(1) பக்கங்களின் எண்ணிக்கை 16

(2) புதுக்கித் திருப்பிய நாள் 2.5.89

(3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம்

தமிழ்நாடு ஆவணக் காப்பகம்.

தமிழ்நாடு அரசு

PWD துறை

அரசாணை என். 1458 அச்சகம்
மு. கோப்புத் தாள் என். பலவகை

நாள் : 3.6.1989 198 .

மடிக்கவோ கண்டபடி கையாளவோ கூடாது

6 sheets

ஆணை: எ-1—18,000—25-8-87.

Local & Municipal Department

Proceedings of the Madras Government

Read the following

Board of Revenue (Land Revenue), 6th February 1889, No. 83.

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PROCEEDINGS OF THE BOARD OF REVENUE
(Land Revenue).

The Hon. J. Grose, Esq., m.a.

Read—the following letter from J. THOMSON, Esq., Acting Collector of Tinnevelly, to the Chief Secretary to Government, Local and Municipal Department (through the Board of Revenue), dated Tinnevelly, 15th January 1889, No. 15:—

I have the honor to submit the papers, as per list accompanying, which deal with a scheme of improved water-supply to the town of Tinnevelly by appropriating the Ottankulam irrigation tank to that purpose solely with an improved supply from the Kodagan channel from the Támbraparni, regarding which scheme, in endorsement No. 473, of 12th June last, I was directed to report further.

2. Colonel Mead foresaw difficulties in obtaining the consent of the cultivators under the Ottankulam to its surrender for the project since the tank had a storage of water for 22 days which supplements the channel supply; and inasmuch as the project involved an anicut on the Kodagan channel to fill the (improved) Ottankulam beyond its present capacity, it seemed a question whether that could be done without interference with existing rights lower down the channel.

3. With regard to this latter point, it has escaped notice that Mr. Russell's proposals contemplate the diversion of only so much of the irrigation supply water as, in the opinion of the Public Works Department officers, the cultivation under the channel does not require; and as the channel and all its buildings including the proposed anicut are and would be in the possession of the Public Works Department, and as the anicut would be built with vents to pass on a low supply in the channel, all risk on that score is obviated. If, as Mr. Russell's experience is (paragraph 11 of his report), the Tinnevelly ryots' education has hitherto been in the direction of inducing a belief in them that they may regulate the supply of irrigation water, especially in seasons of scarcity, it is time that were changed; the proximity of the tahsildar's and of the magistrate's cutcherries to the Kodagan channel should render the process shorter there than in more out-of-the-way tracts.

4. The reference of the matter to the cultivators under the Ottankulam and Periyakulam and to the ryots holding lower down than the proposed anicut could have only one result. They declare their present supply for irrigation to be inadequate and do not consider that Tinnevelly town requires any improved drinking water-supply. The Periyakulam ryots have their own difficulties and do not care to have the burden of supplying the Ottankulam ayacut laid upon them. The Ottankulam ryots support the Periyakulam view of the supplying power of the latter tank and consider that a considerable portion of their land—about 22 acres—lies too high to be irrigated from the Periyakulam at two miles distance.

5. The total area, Government and Inam, under the Ottankulam is 97 acres. There is a possibility that the high level lands may not be irrigable from the Periyakulam; but the Executive Engineer believes that a new high level sluice in the latter will serve them, while, if investigation does not favor this, they might still be fed from the Ottankulam. Such a contingency should by all means be avoided.

6. As for the supply and carrying power of the Kodagan channel, until this scheme is fully elaborated it is not possible for me to say more than that no remission has been in the last 10 years granted the lands under it save in fasli 1288, the famine year, and then in only the village of Chatrampudukulam at its extreme end; and the amount was Rs. 193-13-0.

7. I presume that before the project can be accepted by Government, it must be shown that the channel receives and carries a full sufficiency for the acreage and cropping under it and for the necessities of the town and that the data it deals with will be rigorously checked by the Revenue and Public Works Departments. Whether the Periyakulam can be extended so as to afford additional storage equal to that now given by the Ottankulam as well as its power to supply the high level lands under the Ottankulam, will necessarily be part of the investigation. If the Public Works Department are satisfied on these points, the ryots' objections, which will not be removed by any argument or proof, need not be attended to; if the inquiry shows reduced irrigational facilities to the ryots and Government, it will be for Government to say what it will forego and on what terms.

8. Mr. Nicholson has left a rough note on the matter which I transcribe and enclose. He has great doubts of the good character of the water itself and of its ultimate cheapness. The fouling of the water in the channel and tank could be prevented to some extent at least, and filtering on leaving the tank would further improve its quality. An open channel thereafter must be avoided. Any fitting alternative to Mr. Russell's proposals does not seem to be within the financial powers of the municipality, and if they secure all that he thinks is feasible, they will not have much reason to complain.

ENCLOSURE No. 1.

REPORT on the scheme for supplying the town of Tinnevelly with water by taking up the Ottencolum tank as a supply reservoir.

In accordance with the instructions contained in the Superintending Engineer's notes of inspection for 22nd July 1887, a surveyor was engaged, at the cost of the Tinnevelly Municipality, in the month of August, in order to contour and ascertain the storage capacity of the Ottencolum tank. As it was apparent, at an early stage of the investigation, that it would be quite impossible to store a two months' supply, unless the whole tank was taken up for the water supply of the town, the surveyor was directed to carefully ascertain the capacity of the tank from the level of the sill of the lowest sluice to the proposed F.T.L., viz., to the level of 3 feet above the present F.T.L.

2. Cross sections of the tank were therefore taken at intervals of 100 feet apart, and level readings were taken at intervals of 1 foot in depth from the level of the sill of the lowest to the proposed F.T.L., thus enabling contours at every foot in depth to be plotted. As the tank is a long and narrow one of considerable depth, and was quite dry at the time the survey was undertaken, the above method of ascertaining its capacity was considered the most suitable. The contour survey, together with four sheets of cross sections, gives the result of the field work thus undertaken.

3. To ascertain the capacity of the tank up to the present and proposed F.T.L., the surveyor proceeded first to calculate the areas at each contour level by the method of triangles, viz., by dividing the area at each level into a series of triangles, computing their several areas, and adding them together. He then deduced the mean area between each pair of areas thus ascertained, and calculated the capacity by multiplying this mean area by the vertical depth (viz., 1 foot) between each contour level—*vide* calculation sheet No. I. The result of these calculations gave the total capacity up to the present F.T.L. as 3·12 millions of cubic feet, and up to the proposed F.T.L. as 5·58 millions of cubic feet.

4. During the time these calculations were in progress, I was out on tour, and therefore directed Supervisor Mr. Fitzgerald, the detached officer at head-quarters, to keep a careful check on the surveyor's work. When forwarding the surveyor's calculations, Mr. Fitzgerald reported that he considered them quite accurate, and sent a rough check on the work (*vide* calculation sheet No. II), which gave the total capacity at the present F.T.L. as 2·94 millions of cubic feet.

5. As I considered Mr. Fitzgerald's check to be of far too rough a nature, and as the materials were available for an accurate determination of the capacity of the tank up to the

present and proposed F.T.L., I thereupon carefully calculated the area of each cross section, and substituted the areas thus obtained in the ordinary formula for the computation of volumes, viz.,:—

$$V = A_x \left\{ \frac{A_0}{2} + A_1 + A_2 + \&c., + \frac{A_n}{2} \right\}$$ where the number of equidistant cross sections is even, and $$V = \frac{A_x}{3} \left\{ A_0 + 4A_1 + 2A_2 + \&c., + \frac{2A}{m-2} + \frac{4A}{n-1} + A_n \right\}$$ where the number of equidistant cross sections is odd.

The result given by this entirely independent method of ascertaining the capacity of the tank is as follows:—

	Millions cubic feet.
Capacity at present F.T.L. (91·35 + M.S.L.)	3·08
Capacity at proposed F.T.L. (94·35 + M.S.L.)	5·46

These figures show that the surveyor's work (see paragraph 3) is approximately accurate.

6. The population of the town of Tinnevelly is 23,000, and, as the tank has to be made capable of storing a two months' supply, at 15 gallons per head per day, the total amount of water it is required to store is 20,700,000 gallons, or 3,312,000 cubic feet. The two months when the tank can receive no supply from the Kodagan channel are April and May, when the channel is closed for annual repairs. During the very middle of the hot weather the tank will therefore receive no supply, and the daily evaporation during the period cannot therefore be taken as less than ½ inch, or 2½ feet in depth for two months. It will thus be apparent that it is quite impossible to provide for the water-supply of Tinnevelly without taking up the whole tank for the purpose. Provided that the whole tank is taken up, it will, when its F.T.L. has been raised three feet, be sufficient to supply the town throughout the year.

345,000 gallons per day.
55,200 cubic feet per day or about the irrigation supply of 40 acres.

7. Independently of the fact that the whole tank is required for the supply of the town, I am very adverse to any proposal for a reservoir to jointly supply irrigated lands and the town with water. Any such scheme will infallibly lead to incessant disputes between the cultivators and the Municipality. I specially selected the Ottencolum because it is an isolated tank, having a separate supply channel from the Kodagan channel, and is not one of a chain as are the adjoining tanks; because its natural advantages of site allowed of its capacity being increased at a very small cost; and because the small area of 70 acres of irrigation under it can easily be supplied from the adjoining Periyakulam tank and the possibility of disputes occurring be thus obviated.

8. The question of the storage capacity of the tank now being satisfactorily disposed of, I now come to the important question of water-supply. After a very careful examination of the water registers of the Kodagan channel for a term of years, and from my own observations during so dry a year as the present, I am decidedly of opinion that no scheme that does not include the provision of an anicut at the head of the supply channel from the Kodagan channel to the supply reservoir can possibly be a success. Provided there is an anicut built, the reservoir taken up for the supply of water to the town can be readily filled up just previous to the annual closing of the channel, but without an anicut the water level in the channel in April and occasionally in August or September will have sunk too low to fill up the tank. I mention this point because, together with the fact that it will probably be found necessary, in any case, to raise the F.T.L. of any tank that is taken up, it is important as showing that the Ottencolum will probably be found, by a process of elimination, to be the only possible reservoir that can be taken up for the supply of the town. The raising of the F.T.L. in the channel and reservoir implies raising of the bund of the supply reservoir, and, except in the case of the Ottencolum, the raising thus rendered necessary will be prohibitory on the score of expense.

9. My final proposal is therefore to take up the Ottencolum as a supply reservoir for Tinnevelly; to supply the lands now irrigated from it by the adjoining Periyakulam; to run closed pipes from the Ottencolum along the bank of the Tinnevelly channel to the town of Tinnevelly; to raise the capacity of the Ottencolum by 3 feet; to cut a new head from the Kodagan channel, as the present supply channel is on too low a level; and to build an anicut at this new head, which will allow of the tank being filled up when required. The anicut must of course be provided with vents sufficient to pass on the necessary amount of water, when the water level in the channel runs low, to the large number of tanks below Ottencolum. If built at the narrow and rocky portion of the channel I propose, the anicut will be a very inexpensive work, while the height to which it will have to be built, in order to raise the F.T.L. of the Ottencolum tank 3 feet, will also be inconsiderable, and will not, I calculate, necessitate much expense in embanking the channel and raising the surplus and distributary works above the

anicut. I notice that the Chief Engineer for Irrigation is under the impression that the Ottencolum is 4 miles from Tinnevelly. This is not the case. It is not more than 1¼ miles. There will be no trouble in carrying the pipes over the Tinnevelly channel by attaching them to an existing masonry aqueduct, and but little land compensation will have to be paid, as, with the exception of some 150 yards in length, the pipes will run along the bank of the Tinnevelly channel.

10. On the whole I think the scheme is satisfactory in every way, will be far cheaper than any other that can be proposed, and will give the town a constant supply at a comparatively small cost. The one great advantage of it is that, unlike every other scheme I have inquired into, little or nothing will have to be paid for land compensation, an item which in all other schemes I investigated seemed likely to absorb at least two lakhs. The whole expense of the Ottencolum scheme should be under Rs. 50,000. The cost of the anicut, of land compensation, of the raising of the Ottencolam tank bund, of the raising of the Kodagan channel bank and masonry works above the anicut, will all be small. The line for the new supply channel runs through rocky ground (which, I may remark, every where crops up near the surface in the neighbourhood) and for its excavation, of about one-third mile in length, blasting will be required. This item, together with the cost of the piping, will be the only really heavy item of expenditure. Of course it must be understood that I am only speaking from general knowledge, and cannot pretend to give anything like an accurate estimate, the amount of which can only be determined by further investigations. The preliminary investigations which I have undertaken lead me, however, to the conclusion that for about Rs. 50,000 a really good scheme for the supply of the town of water from Ottencolum can be worked out. Considering the great natural disadvantages in supplying Tinnevelly with water, viz., that the immediate neighbourhood of the town is one vast expanse of paddy land, which fetches enormous prices; and that, owing to the flatness of the country, the necessary command of level over the town must be secured by taking the main head of the water-supply at a distance of many miles from Tinnevelly, I think the Municipality may well congratulate themselves upon the likelihood of obtaining so cheap a scheme of water-supply.

11. There are several other points in connection with the scheme which I have not considered it necessary to enter into in a preliminary report. I must however notice the question of the opposition that will be made by the cultivators under the Kodagan channel to the water in that channel being diverted to supply Tinnevelly with water. Undoubtedly the proposal, when generally known, will raise a storm of complaints, and much time and trouble will have to be devoted to the task of convincing the ryots that their interests will not be imperilled. No one who has not been engaged (as has for many months the writer of this report) during a season of scarcity, in the almost hopeless endeavours of equitably distributing water on irrigation works, and in introducing the necessary improvements to effect that object, can have any conception of the determined resistance that is invariably offered by the ryots of this district to the execution of any scheme that in any way curtails their former unlimitted water-supply. I must therefore bring prominently to notice that an important factor that must not be lost sight of, before putting in hand any scheme for the supply of Tinnevelly with water, is that the consent of the ryots to the execution of the scheme must first be obtained; that clear agreements must be made that the cultivation has a first claim on the water; and that specific rules must be laid down on the subject. I have no sort of doubt that the Kodagan channel, which is the fourth on the Támbraparni, is at all times equal to supply the extra demand upon it in connection with the water-supply of Tinnevelly, provided that the strict regulation that I have advocated in a separate report is carried into effect. Until that regulation has been introduced, and the ryots of this district have been made to understand that they can no longer be allowed to prescribe how the water on Government irrigation works is to be distributed, endless trouble will certainly ensue by the execution of any scheme for supplying Tinnevelly from the Kodagan channel; whenever there is any prospect of scarcity of water, riots will take place, the works of the water-supply scheme will be damaged, and the distribution of water will be forcibly interfered with.

12. I understand that the Tinnevelly Municipality have lately asked His Excellency the Governor that the local officers of this district may work out in detail the water-supply scheme. I may say at once that this is quite impossible, if they are to carry on their current duties at the same time. Even to this preliminary investigation, I have had to devote much time that I could ill spare from my ordinary work. The surveyor engaged to contour the tank did not turn out a success, and almost every bit of his work had to be revised and corrected. For the reason given in the last paragraph, as well as for others, the further investigations in connection with the scheme will require the undivided time of an Engineer officer, and cannot be delegated to a subordinate. I calculate that the services of an Engineer officer, together with those of a surveyor, draftsman, and petty establishment, will be required, for a period of two months, to work out the scheme in full. The cheapest plan will be for the Municipality to engage a competent Engineer, at a salary of about Rs. 400 per mensem, and for the Executive Engineer of the division to help the Municipal Engineer in every possible way; to supply him with all necessary information in his office, such as water registers of Kodagan channel, levels of masonry works thereof, &c. If the Municipality are willing to pay double the amount stated above, an Executive Engineer of

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the Public Works Department can be made available for the duty, but I see no particular advantage in this arrangement, as the scheme of the Engineer engaged by the Municipality should in any case be scrutinised by the Executive Engineer of the Division as well as by the Superintending Engineer.

PALAMCOTTAH,
18th November 1887.

(Signed) A. S. RUSSELL,
Executive Engineer.

ENCLOSURE No. 2.

From the Executive Engineer, Tinnevelly Division, to the Superintending Engineer, VI Circle, dated 18th November 1887, No. 2551.

Enclosures.

1 Contour survey of Ottankulam tank.
4 Sheets of cross section of do. do.
1 Set calculations by surveyor for finding the area and capacity of Ottankulam.
1 Check on above calculations by Supervisor Mr. Fitzgerald, detached officer.

With reference to your inspection notes for 22nd July 1887, I have the honor to forward the marginally-noted papers and plans, together with the accompanying report on the scheme for supplying the town of Tinnevelly with water by taking up the Ottankulam tank as a supply reservoir.

Forwarded to the Chairman, Municipal Council, Tinnevelly, for consideration.

2. The undersigned agrees with the Executive Engineer that the scheme here proposed is the most likely to provide Tinnevelly with a sufficient supply of water at a moderate cost and that the arrangement suggested in the last paragraph will be the best for working out the details of the scheme.

3. It may be said at once that it is out of the question for the ordinary staff of the district to undertake this work, which must be done by a special establishment.

4. The consent of Government in the Public Works Department will have to be obtained to the appropriation of the Ottankulam tank and to the measures to be adopted for the supply of the cultivation now dependent on the latter, but the undersigned does not consider that any serious difficulty need be anticipated in this respect; the amount of water required by the municipality will be quite insignificant as compared with the total supply of the Kodagan channel and no injury will be done to existing interests, though doubtless the ryots will pretend to have been greatly injured.

5. If the council consider it advisable to proceed further with the scheme, it will be best for them to apply to Government in the Municipal Department for permission to entertain the necessary establishment.

KODAIKANAL,
27th November 1887.

(Signed) J. PENNYCUICK, Lieut.-Col., R.E.,
Superintending Engineer, VI Circle.

Endorsement by the Acting Collector of Tinnevelly, dated Tinnevelly, 8th December 1887, No. 1234.

Communicated to the Chairman, Municipal Council, Tinnevelly, in continuation of this office No. 1182, dated 22nd November 1887.

The Acting Collector commends the scheme to the favorable consideration of the council who, if they approve thereof, should apply to Government for permission to entertain the necessary establishment, in forwarding which the Acting Collector will advocate the appropriation of the tank which, it is clear, is feasible without injury to existing rights of irrigation.

ENCLOSURE No. 3.

From the Chairman, Tinnevelly Municipality, to the Chief Secretary to the Government of Madras, Local Fund and Municipal Department (through the Revenue officer in charge of Tinnevelly Division), dated 31st January 1888, No. 273.

Read report from the Executive Engineer on the scheme for supplying the Town of Tinnevelly with water by taking up the Ottankulam tank as a supply reservoir.
Read also opinion of the Superintending Engineer and the Collector thereon.

The water scheme proposed is fully approved by the council.

(2 enclosures to be returned).

I have the honor to forward the marginally-quoted resolution passed by the Tinnevelly Municipal Council at a meeting held on the 16th December 1887 submitting, for the approval of Government, a scheme for the water-supply of Tinnevelly town, proposed by Mr. A. S. Russell, Executive Engineer, Tinnevelly Division. The enclosures also include the results of the contour survey and the calculation sheets of a large reservoir called the

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Ottankulam tank, as well as the remarks of the Superintending Engineer, VI Circle, and of the Acting Collector on the scheme itself.

2. The Government is already aware of the difficulty felt in this town during the hot summer months for want of wholesome drinking water. The sub-soil is rocky, and the few wells which have been dug by blasting at considerable cost contain brackish water. The council have been providing in their budgets during the last three years a yearly increasing sum from their savings to meet the preliminary expenses attending the introduction of a suitable and complete scheme for the supply of pure drinking water to the townsmen. The scheme which Mr. A. S. Russell has submitted has the entire approval of the council, who beg Government to convey their cordial thanks to that officer.

3. The Executive Engineer's final proposals are to take up the Ottankulam (a tank 1¼ miles to the west of Tinnevelly) as a supply reservoir; to supply the lands now irrigated from it by an adjoining tank; to run closed pipes from the Ottankulam along the bank of the Tinnevelly channel to the town of Tinnevelly; to raise the capacity of the Ottankulam by 3 feet; to cut a new head from the Kodagan channel, as the present supply channel is on too low a level; and to build an anicut at this new head which will allow of the tank being filled up when required.

4. The Ottankulam was selected for the reservoir, because it is an isolated tank having a seperate supply-channel and is not one of a chain as are the adjoining tanks, and also because its natural advantages of site allowed of its capacity being increased at a very small cost and the small irrigable area of 70 acres under it can easily be supplied from the adjoining tank, viz., Periyakulam.

5. As regards the cost of the scheme, the Executive Engineer says, and the council endorse his views, that the cost of the anicut, of land compensation, of the raising of the Ottankulam tank bund, of the raising of the Kodagan channel and of the masonry works will all be small. The line for the new supply channel runs through rocky ground and for its excavation of about ½ mile in length blasting will be required. This item together with the cost of the piping will be the only really heavy item of expenditure. The whole expense of the Ottankulam scheme should be under Rs. 50,000 and the Municipal Council will be happy indeed if at that comparatively small cost there is the likelihood of obtaining an unfailing and sufficient supply of pure and wholesome drinking water for the whole town.

6. The council therefore direct me to request the Government to—

(1) Sanction the obtaining of a loan of Rs. 50,000 towards the completion of the water-supply project on the strength of their general revenues. The saving in the budget under this head is Rs. 6,877 in the current year;

(2) To obtain the consent of Government in the Public Works Department to the appropriation of the Ottankulam tank making the necessary arrangements to supply the cultivation now dependent on the Ottankulam;

(3) To direct the Collector to take such steps as to secure to the council the Ottankulam tank free from all disputes regarding the rights of irrigation; and to—

(4) Sanction the entertainment of the establishment marginally noted for two months.

An Engineer officer;
A Surveyor;
A Draftsman; and
Petty establishment.

7. In connection with (4), the council direct me to invite the attention of His Excellency the Governor in Council to their address to the Right Honorable the Governor presented on the occasion of His Excellency's recent visit to Tinnevelly. With an annual revenue of Rs. 21,640, the council feel that without being supplemented by help from Government in some shape or other, the funds at their disposal cannot permit of their undertaking an expensive scheme such as the wants of the town require. The council is loth to ask for a money contribution which is scarcely to be thought of when the claims of other like institutions are considered. But the council hope that Government will be pleased to encourage the council when they are prepared to rely to a large extent on their own resources by deputing some responsible officer to carry out the scheme without cost or at a trifling cost to the Municipal Council.

Endorsement by T. VARADARAO, Esq., Assistant Collector of Tinnevelly, dated 17th February 1888.

Submitted to the Collector.

2. The draft of the letter now submitted was passed by me as Revenue officer in charge quite recently. It is therefore unnecessary to add to it. I mention this fact because it may be expected that, as Divisional officer, I may have some opinion to offer on so important a subject.

3. The want of good drinking water-supply in Tinnevelly was so greatly felt that I pressed on the council to utilize the large balance they had accumulated in carrying out some good scheme or other. In the latter part of 1886, on my motion, the council requested Mr. Russell

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to propose some scheme. Much to our good luck a feasible and cheap scheme has been hit on and if Government is pleased to sanction the loan and the scheme, the latter may be set on foot early in the next official year.

Endorsement by C. F. MACCARTIE, Esq., Acting Collector of Tinnevelly, dated 2nd March 1888, No. 115.

Submitted to Government for favorable consideration.

2. The project possesses the advantage of cheapness with feasibility. The capability of the Kodagan channel to meet the requirements of water-supply under this scheme without prejudice to the existing wet cultivation under it appears from paragraph 11 of the Executive Engineer's letter herewith sent, while the possibility of providing irrigation to the 70 acres of wet land under the Ottankulam tank, which it is proposed to appropriate as the supply reservoir, from the adjoining Periyakulam tank, is assured at the end of paragraph 7 of that letter.

3. The proposal to raise a loan in view to the early execution of the scheme is commended to the approval of Government. When a regular estimate has been prepared and the exact cost determined, the Municipal Council will submit the statement called for by rule 5 of the rules under the Local Authorities' Loan Act of 1879, published in pages 578-579 of the *Fort St. George Gazette*, dated 4th September 1883.

No. 291.

Referred to the Public Works Department, for remarks, with reference to paragraphs 6 and 7.

(By Order,)

(Signed) W. S. MEYER,
Assistant Secretary.

FORT ST. GEORGE,
7th April 1888.

To the Public Works Department,
with nine enclosures.

No. 72-D.

For favor of opinion, with reference to paragraphs 6 and 7 of the Chairman's letter.

(Signed) W. L. C. BADDELEY, Captain, RE.,

OOTACAMUND,
20th April 1888.

To the Chief Engineer for Irrigation.

ENCLOSURE No. 4.

Note by the Chief Engineer for Irrigation on Mr. Russell's sketch proposals for Tinnevelly water-supply.

The scheme depends entirely on whether the Ottankulam tank (No. 185 in the list of Imperial tanks) can be given up for irrigation purpose and utilized for the storage of water for Tinnevelly town.

2. This tank irrigates 70 acres of land and gives a revenue to Government of Rs. 1,196 and yields a great profit to the owners of the land under it. The tank is supplied from the Kodagan channel, one of the best supplied channel from the Támbraparni river; its capacity as it is now is, is sufficient to store 22 days water for the cultivation under it and therefore this cultivation must be always good and secured from loss.

3. The Kodagan channel irrigates 4,520 acres, of which 2,318 acres is direct and 2,202 acres is under 13 tanks supplied by the channel. There would be no difficulty in supplying the 70 acres under the Ottankulam from the channel, but this supply could not be as good and regular as its present supply with the great advantage of 22 days' supply stored in the tank, and I doubt the Collector being able, as proposed by Mr. Russell and the Chairman of the Municipality, to secure the tank free from all disputes regarding the rights of irrigation to the town.

4. I believe that Government have the right to take up the tank and pay no compensation to the cultivators, but it is not likely that the owners of the 70 acres would consent to the loss of 22 days' storage without complaint and probably recourse to the law courts.

5. I therefore recommend, before anything is done, that this point should be sent to the Collector for report; perhaps with the assistance of the influential town people of Tinnevelly some compromise or arrangement might be made.

6. If this can be done the municipality would, of course, have to pay for the cost of the works necessary for the direct irrigation of the 70 acres, and Government must be prepared in bad seasons to lose some revenue as without the storage the supply to the 70 acres would not be so secure as it is at present.

OOTACAMUND,
12th May 1888. (Signed) H. R. MEAD, Colonel, R.E.,
Chief Engineer for Irrigation.

To the Chief Engineer, Public Works Department, with reference to his Endorsement, No. 72-D., dated 20th April 1888.

No. 195-D.

The papers on the Water-supply Project for the town of Tinnevelly are retransferred to the Local and Municipal Department with a note thereon, dated 12th May 1888, by the Chief Engineer for Irrigation, and with the suggestion that Colonel Mead's remarks be referred to the Collector for consideration and report. Meanwhile, there is no objection in this department to the further investigation of the scheme by the municipality.

2. As it is stated that the tank when improved cannot be properly supplied unless a dam is constructed across the Kodagan channel, the question whether a dam can be constructed without interference with existing rights also seems to require consideration.

OOTACAMUND,
19th May 1888. (Signed) J. O. HASTED, Colonel, R.E.,
Secretary to Government, P.W.D.

To the Local and Municipal Department, with papers in original.

No. 473.

Referred to the Collector of Tinnevelly for report which should be submitted through the Board of Revenue.

(By Order.)

FORT ST. GEORGE,
12th June 1888. (Signed) W. S. MEYER,
Assistant Secretary.

ENCLOSURE No. 5.

From the Tahsildar of Tinnevelly, to the Assistant Collector of Tinnevelly, dated Tinnevelly, 26th November 1888, No. 852.

I beg to submit the report and statements called for in the order, No. 716, dated 14th November 1888, relative to the scheme of the water-supply for the town of Tinnevelly.

2. The present proposals regarding this water project seem to be these:—to appropriate Ottankulam tank, an irrigation work, as supply reservoir; to lay down pipes therefrom to the town along the Tinnevelly channel; to transfer the present ayacut under it, viz., 97 acres, to Periyakulam tank; to construct a dam across the Kodagan channel at a point immediately below the bridge of "Murugavudayar Sastha coil" and cut a branch channel therefrom to Ottankulam tank for supplying it with water. In connection with this scheme report has to be submitted (*a*) as to whether the proposed construction of the dam and the cutting of the channel will in any way interfere with the existing rights of the cultivators under Kodagan channel and (*b*) as to whether the proposed transfer of ain 70 acres and inam 27 acres from Ottankulam to Periyakulam tank will in any way affect the interests of the cultivators under the two tanks. The extent to which the interests of Government, if any, will suffer by the adoption of the above measures has also to be reported on and any objections which the parties concerned may have to the proposals have to be recorded and considered.

3. Statement A shows the works under the Kodagan channel below the point where the dam is proposed to be constructed, and in connection with the proposed new diversion of the channel water the existing rights and interests of the ryots under those works have to be consulted. In taking statements from those ryots as to what objections they have to the proposed measures, I have adopted the plan of taking separate statements from the ryots of Ottankulam tank, the ryots under Periyakulam tank, the ryots under the sources of irrigation in Pettai village, the ryots under the sources of irrigation in Kondiaperi village, and the ryots under the sources of irrigation in Chattrampudukulam village.

4. First, as regards the ryots under Ottankulam tank. Their objections to the transfer of the present irrigable area of 97 acres under Ottankulam tank to Periyakulam tank were heard and recorded (*vide* B). Notices to appear were sent to the ryots under Ottankulam tank and eight ryots

owning about 21 acres appeared and gave a statement. The other ryots who did not appear have apparently the same objections and the objections, therefor, put forward by the persons who presented themselves may be taken as the objections which the ryots under the tank have to the proposed transfer. The objections raised and expressed fall under three heads: (1) that the Tinnevelly town needs no scheme for water-supply as it is already well off in the matter; (2) that as nearly a third of the ain 70 acres are high level nunjah lands, they are not capable of being irrigated by the water of Periyakulam tank, and (3) that the Periyakulam tank being, as it is, not capable of irrigating satisfactorily even its present ayacut cannot serve efficiently an increased ayacut, the farthest portion of which will be about 2 miles from the tank, and the result will be deficiency of water-supply for all the lands under Periyakulam tank.

5. Secondly, as regards the ryots under Periyakulam tank. Notices were sent to all the ryots under Periyakulam and 25 of them owning 89 acres under it appeared and their objections were heard and recorded (*vide C*). These objections are apparently those which the other ryots who did not appear have, and may be taken to represent the objections the ryots under this tank have to have an additional ayacut of 97 acres added to the existing irrigable area under Periyakulam tank. The objections may be classed as follows: (1) that the Tinnevelly town already enjoying good facilities for water does not stand in need of any new water project; (2) that the Periyakulam tank which is as it is does not satisfactorily irrigate its present ayacut will be utterly incapable of irrigating an increased ayacut; and, (3) that the present waterspread of Periyakulam tank is not capable of holding water adequat even for its present ayacut and *a fortiori* for the proposed increased ayacut.

6. Thirdly, as regards the ryots under the different sources of irrigation in Pettai, Kondiaperi and Chuttrampudukulam villages. Separate statements (D, E, F) have been taken from such of the ryots as appeared in obedience to the notices sent and their objections to the proposed construction of the dam and the cutting of the branch channel were heard and recorded. Twenty-seven ryots of Pettai village owning 171 acres, 39 ryots of Kondiaperi owning 148 acres and 24 ryots of Chuttrampudukulam owning 143 acres appeared and their objections are apparently those of the other ryots also who did not appear. Their objections are that no water-supply scheme need be considered for Tinnevelly town; that the proposed new diversion of the channel water will affect injuriously the water-supply of these tanks; that owing to the present state of non-repair their storage capacity is much less than what it is stated to be and much loss of produce consequently results from deficiency of water; and that the Kodagan channel, being one of great length, the level of which gets higher and higher as it goes further and further from its head and the tanks in question being situated about the end of it, the proposed anicut will seriously curtail their water-supply.

7. It will be noted that all the ryots consider that Tinnevelly town needs no scheme for water-supply, and as most of them, especially of Pettai and Kondiaperi villages, are residents of the town for whose benefit the proposed water scheme is intended, it will seem that most of the townspeople are against the project. But as the general Hindoo society is constituted at present, there are certain matters the benefits of which they will not see and which have to be forced down the throats of the people even against their consent, and of these good water and sanitation are specially noteworthy.

8. An inspection of the nunjah lands under Ottankulam tank shows that some of them are high level ones, and in case of the whole ayacut being transferred to Periyakulam tank as it is proposed difficulty may be felt, I think, in watering them. This objection therefore of the ryots under Ottankulam tank to the proposed transfer needs consideration. The objection which the ryots under Periyakulam tank urge that with an increased ayacut to irrigate this tank will be found inadequate merits also serious consideration, especially as the water of Periyakulam tank will have to go a long way from its bund to serve the present Ottankulam lands, and as it is stated that the present waterspread of Periyakulam tank is not even capable of holding water enough for its present ayacut. The storage capacity of Periyakulam tank will have to be increased, I think, if the additional 97 acres are tacked on to it, but this a matter which ought to be determined by the professional department.

9. As for the serious objection that the ryots in Pettai, Kondiaperi and Chuttrampudukulam villages raise that the proposed dam will curtail their water-supply which is already not sufficient, it deserves to be considered, especially as it is stated that the level of the Kodagan channel gets higher and higher as it gets further and further from its head, and as the tanks are situate at the end of a long channel. The ryots' allegation about the level of the channel has to be considered by the professional department.

10. The existing rights of the cultivators under the Kodagan channel are only the ordinary rights enjoyed by cultivators under Government sources of irrigation, viz., that they are entitled to the use of water requisite for raising single or double crops on their lands as the case may be. The right of distribution of water from Government sources of irrigation vests in Government officers, and if in the exercise of that right any fresh diversion of water is made which causes no diminution of supply for which the ryots in question have claims, they can have nothing to say against the proposed diversion of water. In the present case, the regulation of water in the

Kodagan channel rests with the Public Works Department officers, and if they can only guarantee that, in spite of the new diversion of water which will be caused by the proposed new anicut across it, the holders of the lands under the channel below the dam will get the usual and an adequate supply of water necessary for raising single or double crops as the case may be on their lands, their objections against the proposed dam need not be considered, as it will then in no way interfere with their existing rights to the use of water in Kodagan channel. The Executive Engineer seems to say in his letter that the construction of the proposed anicut and the cutting of channel therefrom will not cause any diminution of water-supply to the holders of lands below the anicut.

11. Then as to the question whether the interests of Government will suffer in any way by the adoption of the above measures, the decision of it depends upon whether the proposed dam, notwithstanding the lands below it registered as single or double crop lands, will get the needed supply of water or not. If the needed supply can be guaranteed, the interests of Government are not likely to suffer, as there will be no necessity of transferring double crop to single crop lands and so forth. But before the proposed diversion of water by the erection of the new dam is made or ordered to be made, it should be well established, I think, beforehand beyond doubt that the needed supply of water for the lands below the anicut will not be curtailed by this measure, especially as it is said that the actual storage capacity of the tanks in question is much less than the recorded capacity, and the level of the channel is such as not to facilitate the free flow of water into the tanks in question situated at its end. These are however matters for the consideration and decision of the professional department.

12. Statement G contains statistics regarding acreage, remission, &c., under the various sources of irrigation under the channel below the point of the proposed anicut, and it will be seen therefrom that for the last 10 years there has been no remission granted for waste or shavi, except in fasli 1288, for the single village of chuttrampudukulam, and that the waste is very inconsiderable. But fasli 1288, being the famine year, was an exceptional one. The enclosures are submitted as per list enclosed.

ENCLOSURE No. 6.

From P. RAJAGOPALA CHARIAR, Esq., Assistant Collector of Tinnevelly, to the Collector of Tinnevelly, dated 28th November 1888, No. 356.

I have the honor to report on the scheme of water-supply for the Tinnevelly town, the papers relating to which were forwarded with your No. 1747, dated 10th July 1888.

2. I beg to enclose a copy of this office takid, No. 716, dated 14th November 1888, and the Tahsildar's arzi (in original), No. 852, dated 26th instant, and the other papers as per list annexed.

3. The first point for consideration is whether the cutting of a new head from the Kodagan channel and building an anicut thereon will in any way interfere with the existing rights of cultivators under it. Statement A gives the names of the tanks and irrigation channels that depend for their supply on the Kodagan channel below the point of the proposed anicut. The objections of the ryots under the Periyakulam tank and the villagers of Pettai, Kondiaperi and Chuttrampudukulam have been recorded—statements C, D, E and F, respectively. It would appear that notices were sent to all the ryots under Periyakulam, and 25 of them owning 89 acres have objected. The contention is that the Periyakulam tank, as it is, does not satisfactorily irrigate its present ayacut, and if a large quantity of water is deviated to the Ottankulam tank, they will suffer loss. Further, 27 ryots of Pettai village owning 171 acres, 39 ryots of Kondiaperi owning 148 acres, and 24 ryots of Chuttrampudukulam owning 143 acres, have objected—*vide* statements D, E and F. They all anticipate a considerable amount of difficulty in regard to their water-supply if the proposed scheme is carried out. With regard to all these objections, I have to make two observations—firstly, that the mere number of the ryots objecting is hardly material as their objections will have to be decided solely on their merits; and secondly, that the Public Works Department should be made to guarantee that no diminution of the present amount of water-supply will be caused by the proposed scheme. It might be said that *with greater economy in the use of water on the part of the ryots*, the new scheme may not affect the water-supply to their lands. I respectfully submit that the ryots can hardly be expected to learn such an economical use of water in a day, and that any arrangement we may make should, as far as possible, be suited to their present requirements.

4. The second point for consideration is whether the transfer of the irrigable area under Ottankulam to Periyakulam will affect the interests of the cultivators under either tank. Eight ryots under Ottankulam owning about 21 acres have objected—*vide* statement B. The most important objection is that some of the lands now under Ottankulam are on a higher level than can be conveniently irrigated from Periyakulam. This deserves serious consideration, and I would respectfully suggest that the Public Works Department be asked to take levels for the purpose of ascertaining how far the danger is real if the scheme is to be sanctioned. The Periyakulam ryots have also objected to the transfer of the Ottankulam lands to their ayacut.

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5. It is hardly possible to state with any degree of even approximate accuracy how far the interests of Government will suffer by the scheme now proposed. Statement G shows the acreage, remissions, &c., under the various sources of irrigation deriving their supply below the point of the proposed anicut, and the Tahsildar reports that for the last 10 years there have been no remissions granted for waste or shavi except in fasli 1288, the famine year. This, however, only shows that, as matters *at present stand*, the supply is sufficient, and gives no idea how far there is an available margin to be utilized otherwise. But as the villages beneath the point of the proposed anicut are at the tail end of the channel, I believe there will be constant friction between the Municipality on the one side and the ryots on the other, should the scheme be carried out.

6. I request leave to be allowed to say a word in explanation of the delay in submitting this report. Your order No. 1747, dated 10th July 1888, was communicated to the Tahsildar on the 17th July last, and reminders were sent to him on 27th August and 4th September, yet the Tahsildar did nothing till the 11th September. He reported in his arzi, No. 650, dated 4th September 1888, that he has asked for a list of the cultivators beneath the point of the proposed anicut, yet the records do not bear him out. Thus, for nearly 2 months, the Tahsildar (Narasimha Sastri) slept over the orders and reminders of this office, and I request that you will lay on record your disapproval of his conduct.

ENCLOSURE No. 7.

Mr. Nicholson's note.

I entirely doubt the advisability of this scheme. Apart from all questions of irrigation, I do not approve of the *water* itself.

1. This channel water and the channel has 5 villages containing 7,315 people on its banks above the proposed anicut—see *taluk* map. This of itself condemns the water which will be fouled by the matter from these villages.

2. There is a large Pariah hamlet on the very verge of the Ottankulam tank exactly at the point where the off-take of the channel to the town will start—see map. (I have myself been all over the ground and have seen this filthy hamlet which drains right into the tank). This will again foul the water, and in cholera times make it dangerous.

3. It is to pass by pipes to Tinnevelly. Personally, I doubt if the head will be sufficient to take it along pipes unless of very large dimensions; if an open conduit is found necessary, the water will be always foul.

In fact all that the new scheme will do will be to supply doubtful water all the year round; at present it is doubtful water for 9 or 10 months, and none (or only well water) for the other two.

4. I think the expense will be much more than is anticipated. I fear that my own idea of pumping water from the Támbraparni river at Kurukuturai from tube wells (say 20 or 30 coupled as in Brooklyn, New York, where 120 are coupled) will be too expensive owing to cost of fuel; otherwise that is a perfect scheme, delivering absolutely pure water from *tube wells sunk in the river bed* (pure sand with an underground stream) at pressure in the town. If the Council could bear a cost of Rs. 6,000 or 7,000 a year, it would be all right, but they can't. The scheme would, I believe, be *less* expensive to start than this Ottankulam scheme, but it would be somewhat costly to keep up. But I would protest against spending a large sum on a water-supply which is intrinsically *doubtful*. Even if it cost only Rs. 50,000 or 60,000, the interest before it was paid off would double it, so that the Council would spend a lakh at least on doubtful water.

(Signed) F. A. NICHOLSON,
Acting Collector.

30th November 1888.

ENCLOSURE No. 8.

From A. S. RUSSELL, Esq., Executive Engineer, Tinnevelly Division, to the Collector of Tinnevelly, dated Palamcottah, 11th December 1888, No. 3521.

With reference to your endorsement, No. 362, dated 7th instant, on copy of letter, dated 28th ultimo, from the Assistant Collector, Tinnevelly, I have the honor to say that, with the exception of the statement regarding the 21 acres under the Ottankulam tank said to be on too high a level to be supplied from the Periyakulam, nothing has been brought forward by the Assistant Collector that has not already been fully considered and dealt with in my report on the water-supply scheme for Tinnevelly. It is therefore merely necessary for me to notice briefly the points brought up in the Assistant Collector's letter.

2. I do not anticipate any difficulty in supplying from the Periyakulam the 21 acres of high level lands under the Ottankulam. The F.T.L. of the former tank is about 3 feet higher than

Kodagan channel rests with the Public Works Department officers, and if they can only guarantee that, in spite of the new diversion of water which will be caused by the proposed new anicut across it, the holders of the lands under the channel below the dam will get the usual and an adequate supply of water necessary for raising single or double crops as the case may be on their lands, their objections against the proposed dam need not be considered, as it will then in no way interfere with their existing rights to the use of water in Kodagan channel. The Executive Engineer seems to say in his letter that the construction of the proposed anicut and the cutting of channel therefrom will not cause any diminution of water-supply to the holders of lands below the anicut.

11. Then as to the question whether the interests of Government will suffer in any way by the adoption of the above measures, the decision of it depends upon whether the proposed dam, notwithstanding the lands below it registered as single or double crop lands, will get the needed supply of water or not. If the needed supply can be guaranteed, the interests of Government are not likely to suffer, as there will be no necessity of transferring double crop to single crop lands and so forth. But before the proposed diversion of water by the erection of the new dam is made or ordered to be made, it should be well established, I think, beforehand beyond doubt that the needed supply of water for the lands below the anicut will not be curtailed by this measure, especially as it is said that the actual storage capacity of the tanks in question is much less than the recorded capacity, and the level of the channel is such as not to facilitate the free flow of water into the tanks in question situated at its end. These are however matters for the consideration and decision of the professional department.

12. Statement G contains statistics regarding acreage, remission, &c., under the various sources of irrigation under the channel below the point of the proposed anicut, and it will be seen therefrom that for the last 10 years there has been no remission granted for waste or shavi, except in fasli 1288, for the single village of chuttrampudukulam, and that the waste is very inconsiderable. But fasli 1288, being the famine year, was an exceptional one. The enclosures are submitted as per list enclosed.

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3. The first point for consideration is whether the cutting of a new head from the Kodagan channel and building an anicut thereon will in any way interfere with the existing rights of cultivators under it. Statement A gives the names of the tanks and irrigation channels that depend for their supply on the Kodagan channel below the point of the proposed anicut. The objections of the ryots under the Periyakulam tank and the villagers of Pettai, Kondiaperi and Chuttrampudukulam have been recorded—statements C, D, E and F, respectively. It would appear that notices were sent to all the ryots under Periyakulam, and 25 of them owning 89 acres have objected. The contention is that the Periyakulam tank, as it is, does not satisfactorily irrigate its present ayacut, and if a large quantity of water is deviated to the Ottankulam tank, they will suffer loss. Further, 27 ryots of Pettai village owning 171 acres, 39 ryots of Kondiaperi owning 148 acres, and 24 ryots of Chuttrampudukulam owning 143 acres, have objected—*vide* statements D, E and F. They all anticipate a considerable amount of difficulty in regard to their water-supply if the proposed scheme is carried out. With regard to all these objections, I have to make two observations—firstly, that the mere number of the ryots objecting is hardly material as their objections will have to be decided solely on their merits; and secondly, that the Public Works Department should be made to guarantee that no diminution of the present amount of water-supply will be caused by the proposed scheme. It might be said that *with greater economy in the use of water on the part of the ryots*, the new scheme may not affect the water-supply to their lands. I respectfully submit that the ryots can hardly be expected to learn such an economical use of water in a day, and that any arrangement we may make should, as far as possible, be suited to their present requirements.

4. The second point for consideration is whether the transfer of the irrigable area under Ottankulam to Periyakulam will affect the interests of the cultivators under either tank. Eight ryots under Ottankulam owning about 21 acres have objected—*vide* statement B. The most important objection is that some of the lands now under Ottankulam are on a higher level than can be conveniently irrigated from Periyakulam. This deserves serious consideration, and I would respectfully suggest that the Public Works Department be asked to take levels for the purpose of ascertaining how far the danger is real if the scheme is to be sanctioned. The Periyakulam ryots have also objected to the transfer of the Ottankulam lands to their ayacut.

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In fact all that the new scheme will do will be to supply doubtful water all the year round; at present it is doubtful water for 9 or 10 months, and none (or only well water) for the other two.

4. I think the expense will be much more than is anticipated. I fear that my own idea of pumping water from the Támbraparni river at Kurukuturai from tube wells (say 20 or 30 coupled as in Brooklyn, New York, where 120 are coupled) will be too expensive owing to cost of fuel; otherwise that is a perfect scheme, delivering absolutely pure water from *tube wells sunk in the river bed* (pure sand with an underground stream) at pressure in the town. If the Council could bear a cost of Rs. 6,000 or 7,000 a year, it would be all right, but they can't. The scheme would, I believe, be *less* expensive to start than this Ottankulam scheme, but it would be somewhat costly to keep up. But I would protest against spending a large sum on a water-supply which is intrinsically *doubtful*. Even if it cost only Rs. 50,000 or 60,000, the interest before it was paid off would double it, so that the Council would spend a lakh at least on doubtful water.

(Signed) F. A. NICHOLSON,
Acting Collector.

30th November 1888.

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From A. S. RUSSELL, Esq., Executive Engineer, Tinnevelly Division, to the Collector of Tinnevelly, dated Palamcottah, 11th December 1888, No. 3521.

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2. I do not anticipate any difficulty in supplying from the Periyakulam the 21 acres of high level lands under the Ottankulam. The F.T.L. of the former tank is about 3 feet higher than

that of the latter, and a new high level sluice in the Periyakulam, together with a new field channel taken on the line of the existing supply channel and in the rear of the bund of the Ottankulam, will obviously supply the high level lands under the latter. On further investigation should it seen advisable for any reason to continue to supply this 21 acres of land from the Ottankulam, this can be done. The matter is a mere detail of the scheme, can be easily settled when it is worked out and in no way merits further inquiry while considering the preliminary report on the scheme.

3. In paragraph 9 of my report I have already stated that the anicut must have vents in it to pass on the supply required for the lower tanks.

4. In paragraph 11 of my report, I have pointed out that the cultivators must have a first claim on the water.

5. The question of water-supply cannot be diposed of off-hand. Nothing but a very careful investigation of the water registers for many years back will determine this point, which after all is not material to the matter; the Revenue authorities have to consider, viz., whether the interests of the cultivators will be imperilled if the water-supply scheme is carried out. The adoption of the measures noticed in paragraphs 3 and 4 above obviates any risk on this score. When the investigation of the scheme is undertaken, the question of water-supply can be thoroughly entered into. My own opinion, based on as thorough examination of registers as I have had leisure to devote to the purpose, is as already mentioned in my report, that the supply will prove equal to all demands made on it by the execution of the water-supply scheme, provided that the channel is placed under strict regulation.

6. The last-named proviso is indispensable to ensure a sufficient supply of water for the channel whether the water-supply scheme is carried out or not. The Assistant Collector's remarks on this subject, in paragraph 3 of his letter, are quite beside the point. My scheme will of course provide for "present requirements." As matters now are the waste of water is enormous. Few of the sluices in the tanks under the channel have any means whereby the supply passed through them can be adopted to the requirements of the areas of cultivation under them. When proper regulating heads have been built and strict regulation has been introduced, the water-supply in the channel and its tanks will be kept up for far longer than is now the case. Estimates have already been called for to provide for proper regulation of the sluices.

7. It is not a matter for surmise, but it is a matter of certainty that there will be constant friction between the Municipality and the ryots, unless measures are taken to prevent the latter from indulging in the riotous proceedings they have hitherto been permitted to indulge in in this district whenever any measures affecting their former unlimited water-supply are proposed for execution. Paragraph 11 of my report deals with this subject.

8. The object of the anicut is merely to give the necessary command of level to fill up the Ottankulam to its proposed F.T.L. My scheme, if carried out, will allow for a proper supply being continued to the Periyakulam and other tanks below the anicut, since I have inserted in my report provisions which, if carried out, will ensure that any threatened failure of water-supply will not fall upon the cultivators but upon the Municipality, who must, of course, be prepared at times to face for short periods the contingency of a scanty water-supply, a risk from which water-supply schemes executed for European towns at an outlay of several millions sterling are not exempt.

Endorsement by C. F. MacCARTIE, Esq., Acting Collector of Tinnevelly, dated 22nd November 1887, No. 1182.

Forwarded to the Chairman, Municipal Council, Tinnevelly, who should arrange for the translation of all but the technical part of the report and circulate it among the Commissioners who should consider it in Council after receipt of the Superintending Engineer's criticisom thereon.

Resolution—dated 6th February 1889, No. 83.

Submitted to Government.

2. The Acting Collector of Tinnevelly submits his report on a scheme for supplying Tinnevelly town with Támbraparni river water which has been worked out by the Executive Engineer there, and apparently approved as feasible by the authorities of the Department of Public Works.

3. The proposal is to put an end to the present irrigation from Ottankulam tank near Tinnevelly and to raise its F.T.L. by 3 feet and use it as a storage reservoir for Tinnevelly, filling the tank from the Kodagan channel which comes from the Támbraparni river. To maintain the reservoir full in dry weather an anicut is to be built

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at the head of the supply channel in the Kodagan channel which will of course diminish the supply for irrigation from that channel. The Engineer consider that for the irrigation of the area under the existing tank, there will be abundance of water from the Periyakulam, and that the supply in the Kodagan channel from the Támbraparni is ample to supply both the water required for irrigation and the water for the Municipality. He estimates the cost roughly at Rs. 50,000.

4. The Board observe that, in order that the proposed scheme may be feasible, it is necessary to hand over the Ottankulam tank to the Municipality, stopping all irrigation under it. The ryots concerned object strongly to all the proposed measures. The Board fear that their objections to the taking up of the Ottankulam tank might be enforced in the Civil Courts. They believe that the Courts would hold that this tank is not the *exclusive* property of the State. It could probably be taken if it was certain that the taking caused absolutely no damage to the ryots; but it is clear that however good the channel may be, they will lose an important benefit when they lose the power of storing water for twenty-two days; so that when the channel fails for a time (as it must have done last year) they shall have water at their command. Mr. Russell appears to think that the work should be done on the condition that the ryots shall always have the first right to sufficient water for irrigation; but it is evident that they will be hostile from the first, and will be ready to make claims to damage, which, as the Board think, will be considered by the Courts. It seems also probable that for some time to come the Government will have to give remissions and so lose revenue.

5. The Board observe that besides the above objection to the proposal, there are the further objections which arise from the vagueness of the scheme and the roughness of the estimate. These points as well as Mr. Nicholson's objection with regard to the quality of the water are rather points for the consideration of the Municipal Council than for them, and they do not therefore discuss them in these proceedings.

(True Copies and Extract.)

(Signed) M. HAMMICK,
Secretary.

To the Chief Secretary to Government, Public Department,
with eight enclosures.

Copy to the Collector of Tinnevelly.

Exd. W. J. Lewis.

Order thereon dated 17th May 1889 No 609 Jn/mai

It does not appear to Government that the scheme has been fully investigated. The quality of the water has not been ascertained, nor have proper enquiries been made as to whether the carrying out of the proposed scheme would really cause any appreciable diminution of the supply of water for

for agricultural purposes. The Executive Engineer does not notice W Nicholson's objection as to the want of head to deliver the water in the town, which is of course a very important point.

2. The papers will be referred to the Municipal Council for early report as to whether they are prepared to pay for an Officer of the Public Works Department for a couple of months to work out the scheme in detail.

(True Extract)

[illegible] Captain RE
Under Secretary P.W. Dept
for Chief Secretary.

To

The Chairman, Municipal Council, Tinnevelly
thro' the Collector with 8 enclosures
Public Works Department
Revenue Department
[illegible]

PUBLIC DEPARTMENT.

1889.

Board of Revenue

(Land Revenue),

MADRAS.

Printed February 28th.

Proceedings, February 1889, *No.* 83.

Submitting to Government report regarding the scheme of improved *water-supply* to the town of *Tinnevelly*.

Govt. of {188} Madras.

1458

Proceedings, dated 188 ,

No.

Subject.

1889

Government of India

Local & Municipal Dept.

(8)

To

The P. W. Department

No 2255 89

Proceedings dated 17th August 89

Nos 609 Municipal

Subject

Passing orders on correspondence regarding the Water supply scheme - Limmedly Municipality

Written orders

Requisition 1-6-89

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Comd. to the Commr. Supdg. Engr. VI Circle Subdg. Engr. VI Circle for information and for information and a copy forwarded a copy forwarded to the S. E. III Circle to the S. E. III Circle for the Records for the Records

22. With reference to the foregoing proceedings it is observed that the cost to the Council of the services of a special officer would depend on the deputationist's Standing Pay and Allowances at the time of the office held by the deputationist selected for the duty

Comd 27.5.89

27.5.89

Asstt 28.5.89

Dy 3/6/89

Secy III & VI Circle S. Do. III & VI Circle

The S. E. III Circle

The S. E. III Circle