

(1) Number of pages 3 6
(2) Date of repair 22.5.88
(3) Initials of the Referencer lang

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Renu
~~P.W.~~ DEPARTMENT

G.O. No. 3139
B.P. No.

Press.
Mis.

Dated 5 - 6 - 1877 197.

USman
Not to be folded or roughly handled

3139
1

GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

23rd May 1877, No. 38 I.

Irrigation.
Account.

Read the following paper:—

No. 9 I.

No. 73.

MEMORANDUM.

GOVERNMENT have expressed a desire that the channels from the Palar Anicut should be improved so as to throw water into the Cortiliar, and so improve the supply of the latter river and consequently of the Red Hills tank, upon which Madras is now chiefly dependent for water for domestic purposes.

2. It seems necessary to premise that the Palar is not as good a river in respect of water-supply as the Cortiliar below the infall of its northern feeders, and that much benefit can hardly therefore be expected to result from an improved communication between the two rivers, which by means of the Govindavady Channel are already connected. Moreover, even if the quantity of water carried by this or any other channel be largely augmented, the great demands upon the supply for irrigation under the very numerous tanks connected with the Palar Anicut Channels, which demands have hitherto been but very imperfectly met, will leave very little water available for tanks under the Cortiliar.

3. However this may be, it is certain that the irrigation arrangements under the channels taking off from the Palar Anicut on the left or north side stand in need of radical improvement, as they have remained much in the state in which they were when the anicut was built, and the means of extending irrigation and making the old irrigation more secure were thus afforded. Various attempts have been made during the last nine or ten years to obtain the information needed to revise and improve this system of irrigation. Some surveys and levels were taken in 1868-69 by special officers; and in connection with the

Captain Lindsay.
Lieutenant Purchas.

G.O. No. 99 of 15th January 1874.

Kambakal, a branch of the Govindavady Channel, orders were passed in January 1874 for the investigations to be taken up in earnest, but, so far as is known, nothing

of much value has as yet been done, because the District Engineer, Chingleput, has not had the means at his disposal for carrying out such an investigation properly, and has not had time himself to direct the operations of Surveyors, though this office has

No. 1,098, 23rd September 1875	...	RS. 600
No. 10 CN, 18th March 1876	...	400

sanctioned two estimates for surveys in the mean time. Mr. Bowyer Smyth was posted to the district for such work, but his health failed and he had to take sick

leave to England after a few months' residence in the country. Then Mr. Sub-Engineer Donaghue was appointed as an extra subordinate, and very shortly afterwards the necessities of a limited establishment obliged him to be posted to the Chingleput Range, and there has been no one available to take his place.

4. It is considered moreover that the work is probably too important and too extensive to make it likely that the required investigations will be completed within

a reasonable time, and that thereafter the estimates for the necessary improvements will be prepared in a satisfactory manner, unless an officer of experience, without any other work to attend to, be deputed to take up this work and carry it through from end to end. Such an officer will be available on Mr. J. W. Rundall's return from furlough on the 21st instant, and the undersigned considers that Government cannot do better than appoint him to the duty. The work lies in the North Arcot and Chingleput Districts; and Mr. Rundall, if appointed, should be in direct communication with this office, from which he should obtain all instructions, though it will be necessary for him to be in constant communication with the District Engineers, as also with the Collectors of Chingleput and North Arcot. To say that Mr. Rundall can be conveniently spared for this duty is not feasible, for Tinnevely has been left under-officered ever since the day when he left that district on furlough, and both the Godavery and Kistna Deltas want officers badly. This is unfortunately the chronic state of the department, which is never even approximately equal to the work which it is expected to perform, and clearly cannot be until, in addition to the number of officers necessary to the efficient management of current executive work, there are supernumeraries available for the extra work which Government from time to time, and it may be added at all times in some form or another, consider it necessary to direct to be undertaken. So long as this dearth of officers continues the choice will necessarily lie between neglecting regular work in order that extra work may be taken up, or leaving the latter unattended to.

5. The special officer in this case will require a Survey establishment, and should be allowed as many Surveyors as he can find work for and effectively supervise and instruct. After the field work shall have made some progress and some idea of the work to be done shall have been obtained, an office establishment (Draughtsmen and Computers) will be needed. It is hardly practicable to estimate at present, with any accuracy, what the cost of the investigations will be, for the time that they will occupy is indeterminable, but it may be assumed that at least six months will be required. The principal matters to be investigated have already been indicated in this office memorandum No. 251

Proceedings, Madras Government, 15th January 1874, No. 99.

of the 20th August 1869, and nothing can be added to those instructions at present.

Given the information therein shown to be requisite, the dimensions and arrangement of the principal channels will follow or be deducible, and the principal difficulties will be due to the adaptation of the arrangements to existing circumstances which it may not be convenient or desirable to interfere with more than is absolutely necessary. There will be but little surveying to be done, the Revenue Surveys giving sufficiently complete information apparently of all the channels and tanks in the part of the country to be dealt with, but a very complete and accurate set of levels covering the whole area will be essential, and this will be the first field work to be undertaken. Permanent bench-marks should be selected or put up, and the whole system of levels should be so arranged from the first, that all the work done may be adequately checked by closing every line on bench-marks, the value of which will be fixed by at least three independent sets of observations, viz., one along each main channel, and one on each side of each channel. Every tank will have to be connected with one or other of the lateral lines.

The entire scheme of levels should be laid out on the Revenue Survey Maps.

6. Under the orders of the Government of India conveyed in Circular No. 67 of the 23rd October 1876, specific provision has to be made for the cost of these investigations, which will be chargeable to the Ordinary grant. The Special Officer's salary and allowances will merely require to be transferred or debited to these investigations. The subordinate establishment may be provided for from the grant* for temporary survey establishment; the

* Rupees 15,000.

works outlay, which it is supposed means cost of bench-marks, &c., can be met from the Minor New Works grant, and Tools and Plant from the Reserve at the disposal

of Government. It is recommended that the following approximate estimate should be sanctioned to start with, leaving the Special Officer to revise it and apply for revised sanction when he may know better what his requirements will be:—

PALAR ANICUT SYSTEM.

NORTHERN SECTION.

Investigations for improvements.

	RS.
I.—Works—	
Bench-marks, &c.	1,500
II.—Establishment—	
1 Executive Engineer, salary	950
Travelling allowance	150
Executive Engineers' lascars	$1,100 \times 6 = 6,600$
Surveyors and Lascars	$6 \times 6 \times 7 = 252$
Draughtsmen (3), Computers (2), Clerk (1)	$120 \times 4 \times 6 = 2,880$
III.—Tools and Plant—Instruments	$(120 + 60 + 50) \times 6 = 1,380$
Total	640
Total	13,252

7. Government wish the work on the main channel which may be selected to convey water to the Cortiliar to be carried out so as to afford employment to famine labor. Whether it will be practicable to get any of the work designed and estimated for so as to be able to commence it within the next three or four months is at present necessarily uncertain, but possibly the dimensions and levels of the upper few miles of the Govindavady channel may be settled very soon; as soon indeed as the requisite information about water-supply can be put into shape as thereafter, Captain Lindsay's

* i.e., in the period during which water is at or a little above the crest of the anicut. In considerable freshes the greater part of the water must go to sea.

surveys and levels will enable the work to be done to bring the channel to the desired section to be ascertained. It is here assumed that all water which the Palar can supply* will be distributed and will be divided between—

1st.—The north and south sides of the river in proportion to the areas commanded.

2nd.—The channels of the northern section in proportion to gross areas, so that the dimensions of the principal channels up to the commencement of minor distribution will be capable of determination so soon as the water supply and the gross areas have been determined.

It has to be remembered that rainfall drainage will have to be taken into account and will be an important item of the supply of many of the tanks, the river-supply being supplemental thereto.

The Sangam Project papers will be of use to the Special Officer in considering what part of the Palar supply can economically be turned to account, but the Palar is a very inferior river to the Pennair as a source of irrigation, the duration of freshes in the former being comparatively small.

Fort St. George,
5th May 1877.

(Signed) JOHN MULLINS, Lt.-Col., R.E.,
Chief Engineer for Irrigation.

To the Joint Secretary to Government, Public Works Department, Irrigation Branch.

No. 74. ORDER THEREON, 23rd May 1877, No. 38 I.

HIS GRACE the Governor in Council approves the employment of Mr. J. W. Rundall on his return from furlough on the investigations for the improvement of the irrigation in the northern section of the Palar Anicut system, his special

attention being directed to ascertaining by what channel and with what improvements Palar water may be most readily brought to the Cortiliar; that officer will be in direct communication with the Chief Engineer for Irrigation.

2. Mr. Rundall will give early attention to the determination of the improvements required to the upper sections of the principal channels with a view to the employment on this useful work of a part of the famine relief labor of the North Arcot District.

3. The rough estimate of the Chief Engineer for Irrigation is sanctioned as follows:—

PALAR ANICUT SYSTEM.

NORTHERN SECTION.

Capital Ordinary.

						Rs.
I.—Works—						
Bench-marks, &c.	...	...	...	...	...	1,500
II.—Establishment—						
Four Surveyors and Lascars, Rupees 480 per mensem, for six months	...	...	...	...	...	2,880
Three Draughtsmen	...	...	...	...	...	120
Two Computers	...	...	...	...	...	60
One Clerk	...	...	...	...	...	50
					230	
For six months	...	...	...	...	...	1,380
Six Lascars for Executive Engineer	...	...	...	...	42	
For six months	...	...	...	...	...	252
						4,512
Executive Engineer's salary and allowances (already provided for in the Budget)	...	...	...	...	...	—
III.—Tools and Plant—						
Instruments, &c.	...	...	...	...	...	688
						6,700

Name of Work.—Investigations for improvements.

The amount* required for works is appropriated by transfer from the Reserve at the disposal of Government to Capital Ordinary; for establishment† from the provision for temporary survey establishment, and for Tools and Plant‡ from the

* Rupees 1,500.

† " 4,512.

‡ " 688.

Reserve under Ordinary Agricultural by transfer to Capital Ordinary.

4. Mr. Rundall will submit a revised estimate in due course if necessary.

5. The above sanction has been registered as No. 48 I of 1877-78.

(True Extract.)

W. J. Rundall

Lt.-Col., R.E.,
Joint Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Superintending Engineer, Chingleput.

To Mr. J. W. Rundall.

To the Chief Engineer for Irrigation.

" Revenue Department.

" Examiner of Public Works Accounts.

Exd. E. C. Shunker.

16 Spare Copies

Revenue Department
No 2737
IRRIGATION
ACCOUNT.

Govt. of 1877 Madras.
PUBLIC WORKS.

To

THE SUPERINTENDING ENGINEER,
CHINGLEPUT,
&c. &c. &c.



Dated May 23rd.

Issued

Recd. 4th May 1877

Encl.

G. O., 23rd May 1877, No. 38 I

Do. Do.

MAY.

Nos. 73-74.

Palar Ancient System, Chingleput District.
The employment of Mr. J. W. Randall on
the investigations for the improvement of
the irrigation in the northern section of the
—, approved; the rough estimate of Rupees
6,700 for the work, sanctioned and funds
provided; a revised estimate to be submitted
if necessary in due course.

No 3139
Comm. to the
Board of Revenue
5th June 77.

VCA 5233/77

9th June 1877
Revenue 2-6-77.