M.R.O. 14—13,000—27-9-24.

MADRAS RECORD OFFICE.

Government of Madras.

Revenue **DEPARTMENT.**

G.O. No. 2047 Press ~~Mis.~~

7-8

Dated 2—7—~~19~~1887

Not to be folded or roughly handled

Proceedings of the Madras Government, Revenue Department, 2nd September 1867.

No. 7. Read the following Proceedings of the Board of Revenue, dated 19th July 1867, No. 4,556.

Read the following letters:—

From the Collector of Bellary, to the Secretary to the Board of Revenue, dated Camp at Ramandroog, Talook Hospett, 12th April 1867, No. 60.

1. With reference to a water-rate for the proposed Toongabadra Canal, on which my opinion is requested in Proceedings of the Board of Revenue, dated 8th March 1867, No. 1,429, I have the honor to recommend a rate of Rupees 5 per acre for the first three years from the application of water to the land, and after the third year, and up to the tenth year, a rate not exceeding Rupees 7-8-0 per acre, per crop, consolidated, Rupees 9-12-0. The Rupees 5 per acre water cess, would, consolidated with the dry assessment of the villages on the line of the canal, range from Rupees 7¼ to 5½.

2. I am in favor of a light rate for the first three years; it will attract capital to the preparation of land for the reception of water; it will attract laborers from ill-watered regions where they spend a precarious existence: but to cultivate the lands away from villages, huts have to be built, and a population settled. If the supply from the canal were merely to feed existing tanks, and irrigated fields, the water would be worth more than Rupees 10 per acre from the date of its application.

3. The rate for a second crop might well be fixed when the reservoirs to hold water at other times than the south-west monsoon, or to regulate the floods, have been constructed; practically we have a one-crop rate to fix at present.

4. The rates existing under the Toongabadra channels, in Hospett talook, formerly ranged from Rupees 29 per acre to 6 Annas, and were lowered to a maximum level of Rupees 12 per acre for first class land, with full water supply, Rupees 6 being paid for a second crop. Instead of 115 rates, thirty-seven were invented, probably six would have sufficed. The new rates ranged from Rupees 12 to Rupee 1. The last is a very good rate for unirrigated land, in an arid district, where there are many chances against the crops coming to maturity; but for fully irrigated land, Rupees 5 should be the lowest limit. I understand, however, that these rates, ranging at least from Rupees 3 downwards, are for land in the vicinity of the channel lands, and which are really watered by the drainage collected by wells, and raised by mechanical power. The present Toongabadra channel lands yielded a landlord's profit, and are extensively sub-let by the proprietors. The average one-crop assessment on the land from 12 to Rupees 3 is Rupees 8½ per acre, namely, 7,390 acres, (Rupees 61,765 assessment).

5. As regards prices, they have steadily risen with the influx, and deteriorated value of the currency, the currency is doubled, but grain has not, and will not, till further irrigation is opened out, and the population will increase and maintain the demand for the increased production of grain.

6. There is only a limited irrigated area in this district, less than seven per cent. of the cultivated area. The unirrigated crop prices, after rain-fall, have fallen from

four (during drought) to twenty measures, per Rupee, but the irrigated crop (rice which continues the same, independent of rain, so far at least as the 10,000 acres of river-channels are concerned, has only fallen from three measures to seven per Rupee. It is not likely that prices of irrigated produce such as paddy even with extended cultivation will fall below one-third of late rates, or Rupees 9 = Rupees 133, a price per garce which ruled in the first five years of the last decade, or from 1857 to 1861 before the influx of currency referred to.

From the Officiating Director of Revenue Settlement, to the Secretary to the Board of Revenue, dated Madras, 1st May 1867, No. 558-15.

1. In reply to the Board's Proceedings of the 8th March last, No. 1,429, communicating Orders of Government, in the Revenue Department, dated 26th February, No. 470, and in the Public Works Department, 21st idem, No. 518, and requesting my opinion on the question of the water-rate which may be imposed on the land to be irrigated from the canal proposed to be excavated from Wulavapore on the Toombudra to Bellary, I have the honor to state that the calculations given by the Consulting Engineer in paragraphs 103 to 108 of his Report, forming an enclosure to the above papers, seem on the whole to be very fair and reasonable. I observe that the average produce of paddy per acre, namely, 1,066 Madras measures, is taken from information furnished by the Collector; otherwise I should consider the average a high one. In Kurnool, Captain Mullins shews that the average, as calculated for the Revenue Settlement, was only 880 measures, but he thinks that as the wet lands in that district were under tanks, while those in Bellary will be under direct river-irrigation, the difference is not greater than he is warranted in expecting. It does not appear, however, that Mr. Wedderburn's estimate of produce had reference specially to river-irrigated land, and in the Godavery District, where the average is not so high, the calculations were made for land under that species of irrigation. The commutation rates adopted by Captain Mullins, namely, Rupees 132 per garce for paddy, and Rupees 156 for cholum, appear moderate and unobjectionable.

2. I doubt whether it will be found practicable to levy so high a water-rate as that recommended by the Consulting Engineer, or that twenty-five per cent. of the profits estimated to arise from the conversion of the dry land into wet, will form the "considerable inducement" which it is allowed the ryot must have before he can be expected so to convert it, the more especially, as he will have in the first instance to incur the expense (estimated by Captain Mullins at Rupees 10 per acre) of preparing his land for irrigation. Not being acquainted with the locality, or the people, I am unable to judge how much they may be willing to pay for water. It is possible that circumstanced as they are, and with the remembrance of recent calamities arising from the want of it, fresh on their minds, they may be ready to pay more than the inhabitants of the more favored delta districts would care to give. I observe however that, taking the Kurnool average of 880 Madras measures per acre, and the standard price at Rupees 132 per garce, and deducting only one-sixth for vicissitudes of season, in addition to the cultivation expenses, the proposed water-rate itself, would more than swallow up half the net produce, now declared

by authority to be the correct proportion to be taken by the State, leaving nothing whatever for the land assessment proper. The following are the figures:—

	Rs.	A.	P.
Value of net produce	15	7	0
Half do.	7	11	6
Water-rate	8	8	0
Excess of water-rate over half the net	0	12	6

or taking the Bellary estimate of 1,066 Madras measures per acre with the same commutation rate and deductions, the account would stand—

	Rs.	A.	P.
Value of net produce	18	14	0
Half do.	9	7	4
Water rate	8	8	0
Difference between water-rate and half net available for land assessment...	0	15	4

This is less than the present dry assessment, which is given by Mr. Wedderburn as Rupees 1-2-0 per acre.

3. It must also be remembered that much of the land will not produce 1,066 Madras measures per acre, or even 880 measures, and that in such cases, the proportion of the net produce swallowed up by the proposed water-rate, will be still larger than that shewn above, and if, as is possible, the rate is found occasionally to amount not to 75 only, but to 100 per cent. of the profits arising from the conversion of the land from dry to wet, it cannot be expected that the ryots will invariably come forward to take the water, and I assume that they will have the option of taking or refusing it. They will not understand that the imposition of a water-rate higher than that charged elsewhere, is consequent on the unusual costliness of the works, and necessary for the purpose of securing an adequate return for the outlay.

4. Should the high water-rate, as hinted above, thus prove prohibitory, and deter the ryots from taking water for the inferior lands, the area under irrigation may be far smaller than the estimate now made, and the aggregate returns less than might be derived from the collection of a lower rate over a larger area. It is calculated that a rate of Rupees 8-8-0 on the first crop, and of Rupees 6-8-0 on the second, will produce a return of 13·38 per cent., or deducting 2½ per cent. for maintenance, 10·88 per cent. on the outlay; but this is on the assumption that 1,50,000 acres are watered for the first, and 1,00,000 for a second crop. A rate of Rupees 6 for each crop, on the above areas, would produce Rupees 15,00,000, a rather more than ten per cent. on the amount of the estimate, or allowing for maintenance, seven and a half per cent. A rate of Rupees 6 on the first crop, and a consolidated charge of Rupees 10 for the double crop on the same areas, would produce Rupees 13,00,000, or nine per cent. on the estimate, or deducting for maintenance, six and a half per cent.

5. On the whole I do not recommend the adoption of a higher water-rate in Bellary than that sanctioned for Kurnool. I believe that the immediate object in view in planning the works in question is not so much to obtain large remunerative returns, as to secure the locality concerned from all chance of future famine, and

if this object is not only attained, but in addition, a fair interest on the expenditure is returned, the Government will no doubt be well satisfied.

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1. With their Order in the Revenue Department, dated 20th February 1867, No. 420, the Government referred to the Board the report from the Consulting Engineer for the Madras Irrigation and Canal Company upon the Toombuddra Irrigation project, in view to the Board stating their opinion on the question of water-rate after consulting the Collector of Bellary and the Officiating Director of Revenue Settlement.

2. The letters recorded above are the replies of these two Officers to the Board's requisition on the subject.

3. The Collector of Bellary considers that the water to be supplied by the new project would be well worth Rupees 10 per acre, if it were merely to feed existing tanks and irrigated fields; but he points out that the lands to be irrigated are far from the villages, and that huts will have to be built and villages formed. In view, therefore, to attract population and capital to the locality, he is in favor of a 5 Rupees rate for the first three years, and a rate of Rupees 7-8-0 for the fourth to the tenth year. He considers that the question of water-rate for a second crop had best be deferred until the completion of the storage reservoirs.

4. The Officiating Director of Revenue Settlement is also averse to so high a water-rate as that proposed by Captain Mullins,* and points out that if adopted it would on the basis of the calculation as to produce, &c., absorb more than half the net produce of the land. He considers that the rate should not be higher than that sanctioned for Kurnool, and shews that a water-rate of Rupees 6 for one crop, with a consolidated rate of Rupees 10 for two crops, would produce a return equal to nine per cent. on the proposed outlay on the works, or six and a half per cent. on this amount after deducting the cost of maintenance.

	Rs.	A.	P.
* First year	5	0	0
Second do.	7	0	0
Third to 10th	8	8	0

5. The Board do not deem it necessary for them to analize, very closely, the calculations of the Consulting Engineer at this stage of the proceedings, for they presume that, if it be decided to permit the Irrigation Company to undertake the project, a careful inquiry will, in the first place, be directed into the productive powers of the lands to be irrigated, in view both to the assessment and the water-rate being fixed as has been done in the Godavery, Kistna, and Kurnool Districts.

6. The statements of the Consulting Engineer as to the description of the soil to be irrigated, and the quantity of land likely to be brought under the influence of the works, are necessarily accepted by the Board as sufficiently correct to frame approximate estimates of the return from the outlay proposed to be incurred, but beyond this the Board are not prepared, at present, to adopt his calculations. Though the proposed commutation rate is very little more than one-third of the present ruling prices, it is considerably higher than any rate hitherto adopted by the Revenue Settlement Department in any other district, and the estimated rates of produce are also, in the Board's opinion, unduly favorable, when it is remembered

that they are to be applied to a very large tract of land comprising soils largely differing in their productive powers.

7. The Board have, however, long urged upon Government the expediency of taking this work in hand from motives of sound policy. On a recent occasion they expressed their concurrence with the Collector of the district in considering that it was not a question of the comparative profits or advantages of a rain-fed or a river-irrigated cultivation, but of a certain against an uncertain supply of a necessary of life which would have saved a large amount of loss and suffering had it been available during the past year, and the Government fully concur in this view in their Order, dated 28th March 1867, No. 734.

8. Independent of these grounds, the indirect returns to Government obtainable from such a large addition to the wealth of the district must also be very considerable. The Land tax, exclusive of water-rate on the area brought under cultivation, will be a large augmentation of revenue; for it is presumed that but very small portions of the land which will be affected by the project are now yielding revenue to Government, and from the remarks of the Consulting Engineer, it would appear that a considerable portion of the tract is but sparsely inhabited. On these considerations alone, and quite independent of the return on the capital, the Board would earnestly recommend that Government should afford the Irrigation Company every reasonable assistance in raising the necessary funds and completing the work as rapidly as possible.

9. Roughly stated the cost of the works will be 1½ millions sterling, and they are calculated to irrigate 1,50,000 acres for one crop, and 1,00,000 acres for a double crop. The Consulting Engineer considers that the charges of management will amount to two and a half per cent. on the outlay, or to nearly £37,500; hence, if a further sum of £75,000 can be realized from the water-rate, the works will pay all expenses, *plus* five per cent. on the money expended in their construction. A water-rate of 10*s.* or Rupees 5 per acre on 1,50,000 acres will give a return of £75,000, and a second rate of Rupees 5 per acre on the double crop land will give £50,000. A water-rate of Rupees 5 on each crop would thus produce £125,000 or eight and a half per cent. on the capital expended, and, as the Board have no doubt whatever that the lands can bear these rates, they have no hesitation in recommending that the usual guarantee should be given to the Irrigation Company.

10. It remains to be seen whether the rate of 6 Rupees per acre, for each crop now levied in Kurnool, is or is not too high; but the Board, looking at the circumstances of Bellary, are not prepared to object to a similar rate being levied in the latter district, but they would be certainly averse to fixing a higher rate except on the very fullest evidence as to the capacity of the land to bear it. The rates of assessment in the Bellary District were revised in 1853, and the highest consolidated rate for land bearing one wet crop is Rupees 12 per acre, and for land bearing two crops Rupees 18 per acre. The average assessment of the district paid by one-crop land is, however, Rupees 6-8-0 per acre, and for two-crop land Rupees 9-12-0 per acre, but the average paid by the one-crop land under the existing Toongabadra channels is Rupees 8¼ per acre. These rates were fixed when there had been a decline in the prices of all agricultural produce for upwards of thirty years,

whereas prices have steadily risen during the last fifteen years. On the whole, therefore, the Board consider that the Irrigation Company may very safely reckon upon a water-rate of Rupees 6 for one crop and Rupees 12 for two crops, the rates at present in force in the Kurnool District, and supposing the land assessment proper to vary from Rupees 2-8-0 to Annas 8 per acre, the highest rate would thus be Rupees 14-8-0, against Rupees 18 in other parts of the district; but the average rate would, of course, be somewhat increased, though it would not be in excess of Rupees 8½, and the assessment and water-rate levied on the very inferior lands would constitute a demand considerably in excess of that on similar lands in the other portions of the district. These anomalies are, however, inseparable from the system of charging a uniform water-rate upon all descriptions of land of varying fertility. The rates in force in Kurnool as mentioned above, if applied to the Bellary project, would on the estimated calculations produce a revenue of fifteen lacs of Rupees, or about ten per cent. on the capital expended.

11. Should the Government concur with the Board as to the expediency of a State guarantee being offered to the Irrigation Company in view to the project being at once commenced, the Board would strongly recommend that opportunity be taken to amend the defects which experience has brought to light in the existing contract between the Government and the Company.

No. 8. ORDER THEREON, 2nd September 1867, No. 2,047.

Miscellaneous.

Communicated to the Department Public Works, with reference to the Order in that Department, dated 21st February 1867, No. 518, and with the opinion of Government in this Department, that the Kurnool water-rate of Rupees 6 per acre, per crop, should be adopted for the "Upper Bellary project" of the Madras Irrigation and Canal Company as reasonable and sufficient.

(True Extract.)

(Signed) W. HUDLESTON,

Secretary to Government.

To the Public Works Department.
,, the Board of Revenue.
,, the Director of Revenue Settlement.
,, the Consulting Engineer for Irrigation and Canal Company.

Rd. T. O'Connor.

No. 4,556.

PROCEEDINGS OF THE BOARD OF REVENUE, dated 19th July 1867.

Read the following letters:—

From A. WEDDERBURN, Esq., Collector of Bellary, to the Secretary to the Board of Revenue, dated Camp at Ramandrug, Taluk Hospett, 12th April 1867, No. 60.

1. With reference to a water rate for the proposed Toongabadra Canal, on which my opinion is requested in Proceedings of the Board of Revenue, dated 8th March 1867, No. 1,429, I have the honour to recommend a rate of Rupees 5 per acre for the first three years from the application of water to the land, and after the third year, and up to the tenth year, a rate not exceeding Rupees 7-8-0 per acre, per crop consolidated, Rupees 9-12-0. The Rupees 5 per acre water cess, would, consolidated with the dry assessment, of the villages on the line of the canal, range from Rupees 7½ to 5½.

2. I am in favour of a light rate for the first three years; it will attract capital to the preparation of land for the reception of water; it will attract labourers from ill-watered regions where they spend a precarious existence: but to cultivate the lands away from villages, huts have to be built, and a population settled. If the supply from the canal were merely to feed existing tanks, and irrigated fields, the water would be worth more than Rupees 10 per acre from the date of its application,

3. The rate for a second crop might well be fixed when the reservoirs to hold water at other times than the south-west monsoon, or to regulate the floods, have been constructed; practically we have a one-crop rate to fix at present.

4. The rates existing under the Toongabadra channels, in Hospett taluk, formerly ranged from Rupees 29 per acre, to 6 Annas, and were lowered to a maximum level of Rupees 12 per acre for first class land, with full water supply, Rupees 6 being paid for a second crop. Instead of 115 rates, 37 were invented, probably six would have sufficed. The new rates ranged from Rupees 12 to Rupee 1. The last is a very good rate for unirrigated land, in an arid district, where there are many chances against the crops coming to maturity; but for fully irrigated land, Rupees 5 should be the lowest limit. I understand, however, that these rates, ranging at least from Rupees 3 downwards, are for land in the vicinity of the channel lands, and which are really watered by the drainage collected by wells, and raised by mechanical power. The present Toongabadra channel lands yielded a landlord's profit, and are extensively sublet by the proprietors. The average one-crop assessment on the land from 12 to Rupees 3 is Rupees 8¼ per acre, namely, 7,390 acres, (Rupees 61,765 assessment.)

5. As regards prices, they have steadily risen with the influx, and deteriorated value of the currency, the currency is doubled, but grain has not, and will not, till further irrigation is opened out, and the population will increase and maintain the demand for the increased production of grain.

6. There is only a limited irrigated area in this district, less than 7 per cent. of the cultivated area. The unirrigated crop prices, after rainfall, have fallen from four (during drought) to twenty measures, per rupee, but the irrigated crop (rice) which continues the same, independent of rain, so far at least as the 10,000 acres of river channels are concerned, has only fallen from 3 measures to 7 per rupee. It is not likely that prices of irrigated produce such as paddy even with extended cultivation will fall below one-third of late rates, or Rupees $\frac{399}{3}$ = Rupees 133, a price per garce which ruled in the first five years, of the last decade or from 1857 to 1861 before the influx of currency referred to.

From R. E. MASTER, Esq., Officiating Director of Revenue Settlement, to the Secretary to the Board of Revenue, dated Madras, 1st May 1867, No. 558-15.

1. In reply to the Board's Proceedings of the 8th March last, No. 1,429, communicating orders of Government, in the Revenue Department, dated 26th February, No. 470, and in the Public

Works Department, 21st idem, No. 518, and requesting my opinion on the question of the water rate which may be imposed on the land to be irrigated from the canal proposed to be excavated from Walavapore on the Toombudra to Bellary, I have the honour to state that the calculations given by the Consulting Engineer in paragraphs 103 to 108 of his Report, forming an enclosure to the above papers, seem on the whole to be very fair and reasonable. I observe that the average produce of paddy per acre, namely, 1,066 Madras measures, is taken from information furnished by the Collector; otherwise I should consider the average a high one. In Kurnool, Captain Mullins shows that the average, as calculated for the Revenue Settlement, was only 880 measures, but he thinks that as the wet lands in that district were under tanks, while those in Bellary will be under direct river irrigation, the difference is not greater than he is warranted in expecting. It does not appear, however, that Mr. Wedderburn's estimate of produce had reference specially to river-irrigated land, and in the Godavery district, where the average is not so high, the calculations were made for land under that species of irrigation. The commutation rates adopted by Captain Mullins, namely, Rupees 132 per garce for Paddy, and Rupees 156 for Cholum, appear moderate and unobjectionable.

2. I doubt whether it will be found practicable to levy so high a water rate as that recommended by the Consulting Engineer, or that 25 per cent. of the profits estimated to arise from the conversion of the dry land into wet, will form the "considerable inducement" which it is allowed the ryot must have before he can be expected so to convert it, the more especially, as he will have in the first instance to incur the expense (estimated by Captain Mullins at Rupees 10 per acre) of preparing his land for irrigation. Not being acquainted with the locality, or the people, I am unable to judge how much they may be willing to pay for water. It is possible that circumstanced as they are, and with the remembrance of recent calamities arising from the want of it, fresh on their minds, they may be ready to pay more than the inhabitants of the more favoured delta districts would care to give. I observe however that, taking the Kurnool average of 880 Madras measures per acre, and the standard price at Rupees 132 per garce, and deducting only one-sixth for vicissitudes of season, in addition to the cultivation expenses, the proposed water rate itself, would more than swallow up half the net produce, now declared by authority to be the correct proportion to be taken by the State, leaving nothing whatever for the land assessment proper. The following are the figures:—

	Rs.	A.	P.
Value of net produce	15	7	0
Half do.	7	11	6
Water rate	8	8	0
Excess of water rate over half the net	0	12	6

or taking the Bellary estimate of 1,066 Madras measures per acre with the same commutation rate and deductions, the account would stand—

	Rs.	A.	P.
Value of net produce	18	14	9
Half do.	9	7	4
Water rate	8	8	0
Difference between water rate and half net available for land assessment	0	15	4

This is less than the present dry assessment, which is given by Mr. Wedderburn as Rupees 1-2-0 per acre.

3. It must also be remembered that much of the land will not produce 1,066 Madras measures per acre, or even 880 measures, and that in such cases, the proportion of the net produce swallowed up by the proposed water rate, will be still larger than that shewn above, and if, as is possible, the rate is found occasionally to amount not to 75 only, but to 100 per cent. of the profits arising from the conversion of the land from dry to wet, it cannot be expected that the ryots will invariably come forward to take the water, and I assume that they will have the option of taking or refusing it. They will not understand that the imposition of a water rate higher than that charged elsewhere, is consequent on the unusual costliness of the works, and necessary for the purpose of securing an adequate return for the outlay.

4. Should the high water rate, as hinted above, thus prove prohibitory, and deter the ryots from taking water for the inferior lands, the area under irrigation may be far smaller than the estimate now made, and the aggregate returns less than might be derived from the collection of a lower rate over a larger area. It is calculated that a rate of Rupees 8-8-0 on the first crop, and of Rupees 6-8-0 on the second, will produce a return of 13·38 per cent., or deducting 2½ per cent. for maintenance, 10·88 per cent. on the outlay; but this is on the assumption that 1,50,000 acres are watered for the first, and 1,00,000 for a second crop. A rate of Rupees 6 for each crop, on the above areas, would produce Rupees 15,00,000, a rather more than 10 per cent. on the amount of the estimate, or allowing for maintenance, 7½ per cent. A rate of Rupees 6 on the first crop, and a consolidated charge of Rupees 10 for the double crop on the same areas, would produce Rupees 13,00,000, or 9 per cent. on the estimate, or deducting for maintenance, 6½ per cent.

5. On the whole I do not recommend the adoption of a higher water rate in Bellary than that sanctioned for Kurnool. I believe that the immediate object in view in planning the works in question is not so much to obtain large remunerative returns, as to secure the locality concerned from all chance of future famine, and if this object is not only attained, but in addition, a fair interest on the expenditure is returned, the Government will no doubt be well satisfied.

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1. With their Order in the Revenue Department, dated 20th February 1867, No. 420, the Government referred to the Board the report from the Consulting Engineer for the Madras Irrigation and Canal Company upon the Toombudra Irrigation project, in view to the Board stating their opinion on the question of water rate after consulting the Collector of Bellary and the Officiating Director of Revenue Settlement.

2. The letters recorded above are the replies of these two Officers to the Board's requisition on the subject.

3. The Collector of Bellary considers that the water to be supplied by the new project would be well worth Rupees 10 per acre, if it were merely to feed existing tanks and irrigated fields; but he points out that the lands to be irrigated are far from the villages, and that huts will have to be built and villages formed. In view, therefore, to attract population and capital to the locality, he is in favour of a 5 rupees rate for the first three years, and a rate of Rupees 7-8-0 for the fourth to the tenth year. He considers that the question of water rate for a second crop had best be deferred until the completion of the storage reservoirs.

4. The Officiating Director of Revenue Settlement is also averse to so high a water rate as that proposed by Captain Mullins,* and points out that if adopted it would on the basis of the calculation as to produce, &c., absorb more than half the net produce of the land. He considers that the rate should not be higher than that sanctioned for Kurnool, and shows that a water rate of Rupees 6 for one crop, with a consolidated rate of Rupees 10 for two crops, would produce a return equal to 9 per cent. on the proposed outlay on the works, or 6½ per cent. on this amount after deducting the cost of maintenance.

* First year ... ... Rs. 5 0 0
Second do. 7 0 0
Third to 10th 8 8 0

5. The Board do not deem it necessary for them to analize, very closely, the calculations of the Consulting Engineer at this stage of the proceedings, for they presume that, if it be decided to permit the Irrigation Company to undertake the project, a careful inquiry will, in the first place, be directed into the productive powers of the lands to be irrigated, in view both to the assessment and the water rate being fixed as has been done in the Godavery, Kistna, and Kurnool districts.

6. The Statements of the Consulting Engineer as to the description of the soil to be irrigated, and the quantity of land likely to be brought under the influence of the works, are necessarily accepted by the Board as sufficiently correct to frame approximate estimates of the return from the outlay proposed to be incurred, but beyond this the Board are not prepared, at present, to adopt his calculations. Though the proposed commutation rate is very little more than one-third of the present ruling prices, it is considerably higher than any rate hitherto adopted by the Revenue Settlement

Department in any other district, and the estimated rates of produce are also, in the Board's opinion, unduly favourable when it is remembered that they are to be applied to a very large tract of land comprising soils largely differing in their productive powers.

7. The Board have, however, long urged upon Government the expediency of taking this work in hand from motives of sound policy. On a recent occasion they expressed their concurrence with the Collector of the district in considering that it was not a question of the comparative profits or advantages of a rain-fed or a river-irrigated cultivation, but of a certain against an uncertain supply of a necessary of life which would have saved a large amount of loss and suffering had it been available during the past year, and the Government fully concur in this view in their Order, dated 28th March 1867, No. 734.

8. Independent of these grounds, the indirect returns to Government obtainable from such a large addition to the wealth of the district must also be very considerable. The Land tax, exclusive of water rate on the area brought under cultivation, will be a large augmentation of revenue; for it is presumed that but very small ~~pro~~portions of the land which will be affected by the project are now yielding revenue to Government, and from the remarks of the Consulting Engineer, it would appear that a considerable portion of the tract is but sparsely inhabited. On these considerations alone, and quite independent of the return on the capital, the Board would earnestly recommend that Government should afford the Irrigation Company every reasonable assistance in raising the necessary funds and completing the work as rapidly as possible.

9. Roughly stated the cost of the works will be 1½ millions sterling, and they are calculated to irrigate 1,50,000 acres for one crop, and 1,00,000 acres for a double crop. The Consulting Engineer considers that the charges of management will amount to 2½ per cent. on the outlay, or to nearly £37,500; hence, if a further sum of £75,000 can be realized from the water rate, the works will pay all expenses, *plus* 5 per cent. on the money expended in their construction. A water rate of 10*s.* or Rupees 5 per acre on 1,50,000 acres will give a return of £75,000, and a second rate of Rupees 5 per acre on the double crop land will give £50,000. A water rate of Rupees 5 on each crop would thus produce £125,000, or 8½ per cent. on the capital expended, and, as the Board have no doubt whatever that the lands can bear these rates, they have no hesitation in recommending that the usual guarantee should be given to the Irrigation Company.

10. It remains to be seen whether the rate of 6 rupees per acre, for each crop now levied in Kurnool, is or is not too high; but the Board, looking at the circumstances of Bellary, are not prepared to object to a similar rate being levied in the latter district, but they would be certainly averse to fixing a higher rate except on the very fullest evidence as to the capacity of the land to bear it. The rates of assessment in the Bellary district were revised in 1853, and the highest consolidated rate for land bearing one wet crop is Rupees 12 per acre, and for land bearing two crops Rupees 18 per acre. The average assessment of the district paid by one-crop land is, however, Rupees 6-8-0 per acre, and for two-crop land Rupees 9-12-0 per acre, but the average paid by the one-crop land under the existing Toongabadra channels is Rupees 8¼ per acre. These rates were fixed when there had been a decline in the prices of all agricultural produce for upwards of thirty years, whereas prices have steadily risen during the last fifteen years. On the whole, therefore, the Board consider that the Irrigation Company may very safely reckon upon a water rate of Rupees 6 for one crop and Rupees 12 for two crops, the rates at present in force in the Kurnool district, and supposing the land assessment proper to vary from Rupees 2-8-0 to Annas 8 per acre, the highest rate would thus be Rupees 14-8-0, against Rupees 18 in other parts of the district; but the average rate would, of course, be somewhat increased, though it would not be in excess of Rupees 8¼, and the assessment and water rate levied on the very inferior lands would constitute a demand considerably in excess of that on similar lands in the other portions of the district. These anomalies are, however, inseparable from the system of charging a uniform water rate upon all descriptions of land of varying fertility. The rates in force in Kurnool as mentioned above, if applied to the Bellary project, would on the estimated calculations produce a revenue of 15 lacs of Rupees, or about 10 per cent. on the capital expended.

N.B. This is the proportion

Rates calculated for Bellary
per acre

Average last assessment	Rs. 6-8
Proposed	1-2
Deduct 20 per cent	5-6

Average gross rental	
Deduct 20 per cent	8-6
Net rental	5-2
Deduct 30 per cent	1-12
Half net produce	3-4
Deduct Cesses	0-12
Half net produce	2-8
Deduct Income tax	0-15-4
Half net produce	1-12-8
Deduct Cesses	0-12
Half net produce	9-7-4
Deduct Income tax	0-15-4
Half net produce	8-8
Deduct Cesses	0-12-6
Difference between value of land for assessment in Bellary district and Rs. 8-15-6	13-7-3
Rs. 8-15-6	8-15-6
Rs. 8-15-6	11-7
75 per cent of above	8-8-6

Capt. Mullens proposed rate
the second after three years.

1st year	Rs. 6
2d	7
3d & after	7-8

Collector's
2 the second after 10 years

1st 2 3 years	Rs. 5
4th & after	7-8

3/

Annual deduction
necessary for adoption
in Bellary, Cuddapah and
Bombay Rev. Settlt.

} Rs. 6. per acre for
Cultivation.

Half net produce calculated on Bellary data	L. 4. 8.
	— 9. 7. 4
Deduct 20 per cent	— 6. ". — "
Remain available for Land Tax	— 3. 7 — 4.

Rs. calculated on Annual data as now constituted	— 7. 11. 6.
Deduct as above	— 6. ". — "
Difference	— 1. 11 — 6.

I think that we could
fix the assessment at
a consolidated rate for
2 crops at present.
I request the opinion
of the Board of Rev.
L.K.

2. Aug 1857.

I think that we may
adopt the Annual data
for first and second
crops, but that it would
not be safe to calculate
on higher rates. They
should be in force
for [illegible] years at

We may safely adopt
the Annual data as advised
by the Board of Rev.
& the Board of Rev. I conclude
will recommend in those useful
& laborious reports which
of course will be made by Govt. to the
Secretary of State, such moderate assess-
ments as the probable cost of the
canal will require.
WM

I agree with my colleagues in thinking that the Harvard Rates ought adopted for first & second steps. I would however draw a distinction between the two distinct in connection with the same Company. But the question of a guarantee can't the entertained until the reservoir has been surveyed & estimated for. I am confident that R.T. 12. for the whole will not be exceeded for the high. level will be rather high a low tide and decidedly low one

Chris. N.

Pro: 26 July 1867 No 3/1.2

Rev. 1867. Department.
Pro of Govt for Sept.

No. 1927.

PROCEEDINGS OF THE BOARD OF REVENUE.

Dated 19th July 1867.
Dep 22
Rec 232

No. 4,556.

Submitting opinion on question of water rate to be levied by Irrigation Company on lands irrigated by Toombadra Canal in Bellary district and recommending that usual guarantee be given to the Company.

No 78

Rec'd Aug 1 1867 22