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Government of Madras.

Public works DEPARTMENT.

G.O. No. 1524.

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*Proceedings of the Madras Government, Public Works Department,
13th June 1863.*

No. 295. Read the following letter from Captain O. W. S. CHAMBERS, R. E., Superintending Engineer, 1st Division, to Colonel W. I. BIRDWOOD, R. E., Secretary to Government, Department Public Works, dated Waltair, 15th May 1863, No. 17 :—

SIR,

1. As called on in the Deputy Chief Engineer Northern Division's Memorandum of 21st April 1863, No. 481, I have the honor of informing you that I have made an inspection of the Gubbada Irrigation Works, and now report upon them as ordered by Government in their Proceedings of 16th April, No. 928.

2. The Gubbada project is a very neat one; a rocky ledge running across the bed of the Pundairoo affords an admirable site for the dam, whilst the great fall in the country in its immediate vicinity brings the channel water out on the surface of the lands to be watered almost at once, and allows the channels themselves, whilst capable of discharging great volumes of water, to be excavated with very small sections. For example, the main duct, which at its head is only four yards wide at bottom, is capable of discharging, when four feet of water is passing down it, a volume of above 40,000 cubic yards per hour.

3. The Anicut works, the subsidiary masonry works (calingulahs and sluices) and the main channel, four miles nearly in length, have been established at a cost of Rupees 13,782; their execution is very creditable to Mr. Bevan, who constructed them.

4. There are, however, still some ten or more miles of channels of distribution to be dug at a cost of from 2,000 to 3,000 Rupees, before the water is delivered to much of the land; land in the immediate neighbourhood of the main duct can be watered without this outlay, but more distant fields must have ducts taken to them.

5. I have ordered Estimates for these smaller channels to be sent in at once, and, as it is too late this season to have them excavated before the cultivation begins, I have taken upon myself to desire Mr. Bevan to spend a sum not to exceed Rupees 150 in digging out their heads, that the Ryots may at all events see that the water can be brought to their holdings.

6. In addition to these channels of distribution a large tank or reservoir in the immediate neighbourhood of Nursipatam is, if not a necessity to the full success of the project, a great desideratum.

7. It was planned by Major Stewart and with a surface of about 100 Acres would contain one and a half million of cubic yards of water; its estimated cost, including a calingulah and two sluices, is less than 6,000 Rupees.

8. Its object is this :—

The stream dammed across at Gubbada, like all hill streams, is very spasmodic, and from its having an immense fall per mile, its freshes last often but a few hours.

9. Towards the end of the cultivating season, indeed throughout the whole of the months of October, November and December, there appears to be ample water in the river for even a greater area of irrigation than what is expected to grow up under the Gubbada channels, but at the beginning of the rains in June and July, and more especially between the two monsoons the supply is very uncertain.

10. Now the immense fall in the main channel, not less than eight feet a mile, and the still greater fall in its subsidiary ducts will enable a reservoir of the dimensions of that projected by Major Stewart to be filled at the very commencement of the freshes in a few days, and will render all the lands under it (and it commands nearly the whole of the country to be watered) comparatively independent of the not unusual failure of water in the Pundairoo between the monsoons.

11. I earnestly beg to recommend this project to the notice of Government, and to be permitted to enter it in the Budget of 1864-65.

12. As to the effects of the works themselves during the past season, upon which I have been ordered more particularly to report, I think it rather premature to expect them to be great.

*Proceedings of the Madras Government, Public Works Department,
13th June 1863.*

13. The water was not turned down the channel till the 4th of September last, and though it advantaged the people immensely, the season being a bad one and the seed beds in danger, still its supply was precarious owing to two reasons: one, that some of the green banks of the channel beginning to leak and slip, it was unadvisable to let in the full quantity of water the duct was capable of discharging during the freshes; the other, that certain rock cuttings in the channel being incomplete, when the water was low in the river it was hindered from flowing down the duct.

14. Even now these rock cuttings are only just finished.

15. Mr. Bevan takes credit for saving 560 Acres of wet cultivation, paying a revenue to Government of Rupees 1,950, and I also, from what I learn of the season, am inclined to believe that without the channel water the crop would probably have been lost and the above sum remitted to the Ryots, and in this the Principal Assistant to the Collector concurs.

16. With respect to the future returns to be expected, from these works, by a statement furnished me by Mr. Longley, the Principal Assistant, I learn that his Tahsildar estimates the acreage which eventually will be watered by the channels at 4,396 Acres, and the revenue eventually to be derived at Rupees 10,345; this will be the demand for the first five years, after which the rents will be raised to a level with those paid by other wet land.

17. These figures (4,396) include above 500 Acres of wet now precariously irrigated from rain fed tanks and paying a revenue of Rupees 1,740, so that the eventual annual return to Government for the next five years for its expenditure on these works is estimated at 8,596 Rupees; that is, if the whole of the 4,396 Acres be taken up.

18. By the levels I find that much more land than what appears in the Tahsildar's statement is commanded by the main channel though much of it being covered with jungle, it is impossible to say whether it would all be worth watering or not.

19. There is no want of land; it is there; but, as Colonel Ludlow justly observes, how much of it will be taken up remains to be seen. Even now, from the wish of certain individuals at Nursipatam to keep out outsiders and from intrigues with which the Principal Assistant is cognizant and which he will doubtless defeat, it appears doubtful if much of it will really be taken up by the Ryots in this cultivating season.

No. 296.

ORDER THEREON, 13th June 1863, No. 1,524.

The Governor in Council requests the Superintending Engineer 1st Division will furnish a detailed Estimate and the necessary Plans, &c., for the proposed work, accompanied by full information on the several points (as required in Chapter V, Public Works New Code) for the consideration of Government.

(Signed) W. I. BIRDWOOD, Colonel, R. E.,
Secretary to Government.

*Irrigation
Gubbasa*

N. 17

*Superintg Engrs Office S. Annap
Palair 15th May 1863.*

From

Captain W. S. Chambers R.E.

To

*Superintg Engineer S. An
Colonel W. Birdwood R.E.*

*Secretary to Government
in the Dept. Pub. Works*

Sir,

*We called on in the Dy. Chief
Engineer's Memo. of 21 April 1863, No. 48.
I have the honor of informing you that
I have made an inspection of the Gubba-
-da Irrigation Works and now report
upon them as ordered by Government in
their Proceedings of 16th April, No. 928.*

*2. The Gubbasa Project is a very
neat one; a rocky ledge running across
the Bed of the Pundairoo affords an admir-
-able site for the Dam, whilst the great
fall in the country in its immediate vi-
-cinity brings the Channel water onto
the surface of the lands to be watered
almost at once, and allows the channels
themselves, whilst capable of dischar-
-ging great volumes of water, to
be excavated with very small sections.*

For example: the main Duct, which at its head is only 4 yards wide at bottom, is capable of discharging, when 4 feet of water is passing down it, a volume of about 40,000 Cys. per hour.

3. The Ancient works, the subsidiary masonry works (Calingulas and sluices) and the main Channel, 4 miles nearly in length, have been established at a cost of Rs. 13782; their execution is very creditable to Mr. Bevan who constructed them.

4. There are however still some 10 or more miles of Channels of distribution to be dug at a cost of from 2000 to 3000 Rs., before the water is delivered to much of the land; land in the immediate neighbourhood of the main Duct can be watered without this outlay, but more distant fields must have ducts taken to them.

5. I have ordered Estimates for these smaller Channels to be sent in at once, and, as it is too late this season to have them excavated before the cultivation begins, I have taken

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upon myself to desire Mr. Bevan to spend a sum not to exceed Rs. 150 in digging out their heads, that the Ryots may at all events see that the water can be brought to their holdings.

6. In addition to these channels of distribution a large tank or reservoir in the immediate neighbourhood of Mordipatawa is, if not a necessity to the full success of the Project, a great desideratum.

7. It was planned by Major Stewart and with a surface of about 100 acres would contain one and a half million of Cubic Yards of Water; its estimated cost, including a Calingula and 2 Sluices, is less than 6000 Rs.

8. Its object is this:

The stream dammed across at Gubbada, like all hill streams, is very spasmodic and from its having an immense fall per mile, its freshes last often but a few hours.

9. Towards the end of the cultivating season, indeed throughout

2 the whole of the month of October,
1 November and December there appears
4 to be ample water in the river for even
6 a greater area of irrigation than what
7 is expected to grow up under the
3 Gubbadah channels, but at the
5 beginning of the rains in June and
a July, and more especially between the
4 two monsoons the supply is very
uncertain.

the 10. From the immense fall in
13 the main Channel not less than 8 feet
4 a mile and the still greater fall in
10 its subsidiary ducts into a
a reservoir of the dimensions of that
projected by Major Stewart to be
filled at the very commencement
6 of the freshes in a few days and will
of render all the lands under it, (and it
a commands nearly the whole of the
country to be watered) comparatively
5 independent of the not unusual failures
of water in the Bundareo between
the monsoons.

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to enter it in the Budget of 1864/65.

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work themselves during the past season
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13. The water was not turned
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last and though it advantaged the
people immensely, the season being
a bad one and the seeds being in
danger, still its supply was precarious
owing to 2 reasons, one that some
of the green banks of the Channel beginning
to break and slip, it was unadvisable
to let in the full quantity of water
the duct was capable of discharging
during the freshes; the other that certain
rock cuttings in the Channel being
incomplete, when the water was low
in the river it was hindered from
flowing down the Duct.

14. Even now these rock cuttings
are only just finished.

15. Mr Baran takes credit
for

for saving 500 acres of wet cultivation, paying a revenue to Government of Rs 1950, and I also, from what I learn of the season, am inclined to believe that without the channel water the crop would probably have been lost and the above sum permitted to the Ryots - and in this the Principal Officer to the Collector concurs.

16. With respect to the future returns to be expected, from these works, by a statement furnished me by Mr. Longley, the Principal Assistant, I learn that his Fiksil dar estimates the acreage which eventually will be watered by the channels at 4396 acres and the revenues eventually to be derived at Rs 10,345; this will be the demand for the first 5 years, after which the rents will be raised to a level with those paid by other wet lands.

17. These figures (4396) include above 500 acres of wet now permanently irrigated from rain fed tanks and paying a revenue of Rs 1749, so that the eventual annual return

to Government for the next 5 years for its expenditure on these works is estimated at 8596 Rs; that is if the whole of the 4396 acres be taken up. B. By the levels I find that much more land than what appears in the Thavildar's statement is commanded by the main channel though much of it being covered with jungle, it is impossible to say whether it would all be worth watering or not.

19. There is no want of lands; it is there; but, as Colonel Ludlow justly observes, how much of it will be taken up remains to be seen. Even now, from the wish of certain individuals at Surripatawa to keep out outsiders and from intrigues with which the Principal Assistant is cognizant and which he will doubtless defeat, it appears doubtful if much of it will really be taken up by the

the Ryots in this cultivating season.

I have the honor to be
Sir.

Your most obedt

Ob. Chambers Capt. R.E.
Engr. & G. Engr. R. Div.

11.11.11

1524 The Engr. in Council agrees to the Surveyor
of the Ryots furnish a detailed estimate
of the necessary works for the
proposed work accompanied by full
information as to the several items, as
required in the Ryots & Public Works Report
for the consideration of Govt. G.B.

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