(1) பக்கங்களின் எண்ணிக்கை 22.

(2) புதுக்கித் திருப்பிய நாள் [illegible]

(3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம் [illegible]

தமிழ்நாடு ஆவணக் காப்பகம்.

(50)

தமிழ்நாடு அரசு

P.W.D துறை

அரசாணை எண். மு. கோப்புத் தாள் எண்.	2352	அச்சகம் பலவகை
நாள் :	26.8.1889	19 .

மடிக்கவோ கண்டபடி கையாளவோ கூடாது

2வர

11 Sheets

ஆவண. கா-1—18,000—15-6-87.

2352

13th August 1888, No. 899 M., Local and Municipal.

GOVERNMENT OF MADRAS.

LOCAL AND MUNICIPAL DEPARTMENT.

Read—the following papers:—

From W. S. BETTS, Esq., Agent, South Indian Railway, to the Consulting Engineer for Railways, Madras, dated Trichinopoly, 31st May 1888, No. 458.

Your letter No. 312, of the 15th instant. You are aware that in my letter No. 694, of the 24th January last, addressed to the Managing Director, I reported to the Board upon the subject of the water-supply at Trichinopoly. In reply, thereto, the Managing Director informed me (letter No. 700, dated 2nd March last) the Board approved of the proposal for obtaining an unfailing supply of good water from the river Cauvery.

2. The Directors further suggested that it might be desirable to ascertain whether by an extension or enlargement of the proposed scheme, the same source would not supply the town of Trichinopoly with water, and so reduce the expense of the company, and even perhaps in time produce a profit sufficient to repay the outlay, and whether if this be practicable the municipality would join in the expense.

3. I have discussed this suggestion with the Collector of Trichinopoly, and I understood him to say he was prepared to recommend the municipality to agree to take part in a joint arrangement with the South Indian Railway Company for obtaining a supply of water from the Cauvery. It was suggested that the construction of the wells, the obtaining of the requisite pumping engines, piping, &c., should be undertaken by the company and that the cost thereof should be borne by the company and the municipality in proportion to the quantity of water estimated to be required by each. The working and maintenance of the engines, pipes, &c., should be undertaken by the company, and the cost thereof borne in like manner by the municipality and the company.

4. Since that discussion I understand the Municipal Commission has considered the rough lines of a project estimated to cost Rs. 2,50,000; they have approved of the matter being gone into in detail; have found the necessary funds for carrying the proposal out; and, I believe, the matter will be placed before Government in the Local Fund and Municipal department in the course of a few days.

5. I now wish to ascertain if Government will sanction a joint arrangement of this kind being entered into; if sanction be accorded, then the whole scheme should be gone into in detail and the necessary legal documents drawn up.

6. I send herewith a tracing showing how the Chief Engineer proposes to carry out the arrangement for obtaining from the Cauvery a supply of water to meet the *company's requirement only*. The cost of this is estimated at Rs. 57,742.

No. 202.

Submitted for the consideration of Government.

2. The proper supply of water to Trichinopoly junction station for locomotive and other requirements has been a source of anxiety for many years past. The whole question is fully set out in the Agent's letter to his Board of Directors, No. 694, dated 24th January 1888, and much consideration has been devoted to the various proposals for remedying the present unsatisfactory position of affairs.

3. Water is now obtained from the Wyacondan channel, where a pump is kept constantly at work in delivering water through pipes rather more than a mile in length into the locomotive tank-house, any surplus water finding its way into a reservoir designed to store a supply sufficient to meet all wants during the periods when the channel is closed for repairs or silt clearance. This scheme was adopted as being the cheapest, and also as having the advantage of being capable of extension at any future time with the loss of only a small portion (that representing the cost of the reservoir) of the original outlay.

4. As stated in the correspondence, the arrangement has not proved entirely satisfactory, and in some years difficulty has been experienced in providing a sufficiency of water to meet ordinary locomotive requirements. At an important junction, where traffic is steadily increasing, it is very undesirable that such uncertainty should exist, and, after full discussion, it has been decided to recommend the extension of the piping for a distance of $2\frac{1}{4}$ miles to the Cauvery river, where an unfailing supply can be obtained. This would also provide good drinking water for the company's servants, and for station purposes.

5. The cost of the original scheme was Rs. 25,000 and its extension, including the provision of new and more powerful pumps, and the sinking of wells in the river-bed, is estimated at Rs. 57,742.

6. The Board of Directors suggest that it might be desirable to ascertain whether the proposed scheme could not be advantageously enlarged to include the supply of the town of Trichinopoly.

A similar proposal is mooted in the letter * from the Chairman, Municipal Council, Trichinopoly, embodied in proceedings of Government, dated 18th April 1888, No. 372 M., Local and Municipal. The Agent understands that the Municipal Commission has considered the rough lines of a project estimated to cost $2\frac{1}{2}$ lakhs, and that the matter will shortly be placed before Government.

* No. 32, dated 14th February 1888.

7. Mr. Betts now asks whether the Government would sanction a joint arrangement of this kind being entered into. The only objection which I see to it is the delay which will probably occur in carrying out the larger scheme. The matter might, however, be referred to the Local and Municipal Department, who will soon be in possession of the proposals of the municipality. Should the Government decide in favor of a joint scheme, it will be necessary for the South Indian Railway Company to enter into an agreement with the Municipal Council as to the means to be adopted for carrying out the work, the provision of funds, the division of original cost between the railway and municipality, and the division of working charges. It appears desirable that the working arrangements should be in the hands of the Railway Company, who have a trained mechanical staff always available.

(Signed) W. H. COAKER, Major, R.E.,
Offg. Consulting Engineer for Railways.

No. 357-D.

Referred to the Local and Municipal Department for favor of remarks.

Ootacamund, *22nd June* 1888. (Signed) W. H. COAKER, Major, R.E.,
Ag. Joint Secy. to Govt., P.W.D., Railway Branch.

No. 586.

Referred to the Municipal Council, Trichinopoly, for *early* report.

(By order.)

Madras, *12th July* 1888. (Signed) W. S. MEYER,
Asst. Secy. to Govt.

From W. A. WILLOCK, Esq., Acting Collector of Trichinopoly, to the Chief Secretary to Government, dated Trichinopoly, 20th July 1888, No. 63—2.

I have the honor to forward, herewith, a report from the Trichinopoly Municipal Council regarding a water-supply project for the town to be carried out conjointly with the South Indian Railway.

2. The report explains what it is proposed to do clearly. Of course, no detailed estimates have been prepared, and the statement of cost is only approximate. Messrs. Oldham Brothers will, I understand, charge 3 per cent. on the outlay for preparing the detailed plans, and 3 per cent. for the execution of the works. This is included in the estimated cost of Rs. 2,50,000, which provides 12 per cent. for this purpose, and for contingencies.

3. Interest, sinking fund and depreciation have been taken at $7\frac{1}{3}$ per cent. I observe that the South Indian Railway allows $7\frac{1}{2}$ per cent.

4. The whole question is one of funds, and, unless Government can assist, I fear that the project will be wrecked, as the municipality will hardly be able to borrow in the open market on terms such as those on which their calculations are based. I hoped to have been able to arrange matters with the Pudukóta State, which has a large balance invested in Government paper, but have been unable to do so. The security is good enough; but money lent to a body like the Municipal Council is necessarily tied up in a manner which investors do not like to submit to. The project is one which the Council can, I believe, safely undertake, if funds can be obtained at the rates assumed, as their present expenditure is fully met by their income and could be economized somewhat; but an increase of a few thousands of rupees per annum would be more than they could easily undertake. I need hardly call attention to the disastrous consequences of leading matters, as they are at present, further than to mention that in six weeks in last December and January about 1,200 deaths from cholera took place within municipal limits. On some days, the death-rate exceeded 70. The report shows tolerably clearly that but little improvement can be effected by anything short of a sum which the Council could only provide by repayments spread over a long course of years. A few faults might be remedied without a loan; but whether any material improvement would be effected thereby is very doubtful. No proposals regarding a drainage scheme are forwarded, as it is considered that a good water supply must be secured first. The drainage is capable of gradual improvement from surplus revenue, should funds for a complete scheme be impossible to provide hereafter.

5. In conclusion, I would call attention to the importance of the present opportunity being made use of. Joint action with the South Indian Railway Company will be an immense advantage in the management of the pumping station, and, unless immediate action can be taken, this chance will be lost.

6. I forward, in a separate parcel, a plan of the municipality, showing the area to be supplied with water, and a few of the principal levels, &c. The mean water level in the Wyacondan channel at Dark's bridge is taken to be 100 feet above datum.

Enclosures.

Report on the Trichinopoly water-supply project.

The water-supply of the town of Trichinopoly is at present derived from the Wyacondan channel, which traverses the southern extremity of its main portion at a level about 28 feet above that of the bed of the Cauvery. The site of the old fort, the most densely-populated and important part of the town, occupies a ridge running north and south between the channel and the rock and sloping gently towards the east and west. The system, under which this part of the municipality receives its water-supply, is very simple. Two main supply channels take off from the Wyacondan at suitable points opposite the two slopes of the ridge just referred to and run parallel thereto towards the river. From these channels, branches run in underground tunnels towards the ridge and discharge into series of deep reservoirs amongst the houses from which he

water is drawn for use. The primary channels are mere open streams and are of course in a position to intercept the drainage from the town, and though arrangements have been made to pass it underneath them these are of a very partial nature. The channels have also been much neglected and their banks have at times been little better than public latrines. South of the Wyacondan channel, and on the continuation of the ridge on which the fort stands, are two populous areas known as Shengolam and Marsackpetta, which abut on the European and Military portion of the municipality. They have practically no water-supply at all and are about the most cholera-stricken localities in the whole town. The water project, now under consideration, is intended, in the first instance, for the supply of these areas, the population of which is about 64,000.

The disadvantages, from which the water-supply described above suffers, are the following :—

1*st*.—It is drawn from the Wyacondan channel at a point about 18 miles from its origin. Throughout this distance, it runs nearly parallel to the Cauvery, receiving all the land drainage which would otherwise flow into the river. The existence of several villages on its banks on the inland side and the fact that it is commonly used for washing and similar purposes throughout its length add to this disadvantage and render its water extremely impure before it reaches Trichinopoly at all. Its supply is also uncertain and scanty in the hot season, when the channel sometimes has to be closed for repair.

2*nd*.—The open channels, which conduct the water from the Wyacondan to the town system of tanks, are terribly liable to pollution and receive a considerable proportion of the drainage of the town in wet weather.

3*rd*.—The levels only allow of the water being delivered into deep tanks amongst the houses into which there must be a large amount of infiltration of drainage from the subsoil which has been permeated by the leakage from cess-pools and subject to other causes of pollution for ages. The tunnels which connect these tanks pass through most objectionable localities (one runs under a large burial-ground) and the sediment which accumulates in them is of a very foul description.

In the Chairman's letter, No. 7, dated 10th May 1887, the Municipal Council applied to Government for the services of an Engineer to investigate a water and drainage project ; but, in their order in reply, Mis. No. 702-M., dated 27th July 1887, the Council was directed to make its own arrangements for securing the services of a qualified person for the purpose. Advertisements were accordingly published and a large number of applications were received ; but, as the Council considered that the employment of any one who had not special experience in sanitary engineering would be a waste of money and as none of the applicants appeared to have any special qualifications of the sort, nothing further could be done at the time. Subsequently the Acting Collector succeeded in securing the services of Messrs. Oldham Brothers of Calcutta for the work under circumstances which provided for all that could be desired in the way of special knowledge on the subject and arrangements were made for a short visit from Mr. R. Oldham in April last. Meanwhile levels, which had been taken by Mr. Drake-Brockman some years before in preparing his drainage scheme, were connected with the most important points on the channel and the Cauvery and plotted on the large scale municipal map and all arrangements made to facilitate his investigations.

The first question which had to be considered was whether the defects in the existing system could be remedied at a moderate cost and the advantage offered by the commanding position of the Wyacondan channel (28 feet or so above the river) utilised. The leading faults of the present system have just been described. The conclusion arrived at as regards each was as follows :—

The first may be regarded as beyond control. The water in the Wyacondan channel might possibly be conserved against pollution arising from using it for washing purposes and the like ; but the physical features of the country render it impossible to avoid its being the recipient of the drainage from the south throughout the whole of its course.

The second source of pollution might be ameliorated a good deal by the construction of new supply channels (the site of the present ones is saturated with filth) with proper arrangements for passing drainage under them. It would, however, always have to be an open channel, as the fall is too small to allow of pipes of any reasonable dimensions being used.

The third defect could only be remedied by the establishment of a pumping station on the Wyacondan channel to allow of the delivery of water on a reasonable level (which would also get over the second drawback).

The possible improvement on the present system, without pumping operations, is therefore confined to a small measure of conservancy in the upper course of the Wyacondan—a measure which would be resisted, very possibly successfully, by the inhabitants of the adjoining villages—and the reconstruction of the two primary supply channels. This would effect a considerable improvement ; but it would still leave the supply very foul and dangerous to health, and precarious and scanty in the hot weather, while Marsackpetta and Shengolam, two of the worst localities, would be left as badly off as ever. If pumping operations are resorted to, all the defects except those due to want of conservancy of the Wyacondan and occasional scanty supply would disappear, but, roughly speaking, the cost of such a system would only fall short of that of one

relying directly on the Cauvery itself by the cost of somewhat more powerful engines and a slightly longer main pipe. At first sight it may appear that there would be a large saving in piping in favor of the former, but this would not be the case unless a reservoir were dispensed with, as the nearest site for one would be the high ground in the cantonment south of the channel ; whereas with a system drawing its supply from the river, the Trichinopoly rock itself would afford an excellent site not far out of the line the main pipe would naturally adopt. A reservoir might of course be dispensed with, but a system of delivery in pipes without one would be a very dangerous one, as the slightest accident to the machinery would force the population to resort to the wells and tanks which had fallen into disuse and become foul.

A project of pumping from the Cauvery being thus shown to be the only reasonable solution of the problem, its main features follow as a matter of course, viz., a pumping station for the collection of the water required from wells in the bed of the river, a reservoir on a suitable position on the rock and a system of distributing pipes therefrom. The position which the wells should occupy is settled by the Kodamurity river which runs into the Cauvery about ¾ of a mile above the Cauvery bridge. This river drains, amongst other areas, the densely-populated and cholera-infested tract between the Wyacondan channel and the Cauvery and its drainage must therefore be avoided by placing the wells above its junction. From this point no drainage falls into the Cauvery for a distance of 15 miles up its course. The main would follow the course of the railway up to the Fort station, where it would turn to the east and run along the southern face of the rock to its south-eastern corner. Here, on a slightly sloping shoulder about 50 feet above the ridge on which the town is built, is an excellent site for a reservoir. A certain amount of quarrying will be necessary to level the floor, but this will not be a serious source of expenditure, as the stone removed will be required for the walls of the cistern. It would probably be found advisable to construct it of a size to hold three days' supply, or 19,20,000 gallons, at 10 gallons per head per diem which would be equivalent to a depth of 16 feet over an area of 200 feet × 100 feet. From this the distributing system would run to the parts of the town mentioned above. The European portion of the cantonment would, of course, be omitted as would also be the Regimental lines, but a supply to the latter could be arranged for, if the Military Department thought it worth the expenditure. The western suburbs of Puttur, Tennur and Worriore would also be excluded for the present, but this would only be a temporary deprivation, as the engine, main and cistern would be capable of supplying them also. The extension of the scheme to this part of the town is postponed merely to keep the size of the original project within bounds. A supply will be afforded to these sections—as far as the water-rate they can contribute will allow—as soon as the main project has been got into working order. It is not proposed to filter the water, because this would involve two pumping operations, the cost of which would be prohibitive. It is hoped, however, that infiltration through the bed of the river into the wells will of itself go far towards filtration. The quality of the river water also has not been ascertained by analysis, but it is not thought necessary to delay the execution of the scheme for this purpose, as the river is the only supply available. It does not require analysis to show that it is purer than that of the Wyacondan channel, the only other possible source of supply.

The possibility of a combination with the South Indian Railway Company was discussed with the Agent and Chief Engineer by the Acting Collector and Mr. Oldham, and there appears every reason to suppose that an arrangement can be made. The form it would probably take would be that the municipality and railway company would contribute towards the cost of the wells, pumping station and the main as far as the Fort station in proportion to their requirements, while the remaining works needed by each would be separately provided for. The company would probably desire to have the working of the pumps in their hands—an arrangement which would be very advantageous to the municipality, as it would place the mechanical resources of the railway at their disposal. The working expenses would be divided between them in fair proportions.

Mr. Oldham's estimate of the cost of this scheme may be taken at Rs. 2,50,000. A deduction would probably have to be made from this for the share of the head works chargeable to the railway company, but the information supplied on this point is not very clear and the Council think it safer to adopt the larger sum. The working expenses for the complete scheme—including the extension to Worriore, Puttur and Tennur—are set at Rs. 12,000 per annum. This includes the share payable by the railway company. For the more limited project, which it is proposed to undertake in the first instance, Rs. 8,000 may be set down as the proportion to be paid by the Municipal Council. If the project is extended, it should be on the understanding that the additional water-rate will cover the increased expenditure. Supposing the capital required can be raised at 6 per cent., including sinking fund, as the Council hope to be able to do, the annual cost of the scheme will be as follows :—

	Rs.
Interest and sinking fund on Rs. 2,50,000 at 6 per cent.	15,000
Working charges	8,000
Depreciation	3,000
Total ..	26,000

The Council is of the opinion that, bearing in mind that the introduction of a costly water scheme without an efficient measure for drainage would be only a partial remedy for the evils from which the town now suffers and that the benefits conferred by the former will present themselves to the population in a much more tangible form than those to be derived from drainage, it is advisable to meet the cost of the project from an increase to its income specially intended for the purpose and draw as little as possible on its present surplus income.

The annual water-rate may be set at Rs. 8,000 for the area to be supplied at a low estimate. Until last year the Council received from the District Board a half share of the tolls collected around the town by the latter. This was reduced to one-third by G.O., No. 673-L., dated 15th April 1887, paragraph 4, Local and Municipal Department, without its being allowed to offer any remarks on the subject. The District Board have, in their resolution No. 78, dated 2nd June 1888, expressed their willingness to allow the former rate of division to be reverted to if a really satisfactory water-supply project is carried out, and the Council trusts that Government will see fit to approve of this generous offer. It is estimated that the introduction of the supply would effect a saving of Rs. 3,000 per annum in the cost of maintaining the present water system and of repairing the roads. These three items would make up Rs. 16,000 out of the total required. For the rest, the Council observes that in this district no means of raising an income seems to be so popular as a small fee for the admission of sellers to markets. The Council derives an income of Rs. 12,000 per annum from its markets, and they propose to increase the fees so as to raise an additional Rs. 4,000 therefrom. A grain market is much needed, and, considering the very large trade the town possess in this article, the Council believes that an income of Rs. 4,000 might easily be obtained by establishing one. There is a large mass of disused buildings close by the present market and in a very central situation which was formerly used as a district jail. These buildings are of no use to Government or to any one else and are rapidly falling into decay. Should Government see fit to hand them over to the Council in consideration of the heavy strain the project will place on their resources, they would be admirably adapted for a grain market. The above items would make up the sum of Rs. 24,000 without trenching on the existing resources of the Council This would leave only Rs. 2,000 to be met from general income. Of course the inc me from markets is not absolutely certain, but the Council consider that they have under-estimated the probable revenue therefrom and even if they are disappointed, the call on general revenue this scheme makes, will be so small that it will be well able to meet any deficiency.

In conclusion, the Council beg to call attention to the very small sum to be realised from water-rate under the present Act—amounting, as it does, to only 2 annas per head per annum on the population supplied. The charge seems altogether out of proportion to the benefits to be derived, and they would suggest that if the Act could be amended in this respect, their position in seeking funds would be much stronger, although they think that it will be quite possible to meet the expenditure at the present rate.

TRICHINOPOLY,
21*st July* 1888.

(Signed) J. G. D. PARTRIDGE,
Chairman.

EXTRACT from the Proceedings of the Municipal Council for the town of Trichinopoly passed at the special meeting held on 13th July 1888.

* * * * *

Read the draft report prepared by W. A. Willock, Esq., the Acting Collector of Trichinopoly, regarding water-project.

* * * * *

The Council unanimously adopt the report on the water scheme prepared by the Acting Collector and resolve to submit it to Government for sanction.

* * * * *

TRICHINOPOLY,
20*th July* 1888.

(Signed) J. G. D. PARTRIDGE,
Chairman.

From W. S. BETTS, Esq., Agent, South Indian Railway, to the Consulting Engineer for Railways, Madras, dated Trichinopoly, 21st July 1888, No. 614.

In continuation of my letter No. 458, of the 31st of May last, I forward tracing No. 102 of 1888, and the following copy of a report which I have received from the Chief Engineer:—

"With reference to the remark of the Consulting Engineers, that it seemed to them better that the pump and engine-house should be placed on land and not on the wells in the middle of the river, I forward a tracing (No. 102—88) from which it will be seen—what was not shown

on the tracing sent with the project—that the wells are not really placed in the middle but at the side of the river. It is true they will be in the river, but they will not be far from the bank to which I proposed to give access by a gangway constructed of old rail piles with a foot-way on top. My object in proposing to place the engine-house on the wells in the river is that the machinery must be kept above flood level, and as this level is sometimes the same both in the river and outside its banks over the general surface of the country, it seemed to me a saving to place the structure on the wells in the channel instead of providing a second and separate set on which to build clear of the river.

"Since sending forward the scheme, I have learnt on good authority that the Kodumurity river which is shown on the tracing to join the Cauvery just above the wells originally proposed, drains an area on which there are many dirty and cholera-stricken villages and hamlets. I propose therefore to sink the wells in the Cauvery a little above the junction of the Kodumurity so as to be up stream and away from the continuation of this affluent.

"I estimate that the extra cost of doing this will not exceed Rs. 2,000.

"I shall be glad to receive early sanction to the scheme, as it will take some time before the piping and requisite machinery can be supplied from England and it is important that the works should be completed before next dry season."

Will you please obtain the orders of Government hereon.

No. 234.

Submitted to Government in continuation of the Consulting Engineer's endorsement No. 202, dated 20th June 1888.

2. The revised site, as proposed by the Chief Engineer, South Indian Railway, is recommended for adoption.

MADRAS,
23*rd July* 1888.

(Signed) S. SMITH, Major, R.E.,
for *Offg. Consulting Engineer for Railways.*

No. 2800-C.

Referred to the Local and Municipal Department, in continuation of No. 357-D., dated 22nd June 1888.

(Signed) W. H. COAKER, Major, R.E.,
Under Secy. to Govt., P.W.D., Railway Branch.

24*th July* 1888.

Forwarded to the Municipal Council, Trichinopoly, in continuation of endorsement, dated 12th July 1888, No. 586.

(By order.)

(Signed) W. S. MEYER,
Asst. Secy. to Govt.

From J. G. D. PARTRIDGE, Esq., Chairman, Municipal Council, Trichinopoly, to the Chief Secretary to Government (through the Collector of Trichinopoly), dated Trichinopoly, 24th July 1888, No. 55.

In reply to your communication No. 586, dated 12th July 1888, forwarding, for my report, the papers about the water-supply at Trichinopoly railway junction station herewith returned, I have the honor to refer you to the report and the Municipal proceedings of the 13th instant, which accompanied letter No. 63—2, dated 20th July 1888, from the Acting Collector of this district to your address.

No. 430.

Forwarded.

(Signed) W. A. WILLOCK,
Acting Collector.

26*th July* 1888.

ORDER—dated 13th August 1888, No. 899 M., Local and Municipal.

The Government in this department approve generally of the outlines of a water-supply scheme proposed by the Collector and the Municipal Council of Trichinopoly. Detailed plans and estimates should now be prepared which will be considered in due course in the Public Works Department.

2. As regards the proposed co-operation of the South Indian Railway, the Railway Department will be informed that if a satisfactory arrangement can be made between the railway and the municipality, the Government in this department will be prepared to sanction it.

3. The Council's financial estimate appears to be too sanguine in several respects, *e.g.*, as regards the annual charge required to pay off with interest in, say, 30 years, a loan of $2\frac{1}{2}$ lakhs contracted in the open market; as regards the revenue to be derived from water-rate on the comparatively small portion of the town to be served by the present scheme, the increased receipts from tolls by a reversion to the arrangement with the District Board in force prior to G.O., 15th April 1887, No. 673 L., &c., These matters should be carefully reconsidered when the detailed estimates have been prepared.

4. If the scheme can be extended so as to benefit the troops, or at least the lines near the Tanjore road, the Government will be prepared to afford substantial aid from Provincial funds. But, until they have the detailed estimates before them, they can make no definite promise as to the nature and extent of such contribution.

5. In view of the fact that buildings and lands are already liable to pay a tax of $7\frac{1}{2}$ per cent. on their annual rent-value towards the general purposes of the municipality, the Government are not prepared to amend the District Municipalities Act with the object of increasing the water-rate beyond 4 per cent., as suggested by the Municipal Council.

(True Extract.)

J. F. PRICE,
Ag. Chief Secretary.

To the Collector of Trichinopoly.
" " Chairman, Municipal Council, Trichinopoly, through the Collector.
" Public Works Department.
" " " " (Railway Branch), with papers returned.

Exd. W. H. French.

2352

5

Order thereon No. 2850 W&M
13th Sept. 1888

Communicated to
the Superintending Engineer
VI circle for information
& J.O.A.

Govt. of (1888) Madras.

LOCAL AND MUNICIPAL.

Issued

Read. Encl.

G.O., 13th August 1888, No. 899 M.

AUGUST.

16th circle

Water-supply.

Approving generally the proposals of the Trichinopoly Municipal Council in regard to the — of that town, and directing the preparation of detailed plans and estimates for consideration in the Public Works Department.

2357

GOVERNMENT OF MADRAS.

LOCAL AND MUNICIPAL DEPARTMENT.

READ—the following papers:—

From J. G. D. PARTRIDGE, Esq., Chairman, Municipal Council, Trichinopoly, to the Chief Secretary to Government (through the Collector of Trichinopoly), dated Trichinopoly, 30th April 1889, No. 16.

With reference to your memorandum, dated 8th instant, and your endorsement, No. 324, of the 10th instant, I have the honor to annex herewith extract from the Proceedings of the Municipal Council, dated 27th instant, giving their views and proposals on the water-supply scheme prepared by Mr. R. A. Oldham, of Calcutta.

2. The great importance of the scheme, and the urgent necessity there is for undertaking it at once, have been sufficiently explained in the report submitted by the Council in July last and embodied in G.O., No. 899 M., dated 13th August 1888.

3. A copy of Mr. Oldham's report, and two tin cases containing the original plans, &c., which accompanied it, are herewith forwarded for consideration of Government in the Public Works Department, as desired in paragraph 1 of G.O., No. 899 M., dated 13th August 1888.

4. It will be observed that the Council have modified their original rough estimate of additional income in several particulars. They have decreased the water-tax by Rs. 1,000, and the incomes from the grain market and additional fees in the present markets by Rs. 1,000 each, while they have added a sum of Rs. 2,000, which they are confident will be obtained by a careful revision of the house-tax. Besides this, they estimate an increase only of Rs. 4,500 instead of Rs. 5,000 from the half-share of the tolls. They consider these estimates to be moderate, and that they are not at all likely to exceed the actuals.

—

ENCLOSURE.

EXTRACT from the Proceedings of the Municipal Council passed at the special meeting held on the 27th April 1889.

* * * *

Read memorandum from the Chief Secretary to Government, dated 18th April 1889, requesting to forward at the earliest possible date the views and proposals of the Council on the printed report addressed by Mr. R. A. Oldham, of Calcutta, on the Trichinopoly water-supply scheme.

* * * *

The Council offer the following views and proposals on the water-supply scheme prepared by Mr. R. A. Oldham, of Calcutta.

The scheme covers a supply of pure water—

(1) to the most crowded and cholera-stricken parts of the town, viz., Fort, Marsackpett and Sengolam, containing a population of approximately 60,000 people. This is estimated at Rs. 2,50,000.

(2) to the two sepoy lines situated near the old Tanjore and Dindigul roads, respectively, at the outskirts of the town, calculated at 8,000 head. This is to cost Rs. 32,413.

(3) to the South Indian Railway Company's station in the cantonment, calculated at 100,000 gallons daily. This is to cost Rs. 37,195.

Engineering, contingencies and supervision, Rs. 39,951.

The total cost for the whole scheme will be Rs. 3,59,559, or, in round figures, Rs. 3,60,000.

6

Ways and Means.—It is presumed that the whole amount will be advanced by Government at 4 per cent. under the conditions laid down in G.O., No. 322 L., dated 8th February 1889. Relying on this, the following calculations are made regarding the annual cost of the scheme :—

	RS.
Interest on loan of Rs. 3,60,000 at 4 per cent.	14,400
Provision for sinking fund at 2 per cent.	7,200
Depreciation of machinery, &c. at 1½ per cent.	5,400
Working expenses as reckoned by Mr. Oldham	20,000
Total ..	47,000

Deduct—

(1) Contribution on account of sepoy lines already promised (G.O., No. 1490, dated 27th February 1889)	3,000
(2) Contribution from Railway Company towards working expenses .. Interest and sinking fund provision at 6 per cent. on Rs. 42,000 (the portion of the initial cost to be borne by the Company) ..	4,000 and 2,500.
Total ..	9,500

The Council will have to provide for a yearly sum of Rs. 37,500.

To meet this yearly amount, they now estimate the following :—

	RS.
Water-tax on the portion of the town supplied	7,000
Income from the grain market and cart-stand to be opened in the old district jail buildings	3,000
Revision of house rate	2,000
Saving in expenditure by the abolition of the present water establishment for tanks, &c.	3,000
Additional income from markets by raising the fees	3,000
Increased contribution from the District Board under tolls—*vide* paragraph 4 of G.O., No. 138 M., dated 4th February 1889 ..	4,500
Total ..	22,500

This leaves a deficit of Rs. 15,000.

The Council consider that Government should be requested to contribute Rs. 1,500 a year more for the Sepoy lines, as Rs. 4,500 will be a fair contribution to cover the initial cost of the extension to the lines and the share of the yearly working expenses as shown below :—

	RS.
Interest, sinking fund and depreciation at 7½ per cent. on Rs. 32,000 (cost of extension)	2,400
Share of working expenses on 80,000 gallons' supply	2,000
Total ..	4,400

At any rate, the Council think that the scheme cannot fairly be extended to the lines, unless Rs. 4,000 per annum is contributed by Government.

This will reduce the deficit to Rs. 14,000.

The yearly balance of revenue over expenditure at present is about Rs. 5,000. This amount cannot be entirely expended on the water scheme, as it is urgently required for the drainage of the town, which has hitherto been neglected. Rs. 2,000 may, however, be availed of from this source.

These are all the available resources which the Council can think of at present, and there is a deficit yet of Rs. 12,000. Unless a further contribution equal to this amount is given from the Local Funds, the Municipality will be unable to undertake the scheme.

The Council beg to suggest that the present rates of tolls may be doubled, as they are levied at half the maximum rates at present. By this means the Local Fund Board will be able to supply Rs. 12,000 a year without any entrenchment upon their present income.

The Council unanimously agree to undertake the scheme prepared by Mr. Oldham on these terms. The supervision of the work will be entrusted to Messrs. Oldham, who are apparently willing to superintend the construction of the works for 3 per cent. on the total cost of Rs. 3,20,000.

235

If the works on completion are put in charge of the Railway Company, there will be no fear of any breakdown in the water-supply, as there would be if they were in unprofessional hands. The Council look upon this arrangement as absolutely necessary for the proper working of the scheme. It is not intended to charge the Railway Company any water-rate upon their buildings.

No. 46—2.

Forwarded to Government.

2. The delay in holding a meeting on the matter was due to the necessity of waiting for a reply from the Agent, South Indian Railway, on certain points on which Mr. Willock asked information. The Agent has now sent me a copy of his letter to Government, reporting on the scheme; and from that letter, and the report of the Chief Engineer of the Railway, I see that the Railway Company is favorable to the scheme.

3. The necessity of having a supply of pure water for Trichinopoly town has been abundantly recognized, and I need not enlarge on it. Further, Mr. Willock's report on the project, forming an enclosure to this office letter, dated 20th July 1888, No. 63—2, printed in G.O., dated 13th August 1888, No. 899 M., shows that the scheme now forwarded is the only scheme that would really furnish a pure supply. This scheme is therefore a necessity.

4. I was present at the meeting that passed the scheme. The figures relating to income, given in the extract of proceedings forwarded, were all carefully discussed, and may, I think, be taken as correct and reasonable.

5. Only two of these figures require notice; (1) the increased contribution asked from Government, and (2) the question of the raising of the tolls.

6. As to the first of these, the Council have, I submit, made out their case. Their estimate of the annual charge for interest, sinking fund and depreciation, on the portion of the capital spent on the extension to the lines, is, in fact, below the mark; for they put down the capital itself at the bare cost of construction, and omit all account of the 12 per cent. allowed for engineering and contingencies. The annual cost to the Council, on account of interest, sinking fund, and depreciation on the Rs. 36,465, the real initial cost of the extension to the lines—*vide* paragraph 20 of Mr. Oldham's letter—will thus be Rs. 2,735. It will not pay the Council to extend the work to the lines, unless Government pay this sum *plus* the annual working expenses of that extension, *plus* a sum to represent a fair profit to the Council, sufficient to reimburse them eventually in the expense of the initial cost of that extension. The annual working expenses of the extension is theoretically Rs. 2,051, that is, the proportion to the total annual working expenses, Rs. 20,000, for a daily supply of 80,000 gallons, out of a total daily supply of 780,000 gallons; but as a fact, the additional working expenses entailed on the Council by the extension would probably not amount, in reality, to more than a few hundred rupees, as the extra establishment required would be something very small. As to the annual profit, which the Council must look for, unless Government would prefer to bear the initial cost of the extension, it cannot, I think, be put down at less than Rs. 1,500, that is, 4 per cent. on the cost of construction; raising the total annual contribution by Government to something over Rs. 4,500. It will not pay the Municipal Council to extend the scheme to the lines, unless the Government contribution is raised to at least Rs. 4,500; and I earnestly request that the Government would be pleased to raise the contribution accordingly. A contribution of only Rs. 3,000—the sum agreed to by Government—would only partly cover, if it did cover, the annual charges for interest, &c., and working expenses; and the Council would, therefore, if they executed the work on those terms, practically make Government a present of the initial cost. I am aware that Government have hitherto been only asked for Rs. 3,000; but the facts were not fully known then.

7. As to the second point, viz., the tolls, the proposal is the only way out of the difficulty, and will cause no hardship. I shall put it before the Local Fund Board at their next meeting, and have no doubt they will agree to it.

7

8. It is intended to place the whole of the works, on completion, under the management of the South Indian Railway Company. I regard this as an essential feature of the scheme; and as it will be for the interests of the Railway Company themselves, I believe they also will prefer it.

9. There is one point not touched on by the Chairman or the Council. Mr. Oldham would appear to have made a mistake in his calculation of the sinking fund. An annual contribution of 2 per cent. to a sinking fund, so far as I can see, pays off a debt in 30 years, *i.e.*, of course allowing 4 per cent. on the fund; and, if so, there is no difficulty. If it took 40, as Mr. Oldham states, there would be this difficulty, that the loan would not be repaid in the time fixed by the rules.

P.S.—Since writing the above, I have put the question of the raising of the tolls before the Local Fund Board, and they have agreed to the proposal. A copy of their resolution is enclosed. The tolls round Trichinopoly town will be raised to three-fourths the maximum rates, and the Rs. 12,000 of the extra income will be paid to the Municipal Council. Thus:—

	Rs.
Present income from tolls round Trichinopoly town at half rates ..	27,000
Add half the result of raising to three-fourths rate	13,500
Future income ..	40,500
Deduct Local Fund Board's half of the old tolls	13,500
Balance to be paid to the Council ..	27,000
Deduct half of old tolls already decided to be paid	13,500
Additional sum now available for Council ..	13,500

This leaves a margin of Rs. 1,500.

2. The tolls cannot, of course, be raised this official year, as all the toll-gates have been given out on contract.

Trichinopoly,
14*th May* 1889.

(Signed) G. W. FAWCETT,
Acting Collector.

From J. G. D. PARTRIDGE, Esq., Chairman, Municipal Council, Trichinopoly, to the Chief Secretary to Government (through the Collector of Trichinopoly), dated Trichinopoly, 7th May 1889, No. 17.

I have the honor to enclose a letter from Mr. Oldham that has been received since writing my letter to you, No. 16, dated 30th April 1889, from which it will be seen that he proposes to alter the nature of works at the source of supply, and thinks that his present proposal is a great improvement over his first. I share in that opinion, and beg to add that Mr. Oldham informs me that the cost of constructing the infiltration galleries now proposed would not exceed that put down originally for the wells to be sunk in the river bed.

2. I have the honor, therefore, to request that you will kindly place Mr. Oldham's present letter for consideration of Government along with his report and plans submitted with my letter, No. 16, of the 30th April 1889.

No. 221-B.R.

Forwarded. The alteration appears to be an improvement.

Trichinopoly,
10*th May* 1889.

(Signed) G. W. FAWCETT,
Acting Collector.

2352

From G. W. FAWCETT, Esq, President, District Board, Trichinopoly, to the Chief Secretary to Government, dated Trichinopoly, 17th May 1889, No. 45.

I have the honor to propose an increase in the tolls now levied in the ten sanctioned gates round Trichinopoly, from the present one-half to three-fourths the maximum rates.

2. The question arose in connection with the Trichinopoly water-works project. In providing ways and means to carry out the scheme, the Municipal Council found themselves short by Rs. 12,000 of the amount required to meet the annual charges; and the raising of the tolls was found to be the only way to get out of the difficulty.

3. The question was considered by the District Board at their meeting of the 11th instant, and it was resolved that the rates of tolls be raised to three-fourths, and that the whole of the extra profit be paid to the Trichinopoly Municipality, for the purpose indicated. I enclose a copy of the Board's resolution, and request that the Government will be pleased to sanction the measure. I have already mentioned the matter to Government, as Collector, when forwarding the report of the Trichinopoly Municipality.

4. The tolls cannot, of course, be raised this year, as all the toll-gates have been given out on contract.

From W. S. BETTS, Esq., Agent, South Indian Railway, to the Consulting Engineer for Railways, Madras, dated Trichinopoly, 1st April 1889, No. 388.

Your letter, No. 579, of the 3rd September last. I attach copy of a report (C-482 of 25th ultimo) from the Chief Engineer upon Mr. Oldham's proposals for the Trichinopoly water scheme. I also forward a printed copy of Mr. Oldham's report. If you have already been supplied with a copy of the last-named document, will you please return the one I now send, as it is the only one I have.

2. I understand that if the South Indian Railway Company subscribes to the joint scheme, interest at 6 per cent. will be paid by the Municipality to the Company for the amount advanced, and that eventually by means of a sinking fund the advance will be fully repaid.

3. I concur with the Chief Engineer in opinion that the arrangements proposed are equitable, and that there is little risk of any interruption to the supply.

4. Will you please bring this subject before Government as soon as possible. At the present time (and during the last four days) the supply of water in the Wyacondan has been cut off, and we now have to obtain a supply of water for locomotive purposes from the Trichinopoly Fort station.

No. 184.

Endorsement on the above.

Submitted for the orders of Government, with reference to Proceedings, No. 753-R, dated 13th September 1888.

Madras,
9*th April* 1889.

(Signed) C. J. SMITH, Colonel, R.E.,
Consulting Engineer for Railways.

From W. S. BETTS, Esq., Agent, South Indian Railway, to the Consulting Engineer for Railways, dated Trichinopoly, 30th May 1889, No. 658.

Will you please cancel my letter, No. 614, of the 20th instant.

2. On the 27th idem the Collector of Trichinopoly called to my office, and discussed with the Chief Engineer and myself the proposed joint water-supply scheme, with the result shown in attached copy of letter.

3. You will observe that it is not the intention of the Municipality to charge the Company with a certain rate per gallon for the quantity of water supplied. It is

8

proposed that the Company shall pay a proportion of the actual working expenses only. Such estimate to be calculated on the quantity of water taken by the Company proportionate to the total supply to the Municipality.

4. Under these circumstances, the Chief Engineer and myself wish to withdraw our objection to joining in the joint scheme.

ENCLOSURE.

Letter from the Acting Collector of Trichinopoly, to the Agent, South Indian Railway, dated Trichinopoly, 28th May 1889, No. 503—18.

I have the honor to reply to your letter, No. 1399, dated 23rd instant, on the subject of the Trichinopoly water scheme.

2. The conversation you, Mr. Logan and I had yesterday at your office has, I believe, removed your objections to joining in the scheme.

3. We have, in fact, as I discovered yesterday, been at cross purposes all the time. It was never intended to charge you anything for water. The total expense the Railway Company will be put to by joining in the scheme will be—

(*a*) an initial expenditure of about Rs. 42,000, the cost of construction of the extension to them; and

(*b*) the annual share of the working expenses, estimated at Rs. 4,000; calculated on the quantity of water taken, proportionate to the total supply.

4. The scheme is thus, as I said in my letter, No. 451—18, of the 13th instant, that the Municipality and the Railway Company construct and maintain the works jointly, each paying for the construction and maintenance of its own share, and no more—the simplest and fairest division possible. It would, of course, be possible, as I said yesterday, to arrange it in another way, viz., that the Municipality should bear the initial expense of the whole of the work, and merely charge you an annual sum for water; but they would, in that case, be obliged to charge you a sum sufficient to cover—

(1) the annual maintenance charges of the extension;
(2) the interest they have to pay to Government on the capital sunk on that extension; and
(3) a reasonable profit sufficient to reimburse them eventually in the original outlay; and that would, as we found yesterday, certainly cost you more money in the end, for you can borrow at 3½ per cent., that is, at ½ per cent. cheaper than they can.

5. The joint scheme is, in my opinion, the best for both parties—the cheapest for you, and the best for the Municipality, as giving you a direct interest in the work and ensuring a proper supervision over the machinery. You will, under it, have practically the entire management of the pumping machinery, and, in fact, of everything except the distribution in the town.

6. An agreement will, of course, be drawn up between you and the Council, before the work is begun, defining the respective rights of both parties. This will present no difficulty.

No. 254-A.

Endorsement on the above.

Submitted to Government, in continuation of endorsement No. 184, dated 9th April 1889.

MADRAS,
4th June 1889.

(Signed) C. J. SMITH, Colonel, R.E.,
Consulting Engineer for Railways.

No. 283-D.

Transferred to the Local and Municipal Department for favor of disposal.

5th June 1889.

(Signed) C. J. SMITH, Colonel, R.E.,
Joint Secy. to Govt., P.W.D.,
Railway Branch.

2352

From the Consulting Engineer for Railways, Madras, dated 7th June 1889, No. 1000.

ORDER—dated 2nd August 1889, No. 948 M., Local and Municipal.

Mr. Oldham's report on the water-supply project, with the plans and estimates, has been referred to the Public Works Department for remarks. Pending receipt of these, the Government will pass orders on the financial measures necessary to carry out the scheme, in the event of its being approved and of the South Indian Railway Company taking part in it as now proposed.

2. The cost as estimated by Mr. Oldham is Rs. 3,59,559, as shown below:—

	RS.
(*a*) For Municipal purposes proper, *i.e.*, supplying portions of the town in the Fort, Marsackpett and Sengolam, with 12½ per cent. for contingencies and supervision	2,81,250
(*b*) Extension to Sepoy lines, with 12½ per cent. for contingencies and supervision	36,465
(*c*) Supply for South Indian Railway, with 12½ per cent. for contingencies and supervision	41,844
Total ..	3,59,559

It is not clear how Mr. Oldham has arrived at the shares in the cost of the scheme allotted to the Railway and the Sepoy lines, but from paragraph 18 of his report and the note on page (42), it would seem that he has taken into account only the additional cost of the extended mains, of the larger river works, and of the more powerful machinery which will be required if supply is given to these localities. It appears to Government that a fairer course will be to divide the cost and the working charges of the entire project in proportion to the supply estimated for each locality, as otherwise the Railway and the Sepoy lines would get for nothing a portion of the initial advantage secured by the Municipal works proper. On this basis, the distribution of the cost would be as follows:—

	RS.
(*a*) For Municipal purposes proper, at 600,000 gallons per diem ..	2,76,586
(*b*) Extension to Sepoy lines, at 80,000 gallons per diem	36,877
(*c*) Supply for the South Indian Railway, at 100,000 gallons per diem	46,096
Total ..	3,59,559

This distribution, however, assumes the population of the Sepoy lines (who are to be supplied with water at the rate of 10 gallons per head per diem) to be 8,000, whereas, according to the information supplied to His Excellency the Commander-in-Chief, the total number of men, women and children belonging to the 4th Pioneers and 17th Madras Native Infantry, including regimental followers, is only 4,135. If this be so, the distribution of cost would be varied as shown below:—

	RS.
(*a*) For Municipal purposes proper, at 600,000 gallons	2,90,748
(*b*) Extension to Sepoy lines, at, say, 42,000 gallons	20,353
(*c*) Supply for the South Indian Railway, at 100,000 gallons ..	48,458
Total ..	3,59,559

The Chairman is requested to report as soon as possible upon what *data* Mr. Oldham has based (*a*) his estimate of the population of the Sepoy lines, (*b*) his calculation of the cost of extending the scheme so as to supply the lines and the railway. The probable actual cost of the piping, &c., required to bring the water to these localities, should also be reported.

3. The Council request that the whole amount required for the project may be advanced to them by Government at 4 per cent. interest; the initial cost of the extension to the Railway and the Sepoy lines, together with interest at 4 per cent., being recovered from the Company and Government (in the Military Department), respectively, by annual instalments. But as the Railway Company can raise money at 3½ per cent., it will be more profitable for them to provide the capital required for their share in the scheme. Similarly it will be more profitable for Government to find the capital for the supply to the Sepoy lines; so that the Municipal Council will be required to provide only the initial cost of their portion. As above calculated, this will be either some 2,76,000 or some 2,90,000 rupees, according to the population of the Sepoy lines which has to be supplied with water. The Government will be prepared to make a free grant of one-fourth of the sum required from Provincial funds, and to advance the balance at 4¼ per cent. interest, repayable in 30 years. The Council will thus have to find at the most some Rs. 2,18,000, of which about Rs. 18,000 can probably be met from their cash balance, so that they will have to borrow from Government to the extent of, say, 2 lakhs. The yearly payment required to discharge this sum, principal and interest, in 30 years, will be Rs. 11,920.

4. The annual working expenses of the whole scheme are estimated by Mr. Oldham at Rs. 20,000. Adding to this 1½ per cent. on the estimate for works (Rs. 3,19,608) on account of depreciation of machinery, &c., the total working charges may be estimated at Rs. 24,800. Distributing this amount among the various parties to the project in proportion to the supply to be obtained by each, the allotment will be as shown in Statement A below if the daily demand of the Sepoy lines be taken at 80,000 gallons, and as shown in Statement B if the demand be taken at 42,000 gallons only:—

A.

	Rs.
Municipality	19,077
Military Department ..	2,544
Railway	3,179
Total ..	24,800

B.

	Rs.
Municipality	20,055
Military Department ..	1,403
Railway	3,342
Total ..	24,800

5. The annual expenditure which the scheme will involve on the Municipality will thus be at the most Rs. 11,920 + Rs. 20,055 = Rs. 31,978, or, in round numbers, Rs. 32,000.

6. The Municipal Council propose to meet the above sum from the following sources:—

(*a*) Excess of present municipal income over expenditure.
(*b*) Revision of house-tax assessments.
(*c*) Imposition of a water-tax.
(*d*) Increased revenue from markets.
(*e*) Saving in present water-supply charges.
(*f*) Increase of toll revenue.

7. The average yearly excess of receipts over charges during the four years ending with 1887-88 was Rs. 5,800; but the Council only estimate Rs. 2,000 a year under this head for the water-works project, leaving the remainder to provide for a drainage scheme.

8. Under markets they hope to obtain Rs. 3,000 a year from a central grain market and cart-stand to be opened in the old district jail buildings which the Government has lent for the purpose, and Rs. 3,000 by raising fees in the present markets. The business that would be transacted in the proposed grain market, which does not yet exist, would probably be wholesale, and the grain merchants would most likely conduct their transactions outside of it, so as to avoid the fees. The Government does not consider it safe to reckon the total extra income to be derived from markets at more than Rs. 3,000 per annum.

9. The saving on the present water-supply charges, estimated by the Council at Rs. 3,000 per annum, apparently includes retrenchment of road expenditure also, which is undesirable. In any case the amount to be obtained under this head is very problematical, and His Excellency in Council is of opinion that Rs. 1,000 a year is all that can be safely calculated upon.

10. All the tolls in the district are at present under the control of the District Board, who levy half the maximum rates chargeable under Schedule B, Act V of 1884, paying the Trichinopoly Municipality one-third of the total receipts, deducting those at the Iyar gate. It is proposed by the Board to raise the tolls to three-fourths schedule rates, and to make over the whole of the additional receipts thus obtained to the Municipality for the water-project. The Government cannot entertain this proposal. It is not legitimate to provide a supply of water for the town by means of taxation of which only a part—and in the present case probably a small part—will fall upon its inhabitants.

The proposal to increase the proportion of the existing toll receipts payable to the Municipality is also inadmissible. The gates which fence in the town being managed under the Local Boards Act, tolls are levied on traffic passing both ways, whereas if the gates were under the Municipality, only traffic entering the town could be taxed. The one-third proportion of the total toll receipts which the Municipality at present obtains may be assumed to be equivalent to two-thirds of the inward traffic, and, considering the position of Trichinopoly as a trade centre and emporium of produce for export, it cannot be held that any larger proportion of this traffic is intended for consumption within the town.

11. The increased revenue to be derived otherwise than from house-tax and water-rate is thus only Rs. 6,000. The balance of Rs. 26,000 required by the Council must be raised by the revision of the house assessments and the imposition of a water-tax—a policy which will lay the main burthen of payment for the water-works more directly on the inhabitants of the town who benefit by them.

	Rs.
By present excess of receipts over charges	2,000
By markets	3,000
By saving on present water-supply charges	1,000
Total ..	6,000

12. The house tax is at present most inadequately assessed. The statement on pages 42 and 43 of G.O., 16th March 1889, No. 312 M., shows that in 1887-88, nearly 2,000 houses in Trichinopoly were exempt from taxation, while the incidence per house taxed was only Rs. 1-9-5, against an average for all municipalities of Rs. 1-14-7. Trichinopoly is a town in which the tax should bring in more, and not less, than the average, and considering that each house taxed yields Rs. 2-8-10 in Madura, Rs. 2-6-4 in Bellary, and Rs. 2-13-1 in Calicut, the yield in Trichinopoly should not be less than Rs. 2 per building. This rate would give an increase of nearly Rs. 5,000 a year on the present assessments. The house-tax registers should therefore be at once revised on a proper valuation. It must be remembered that a double increase of revenue can be thus attained, viz., first from the tax on buildings proper, and second from the water-tax, which is based upon the same assessments.

13. This latter tax is to be levied at 4 per cent. on the annual rent value of the buildings and lands in that portion of the town to be supplied by the Municipal scheme proper. According to Appendix IV, G.O., 16th March 1889, No. 312 M., the current demand for 1887-88 under the taxes on buildings and lands, which are levied at 7½ per cent. on the rent value, came to Rs. 24,684. Assuming that this could be raised to Rs. 30,000 by revising the land assessments as well as those on houses, and that the value of the buildings and lands to be assessed to water-tax will be about three-fourths of the aggregate value for the entire town, the water-tax should yield—

$$\text{Rs. } 30{,}000 \times \frac{4}{7\frac{1}{2}} \times \frac{3}{4} = \text{Rs. } 12{,}000.$$

	RS.
* Estimated annual charges of the project	32,000
Deduct—	
Receipts from savings and markets estimated in paragraph 11 ..	6,000
Increased yield under house-tax as estimated in paragraph 12 ..	5,000
Revenue from water-tax	12,000
	23,000
Balance ..	9,000

14. There will still be some Rs. 9,000 per annum required to meet the charges of the water-supply project,* and unless the Council can find some other unobjectionable means of raising this money, it must, in the opinion of Government, be obtained by adding to the tax on buildings and lands. That tax is now levied at the highest rate authorized by the District Municipalities Act; but the Government will be prepared in case of need to legislate in order to raise the limit of taxation from 7½ to 10 per cent. on the annual rent value.

15. The Council are requested to give the above suggestions their careful consideration and to report their views at an early date. The number and estimated assessment of the houses and lands situated in the area to be served by the Municipal scheme proper should at the same time be reported.

(True Extract.) [signature]

for Chief Secretary.

To the Chairman, Municipal Council, Trichinopoly,
through the Collector.
„ President, District Board, Trichinopoly.
„ Public Works Department (Railway Branch).
„ Military Department.
„ Sanitary Commissioner for Madras.

Exd. A. Raitt.

2352

11

Gobt. of {1889} Madras.

LOCAL AND MUNICIPAL.

(6)

Issued

Recd. 19.8.89 Encl.

G.O., 2nd August 1889, No. 948 M.

AUGUST.

Water-supply.

Passing orders on the financial measures necessary to carry out the — scheme prepared by Mr. Oldham for the town of Trichinopoly, in the event of its being approved by the Public Works Department, and of the South Indian Railway Company taking part in it as proposed.

B

Communicated to the Supdg. Engr. VI Circle for information & the Plans & estimates referred to in para 1 of the G.O. are under consideration in this Office.

Supdt.

22.8.89

23.8.89

27-8-89

(11)

2 copies work.

S.E. VI Circle

27/8