M.R. O. 1—30,000—16-10-29.

MADRAS RECORD OFFICE.

Government of Madras.

Revenue **DEPARTMENT.**

G.O. No. 2578 Press ~~Mis.~~

Dated 7 — 10 — ~~19~~ 1868

Not to be folded or roughly handled

Proceedings of the Madras Government, Revenue Department, 7th October, 1868.

No. 122. Read the following Proceedings of the Madras Government in the Public Works Department:—

Passing orders on the letter from the Chief Engineer for Irrigation proposing certain additions to, and alterations in, the form of Irrigation Registers. } (Here enter 30th September, 1868, No. 3,071.)

No. 123. ORDER THEREON, 7th October, 1868, No. 2,578.

Irrigation, No. 5. Communicated to the Revenue Board.

(True Extract.)

(Signed) H. SEWELL,
Acting Under Secretary to Government.

To the Board of Revenue, with Proceedings Public Works Department, No. 3,071.

Exd. F. R. Bantleman.

Govt. of [1868] Irrigation

REVENUE.

To

THE BOARD OF REVENUE.

Dated October, 7th.

Read.

Encl.

G. O., 7th October 1868, No. 2,578.

OCTOBER.

Nos. 122-123.

Irrigation Registers.—Order authorising the adoption, in all delta talooks, of the form used in the Godavery District, communicated to Revenue Board

Proceedings of the Madras Government, Public Works Department, 30th September 1868.

No. 551. Read the following Endorsement of the Chief Engineer for Irrigation, dated Fort St. George, 4th September 1868 :—

Read the following letter from the Superintending Engineer, 6th Division, to the Chief Engineer for Irrigation and Joint Secretary to Government, Public Works Department, dated Tanjore, 29th July 1868, No. 477.

1. With reference to G. O., No. 2,234, dated 13th instant, I have the honor to request that you will be good enough to inform me whether the Register you propose is to be confined to tanks, or is to include information regarding the cultivation, &c., under the deltaic rivers and channels.

2. If to the former only, I would suggest that under column 2, Ayacut, there should be a sub-head, showing the area which appertains to Government, distinctly and separately from that possessed by Inamdars, &c.; this is very necessary, because very many of the tanks in the Tanjore and Puttucotta talooks are the joint property of Government and Inamdars, &c., and though, from the Government assessment, it might appear that a tank was not worth keeping up, and as far as the Government share, or the return to Government was concerned, it might not be so: when taken as a whole, and the property of the Inamdars was considered, it might prove to be worthwhile to maintain it, and under G. O., No. 429 of the 27th February 1863, it would be the duty of Government to maintain it. It would appear that a large number of tanks both in the Tanjore and Puttucotta talooks* are Inam or Poliput tanks, *i. e.*, the lands† have been bestowed upon the proprietors or their predecessors and no revenue is paid upon them, or they are lands‡ held by the descendants of petty feudatory Chiefs of the late Rajahs of Tanjore, and the tax derived from them is almost nominal, or at any rate far below that derived from Government lands.

Ayacut.

Government.	Inam or Iluka.

* 208 Government Villages.
† 796 Inam or
‡ Poliput.

3. If the deltaic rivers and channels are to appear in the register, I would suggest that all channels which supply less than twenty vaylies, or 132 acres, should be entered together, and the revenue given in a lump sum. It is but seldom that channels which irrigate so small an area are cleared at the cost of Government, for the estimates generally fall within one and a half or two per cent. of the revenue, and the work, if executed at all, has to be carried out by the villagers: here again the Government and other lands must be shown separately, for there are no less than 11,807 vaylies* in the delta which are not the property of Government.

* Under Cauvery	5,029
,, Vennar	6,778
	11,807

Vaylie = 6·6· Acres.

4. I forwarded a copy of a rough draft of the original letter I purposed to send to you on this subject to the Collector, and I may state that the suggestions made by me have met with his approval

From the Superintending Engineer, 1st Division, to the Chief Engineer for Irrigation, dated Dowlaishweram, 15th August 1868, No. 95.

1 Circular.
3 Forms.

With reference to G. O., No. 2,170, dated 8th July 1868, I have the honor to forward the form of Irrigation Registers which appears to me suitable for the Godavery Delta, with copy of my Circular to Range Officers, explaining how it should be prepared.

No. 1—Is one page of the Register.

No. 2—Is one page of the Abstract of Register by branches.

No. 3—Is the Abstract of the whole for one Delta.

No. 118.

CIRCULAR.

1. It is desirable that a correct account of the area of land dependent on each channel in the Godavery Delta should be kept, (1) in order that the supply of water should be fairly distributed, (2) as the check on the revenue returns, and (3) to support any plans of improvement or extension of the canal system of the delta.

2. I have the honor to request you, therefore, to prepare such an account at your convenience, *i. e.*, as opportunity offers on your ordinary tours of inspection.

3. In compiling the Account or Register, I think the best plan would be to have a separate book for each main canal; a chapter of the book to each reach; a page* for each branch; and a line for each village. The branches should of course be entered in the order in which they come, from the head downwards. The information to be entered on each village line would be, (1) the area under irrigation; (2) additional area which could and would be irrigated if more water were supplied; (3) total area of village.

* Right-hand page for branches taking off from right bank, Left for do. for left.

4. The authority for an entry would be the village accounts, checked by occasional computation of areas, by plotting them into the Revenue Survey village maps, for which purpose I will obtain for you the maps of a certain number of villages to be selected by you.

5. At the head of each page would be noted the distance in miles and eighths from the head of main; B. M. level, if any; the dimensions of the branch head sluice, and the ordinary depths of water on its floor in front and in rear with the sluice open; the water section of the branch, and its length. The branches on the map would of course be numbered according to the numbers of the pages on which they are entered.

6. Though it will no doubt be out of the question to expect an accurate exhibition of the statistics of irrigation in the Delta by such a register, yet it can, I am sure, be made sufficiently correct to be of very great use; I trust, therefore, you will not find its preparation (by degrees and without interference with your regular duties) more than what you can undertake.

(Signed) J. G. RYVES, Captain, R. E.,
Superintending Engineer, 1st Division.

WALTAIR,
20th *May* 1865.

Proceedings of the Madras Government, Public Works Department, 30th September 1868.

No. 1.

NURSAPORE CANAL.

Peruvelly—1st Reach—Itempudi.

Section of sluice vent.



5th or Cherucuvada branch.
Level of sluice floor + 15 feet 2 inches.
Ordinary water level in branch above sluice floor 3 feet 6 inches.
Distance from head of Reach, 5 miles
Length of branch channel, 2¼ miles.

Villages.	Area of Village.	Probable ultimate area to be irrigated.	Irrigated Fusly 1275.		As per Revenue Survey.
			1st Crop.	2nd Crop.	
Itempudi	123·86	92	91·6	33·40	Figures and names marked thus* mean that this village receives water from other irrigation branches.
* Pikiru	* 1307·97	56	56·22	45·39	
Eletipad	266·96	110	105·64	8·14	
* Cherucuvada	* 1583·21	602	541·73	74·62	
Gavuvanta Kandrika.	15·0	6	6·48	3·38	
		866	801·67	164·93	

(Signed) J. G. RYVES, Captain, R. E.,
Superintending Engineer, 1st Division.

No. 2.

NURSAPORE CANAL.

	Peruvelly.	1st Reach.	Itempudi.
Distance from anicut head. ...	16¾ miles	to	22½ miles.

Villages.	Area of Village.	Probable ultimate area to be irrigated.	Irrigated Fusly 1275.	
			1st Crop.	2nd Crop.
6th or Ogidi branch	...	894	894	22
5th or Cherucuvada	...	866	802	165
4th or Gogunta	..	67	67	76
Rapaka channel	...	11,490	8,508	274
2nd or Vippurru	...	4,511	3,858	13
1st or Gorincala	...	529	406	.....
Small sluices and palmyra spouts	...	1,128	1,011	3
	...	19,485	15,546	553

(Signed) J. G. RYVES, Captain, R. E.,
Superintending Engineer, 1st Division.

No. 3.

GODAVERY.

Western Delta.

Villages.	Area of Village.	Probable ultimate area, 1st Crop.	Cultivated in Fusly 1275.	
			1st Crop.	2nd Crop.
47—				
5th or Nursapore Reach...	...	5,122	2,943	146
36—				
4th or Palcole do.	...	7,406	4,870	290
30—				
3rd or Kavitem do.	...	7,643	4,791	330
27—				
2nd or Martair do.	...	15,694	11,622	692
22—				
1st or Itempudi do.	...	19,485	15,546	553
17—Nursapore Canal, Total	...	55,350	39,772	2,011
Booppya Channel	...	11,200	9,731	631
17—				
Bank Canal...	...	26,900	17,128	1,481
16½—				
Kakarrapurru Reach	...	3,930	2,679	151
Total ...	...	97,480	69,310	4,274
Yunnamaduru drainage	...	.....	4,566	150
7½—Gostanuddy	...	26,000	14,552	460
Total Kakarrapurru main duct	...	1,23,480	88,428	4,884
6—Ellore Canal	...	45,000	27,544	2,600
Uttelly	...	31,440	21,270	2,012
		76,440	48,814	4,612
Rudroykodu	...	17,500	2,909	.....
Bondada drainage	...	...	962	.....
Weyairu reach	...	5,500	12,824	66
		23,000	16,695	66
Chinnakappaveram Channel	...	16,300	14,170	168
Undi Channel	...	60,000	36,058	4
Venkyah reach	...	7,500	5,690	9
Total Venkya and Weyair...	...	1,06,800	72,613	247
Total of Western Delta	...	3,06,720	2,09,855	9,743

(Signed) J. G. RYVES, Captain, R. E.,
Superintending Engineer, 1st Division.

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1. The above letters convey a request on the part of the Superintending Engineer, 6th Division, for information on certain points connected with the Irrigation Registers ordered by Government in G. O., No. 2,234, dated 13th July 1868, and the reply of the Superintending Engineer, 1st Division, to G. O., No. 2,170, dated 8th July 1868.

Proceedings of the Madras Government, Public Works Department, 30th September 1868.

2. With reference to paragraph 2 of Captain Oakes' letter, I would recommend that the Registers should include particulars of Inam cultivation, but instead of adding columns, in the manner suggested, I would prefer having the Inam cultivation shown in the following manner :—

1 Name of work.	2 Ayacut.	3 Full assessment.	4 Actual cultivation.	5 Assessment.
Tank or Channel .. Government ...	.....	.....	.....	.....
Tank or Channel .. Inam	.....	.....	.....	.....

the form agreeing in other respects with that already approved of by Government.

3. In column 5 the assessment for the Inam lands should be the quit-rent or actual charges made by Government, and this should be clearly understood, as it is a common practice to enter in returns of cultivation under tanks and channels, the assessment on which the quit-rent is based, and not the quit-rent itself or the actual collections, and erroneous conclusions may thus be arrived at regarding the amount of revenue dependent on any particular tank. The assessment in column 5 for Government land should also represent actual collections or charges.

4. As regards the Irrigation Registers for the Deltaic Districts, I have lately had the opportunity of discussing the subject with the Superintending Engineers, 1st and 2nd Divisions. As the forms now submitted by the former Officer show, the preparation of the Registers for the Godavery Delta is already in a very advanced stage. In the Kistna, although Registers have not been systematically kept up, I learnt that the Range Officers obtained, with the authority of the Collector, by-monthly returns from the village authorities (Inam and Zemindary as well as Government) for each sub-division of the delta talooks, showing the quantity of land brought under wet cultivation during the fortnight, and that similar returns were sent in monthly by the Range Officers to the Superintending Engineer, who thus had the means of judging of the quantity of water required in each village in the Delta, the periods at which different proportions of wet cultivation were commenced, and consequently the probable time of maturity. When information of the nature above described can thus be obtained by the Superintending Engineer, there cannot evidently be any difficulty in having complete Registers kept up from year to year.

5. The forms drawn out by Captain Ryves appear to me to be remarkably well devised and complete, and they are quite approved of by Colonel Winscom. A few words may be necessary to explain them. A main canal is divided into sections several miles in length, and, as a rule, extending from lock to lock. These sections are termed *reaches*. (2).—The channels taking off water from each reach are then classified, large branches being separately dealt with. (3).—The villages under each channel are exhibited in a separate statement. Form I, is a specimen of the last named statement; II, of the channels under a reach, and III, is an abstract of the cultivation in a complete section of the Delta.

6. In communication with the Superintending Engineers, I have arranged a

classification of the main canals and branches of the Godavery and Kistna, all minor works being considered distribution channels under them. It has also been arranged that all estimates for Irrigation works in the Deltas, excepting those for the anicut, river improvement, and drainage, shall be exhibited under one or other of these heads, and the same as regards the expenditure. So, that I hope the Government will shortly have it in their power to compare the area of cultivation and revenue with the expenditure under each of the main channels in the Deltas in question. I propose to have a map prepared to illustrate the arrangement; for the present, I merely enumerate the channels.

GODAVERY DELTA.

Eastern Delta.

1. Main Canal or Cocanada Canal.
2. Bank Canal.
3. Coringa Canal.
   Ingeram Channel (branch).
4. Samulcotta Canal.
5. Mundapett Canal.

Central Delta.

1. Ralle Main Canal.
   Bendamoor lunka Channel (branch).
2. Gunnarum Canal.
   Nuggerum Channel (branch).
3. East bank Canal.
   Ayanapooram Channel (branch).

Western Delta.

1. Main Canal.
2. Ellore Canal.
3. Wayairoo.
   Oondee Channel,
   Chinnakappaveram Channel, } branches.
   Rudroycodu,
4. Attalle Canal.
5. Nursapoor Canal.
   Boopiah Channel,
   Rapaka Channel,
   Churchuvada Channel, } branches.
   Jennoor Channel,
   Gosta Nuddee,
6. Bank Canal.

KISTNA.

Eastern Delta.

1. Ellore Canal.
   Boodimair branch.
2. Ryves' Channel.
   Goodivada branch.
3. Masulipatam Canal.
   West side Channel.
4. Pullairoo.
   East Channel, Masulipatam Canal.
   Buntoomully branch.
   Pulraz Codu.
   Culdindy branch.
5. Bank Channel.

Western Delta.

1. Nizamapatam Canal.
   East side Channel.
   West side Channel.
2. Bank Channel.
   Vellatur branch.
   Isakapully branch.
3. Commamoor Channel.
   Toongaboodra branch.
4. Southern High Level Canal.

7. To enable the Superintending Engineers to compile Registers on the same principle as that in operation in the Godavery, I would recommend that printed lists of the villages in Delta talooks, with headings corresponding to those of the form approved in G. O., No. 2,234, dated 13th July 1868, and with the additions particularized above in paragraph 2, should be sent annually to the Collector by the Superintending Engineer for the purpose of being filled in. It will probably facilitate matters, if the Superintending Engineers can obtain, with the authority of the Collector, the required information direct from the village authorities, and merely have it checked in the Collector's Office.

8. The Channel Registers will show only areas of cultivation, but an abstract should also be made for each year of the Ayacut assessment, and actual collections, Government and Inam, under each main canal and branch.

9. A new settlement of the Godavery and Kistna Districts has recently been made on the basis of the Revenue Survey. Complete accuracy should therefore be attainable there. In the Pennair Delta in Nellore, there will also be no difficulty in preparing accurate returns. The same accuracy cannot be expected in Tanjore, to which the Revenue Survey was not extended, and where the difficulty of obtaining statistics of the land under cultivation has always been experienced by the Officers of the Department Public Works. But I hope that the Officers in the Tanjore and other districts watered by the Cauvery, under which irrigation has been carried to a higher standard than has been attained in any other part of India, will not, so far as any effort on their part may avail, allow themselves to be outdone by those in the Northern Deltas, in the preparation of correct returns of the irrigation under each of the large channels in their charge.

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

No. 552. ORDER THEREON, 30th September 1868, No. 3,071.

IRRIGATION, No. 25.

1. Recognizing the importance of keeping up Irrigation Registers in such a complete form as readily to show the relative value of all works, and to serve as a record of the results of the outlay upon them either in repairs or improvements, the Government, in their Proceedings of the 13th July 1868, No. 2,234, approved of a form which was laid before them by the Chief Engineer for Irrigation, and which appeared to meet the object in view.

2. With his letter above recorded the Chief Engineer for Irrigation submits a communication from the Superintending Engineer of the 6th Division, suggesting that, under column 2 of the form, there should be a sub-head which should distinguish Government lands from those of Inamdars, and in explanation of the necessity for the proposed additional heading, Captain Oakes states that, in the Tanjore and Puttucottah Talooks, where very many of the tanks are the joint property of Government and Inamdars, a tank might appear at first sight not worth maintenance at the cost of Government, owing to the smallness of the public revenue dependant on it, but when, in addition to the public revenue, the property of the Inamdars, who have a right to irrigation free of charge, is taken into consideration, the tank might prove worthy of being kept up. Captain Oakes further adds that under G. O., dated 27th February 1863, No. 429, it is the duty of Government to maintain such tanks as the one in question.

3. The Chief Engineer for Irrigation concurs in the advisability of Registers of Irrigation works exhibiting the particulars of Inam cultivation, but he is not in favor of additional columns being added to the form. Colonel Anderson would prefer having the Inam cultivation shown in the Registers in the manner indicated by him in paragraph 2 of his letter.

4. With reference to the Proceedings of Government under date the 8th July 1868, No. 2,170, Colonel Anderson also submits a letter from the Superintending Engineer of the 1st Division, giving cover to the form of Irrigation Register which is now in use in the Godavery District, and observes that the form which has, it appears, met with the approval of the Superintending Engineer of the 2nd Division, is remarkably well prepared and complete. With a view to the compilation of the Registers of Irrigation works in Deltaic Districts on the principle on which they are maintained in the Godavery, Colonel Anderson recommends that printed lists of the villages in delta talooks, with headings similar to those of the form referred to in paragraph 1 of these Proceedings, and with the additions particularized by him in paragraph 2 of his letter, should be furnished annually to the Collector by the Superintending Engineer for the purpose of being filled in with the necessary information, which Colonel Anderson would obtain, in the first instance, direct from the village authorities, and then have it verified in the Collector's Office. Instead of confining the Channel Registers to the areas under cultivation only, Colonel Anderson would have them to give, for each year, an abstract of the Ayacut assessment and actual collections on account of Government and, where it may be possible accurately to ascertain them, on account of Inamdars, under each main canal and branch.

5. The Government concur in these views. The mode in which the Chief Engineer for Irrigation proposes to show the particulars of Inam cultivation in the Registers, seems well suited to meet the desired object, and should be adopted in all districts.

6. His Excellency in Council fully agrees in the Chief Engineer's observations on the form of Register which is now in use in the Godavery District, and

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30th September 1868.

he accordingly authorizes its adoption in all delta talooks, with the modifications recommended by Colonel Anderson.

(True Extract.)

Colonel, R. E.,
Secretary to Government.

To the Chief Engineer for Irrigation.
,, Superintending Engineers.
,, Revenue Department.
,, Controller of Public Works Accounts.

No 2578

Communicated to the Revenue Board.

7th Oct 1868

No Copies Letter Rd from Board with Ors No 2578 Dated 30th Sept 1868

Exd. S. T. Augustin.

Revenue Dept
Pro of Govt Nov. 5th October
No. 3115

Govt. of {1868} Madras.

PUBLIC WORKS.

To

THE CHIEF ENGINEER FOR

IRRIGATION.

&c., &c., &c.

Dated September, 30th.

Recd. 1st. Octr. *Encl.*

G. O., 30th September 1868, No. 3,071.

1/10

SEPTEMBER.

Nos. 551-552

ap 2578. 7 Octr

Irrigation Registers.—Passing orders on the letter from the Chief Engineer for Irrigation proposing certain additions to, and alterations in the form of —

With Order d