous River Conservancy.'

(True Extract.)
(Signed) G. W. WALKER, Colonel, R.E.,
Secretary to Government.

To the District Engineer, Godavery.
" Chief Engineer for Irrigation.
" Controller of Public Works Accounts.

Exd. S. T. Austin
Spare Copies.



No. 2597 District Engineer's Office, Godavery,
Dowlaiswaram, 14th November 1874

From,

Major J. Beatty R.E.
District Engineer Godavery.

Enclosed to

Lieutenant Colonel J. Mullins R.E.
Chief Engineer for Irrigation-
Madras.

Despatch by Sir,

I have the honor to forward you here with 14 tracings showing the progress made with the surveys of the Gowtami and Vasista branches of the Godavery.

2. The Survey of the Gowtami branch is shown on 6 sheets, and that of the Vasista branch on 7 sheets. On a 14th sheet is given an index tracing from the Revenue Survey Map, one inch to the mile.

3. I found that the surveys had all been plotted to the scale of 500 feet to an inch, and I have not yet had them altered to the scale of 16 inches to a mile as directed in your Memo No. 184 C of 26th February 1874.

X para 39

1874 para 39, but this I propose to have done, if you still consider it necessary, in preparing copies to show the survey work to be carried out in the dry season now commencing.

4 The work is in a very incomplete state, and there is still a large amount of surveying and plan drawing to be done before these charts can be brought into a tolerably finished condition.

5 The surveys of either bank of both branches were made quite independently of each other, and on no uniform plan. In the preparation of those of the left bank of the Gontami and the right bank of the Taxista, made some three years since, the Range Officers of the Eastern and Western Deltas had no special instructions from the District Engineer, and were guided only by the printed orders of Government on the subject. If they had been instructed by the District Engineer to bring into their survey all shoals and lunkas up to the centre line of the river, and to specially note manul growth everywhere, all would probably have been done that could be desired. But as it is, important shoals and lunkas in the

the bed of the river which should have been shown in the surveys prepared by the Officers of Nos 1 and 3 Ranges have still to be surveyed, and the position of all manul wherever growing. The first surveys made by No 2 Range were destroyed by fire, and the second set were prepared under special instructions which I find it necessary to send you in order to account for the exceedingly incomplete nature of the second set of surveys made by that Range. My predecessor apparently quite misunderstood the nature of the work required, and impressed on the Range Officer the importance of a correct survey and levels of the River embankment, with offsets at every 100 feet to the river margin, while the position of sets, manul planting, ~~groves~~, sand-shoals, cultivated lunkas in the bed of the river, ~~sea~~, ~~sea~~, were not mentioned, and consequently not noted.

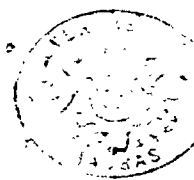
In consequence, too, of the surveys having been done at different times, and under different instructions, I have had difficulty in fitting the two sides of each branch together.

6. I request further instructions on the size and scale of map to form the permanent record. It seems to me that a larger scale than 500 feet to an inch will be inconveniently large; but possibly you may prefer a larger number of sheets and a larger scale.

7. The work that I propose for the present season is;

To have a traverse made, with the theodolite, along one bank of either branch to fix the bench marks on either side of the Central Delta; and by triangulation to fix points at intervals on the opposite banks; [2] to begin at the Arricut and work downwards, taking note of the position, dimensions, and bearings, of all groynes, sets, manul planting, shoals, cultivated linkas in the river's bed, and the position of any wild manul growth in the bed at a distance from the berms.

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Delta; as his work is lighter than that of the officers of the Eastern and Western Deltas, and he is therefore better able to superintend it.

9. Mr. Ellis would employ on the surveys required, two of his present establishment. Taluk Overseer T. Venkataswami Chetty

& Delta Superintendent C. Somannaiah; and to assist them in the work 12 lascars will be needed, 6 men for each of them, and a monthly allowance of 5 Rupees for contingencies, such as boat hire, poles, persons.

10. I cannot spare a man during the working season from the other Ranges, where the few men able to survey are wanted for the surveys in connection with the revision of project estimates, land plans and schedules in taking up land, as well as the superintendence of work.

11. I therefore ask sanction to a temporary establishment of 2 Surveyors one for each branch of the river, to work in communication, the one with the Taluk Overseer, and the other with the Delta Superinten-

-dent, to hasten the completion of the charts and copies of them. The surveyors would of course each need 6 survey lascars to assist them in the work.

12. The number of miles to be shown in the chart is as follows:-

Gowtami; to Yanam — 39 1/2
of this in the remaining 3 miles not shown in the tracings, the right bank has yet to be surveyed and fixed with reference to the left bank, and all shoals, lunkas &c shown.

Vasista; to Nursapore — 44 1/2
several large lunkas and a good deal of minor details have yet to be surveyed.

Vaniteyem branch; from Aqueduct to sea — 20

Banks and Margins have been completed; bed still to be done.

Turda Gowtami; from above Annampilly to the 4 1/2 mile; banks and river margin surveyed, bed has still to be examined — 10 1/2

Total miles 113 1/2

which will be shown on about 19 sheets if the 500 feet scale is retained, and as 4 copies of each, together with 4 Index Maps, will be required, the total number of large plans wanted will be about 80.

13. The charts that are to form a permanent register in each of the offices shown in the margin, should, I think, be drawn on paper, and mounted on cloth; and as the labor merely of preparing 80 large plans is considerable, I ask the assistance of a temporary draughtsman in order that this work may be carried on as rapidly as possible, and not interfere seriously with the ordinary duties of the District establishment.

14. As you have already decided that the scales of the chart and of the Index Map should be multiples of one another, it has now to be considered whether the scale of the chart is to be altered from 500 feet to an inch to 330 feet to an inch, or if it will be sufficient to alter the index map scale from 5280 to 5000 feet to an inch.

15. If the establishment asked for above be granted, viz.

2 Surveyors at Rs. 60 each

24 Lascars at Rs. 6 each

1 Draughtsman at Rs. 40-

and 5 Rupees a month for contingencies, the work will probably be completed within six months, if competent surveyors and a Draughtsman can be obtained; which is doubtful. The lascars would only be entertained until all out door work is finished.

Without the assistance of the temporary establishment I fear that the work cannot be completed so soon, and it will, in that case, certainly greatly interfere with the ordinary work of the Range.

I have the honor to be,
Sir,

Your Most obedient Servant.

L. Peatty Major R.E.
District Engineer Godavery.

69

No. 36

Note by the Chief Engineer for Irrigation

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G.O. No. 1906. 2
15th July 1874 The reasons given in para 39 of the notes of inspection for the adoption of certain scales for the charts were that more than one scale had been used, and that inches to the mile scales were preferable to others because then the Revenue Survey Maps would work in with them. The District Engineer now reports that 500 feet to the inch has been the scale adopted throughout, and there need be no alteration.

3 It may be noticed with regard to

Chas

To
The Chief Engineer
for Irrigation
Godavery.
The District Engineer
Godavery.
Encls 14
Recd 23rd November 74
No 2597
Encls 15
Regarding progress
made with the charts
of the Gowtami and
Vasista branches of
the Godavery, and for
proving arrangements
for completing them at
an early date
16/7/75

Best

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

P. W. 1875 Sept.
No. 267
The Chief
for Migration

The Secretary
to Govt M &

N. 36

Dated 9th Jan 75
Recd 18th Jan 75
Encl 16

Note on the chart
of the Goutami &
Vasista branches of
the Godavery -

El. No. 419. 13-2-75.

Proceedings of the Madras Government.
Under date the January
Read the following -

From the Chief Engineer
for Migration - (N. E. No. 36 of 19th Jan 1875)
419

His Excellency the Governor
now in Council is pleased to
sanction the employment
of the establishment detail
ed in para 4 of the fore-
going note for the comple-
tion of the Charts of the
Goutami and Vasista
Godavery, and it is hoped
that they will be finally
completed at the expiration
of the 6 months for which
this establishment is to be
employed. The charge will
be met from the provision
for.

MD
2/1

for Temporary establishments
and will be shown in the
accounts to the debit of
Miscellaneous River Con-
servancy.

27/1/75
L.M.T.

To The District Godanery
Chiefly for ^{Expenditure} ~~Expenditure~~
— Controller of P. W. Accounts

Dec/15-2-75

267

Gobl. of (1875) Madras.

PUBLIC WORKS.

To

The Dist. Engr.
Gadaveri

Dated

Recd.

Encl. 5

G. O., 15 Feb 1875, No.

419

No. 325-326

Charts of the Gowlani
and Vasisla Sodavery

Sanctifying the employ-
ment of certain Establish-
ment for a period of six
months for the completion
of the Charts