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(2) Date of repair _____

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MADRAS RECORD OFFICE.

Government of Madras.

Public works DEPARTMENT.

G.O. No.	1184	Press
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72-73		
Dated	4 5	1870.

Not to be folded or roughly handled

10.

*Proceedings of the Madras Government, Public Works Department,
4th May 1870.*

No. 72. Read the following Proceedings of the Board of Revenue, dated 14th March 1870, No. 1,722:—

Read the following letter from J. A. C. BOSWELL, Esq., Officiating Collector of the Kistna District, to the Acting Secretary to the Board of Revenue, dated Masulipatam, 14th January 1870, No. 162:—

I HAVE the honour to submit the information called for in the Board's Proceedings of the 5th April 1869, No. 2,268.

2. The new works proposed by Mr. Wilson in his report dated 31st January 1868, No. 38½, are the following:—

- A.—Construction of the Eastern Bank Channel and its continuation by an aqueduct at Puligadda over a branch of the Kistna for the irrigation of the Divi Pargana.
- B.—Bollapilly Tank in Vinukonda.
- C.—Anicut at Chintapully on the Kistna.
- D.—Budamair Scheme.
- E.—Muneyer Scheme.
- F.—Bunding the Nagularu at the Mellavagu Pass from Vinukonda into the Palnad.
- G.—Dondapad Tank in Vinukonda.
- H.—Vippurla Tank in Sattenapalli Talook.
- I.—Bunding the Peddavagu and Yedduvagu in Sattenapalli Talook.

3. Inquiries have been made as to the extent of dry land that could be converted into wet from the irrigation of the above works and the wishes of the ryots in regard to taking or declining water when the works are completed. The result of the same is the following:—

A.—The Divi Pargana is composed of eighteen villages. The wet cultivation there is always dependent on tank irrigation fed from Kistna freshes, which

Items.	Extent.		Water-rate at 4 Rupees an acre.		Present water-rate at Rupees 2-11-0.	
	ACRES.	C.	RS.	A.	RS.	A.
Dry land.	Govern-ment...	13,135	88	52,543	8	35,303 7
	Inam ...	854	50	3,418	0	3,418 0
Total ..	13,990	38	55,961	8	38,721	7
Partial Banjar of wet lands now under Tank irrigation ...	12,395	81	49,583	4	33,313	3
Grand Total...	26,386	19	1,05,544	12	72,034	10

are always precarious. From the time of famine in 1832 the wet cultivation has fluctuated yearly owing to the failure of Kistna freshes to the usual extent. The arable area of this Pargana is by survey Acres 58,562, of which Acres 12,192, or 20 per cent., are wet, and the remainder is dry. If the proposed work is executed, a great extent of land,* viz., Acres 26,386-19 of this Pargana will be converted into wet. The anticipated increase of revenue by means of water-rate is Rs. 1,05,544-12-0. At present the water-rate is paid at Rupees 2-11-0 an acre on all wet land under the irrigation of tanks supplied by freshes. The ryots of

this Pargana are eager to have the Kistna water supplied to their lands by anicut channels, and there is no probability of their declining the same when the works are completed. This project is also likely to benefit some of the zemindary lands, but to what extent cannot now be estimated unless the line of channels is known.

B.—*Bollapilly Tank.*—By the construction of this tank it is calculated that, 667 acres of dry land, both Government and Inam, will be converted into wet and a revenue of Rupees 3,435-4-1 minus the present dry assessment, will accrue to Government. The nature of the work is fully detailed in Mr. Wilson's report. The ryots will not decline irrigation after the work is completed.

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4th May 1870.

Talooks.	No. of villages.	DRY LAND TO BE CONVERTED INTO WET.			Wet assessment calculated at 6 Rupees an acre on Sairy land.	Dry assessment now paid on Sairy land.	Difference between columns 6 and 7.	Water-tax on Inams at 4 Rupees an acre.	Total of columns 8 and 9.
		Govt. ment.	Inam.	Total.					
1	2	3	4	5	6	7	8	9	10
1. Guntoor	8	2,454 23	451 17	2,906 0	14,727 7 2	4,484 2 6	10,243 4 8	1,805 11 3	12,048 15 11
2. Sattenapalli	47	34,500 0	1,200 0	35,700 0	2,07,000 0 0	64,319 6 6	1,42,680 9 6	4,800 0 0	1,47,480 9 6
3. Bapatla	31	17,725 36	3,726 23	21,452 19	1,06,355 15 3	37,944 3 4	68,411 11 11	14,905 14 8	83,317 10 7
Total...	80	54,680 59	5,378 0	60,058 19	3,28,082 6 5	1,06,747 12 4	2,21,335 10 1	21,511 9 11	2,42,847 4 0

C.—*Chintapully Anicut*.—The Acting Sub-Collector has submitted a statement showing the extent of land, both Government and Inam, that could probably be converted into wet in the three talooks of his division by the construction of the proposed anicut on the Kistna river at Chintapully. An abstract of the same is given in the margin, from which it will be seen that 60,058 acres of dry land is liable for conversion, and that the net increase of revenue is Rupees 2,42,847. The Sub-Collector informed me that all the ryots agreed to receive the Government water; but that some of the ryots of Bapatla Talook refused to irrigate their lands, their object being to avoid the burden of water-cess as they are content with the profits they reap from dry crops. I do not quite agree with him in this opinion. It is very true that the lands which have been under dry cultivation from a series of years are quite unfit for irrigation, the land being too loose from repeated ploughings. Such lands will not produce well unless they are manured for some years, and they become strong. If the dry land has been waste from a number of years, it produces first-rate wet crops for few years and afterwards deteriorates unless manured. In many parts of the district the ryots will not take pains to manure their fields, and, if the yield of the land falls short, they generally complain that it has turned saline.

The practicability of the Chintapully Anicut is a question for the Department Public Works to decide. Captain Buckle, in his report, dated 24th April 1839, considered it impracticable—

- 1st.—Because, though the river is only 300 feet wide at this spot, it is proportionately deep, never less than 50 or 60 feet.
2nd.—Because the elevation of the country would not allow of any channel being taken off them.

D.—No increase of cultivation is expected from the Budamair scheme. The Head Assistant Collector reports that in the villages of Villatoor, Velagalair, and Kondoor, no more lands than at present exist can be irrigated; but, if the project is executed, the ryots will have a full supply of water to their present wet fields.

E.—The Muneyer scheme has been under long consideration of the Department Public Works. The increase of wet cultivation noticed by Mr. Wilson in his report was nominal. The ryots are quite willing to avail themselves of the

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4th May 1870.

benefits which this work would afford them, and no likelihood of their refusing irrigation when the work is completed. The Tahsildar of Nandegama Talook has made inquiries *de novo* about the wishes of the ryots regarding this project. From the account now submitted by him it appears that about 8,137 acres of dry land, both Government and Inam, will be converted into wet; the amount of water-rate that could be realized thereby would be Rupees 32,548 a year. The estimated cost of the project is two lacs of rupees as stated by Mr. Wilson; this outlay would

be re-paid in about seven years. This work benefits some of the lands of the Mukteyala Zemindar. The Board are aware that permission was given to the said Zemindar to repair his old Muneyer Channel at his own cost, on the understanding that this permission would not debar the Government from extending the works and improving the supply at any future time, in which case the Government would reimburse the Zemindar with the proper proportion of the cost incurred by him; but they did not guarantee him against loss of income derived from the holders of Government land, to which, in the interval, he might lead a supply. It does not appear that the Zemindar has taken any measures to execute the work.

Proceedings, No. 7,888, dated 31st Oct 1866.

Talooks.	No. of villages.	DRY LANDS TO BE CONVERTED INTO WET.			Wet assessment calculated at 6 Rupees an acre on Government land.	Dry assessment already paid on these lands.	Difference between columns 5 and 6.	Water-tax calculated on Inams at 4 Rupees an acre.	Total of columns 7 and 8.	LANDS WHICH WILL BE FLOODED BY THE PROPOSED WORK.	
		Sairy or Government.	Inam.	Total.						Lahd.	Sist.
1	2	3	4	5	6	7	8	9	10	11	12
Palnad	13	4,618 5	2,205 33	6,823 38	27,708 12 2	7,236 6 0	20,472 6 2	8,833 4 9	29,295 10 11	1,858 33	2,874 13 11
Vinukonda	...	...	...	...	...	...	...	...	...	...	...

F.—*Bunding Nagularu River*.—It appears that about 6,823 acres of Sairy and Inam land in thirteen villages of Palnad Talook might be converted into wet if the proposed bund across the Nagularu river at Mellavagu were raised. The profits arising therefrom to Government are roughly calculated at Rupees 29,295-10-11, as will be seen from the marginal statement. Four of the villages of the Vinukonda Talook would, however, from their position be liable to be entirely inundated. The estimated loss of revenue on this account is Rupees 2,875 on 1,858 acres of Sairy land as reported by the General Deputy Collector. Some Inam lands also are likely to share the same fate. The Deputy Collector adds that, deducting the said loss, net profits to Government may be estimated at Rupees 26,421.

Out of the said four villages one is a depopulated one. The Deputy Collector has not inquired whether there are any other means to prevent the supposed inundation, but this is a matter for consideration by the Department Public Works. I have visited the spot. The work proposed is merely a restoration of an old ruined bund, the traces of which still exist.

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4th May 1870.*

G.—*Dondapad Tank*.—From the correspondence noted in the margin the Board will observe that the increase of revenue by the restoration of Dondapad Tank was originally estimated at Rupees 18,650, or 85 per cent. of the probable cost of repair, amounting to Rupees 22,000. The General Deputy Collector reports that this work would benefit only 1,657 acres of dry land in five villages, and that there may also be some dry Inams which are not included in the above. The total profit to Government by these repairs is estimated by him at Rupees 7,976 a year. The work would re-pay the proposed outlay in three years. I do not think that the income estimated by the Deputy Collector is quite correct. Lieutenant-Colonel Winscom, R. E., the late Superintending Engineer, 2nd Division, personally inspected the tank and roughly calculated the income at Rupees 36,000 per annum. This may be an approximation to the profits likely to accrue.

H.—The restoration of the Vippurla Tank, Settanapalli Talook, would irrigate 600 acres of dry land in four villages. The estimated increase of revenue minus the present dry assessment amounts to Rupees 2,858.

I.—*Bunding Peddavagu and Yadavagu, Settanapalli Talook*.—The history of these streams is fully explained by Mr. Wilson in his report upon the irrigation wants of the district. No investigation has been subsequently made by the Department Public Works as to the capabilities of these streams. The increase of cultivation by turning the floods of these streams is not separately stated by the Sub-Collector, but is included in the figures of Sattenapalli Talook.

4. I do not think that the ryots will decline water after the works are completed; but, if they find the lands turn poor for want of manure owing to their apathy, irrigation may afterward to some extent become unpopular and the ryots begin to complain that saline efflorescence presents itself on the surface of the lands from the effects of irrigation. After a continuous supply of water for three years the ryot is not allowed the option of re-converting his land into dry, which he sometimes prefers owing to the reduced quantity of produce which the land yields with reference to its strength, and the ryot will then commence to dry-crop the land and pay wet assessment until he is allowed to re-convert it into dry permanently. As long as the land is fit for wet crops and gives a suitable return, the ryot will never refuse irrigation. Sometimes the insufficiency of water-supply will induce him to dry-crop the land. To avoid all these inconveniences the proper course to be pursued in respect of channels is that, before a ryot is allowed to convert his dry land into wet, an agreement should be taken from him that he will accept and pay for the water for a fixed term of years, whether the lands produce well or not, for the ryots are well acquainted with the nature of the soils they propose to convert. The term to be so fixed should not be less than five years.

In submitting to Government the report of the Acting Collector of Kistna on Board's Proceedings, 8th September 1868, certain proposed irrigation works, the Board called on the Collector for certain information which was supplied by the Proceedings, 5th April 1869, No. 2,263. Acting Collector in his letter, dated 17th October 1868; on this the Board desired to be informed if ryots were likely to decline to take water when the works were completed.

2. The letter now before the Board is in reply to those Proceedings.
3. Mr. Boswell notices each of the proposed works, and, besides stating that it is not likely that water would be refused under any of them, gives some further information, the result of inquiries subsequent to the submission of Mr. Wilson's report.

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4th May 1870.*

4. A list of the works will be found in paragraph 2 of Mr. Boswell's letter. The following is an extract from a memorandum drawn up by the Third Member of the Board, who is personally acquainted with most of the works:—

"A.—*The construction of an Eastern Bank Channel from Bezoarah and its continuation into Divi by an Aqueduct*—

"As this channel forms a part of the great scheme of Delta Irrigation, it is only necessary to remark that from Bezoarah to the site of the proposed aqueduct, a distance of 35 miles, its course will lie almost entirely through Zemindary land. It is probable that only a portion of the land adjoining the channel will be brought under irrigation, as it resembles the land on the west bank of the river, where dry crops are in places preferred; but it may be safely affirmed that almost all the land, including the whole of Divi, south-east of a line drawn from Masulipatam to Sallapully, would be in course of time taken up for wet cultivation if water were supplied.

"B.—*Bollapilly Tank, Vinukonda Talook*—

"This is a new work suggested originally to myself by the inhabitants. The site has not been examined professionally, but it can be safely affirmed that every acre available will be greedily taken up for wet cultivation should the tank be made. It lies in a part of the country where water is sorely needed.

"C.—*Anicut at Chintapully on the Kistna, Krosur, and Nundigama Talooks*—

"This scheme has been condemned on high engineering authority, and need scarcely be noticed here. I believe it to be a perfect delusion to suppose that the country indicated in the Collector's letter could be irrigated from it even if the work itself could be constructed.

"D.—*Budamair scheme, Bezoarah Talook*—

"It is not supposed that any increase of cultivation would result from this work, it would only improve the supply of water to existing tanks.

"E.—*Muneyer Anicut scheme, Nundigama Talook*—

"This was a project of the late Colonel Winscom, which was never matured. The Collector reports that 32,000 Rupees increased revenue may be expected from a supposed expenditure of two lacs. I imagine the cost is much under-estimated. The Muneyer is not a perennial stream and not fit to be relied on for channel irrigation; if anything is to be done with it, reservoirs must be constructed. No doubt water would be readily taken.

"F.—*Bunding Nagularu, Vinukonda, and Palnad Talooks*—

"This is the proposed restoration of an ancient tank at Mellavagu, in Vinukonda Talook.

"The site was carefully inspected by Captain C. J. Smith, R. E. I know he formed a very favourable opinion of its capacity for repair; but I do not know if he recorded his views, as he left the country shortly after his visit on sick certificate. There is no doubt that water would be freely taken, and that it is much wanted

Govt. of 1870 Madras

PUBLIC WORKS.

To

THE SUPERINTENDING ENGINEER,

2ND DIVISION

&c., &c.,

Dated May, th.

Recd.

Encl.

G. O., 4th May 1870, No. 1,184.

MAY.

Nos. 72-73

Irrigation Projects in the Kistna District.—Passing orders on Proceedings of the Board of Revenue on the report of the Collector regarding the proposed investigation of certain Irrigation projects in Kistna District.

P. W. Department.

1184

Proceedings of the Madras Government.

Under date the 4th May 70.

Read the following

Pro. of the Board of Revenue / H. E. No. 17,22 of 14. March 1870

Order for the communication to the Superintending Engineer 2^d Division in continuation of the order in this Dept. No. 3315 of the 20th October 1868.

2. At the present time the Govt. are unable to allot any additional establishments to the Kistna District for the investigation of projects which have not been as yet taken up, because, even should any such projects be ultimately carried out

But could be put in the line register &c. take up such schemes as B. G. H. merely I am to. They

From

from Loan Funds, the cost of the establishments for their investigation would have to be met from the Ordinary Grant, and this is already unequal to the urgent demands made upon it.

3. The Sup. Engineer was in G. O. No 920 dated 1st April 1867 called upon to report the progress which has been made in completing the Delta Retainers, and, when this is known, the Govt. will be the better able to judge when it is probable that other projects can be examined.

4. Cal.

will be resumed stone
and are in place
the water is very
much reduced.
S.D.

4. Col. Moberly will also be directed to report what was the result of the investigations made in the Vinukonda Talug by Capt. Smith, prior to this Officer's departure from the District in 1867, and whether the examinations have been taken up since by any one else.

5. It is observed that the Muneyer Scheme, which is marked E in the list of projects noticed in Mr. Baswell's letter of the 14th January last, appears to have been authorized by the Board of Revenue, in their Proceedings

Sr

No 7308 of the 31st October 1866,
for execution by the Zemindar
principally interested, and
the Govt. would wish to
know whether the Zemindar
has done anything towards
carrying out the work.

Wm. 11/4/70

Recd 22/4/70

38

670 Prof. Mr. 22 Jan
21 x Rev. Sept:-

Recd 9/5/70-

G. No 1151

Govt. of 1870 Madras

PUBLIC WORKS.

To the Superintending Engrs.
2nd Division

Dated

Recd.

G. O. 4 May 1870, No. 1184

Nos. 72-93

Irrigation Projects in the
Mishna District.

Passing orders on the
of the Board of Revenue
on the report of the
Collector regarding
the proposed im-
provement of certain
Irrigation Projects
in the Mishna Dist.