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MADRAS RECORD OFFICE.

Government of Madras.

Financial DEPARTMENT.

G.O. No. 210 Press / Mis.

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Proceedings of the Madras Government, Financial Department,
28th April 1868.

No. 46. Read the following Proceedings of Government in the Public Works Department, dated 20th April 1868, No. 1184.

Passing orders on a report on improving the Revenue Accounts of the Irrigation Works in this Presidency. (Vide Proceedings, Public Works Department, dated 20th April 1868, Nos. 302 and 303).

No. 47. ORDER THEREON, 28th April 1868, No. 210.

To be recorded.

(Signed) R. S. ELLIS,
Chief Secretary.

Exd. F. R. Bantleman.

Proceedings of the Madras Government, Public Works Department, 20th April 1868.

No. 302. Read the following letter from the Inspector General of Irrigation Works, Second Member of the Board of Revenue, and the Chief Engineer for Irrigation, to the Secretary to Government, Public Works Department, dated Madras, 17th February 1868:—

1. We have the honor to acknowledge the Order of Government, dated 12th February 1868, No. 487, Department Public Works, and to inform you that prior to its receipt, as time was a great object, the various subjects therein mentioned were discussed by us with the collective Board of Revenue.

2. We have the honor to enclose a Memorandum of the result of our conference.

3. We have forwarded a copy of the Memorandum to the Board of Revenue, who, we beg to add, unanimously concurred in it.

MEMORANDUM of the results of a conference at the Board of Revenue of Madras, on the questions relating to Irrigation works, referred to in the Resolution of the Government of India, Public Works Department, No. 101, *dated* 1st *February* 1868.

1*st.—Exhibition in the Public Accounts of Receipts and Expenditure, of the Revenue dependent on Irrigation works, and the charges incurred upon them, under separate heads.*

1. The advantage of making the proposed separation, on the general grounds mentioned by the Government of India, was considered.

2. It was presumed that the introduction of additional heads of account would not be objected to in the Financial Department.

3. On a full discussion of the subject, it was agreed that the end in view would best be attained by adopting the following general course.

4. The present head of "*Land Revenue*" to be divided into two, "*Land Revenue, Ordinary,*" and "*Land Revenue, Irrigated.*" This sub-division to be made both on the credit and debtor side of the Account.

5. The Revenue under "*Land Revenue, Irrigated,*" to include the whole aggregate income derived from Irrigated lands, whether received in a consolidated assessment, or in separate items of *Land Revenue* and *Water Rate.*

6. In Madras, any distinction between the income due to land, and that due to the application of water to the land, could in the majority of cases only be established in an arbitrary and imperfect manner; and though it would be possible to do this, the advantage of attempting such a separation of the elements of the income obtained from Irrigated land is not very evident, and all that is aimed at could, it is thought, be at least as well obtained by exhibiting the *whole* revenue derived from the irrigated land as a separate sub-head of the public accounts.

7. To take this course will have the great advantage, as regards Madras, of admitting the adoption of the figures given in the existing Revenue accounts, without any change at all, as the basis of the new proposed entry.

8. Colonel Strachey remarked that, as regards the North-Western Provinces and the Punjab, the simple water rate is not a proper index of the revenue due to the irrigation of land, and in many cases now, and hereafter universally, it would be necessary to add a certain portion of the Land Revenue to the Water rate to arrive at a just estimate of the total value of the water to the State. In these Provinces, therefore, a good deal of complication will also be avoided by adopting the course proposed.

9. It may further be added that in many parts of the country a complete failure of the water supply would in practice involve a complete loss of the whole revenue, whether the assessment were made in a consolidated rate or otherwise; and that in point of fact, the whole of the revenue derived

from Irrigated lands is more or less completely dependent on the proper maintenance of the works which supply them with water.

10. On the whole, having in view that the system to be adopted should be fairly applicable to all the Provinces of India, what has been suggested appears to be the best practicable.

11. The receipts under "Land Revenue, Irrigated," will include, therefore, the whole Land Revenue on Irrigated lands when levied in a consolidated rate, and both the whole Land Revenue and the Water rate on such lands, when the latter is separately charged. Also all the Miscellaneous items of income derived from the Irrigation works will be included under this head; and with the water rate these will be wholly excluded from "Public Works" income.

12. It may be left for consideration in the Public Works Department, whether the income from Navigation on Canals of Irrigation, shall be kept under the head of Public Works, or thrown under the head of Land Revenue, Irrigated. The amount concerned is not large, and whatever course is practically most convenient, may safely be adopted.

13. The charges under "*Land Revenue, Irrigated,*" would include the following items:—

First.—The cost of all new works constructed from Revenues, and all outlay for repairs and maintenance.

Second.—A proportionate charge for the Public Works Establishments employed on construction and maintenance, and all special establishment charges incurred for the works.

Third.—A proportionate charge for the cost of the Land Revenue Establishments with any special charges of a like description.

Fourth.—The interest on the special grants obtained by loan applied to the construction of new works.

The revenue and charges under the head of "*Land Revenue, Ordinary,*" would include all sums not entered under "*Land Revenue, Irrigated,*" which now fall under "*Land Revenue.*"

14. The detailed control and audit of the income and expenditure under the several heads would remain as at present, the needful transfers being made in the customary manner now in force by the local Accountant General or Public Works Controller to the new heads of account.

15. The Revenue Board desired to have it placed on record that their assent to the separation of the "Irrigation" revenue from the general Land Revenue was given on the distinct understanding that the separation was to be solely a Financial or Budget arrangement, designed to show the Home and Supreme Governments at a glance, the "Irrigation" or "Nunjah" Revenue of the Presidency, and was not to be the precursor of the transfer of the collection of that Revenue, of its assessment, of the determination of disputes, &c., &c., from the Revenue authorities, by whom these duties are now discharged, to the Irrigation or Public Works Department. The Board being convinced that in this Presidency, Irrigation laws, rights, and privileges, are so interwoven with, and form so essential a part of the Land Tenure, that no such transfer could be effected without the most seriously injurious consequences alike to the interests of the State and the people, and would be highly unacceptable to the latter.

16. With reference to the above remarks of the Revenue Board, Colonel Strachey desired to observe, that whatever might be his own opinions on the subjects mentioned, he was satisfied that the Government of India would never think of pressing for the adoption of any system of management for the Irrigation works of this Presidency which was not approved by the Madras Government.

2nd.—The form of Revenue Account to be adopted for Irrigation works.

17. Colonel Strachey handed in a copy of a letter addressed by him to the Government of India on the general principles that seem to call for attention in dealing with this subject. This paper is annexed.

18. It was agreed that the principle to be followed in reckoning the profits of Irrigation works should be that explained in paragraph 7 of this letter, namely, that the entire income of Government derived from the land irrigated in each year, including both the whole Land Revenue and any Water rate, should be compared with the whole income derived from the same land before the works were constructed, and that the difference should be considered the gross increase of income due to the irrigation. In this manner all conjectural estimates are excluded, and the actual facts only are dealt with.

Proceedings of the Madras Government, Public Works Department,
20th April 1868.

19. Adopting this principle, it follows of course that a similar comparison must be made between the charges in the current year and those of the anterior period, and any increase of charge will become a deduction from the gross increase of income as above estimated.

20. In practice it will be more convenient to let the yearly account show the current charges without deduction, and to make the needful allowance for the charges before the works were constructed by deducting them from the former gross income and then comparing the former net income with the present gross income. The result will obviously be identical whichever plan is followed. A sketch of the form of such an account is annexed, in which the several entries likely to appear are introduced.

21. An account in this form will be applicable to all irrigation works in all parts of India, and any special details considered necessary for any purposes of local control or comparison, can of course be introduced with facility.

22. It will be desirable to adopt an uniform system of classification of the elements of cost of new works in order to obtain some standard by which to compare the character of works constructed in various parts of the country and under various conditions. The same classification will, with very few changes, accommodate itself to the comparison of charges for maintenance.

23. A common classification of the main heads of income and expenditure will also be convenient, and can easily be adopted.

24. The annexed papers show the classification suggested by Colonel Strachey and assented to by Lieutenant-Colonel Anderson. These details are of a nature to call for no special comment in this place, and may be best settled in the Public Works Department.

25. It is understood that special Revenue Accounts will only be rendered for the larger class of Irrigation works, and for those works to which grants of money obtained by loan shall be made. So far as it is practicable also minor works which form part of one system of supply, might be combined, so as to exhibit their financial results in one account. It is not desirable to increase the number of separate Revenue accounts, and all that is needed may, it is believed, be secured without extending these Statements very greatly.

3rd.—The requirements of the Minor Irrigation works in the Provinces of Madras.

26. Having regard to the great importance of the smaller works of irrigation, it was agreed that it would be desirable to reduce the limit which has been placed to the application of money obtained by loan from works costing 100,000 Rupees, to works costing 25,000 Rupees. It is hoped that for the present this may give a sufficient additional sum for the smaller works to admit of all that are of pressing importance being put in hand.

27. As regards the grants from Revenue for maintenance, the Revenue Board expressed their adherence to certain recommendations which they have already made to the Government of Madras on the subject; but it did not seem expedient to discuss those proposals on the present occasion. Supposing, however, that the present general system continued in force, it was thought that a somewhat increased grant for maintenance should be asked for, if the Government of India would be prepared to make it in addition to the customary grant to Madras. It was considered that the Madras Government would not be able to increase the grant for Irrigation repairs at the expense of the other services to be provided for from the General Public Works grant to Madras, and that no such increase, therefore, could be hoped for unless given as an absolute addition. It was believed that the immediate result of such an increase in the outlay on this class of works, would be improvement to the Revenue to a still greater extent. The sum of fifteen lacs was named as an amount which in the opinion of the officers of the Madras Government could certainly be profitably laid out annually on the repairs of this class of works, the present grant being about eleven lacs.

It would, however, be desirable to make this additional grant applicable at the discretion of the Madras Government, either to minor new works or to repairs. It was, therefore, agreed to advise that the increase to the grant from Revenue which would raise the total amount for new minor works and repairs to twenty lacs against fifteen lacs assigned for the coming year, should be allowed in the manner above explained, on the understanding that it would be made exclusively for Irrigation works, and would not be transferable to other works.

(Signed) R. STRACHEY, Colonel, R. E.,
Inspector General of Irrigation Works.

(Signed) J. D. SIM,
Second Member of the Board of Revenue.

MADRAS,
15th February 1868.

(Signed J. C. ANDERSON, Lieut.-Colonel, R. E.,
Chief Engineer for Irrigation.

CLASSIFICATION OF WORKS.

A. TEMPORARY WORKS, to maintain and regulate supply.

B. COST OF LAND—
- *a.* Main Canals and Branches.
- *b.* Distributing Channels.

C. MASONRY WORKS—
1. *Main Canals and Branches*—
   - *a.* Dams and Regulating works.
   - *b.* Falls and Weirs.
   - *c.* Aqueducts and works to divert or pass drainage across the land.
   - *d.* Escapes.
2. *Distributing Channels*—
   - *a.* Head Sluices and Regulating works.
   - *b.* Falls and Weirs.
   - *c.* Aqueducts.
3. *Drainage*, works to provide for the surface drainage of lands traversed by the Canals
4. *Supply of Tanks*, including waste weirs, inlets, and sluices of such tanks.
5. *Road bridges*, not being combined with works for other purposes—
   - *a.* Main Canal and Branches.
   - *b.* Distributing Channels.
6. *Navigation*, works mainly or essentially designed for navigation.
7. *Mills and application of water-power.*
8. *Buildings*, for Offices, Establishments, Stores, Workshops, &c.

D. EARTH-WORKS—
1. *Main Canals and Branches*—
   - *a. Excavation of bed.*
   - *b. Embankments or protection of banks.*

In first construction, where embanked channels are formed in connection with excavated beds, they would be classed under (*a*), it being intended that Class (*b*) should apply to channels formed by embanking natural river beds, and to works for the protection of the banks of such channels.

In maintenance, all clearances would fall under Class (*a*) and the protection or repair of banks under Class (*b*).

   - *c Diversions of drainage*, crossing the Canal.
   - *d. Escape Channels.*
2. *Distributing Channels*—
   - *a.* Excavation, } as above explained.
   - *b.* Embankments, }
3. *Drainage*, for surface drainage.
4. *Supply of tanks*—
   - *a.* Embankments for Reservoirs.
   - *b.* Channels of supply or escape.
5. *Navigation channels*, restricted as in the case of the masonry works.
6. *Mills and application of water-power* ; channels to supply such works.

E. NAVIGATION PLANT—
1. Steamers.
2. Boats.
3. Stores and other plant.

F. MACHINERY FOR MILLS, &c.

Revenue Account of the *for the year* 1867-68.

Expenditure.			Receipts.			
1. *Works of Maintenance and Repair.*			1. *Irrigation.*			
Temporary works	...		Land Revenue on irrigated area ...		...	
Masonry do.	...		Water-rate		...	
Earth do.	...		Acres, Total ...		...	
Navigation plant	...		*Deduct*—			
Water-power machinery.	...					
Total ...	...	...	Land Revenue on irrigated area before construction of works	...		
2. *Establishments.*			Less charges of collection, &c.	...		
General	...		Net deduction...		...	
Revenue...	...		Gross increase of revenue from irrigation			...
Navigation	...		2. Produce of land and plantations			...
Plantations	...		3. Navigation			...
Total ...	...	...	4. Water-power			...
3. *Compensations and Remissions.*			5. Miscellaneous			...
For short supply	...					
,, flooding	...					
,, other causes	...					
Total ...	...	...				
Total expenditure ...	...	...				
Balance profit——per cent. on Capital	...	...				
Grand total ...	...	...	Grand total ...			

Memorandum of Interest Account.

	Interest at five per cent.	Other charges.	Total.
Former balance brought forward	...	...	...
Add for the current year.	...	...	...
Total ...	...	...	...
Deduct for the current year	...	...	...
Balance of profit ...	...	...	...
Balance ...	...	...	...

Memorandum of Capital Account.

	Works.	Establishments	Total.
Former outlay brought forward	...	...	...
Outlay for the year 1867-68	...	...	...
Total ...	...	...	...

(N. B.—This account would cease when all arrears of Interest are paid off.)

CLASSIFICATION OF ESTABLISHMENTS AND CHARGES FOR COLLECTION.

A. GENERAL.
1. *Direction*—
Engineering.
Office.
Accounts.
2. *Executive*—
Engineering.
Office.
Water Regulation.
3. *Medical.*
4. *Survey.*

B. REVENUE.
1. Share of Land Revenue Establishments.
2. Special Canal Establishments.
3. Fees and Allowances.

C. NAVIGATION.
1. General control.
2. Working locks.
(and any others necessary.)

D. PLANTATIONS.

E. COMPENSATIONS AND REMISSIONS.

In each case charges for contingencies would appear under the head with which they arose.

No. 303. ORDER THEREON, 20th April 1868, No. 1,184.

IRRIGATION, No. 10.

1. In the Proceedings of the Government of India of the 1st February 1868, No. 101, the Government were advised of the deputation to Madras of the Inspector General of Irrigation Works for the purpose of considering, in communication with the Officers of this Presidency, the propriety of introducing an improved system of framing the Revenue Accounts of Irrigation Works with a view to the exhibition of that revenue in the annual accounts of the Empire under a separate and distinct head, and of determining the mode in which it may best be possible, with due regard to financial considerations, to assist the improvement or restoration of the numerous minor agricultural works in the several districts.

2. Agreeing in opinion with the Government of India that these important matters could best be arranged by personal communication between the Officers of this Government and the Inspector General of Irrigation Works, His Excellency in Council was pleased to direct that Mr. J. D. Sim, as a Member of the Board of Revenue, and the Chief Engineer for Irrigation should be associated with Colonel Strachey for the purpose of discussing and reporting on the points adverted to in paragraphs 6 to 15 of the Orders of the Government of India.

3. The letter recorded at the head of these Proceedings gives cover to a Memorandum of the results of a conference held by those Officers on the questions relating to Irrigation Works which were remitted for their consideration in the Order of the 12th February 1868, No. 487. The various subjects are reported to have been discussed with the collective Board of Revenue, who, it is added, unanimously concur in the views and recommendations of the Committee.

4. On the first of the points above mentioned, viz., the propriety of introducing an improved system of framing the Revenue accounts of Irrigation Works, the Committee, assuming that no objection would be raised in the Financial Department to the introduction of additional heads of account, give it as their opinion that the proposed separation of the Irrigation Revenue from the general Land Revenue of this Presidency would best be attained by the sub-division, both on the credit and debtor side of the account, of the present head "Land Revenue" into "Land Revenue, Ordinary," and "Land Revenue, Irrigated." The latter

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will include the whole income derived from irrigated lands when levied in a consolidated rate, and the whole land revenue as well as the water rate on such lands when the latter is separately charged, as also the Miscellaneous items of income derived from Irrigation Works, which, together with the water rate, will then be excluded from Public works income. The charges to be entered under "Land Revenue, Irrigated," will be those noted in the margin, and the revenue and charges under "Land Revenue, Ordinary," will include all sums not entered under "Land Revenue, Irrigated," which now fall under "Land Revenue."

The cost of all new works constructed from revenues, and all outlay for repairs and maintenance.
A proportionate charge for the Public Works Establishments employed on construction and maintenance, and all special establishment charges incurred for the works.
A proportionate charge for the cost of the Land Revenue Establishments with any special charges of a like description.
The interest on the special grants obtained by loan applied to the construction of new works.

5. The assent of the Board of Revenue to the separation of the Irrigation Revenue from the general Land Revenue has been given on the distinct understanding that such separation is under no circumstances to be followed by the transfer of the duty of collecting that revenue from the Revenue authorities to the Public Works Department.

6. Looking to the growing expenditure on agricultural works and to the large grants which it is probable will hereafter be made available from borrowed capital for the extension of irrigation in this Presidency, the Government fully recognize the necessity and importance of recording in a distinct form in the annual accounts the results of the Irrigation outlay on the revenue and charge of each year. Concurring however in the opinion of the Board of Revenue that a change in the system under which the Irrigation Revenue is collected in this Presidency is neither necessary nor desirable, the Government of India will be informed that His Excellency in Council agrees to the change recommended by the Committee on the assurance that the proposed separation of the Irrigation Revenue is to be carried out solely as a Financial or Budget arrangement, and to be confined to the accounts.

7. Adverting to paragraph 12 of the Committee's Memorandum, the Government consider that no change should be made in the mode of dealing with income derived from Navigation on Canals of Irrigation. Such receipts will continue to be credited in the accounts of the Public Works Department.

8. The principle to be followed in reckoning the profits of Irrigation works, as explained in paragraphs 18 to 20 of the Committee's Memorandum, as well as the form of Revenue Account appended to the Committee's report, and the classification of the main heads of income and expenditure proposed by Colonel Strachey and agreed to by the Chief Engineer for Irrigation, are approved.

9. The Board of Revenue will be requested, through the Revenue Department, to take measures, in communication with the Accountant General and the Controller of Public Works Accounts, for giving effect to the changes sanctioned in these Proceedings, and the latter Officer will at once arrange for the maintenance of special Revenue Accounts for the classes of Irrigation Works referred to in paragraph 25 of the Controller's Memorandum.

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20th April 1868.

10. With regard to the manner in which it may best be possible to provide for the requirements of minor Irrigation works in the Districts of this Presidency, the Committee propose that the minimum cost of works to be undertaken from money obtained from loan should be reduced from Rupees 1,00,000, as originally fixed, to Rupees 25,000. This arrangement will provide the means of carrying out improvements on a class of very useful works, which, in this Presidency, are both numerous and generally of a highly remunerative character. With respect to the allowance to be made from the general revenues for agricultural works, the Government concur in opinion with the Board of Revenue that the grant of about 15 lacs for Ordinary Irrigation new works and repairs in 1868-69 should be increased in future years to 20 lacs, the additional assignment being made available, at the discretion of the Government, for either minor new works or repairs, and as it will be absolutely impossible to diminish the allotments under other heads of service to make up the amount, His Excellency in Council will recommend to the Government of India that an *extra* grant to the required extent be hereafter made to Madras, pending the adoption of an improved system for providing for the repair and maintenance of minor Irrigation Works; a subject which will receive the early consideration of the Governor in Council.

(True Extract.)

Colonel, R. E.,
Secretary to Government.

To the Superintending Engineers.
To Captain Kennedy.
To the Controller of Public Works Accounts.
,, Accountant General.
,, Financial Department.
,, Revenue Department.

Exd. T. Cartledge.