Date taken out.	For what purpose.			Initials of clerk taking the paper or of attender.	Date returned	Initials of attender.
	Department.	C. No.	Year.			

R
L. & M.
900—10-3-96.

Local & Munl. (1895) Department.

PRINTED.

G.O., No. 427/h

DATED 13th March 1895

[Despatch Abstract.]

Inspection Notes.

Recording, with remarks, Sanitary Commissioner's----on the Srirangam Municipality.

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

Proof diagram not received from the Survey Office 3/3

Diagram

13th March 1895, No. 427 M., Local and Municipal.

GOVERNMENT OF MADRAS.

LOCAL AND MUNICIPAL DEPARTMENT.

Read—the following paper :—

From M.R.Ry. K. SESHADRIENGAR, Avargal, Chairman, Municipal Council, Srírangam, to the Chief Secretary to Government (through the Collector of Trichinopoly), dated Srírangam, 4th February 1895, No. 452.

Adverting to G.O., dated 23rd December 1893, No. 1765 M., Local and Municipal, I have the honour to submit herewith the inspection notes of the Sanitary Commissioner for Madras on this municipality with my replies thereon, approved of by the council at its meeting held on the 30th ultimo.

2. Immediately after I assumed the charge of the office of the Chairman on the 30th November last, I was obliged to devote my whole time in adopting all preventive measures that were suggested by the District Medical and Sanitary Officer then and there on account of cholera which broke out in this town on the 21st December or seven days before the commencement of the annual Yekadasi festival. Further, I hardly spared time to take on hand the inspection notes until the budget of this municipality for the ensuing year was submitted on the 18th ultimo.

Under the above circumstances the submission of the notes has been delayed.

Enclosures.

Inspection notes of the Sanitary Commissioner for Madras.

TRICHINOPOLY DISTRICT.

Srirangam Municipality.

Inspected 22nd July 1894.

Population per census of .. {1881 19,773
1891 21,632

Inspection Notes.	Chairman's Remarks.
I. Water-supply.—(*a*) During the greater part of the year, the Nattuvaikal is the chief source of water-supply ; but, in the hot season, wells within the town area are employed. The municipality has recognised the importance of the Nattuvaikal by placing a board on the spot, directing that no bathing or washing of clothing shall be allowed in the upper portion which is reserved for drinking purposes. A watchman (who was absent at the time of my visit) is also appointed to see that this rule is carried out. The only result of this order, however, seems to be that the upper and better portion of the stream is appropriated by males and the inferior	

Inspection Notes.

by females for bathing purposes. Further, it does not seem to have occurred to the municipality that the road running along the left bank is not a suitable spot for a public easement ground. Not only is it possible for fæcal matter to be washed into the channel during rainfall from this area, but the position thus chosen being immediately above the drinking ghât, this reaches the consumers in as little changed a condition as possible. It ought to occur to the council that this state of affairs is filthy and dangerous in the extreme. Immediately below the drinking ghât, and in a position to ensure entrance of filth also during rainfall into the portion officially assigned for bathing purposes, town rubbish heaps were placed—possibly with the intention of filling up the hollow here. This should be stopped. I would strongly advise the council to come to some very definite determination in this matter. Either what I say as to the danger of defecation so close to a drinking-water channel is a dangerous and uncivilized procedure, or it is not. If they come to the conclusion that my estimate of this state of affairs is correct, they doubtless will no longer satisfy themselves with the mere outward show of appointing a watchman and placing a board. The fact that the place is defiled in the manner I have stated must be known to each of the councillors as a matter of every day observation, and I advise them not only to treat this matter as one to be remedied by law, but, by every means at their disposal to influence the more educated members of the community to unite in exercising *social pressure*, to put a stop to the various methods of water defilement mentioned. It ought to be a very simple matter in a town largely occupied by a caste of Hindus which embraces so large a proportion of educated members to create a "public opinion" that should be in itself a sufficient deterrent from filthy practices. Iron wires should at once be stretched across the channel so as to define correctly the place reserved for drinking water and for bathing by the two sexes. Pending the introduction of a correct public water-supply scheme, the municipality might take the precaution with advantage of filtering the water from this channel before distribution. The level at which the channel runs would lend itself readily to such a project. All that would be required

Chairman's Remarks.

This has been strictly prohibited.

This year we have specially employed some of our conservancy peons to keep watch over the banks of Nattuvaikal and prevent people from committing nuisance. During next year extra watchman will be put in and strict supervision held to prevent nuisance and prosecute persons infringing. The councillors are also trying to influence the more educated portion of the public by circulating freely in printed placards the remarks of the Sanitary Commissioner and inviting them to co-operate and prevent the defilement.

As there was a good flow of water in the Nattuvaikal till now, the proposal to put in iron wires across the channel will be carried out as early as possible during the summer.

The Sanitary Engineer will be addressed to issue necessary instructions to the Trichinopoly Assistant Engineer to favour the council with a plan and an estimate, and on receipt of the same, the council will consider the question of carrying out the suggestion of filtering.

Inspection Notes.

would be to make an excavation for a filter bed, after passing through which, the water could either be withdrawn by hand-pumps (preferably) or by dipping. On applying to the Sanitary Engineer, he would doubtless direct the Assistant Sanitary Engineer in charge of the water-works scheme at Trichinopoly to prepare plans and estimates for this work. The introduction of a correct water-supply scheme is, I need hardly say, a matter of necessity. Not only do the inhabitants undergo great risk in procuring their water-supply from open channels, but they are placed in the further undesirable position of having to fall back upon a shallow well supply during the hot season. Seeing that there is no drainage system in Srírangam, and that practically each house possesses its cesspool which permits of soakage of sewage into the ground, it follows that not only are the inhabitants liable to be poisoned by the use of contaminated well water (which necessarily includes the washings of latrines) filtered through ground that must have long lost, on account of the excessive amount of impurities discharged into it, any purifying powers, but they have to fall back upon this supply at a period when, by reason of the sinking of the sub-soil water level, the wells are more than usually liable to contamination from cesspools, owing to the enlargement of their drainage cone. The accompanying diagram illustrates this simple fact.

(*b*) Taking the above facts into consideration, the question almost necessarily arises as to whether there be urgency to remedy the poisoning of the soil by removal of the cesspools and the opening up of a proper drainage system, or for the introduction of a correct public water-supply.

(*c*) There can be no doubt that the water-supply of this town should be first attended to. To argue here that by withdrawal of sewage from the soil, it might be hoped to obtain an improved shallow well supply that would suffice until the introduction later on of a water-supply system would, I think, be erroneous reasoning. It has to be taken into account Srírangam has claims to be regarded as ancient, and during the many hundreds of years of its existence its sewage and a very large proportion of the fæcal matter of the inhabitants have been incorporated with the soil. Indeed, until comparatively

Chairman's Remarks.

Vide Chairman's letter to Government recorded in G.O., Mis. No. 281 M., dated 2nd March 1893.

recent years, the cesspools of the town not only received sullage water but fæcal matter *direct*. Further, the houses are so arranged as to be in successive squares around the temple upon a small area, as to ensure that every particle of the soil has received its due share of contaminating material. Under these circumstances, the sooner the shallow well water is abandoned the better, although undoubtedly, also, the sooner Srírangam can provide itself with a drainage scheme and abolish its cesspool system the better.

(*d*) The proximity of the Cauvery and the peculiar shape of the town in successive squares is such as to point to its being probable that the Sanitary Engineer's Department would be able to draw up a fairly cheap scheme for the town. Indeed, it has always seemed to me a pity the municipality of Trichinopoly and Srírangam did not combine in this matter. By having made Oorayur the point of entrance of the main for the supply of Trichinopoly, it would probably have been possible for the two towns to have been supplied from a common source, and by a common engine power and staff.

(*e*) *Existing Wells.*—It would serve no purpose to enumerate these, seeing that practically the same defects are common to all. Several have no basements or drains leading from the basement. Some have their parapet walls worn, and in need of repair. But the error which is of the most importance is the existence in all cases of a beam of stone thrown across the well to enable drawers of water to stand directly over it. Of course, one object of a parapet wall is to prevent persons tumbling into wells; but it is not the object which it fulfils sanitarily, which is the prevention of the reflux of water spilt on the feet into the well. This, of course, is liable to occur if a woman stands directly over the well when drawing. The washings of the human feet ought, at no time one would think, to be an appetizing addition to drinking water; but when it is remembered where those feet may have been immediately before arrival at the well, it is obvious that there is room for dangerous contamination of the water. For example, when persons are suffering from cholera in a house, nothing is more common than that the woman of the household should mix a few ashes with the watery stools, and throw them out in the front of the house. No one could

recognize this dangerous material thus mixed as loose dust of the street. When walked over, necessarily, the mixed fæcal matter must adhere to the feet, and it is not difficult to understand that each time the water is spilt over the feet or upon the stone upon which the person is standing when drawing water, that it is possible for common filth or disease-bearing matter, to be thus sent into the well. A well thus poisoned with choleraic matter may suffice to sow death broadcast. The whole of the parapet walls should, therefore, be altered so as to prevent persons standing upon them; to secure this the wall should not be more than from nine inches to one foot in breadth. The top coping should be of stone laid in cement. The stone beam across the wells should be removed. That the vile condition of the wells supply is not a mere matter of theory is exhibited by the analyses made by the Chemical Examiner in 1893, when of six wells examined, the classification made was one "bad," two "very bad," one "suspicious," two "usable," showing that no water that can be classed as *wholesome* is found on the town site!

Provision has been made in the next year's budget for erecting parapet walls to seven public wells in the mode suggested.

II. Drainage.—(*a*) I have already under "water-supply" pointed out the great disadvantage the town possesses in being full of cesspools. Some of the inhabitants contrive that there shall be as little nuisance to themselves as possible at the expense of their neighbours by transmitting their sewage through the walls of their own squares into that adjoining. Thus along the southern wall are eight huge cesspools having a capacity of about 144 cubic feet: one of these is close to a public well. In eastern Adavalanjan street similar conditions are found and in one instance (Nadamuni Runga Aiyengar's house) the cesspool constantly overflows on the public road and is a standing nuisance. This man should be prosecuted under section 222; and, under section 214, he should be compelled to adopt a suitable cesspool. This I consider necessary, as I was informed that frequent orders of the municipality have been disregarded by this man.

(*b*) So long as no drain exists, however, some form of receptacle for sewage must be provided. This should take the form of cesspools trapped, ventilated, and made impervious. For plans of these, the municipal council should apply to the sanitary board; and it should insist that private

The remarks of the Sanitary Commissioner are engaging the earnest attention of the council. Suitable proposals for removal of sewage water, &c., will be submitted.

Inspection Notes.

Chairman's Remarks.

persons make their cesspools in this form under section 214. Another method might also be adopted in places where the inhabitants are of the poorer class; the sewage from the houses might be received into drains, and thence be discharged into a common public cesspool at the end of the street built on the same principles as the above. For emptying these, special iron cylinder carts and hand pumps should be employed. The municipality has formed certain drains apparently with the object of removing surface water. At one spot, the work seems to have been interrupted by some dispute as to the removal of a stone forming part of the archway of one of the temple gates. Efforts should be made to get over the difficulty. The drains seen by me are well formed and of a suitable section. The municipality, however, if it intends to extend these drains, should take care and work upon a uniform system, after correct calculations have been made. If, as I am inclined to fancy, the drain I saw is larger than is really required, it means that unnecessary outlay is being made by the municipality.

The stone had been removed and the work taken up has been completed.

The council considers that the drain in such a scale is necessary at the place.

III. Conservancy.—(*a*) There are sixteen open space latrines. Of these, eight have bamboo tatty walls; the remainder brick walls. As soon as the urgent improvements suggested as to the water-supply have been attended to, the municipality should lose no time in erecting latrines on the model of the standard plans.

Provision is made for constructing two latrines in the next year's budget. In the subsequent years, all the tatty latrines will be converted into pucka ones as far as funds permit.

(*b*) Two iron carts and five wooden carts are used for transport of the fæcal matter. The latter should be abolished as quickly as possible. They are unsafe, it being impossible to retain correctly wood free from saturation even when tarred. Iron carts should be purchased as early as feasible.

One night-soil iron cart had already been purchased and three more will be got within the current year.

(*c*) The female latrine near the Veliterumutam channel being open, and therefore exposed to the influence of rainfall, is incorrectly placed; as the washings from its surface are liable to go into the channel, which is used for washing and bathing purposes and, doubtless, also at times for drinking. A position on the opposite side of the channel away from its water-shed should be selected.

Provision is made in the next year's budget for removing the latrine to the other side of the channel.

(*d*) The bathing ghât road was in a most disgusting state of filth. This road

The division peon is watching this place during morning time.

Inspection Notes.

Chairman's Remarks

is passed by persons on their way to the Coleroon for bathing in the early morning, and, evidently, their first act is to defecate here. On the main road, parallel to the road I mention, there are two temporary latrines. These, as soon as feasible, should be replaced by permanent forms of the roofed variety. Two temporary latrines should also be opened on the road now used for an easement ground.

Next year, one of the latrines will be made permanent and the other during subsequent years. As soon as suitable place is available temporary latrines will be constructed.

Rubbish.—(*a*) This is removed in common open carts. Carts having covers should be employed. The transport of dust through crowded streets is liable to conduce to the spread of certain diseases.

Provision is made in the next year's budget for two wooden rubbish carts. Contractors have been directed to provide the carts with bamboo tatty covers.

(*b*) A contractor arranges to remove the rubbish direct to certain gardens in the vicinity of the town. If correctly supervised, this system would not be objectionable; but, if the contractor be allowed to deposit rubbish in such gardens as he chooses, the arrangement simply amounts to a number of rubbish depôts being scattered all round the town and, frequently, as I found on my inspection, this undesirable material being deposited close to public roads. The contractor should be made to give one week's notice as to the site on which he intends to deposit rubbish. This should then be inspected by the sanitary inspector, and if he comes to the conclusion that this is too near to the public roads or water courses, the deposit should not be allowed. In any case, as a condition of deposit within municipal limits, it should be insisted that the heaps are gathered neatly together, and covered with not less than four inches of earth till required for cultivation purposes.

The remarks about the storing of rubbish is being attended to.

Private scavengering.—(*c*) One thousand two hundred and eighty houses out of a total of 1,992 are attended to under this system. This shows that good attention has been paid to the subject by the municipality in the past. The staff of toties for this work is, however, too small being only eighteen, four of whom are females. No toty can attend more than forty private houses satisfactorily; the staff should be increased to permit of this number per head.

Provision is made in the budget to increase the scavengers by eight in number.

Night-soil depôt.—(*d*) The depôt is very neatly kept and does credit to the municipality. The trenches should, however, be made with greater regularity and more shallow. As no sale exists for the night-soil, the municipality could not do better

As soon as land for the night-soil depôt is purchased, the present site will be cultivated. This, the council hopes, will take place before the end of the current official year.

Inspection Notes.

than arrange to cultivate the ground. Plantains would grow well upon this highly-manured soil. I understand difficulty exists as to water in this special spot, and that this would be a difficulty in the way of adopting my proposal. To overcome this, I would advise the sinking of a common pot well provided with a picottah or pump on the site. As the neighbouring municipality of Trichinopoly not only secures a sale for its night-soil, but obtains a good price, it seems to me that a councillor having some knowledge of the "ways" of ryots should take the subject up. There can be no reason why with a little trouble an advantageous bargain should not be made on behalf of the municipality. If this cannot be arranged, the municipality had better purchase land in the neighbourhood, and systematically trench and cultivate it on its own behalf. Efforts in one or other direction are requisite at once, as the land at present at disposal for trenching is nearly completely filled in.

Chairman's Remarks.

As for the disposal of the night-soil, the council will try to get it sold by auction.

IV. Markets.—There is no vegetable market. There is, however, a small market for the sale of meat. The building is of the platform type commonly adopted. The flooring is of brick. The flooring and the front of the platform should be plastered with Portland cement. A cement lined egg-shaped drain should also be formed to permit of washings to be correctly disposed of in front of the market.

There are three vegetable markets belonging to municipality. As regards the plastering of the flooring, &c., of the meat market, the suggestion will be carried out.

V. Slaughter-house.— This is sufficient for the purpose. Whilst, however, the principle upon which the washings of the slaughter-house flow to the neighbouring garden is correct, it would be advisable that care be taken by suitable channels to see that the foul water is not allowed to stagnate near the wall as at present. The platform should be roofed with corrugated iron to permit of shelter during rainy weather.

The suggestion will be attended to. Thatched roof will be put in temporarily. Provision will be made in the budget for 1896–97 for roofing the platform with corrugated iron as suggested.

VI. Cow-sheds.—Large number of milch cows and buffaloes are retained within the municipal limits. In several instances, the yards were retained in a filthy condition. It is highly desirable that strict cleanliness should be observed in such places, special care being taken to see that the water-supply is safely protected. In the temple, there are a number of sacred cows. They are

Inspection Notes.

retained within a very roughly and inefficiently paved building, with the result that cleanliness cannot be maintained. I would advise the municipality to confer with the temple authorities on this subject. As the cow is held sacred, they may not object to going to a little expenditure to secure that the animals shall be kept in a cleanly condition, compatible with health and comfort. Large number of persons see these animals daily in the midst of the filth of an ill-kept cow-house. Now, if the temple authorities will but arrange to keep them in a correctly formed shed, they would serve to give all concerned a valuable lesson as to the sanitary arrangements requisite for the proper care of these animals. The sanitary board would supply them with the required plans.

Chairman's Remarks.

About the cow-shed in the temple, the suggestion will be attended to, and the trustees will be addressed upon the subject. Private persons keeping unclean sheds are being compelled to keep them in good condition. In several cases the parties have been prosecuted from time to time.

VII. Graveyards.—The burning place is at some distance from the bank of the Coleroon. To enable cremation to take place efficiently during wet weather, it would be advisable for the municipality to provide a shed having a corrugated iron roof. Unless bodies are fully cremated, the remains are a source of danger when cast into the river in the usual sequence of funeral ceremonies.

People themselves put temporary sheds during the rainy season, so that the bodies are fully cremated. So, the council does not see at present the urgency to provide one with corrugated iron roof.

VIII. Vaccination.—(*a*) This is the only municipality in the Presidency where human vaccination is still adhered to. The reasons given for failure to adopt animal vaccination are of no value. It is asserted that difficulty exists as to procuring calves. Some error however as to the mode of procedure must exist, as the neighbouring Trichinopoly municipality finds no such difficulty. If the municipality cannot manage to get calves by their own efforts, they should address the Collector on the subject, who will doubtless require one of his Tahsildars to make the necessary arrangements. In the meantime, the municipality should procure glycerinized animal lymph from the Madras municipality on purchase, and thus no longer disregard the orders of Government on the subject.

Arrangements had been made to procure calves from Trichinopoly municipality. Animal lymph has been introduced since December last and is working successfully.

(*b*) I instructed the hospital assistant, who is the local superintendent of vaccination, in the manner in which he should maintain his registers, so as to secure that births are all accounted for under the compulsory clauses. A special representation has been made to Government as to

The register of vaccination as per G.O., No. 1502 M., dated 19th October 1894, has been maintained.

Inspections' Notes.

Chairmans Remark.

the extraordinary delay which occurs, when cases that have refused vaccination are brought before the Magistrate by the municipality.

	1890.	1891.	1892.	1893.	1894 up to end of July.
Number vaccinated	1,582	1,164	1,165	975	539
,, ,, successfully	1,529	1,088	1,101	919	480
,, ,, under one year of age	402	327	392	341	173

IX.—Registration.—One registrar on Rs. 10 is employed. He keeps his registers in Tamil. Up to December 1893 the results noted below had been secured when compared with the "increase rate" between the two census periods :—

Census population of 1891.	Estimated population on 31st December 1893.	Population on 31st December 1893 according to registration results.
21,632	22,190	21,533

Judging from these figures, it is more than probable that registration requires much more careful administration. Notice boards setting forth the section referring to compulsory registration should be placed in several public positions, and, at intervals, an announcement should be made by "tom tom," so as to secure that both the educated and uneducated members of the community are duly aware of the obligation. The following results have been secured during the last three years up to date :—

As suggested, notice boards are being prepared and will be put in a few days in some public places. Announcement by beat of tom tom is being made at intervals.

Years.	Ratio of births per mille of the estimated population.	Ratio of deaths per mille of the estimated population.	Percentage of deaths from						Ratio of deaths of infants under one year of age per mille of those born in the preceding year.	Ratio of deaths of children above one and under five years of age per mille of the population of that age.
			Cholera.	Small-pox.	Fevers.	Dysentery and Diarrhœa	Injuries.	Other causes.		
1891 ..	31·8	28·4	6·6	1·0	17·4	6·0	1·1	67·9	203·0	83·3
1892 ..	27·3	29·3	13·3	1·0	16·3	4·5	1·4	63·5	157·5	70·9
1893 ..	30·3	37 3	26·1	1·9	11·4	4·8	1·1	54·7	196·3	50·2
1894 ..	26·3	29·5	10·9	0·3	10·9	5·5	1·8	70·6	196·1	33·5

X.—Sanitary administration.—Not a single common nuisance case seems to have been prosecuted either at the instance of the municipality or the police in this town

Since September 1894 up to date twelve cases of common nuisance had been prosecuted and the Superintendent of Police will be addressed to give instructions to

Inspection Notes.

Chairman's Remarks.

during the twelve months; the state of filth described at certain spots is, therefore, not to be wondered at. It is essential for the public safety that persons found breaking laws intended for observance of decency and the guarding of public health should be vigorously prosecuted. On this subject, the Chairman states as follows :—

* * *

"Again, section 282 of the Act provides that every police officer shall give immediate information to the Chairman or the servants of the municipal council of any offence committed contrary to the provisions of the Act, or the bye-laws made thereunder and shall help them in giving effect to the provisions of the Act, &c. I have been in this municipality as a councillor and Chairman for upwards of thirteen years, and to the best of my memory, I have received no such information from a police officer. From this, I am not to be understood that the police officers do not aid the municipal servants, and have not prosecuted nuisance cases under the Act."

FORT ST. GEORGE,
15*th September* 1894.

(Signed) W. G. KING, Surgeon-Lieut.-Col.,
Acting Sanitary Commissioner for Madras.

EXTRACT from the Proceedings of the Municipal Council, Srírangam, at the meeting held on the 30th January 1895.

* * * * *

Paragraph 3.—Read inspection notes of the Sanitary Commissioner for Madras on Srírangam municipality with replies of the Chairman.

Resolution.—Approved and will be submitted to Government.

* * * * *

(Signed) K. SESHADRIYENGAR,
Chairman.

Forwarded.

(Signed) J. ANDREW,
Acting Collector.

CAMP ARYALUR,
13*th February* 1895.

the Station officer, Srírangam, to act under section 282 of the Act.

(Sd.) K. SESHADRIYENGAR,
Chairman.

SRIRANGAM,
4*th February* 1895.

Circle

Extract for info

Order
18-3-95 No. 427 M

Recorded

2. The Chairman should draw the attention of the Dist. Magte & the Sanr. Dept. of Police to the Sanr. Commr's remarks on the frequency of mischief in the vicinity of the Nattuvaikal.

3. The action taken by the Municipal Council on the Sanitary Commissioner's remarks in the concluding portion of para II (a) of his notes should be reported.

12/3/95

13/3/95

To,
The Chairman Mcl. Srirangam
" Collector of Trichinopoly
" Sanitary Commissioner
" Sanitary Engineer

Dated 29/3/95

Extract table.

Birth order

GOVERNMENT OF MADRAS.

LOCAL AND MUNICIPAL DEPARTMENT.

READ—the following paper :—

From M.R.Ry. K. SESHADRI AIYANGAR Avargal, Chairman, Municipal Council, Srírangam, to the Chief Secretary to Government (through the Collector of Trichinopoly), dated Srírangam, 4th February 1895, No. 452.

Adverting to G.O., dated 23rd December 1893, No. 1765 M., Local and Municipal, I have the honour to submit herewith the inspection notes of the Sanitary Commissioner for Madras on this municipality with my replies thereon, approved of by the council at its meeting held on the 30th ultimo.

2. Immediately after I assumed the charge of the office of the Chairman on the 30th November last, I was obliged to devote my whole time in adopting all preventive measures that were suggested by the District Medical and Sanitary Officer then and there on account of cholera which broke out in this town on the 21st December or seven days before the commencement of the annual Yekadasi festival. Further I hardly spared time to take on hand the inspection notes until the budget of this municipality for the ensuing year was submitted on the 18th ultimo.

Under the above circumstances the submission of the notes has been delayed.

ENCLOSURES.

INSPECTION notes of the Sanitary Commissioner for Madras.

TRICHINOPOLY DISTRICT.

SRIRANGAM MUNICIPALITY.

Inspected 22nd July 1894.

Population per census of .. {1881 19,773
1891 21,632

Inspection Notes.	Chairman's Remarks.
I. Water-supply.—(*a*) During the greater part of the year the Nattuvaikal is the chief source of water-supply ; but, in the hot season wells within the town area are employed. The municipality has recognised the importance of the Nattuvaikal by placing a board on the spot, directing that no bathing or washing of clothing shall be allowed in the upper portion which is reserved for drinking purposes. A watchman (who was absent at the time of my visit) is also appointed to see that this rule is carried out. The only result of this order, however, seems to be that the upper and better portion of the stream is appropriated by males and the inferior	

Inspection Notes.

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Chairman's Remarks.

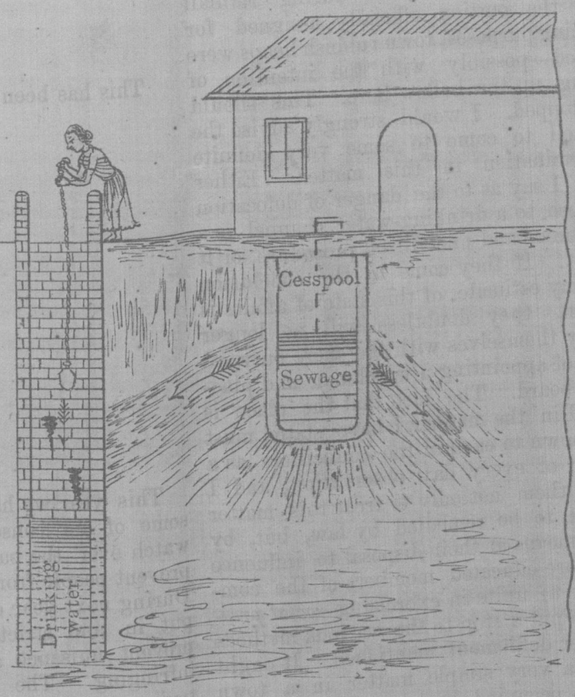
This has been strictly prohibited.

This year we have specially employed some of our conservancy peons to keep watch over the banks of Nattuvaikal and prevent people from committing nuisance. During next year extra watchman will be put in and strict supervision held to prevent nuisance and prosecute persons infringing. The councillors are also trying to influence the more educated portion of the public by circulating freely in printed placards the remarks of the Sanitary Commissioner and inviting them to co-operate and prevent the defilement.

As there was a good flow of water in the Nattuvaikal till now, the proposal to put in iron wires across the channel will be carried out as early as possible during the summer.

The Sanitary Engineer will be addressed to issue necessary instructions to the Trichinopoly Assistant Engineer to favour the council with a plan and an estimate, and on receipt of the same, the council will consider the question of carrying out the suggestion of filtering.

SRIRANGAM DOMESTIC WATER-SUPPLY
"IN CIRCULATION."



REG: No. 1912 —— COPIES 95

ZINCO. SURVEY OFFICE. MADRAS.
1895

Inspection Notes.

Chairman's Remarks.

would be to make an excavation for a filter bed, after passing through which, the water could either be withdrawn by hand-pumps (preferably) or by dipping. On applying to the Sanitary Engineer, he would doubtless direct the Assistant Sanitary Engineer in charge of the water-works scheme at Trichinopoly to prepare plans and estimates for this work. The introduction of a correct water-supply scheme is, I need hardly say, a matter of necessity. Not only do the inhabitants undergo great risk in procuring their water-supply from open channels, but they are placed in the further undesirable position of having to fall back upon a shallow well supply during the hot season. Seeing that there is no drainage system in Srírangam, and that practically each house possesses its cesspool which permits of soakage of sewage into the ground, it follows that not only are the inhabitants liable to be poisoned by the use of contaminated well water (which necessarily includes the washings of latrines) filtered through ground that must have long lost, on account of the excessive amount of impurities discharged into it, any purifying powers, but they have to fall back upon this supply at a period when, by reason of the sinking of the sub-soil water level, the wells are more than usually liable to contamination from cesspools, owing to the enlargement of their drainage cone. The accompanying diagram illustrates this simple fact.

Vide Chairman's letter to Government recorded in G.O., Mis. No. 281 M., dated 2nd March 1893.

(*b*) Taking the above facts into consideration, the question almost necessarily arises as to whether there be urgency to remedy the poisoning of the soil by removal of the cesspools and the opening up of a proper drainage system, or for the introduction of a correct public water-supply.

(*c*) There can be no doubt that the water-supply of this town should be first attended to. To argue here that by withdrawal of sewage from the soil, it might be hoped to obtain an improved shallow well supply that would suffice until the introduction later on of a water-supply system would, I think, be erroneous reasoning. It has to be taken into account that Srírangamhas claims to be regarded as ancient, and during the many hundreds of years of its existence its sewage and a very large proportion of the fæcal matter of the inhabitants have been incorporated with the soil. Indeed, until comparatively

Inspection Notes.

Chairman's Remarks.

recent years, the cesspools of the town not only received sullage water but fæcal matter *direct*. Further the houses are so arranged as to be in successive squares around the temple upon a small area, as to ensure that every particle of the soil has received its due share of contaminating material. Under these circumstances, the sooner the shallow well water is abandoned the better, although undoubtedly, also, the sooner Srírangam can provide itself with a drainage scheme and abolish its cesspool system the better.

(*d*) The proximity of the Cauvery and the peculiar shape of the town in successive squares is such as to point to its being probable that the Sanitary Engineer's Department would be able to draw up a fairly cheap scheme for the town. Indeed, it has always seemed to me a pity the municipality of Trichinopoly and Srírangam did not combine in this matter. By having made Oorayur the point of entrance of the main for the supply of Trichinopoly, it would probably have been possible for the two towns to have been supplied from a common source, and by a common engine power and staff.

(*e*) *Existing Wells.*—It would serve no purpose to enumerate these, seeing that practically the same defects are common to all. Several have no basements or drains leading from the basement. Some have their parapet walls worn, and in need of repair. But the error which is of the most importance is the existence in all cases of a beam of stone thrown across the well to enable drawers of water to stand directly over it. Of course, one object of a parapet wall is to prevent persons tumbling into wells; but it is not the object which it fulfils sanitarily, which is the prevention of the reflux of water spilt on the feet into the well. This, of course, is liable to occur if a woman stands directly over the well when drawing. The washings of the human feet ought, at no time one would think, to be an appetizing addition to drinking water; but when it is remembered where those feet may have been immediately before arrival at the well, it is obvious that there is room for dangerous contamination of the water. For example, when persons are suffering from cholera in a house, nothing is more common than that the woman of the household should mix a few ashes with the watery stools, and throw them out in the front of the house. No one could

Inspection Notes.

Chairman's Remarks.

recognize this dangerous material thus mixed as loose dust of the street. When walked over, necessarily, the mixed fæcal matter must adhere to the feet, and it is not difficult to understand that each time the water is spilt over the feet or upon the stone upon which the person is standing when drawing water, that it is possible for common filth or disease-bearing matter, to be thus sent into the well. A well thus poisoned with choleraic matter may suffice to sow death broadcast. The whole of the parapet walls should, therefore, be altered so as to prevent persons standing upon them; to secure this the wall should not be more than from nine inches to one foot in breadth. The top coping should be of stone laid in cement. The stone beam across the wells should be removed. That the vile condition of the wells supply is not a mere matter of theory is exhibited by the analyses made by the Chemical Examiner in 1893, when of six wells examined, the classification made was one "bad," two "very bad," one "suspicious," two "usable," showing that no water that can be classed as *wholesome* is found on the town site!

Provision has been made in the next year's budget for erecting parapet walls to seven public wells in the mode suggested.

II. Drainage.—(*a*) I have already under "water-supply" pointed out the great disadvantage the town possesses in being full of cesspools. Some of the inhabitants contrive that there shall be as little nuisance to themselves as possible at the expense of their neighbours by transmitting their sewage through the walls of their own squares into that adjoining. Thus along the southern wall are eight huge cesspools having a capacity of about 144 cubic feet: one of these is close to a public well. In eastern Adavalanjan street similar conditions are found and in one instance (Nadamuni Runga Aiyengar's house) the cesspool constantly overflows on the public road and is a standing nuisance. This man should be prosecuted under section 222; and, under section 214, he should be compelled to adopt a suitable cesspool. This I consider necessary, as I was informed that frequent orders of the municipality have been disregarded by this man.

(*b*) So long as no drain exists, however, some form of receptacle for sewage must be provided. This should take the form of cesspools trapped, ventilated, and made impervious. For plans of these, the municipal council should apply to the sanitary board; and it should insist that private

The remarks of the Sanitary Commissioner are engaging the earnest attention of the council. Suitable proposals for removal of sewage water, &c., will be submitted.

Inspection Notes.

persons make their cesspools in this form under section 214. Another method might also be adopted in places where the inhabitants are of the poorer class; the sewage from the houses might be received into drains, and thence be discharged into a common public cesspool at the end of the street built on the same principles as the above. For emptying these, special iron cylinder carts and hand pumps should be employed. The municipality has formed certain drains apparently with the object of removing surface water. At one spot, the work seems to have been interrupted by some dispute as to the removal of a stone forming part of the archway of one of the temple gates. Efforts should be made to get over the difficulty. The drains seen by me are well formed and of a suitable section. The municipality, however, if it intends to extend these drains, should take care and work upon a uniform system, after correct calculations have been made. If, as I am inclined to fancy, the drain I saw is larger than is really required, it means that unnecessary outlay is being made by the municipality.

III. Conservancy.—(*a*) There are sixteen open space latrines. Of these, eight have bamboo tatty walls; the remainder brick walls. As soon as the urgent improvements suggested as to the water-supply have been attended to, the municipality should lose no time in erecting latrines on the model of the standard plans.

(*b*) Two iron carts and five wooden carts are used for transport of the fæcal matter. The latter should be abolished as quickly as possible. They are unsafe, it being impossible to retain correctly wood free from saturation even when tarred. Iron carts should be purchased as early as feasible.

(*c*) The female latrine near the Veliterumutam channel being open, and therefore exposed to the influence of rainfall, is incorrectly placed; as the washings from its surface are liable to go into the channel, which is used for washing and bathing purposes and, doubtless, also at times for drinking. A position on the opposite side of the channel away from its water-shed should be selected.

(*d*) The bathing ghât road was in a most disgusting state of filth. This road

Chairman's Remarks.

The stone had been removed and the work taken up has been completed.

The council considers that the drain in such a scale is necessary at the place.

Provision is made for constructing two latrines in the next year's budget. In the subsequent years, all the tatty latrines will be converted into pucka ones as far as funds permit.

One night-soil iron cart had already been purchased and three more will be got within the current year.

Provision is made in the next year's budget for removing the latrine to the other side of the channel.

The division peon is watching this place during morning time.

Inspection Notes.

is passed by persons on their way to the Coleroon for bathing in the early morning, and, evidently, their first act is to defecate here. On the main road, parallel to the road I mention, there are two temporary latrines. These, as soon as feasible, should be replaced by permanent forms of the roofed variety. Two temporary latrines should also be opened on the road now used for an easement ground.

Rubbish.—(*a*) This is removed in common open carts. Carts having covers should be employed. The transport of dust through crowded streets is liable to conduce to the spread of certain diseases.

(*b*) A contractor arranges to remove the rubbish direct to certain gardens in the vicinity of the town. If correctly supervised, this system would not be objectionable; but, if the contractor be allowed to deposit rubbish in such gardens as he chooses, the arrangement simply amounts to a number of rubbish depôts being scattered all round the town and, frequently, as I found on my inspection, this undesirable material being deposited close to public roads. The contractor should be made to give one week's notice as to the site on which he intends to deposit rubbish. This should then be inspected by the sanitary inspector, and if he comes to the conclusion that this is too near to the public roads or water courses, the deposit should not be allowed. In any case, as a condition of deposit within municipal limits, it should be insisted that the heaps are gathered neatly together, and covered with not less than four inches of earth till required for cultivation purposes.

Private scavengering.—(*c*) One thousand two hundred and eighty houses out of a total of 1,992 are attended to under this system. This shows that good attention has been paid to the subject by the municipality in the past. The staff of toties for this work is, however, too small being only eighteen, four of whom are females. No toty can attend more than forty private houses satisfactorily; the staff should be increased to permit of this number per head.

Night-soil depôt.—(*d*) The depôt is very neatly kept and does credit to the municipality. The trenches should, however, be made with greater regularity and more shallow. As no sale exists for the night-soil, the municipality could not do better

Chairman's Remarks

Next year, one of the latrines will be made permanent and the other during subsequent years. As soon as suitable place is available temporary latrines will be constructed.

Provision is made in the next year's budget for two wooden rubbish carts. Contractors have been directed to provide the carts with bamboo tatty covers.

The remarks about the storing of rubbish are being attended to.

Provision is made in the budget to increase the scavengers by eight in number.

As soon as land for the night-soil depôt is purchased, the present site will be cultivated. This, the council hopes, will take place before the end of the current official year.

Inspection Notes.

than arrange to cultivate the ground. Plantains would grow well upon this highly-manured soil. I understand difficulty exists as to water in this special spot, and that this would be a difficulty in the way of adopting my proposal. To overcome this, I would advise the sinking of a common pot well provided with a picottah or pump on the site. As the neighbouring municipality of Trichinopoly not only secures a sale for its night-soil, but obtains a good price, it seems to me that a councillor having some knowledge of the "ways" of ryots should take the subject up. There can be no reason why with a little trouble an advantageous bargain should not be made on behalf of the municipality. If this cannot be arranged, the municipality had better purchase land in the neighbourhood, and systematically trench and cultivate it on its own behalf. Efforts in one or other direction are requisite at once, as the land at present at disposal for trenching is nearly completely filled in.

Chairman's Remarks.

As for the disposal of the night-soil, the council will try to get it sold by auction.

IV. Markets.—There is no vegetable market. There is, however, a small market for the sale of meat. The building is of the platform type commonly adopted. The flooring is of brick. The flooring and the front of the platform should be plastered with Portland cement. A cement lined egg-shaped drain should also be formed to permit of washings to be correctly disposed of in front of the market.

There are three vegetable markets belonging to municipality. As regards the plastering of the flooring, &c., of the meat market, the suggestion will be carried out.

V. Slaughter-house.— This is sufficient for the purpose. Whilst, however, the principle upon which the washings of the slaughter-house flow to the neighbouring garden is correct, it would be advisable that care be taken by suitable channels to see that the foul water is not allowed to stagnate near the wall as at present. The platform should be roofed with corrugated iron to permit of shelter during rainy weather.

The suggestion will be attended to. Thatched roof will be put in temporarily. Provision will be made in the budget for 1896–97 for roofing the platform with corrugated iron as suggested.

VI. Cow-sheds.—Large number of milch cows and buffaloes are retained within the municipal limits. In several instances, the yards were retained in a filthy condition. It is highly desirable that strict cleanliness should be observed in such places, special care being taken to see that the water-supply is safely protected. In the temple, there are a number of sacred cows. They are

Inspection Notes.

retained within a very roughly and inefficiently paved building, with the result that cleanliness cannot be maintained. I would advise the municipality to confer with the temple authorities on this subject. As the cow is held sacred, they may not object to going to a little expenditure to secure that the animals shall be kept in a cleanly condition, compatible with health and comfort. Large number of persons see these animals daily in the midst of the filth of an ill-kept cow-house. Now, if the temple authorities will but arrange to keep them in a correctly formed shed, they would serve to give all concerned a valuable lesson as to the sanitary arrangements requisite for the proper care of these animals. The sanitary board would supply them with the required plans.

Chairman's Remarks.

About the cow-shed in the temple, the suggestion will be attended to, and the trustees will be addressed upon the subject. Private persons keeping unclean sheds are being compelled to keep them in good condition. In several cases the parties have been prosecuted from time to time.

VII. Graveyards.—The burning place is at some distance from the bank of the Coleroon. To enable cremation to take place efficiently during wet weather, it would be advisable for the municipality to provide a shed having a corrugated iron roof. Unless bodies are fully cremated, the remains are a source of danger when cast into the river in the usual sequence of funeral ceremonies.

People themselves put temporary sheds during the rainy season, so that the bodies are fully cremated. So, the council does not see at present the urgency to provide one with corrugated iron roof.

VIII. Vaccination.—(*a*) This is the only municipality in the Presidency where human vaccination is still adhered to. The reasons given for failure to adopt animal vaccination are of no value. It is asserted that difficulty exists as to procuring calves. Some error however as to the mode of procedure must exist, as the neighbouring Trichinopoly municipality finds no such difficulty. If the municipality cannot manage to get calves by their own efforts, they should address the Collector on the subject, who will doubtless require one of his Tahsildars to make the necessary arrangements. In the meantime, the municipality should procure glycerinized animal lymph from the Madras municipality on purchase, and thus no longer disregard the orders of Government on the subject.

Arrangements had been made to procure calves from Trichinopoly municipality. Animal lymph has been introduced since December last and is working successfully.

(*b*) I instructed the hospital assistant, who is the local superintendent of vaccination, in the manner in which he should maintain his registers, so as to secure that births are all accounted for under the compulsory clauses. A special representation has been made to Government as to

The register of vaccination as per G.O., No. 1502 M., dated 19th October 1894, has been maintained.

Inspections' Notes. Chairmans Remark.

the extraordinary delay which occurs, when cases that have refused vaccination are brought before the Magistrate by the municipality.

	1890.	1891.	1892.	1893.	1894 up to end of July.
Number vaccinated	1,582	1,164	1,165	975	539
,, ,, successfully	1,529	1,088	1,101	919	480
,, ,, under one year of age	402	327	392	341	173

IX.—Registration.—One registrar on Rs. 10 is employed. He keeps his registers in Tamil. Up to December 1893 the results noted below had been secured when compared with the "increase rate" between the two census periods :—

Census population of 1891.	Estimated population on 31st December 1893.	Population on 31st December 1893 according to registration results.
21,632	22,190	21,533

Judging from these figures, it is more than probable that registration requires much more careful administration. Notice boards setting forth the section referring to compulsory registration should be placed in several public positions, and, at intervals, an announcement should be made by "tom tom," so as to secure that both the educated and uneducated members of the community are duly aware of the obligation. The following results have been secured during the last three years up to date :—

As suggested, notice boards are being prepared and will be put in a few days in some public places. Announcement by beat of tom tom is being made at intervals.

Years.	Ratio of births per mille of the estimated population.	Ratio of deaths per mille of the estimated population.	Percentage of deaths from						Ratio of deaths of infants under one year of age per mille of those born in the preceding year.	Ratio of deaths of children above one and under five years of age per mille of the population of that age.
			Cholera.	Small-pox.	Fevers.	Dysentery and Diarrhœa	Injuries.	Other causes.		
1891 ..	31·8	28·4	6·6	1·0	17·4	6·0	1·1	67·9	203·0	83·3
1892 ..	27·3	29·3	13·3	1·0	16·3	4·5	1·4	63·5	157·5	70·9
1893 ..	30·3	37 3	26·1	1·9	11·4	4·8	1·1	54·7	196·3	50·2
1894 ..	26·3	29·5	10·9	0·3	10·9	5·5	1·8	70·6	196·1	33·5

X.—Sanitary administration.—Not a single common nuisance case seems to have been prosecuted either at the instance of the municipality or the police in this town during the twelve months; the state of filth described at certain spots is, therefore, not to be wondered at. It is essential for the public safety that persons found breaking laws intended for observance of decency and the guarding of public health should be vigorously prosecuted. On this subject, the Chairman states as follows :—

Since September 1894 up to date twelve cases of common nuisance had been prosecuted and the Superintendent of Police will be addressed to give instructions to

Inspection Notes. Chairman's Remarks.

* * *

"Again, section 282 of the Act provides that every police officer shall give immediate information to the Chairman or the servants of the municipal council of any offence committed contrary to the provisions of the Act, or the bye-laws made thereunder and shall help them in giving effect to the provisions of the Act, &c. I have been in this municipality as a councillor and Chairman for upwards of thirteen years, and to the best of my memory, I have received no such information from a police officer. From this, I am not to be understood that the police officers do not aid the municipal servants, and have not prosecuted nuisance cases under the Act."

FORT ST. GEORGE, (Signed) W. G. KING, Surgeon-Lieut.-Col.,
15th September 1894. *Acting Sanitary Commissioner for Madras.*

EXTRACT from the Proceedings of the Municipal Council, Srírangam, at the meeting held on the 30th January 1895.

* * * * *

Paragraph 3.—Read inspection notes of the Sanitary Commissioner for Madras on Srírangam municipality with replies of the Chairman.

Resolution.—Approved and will be submitted to Government.

* * * * *

(Signed) K. SESHADRI AIYANGAR,
Chairman.

Forwarded.

(Signed) J. ANDREW,
Acting Collector.

CAMP ARYALUR,
13th February 1895.

ORDER—dated 13th March 1895, No. 427 M., Local and Municipal.

Recorded.

2. The Chairman should draw the attention of the District Magistrate and the Superintendent of Police to the Sanitary Commissioner's remarks on the frequency of nuisance in the vicinity of the Nattuvaikal.

3. The action taken by the municipal council on the Sanitary Commissioner's remarks in the concluding portion of paragraph II (*a*) of his notes should be reported.

(True Extract.) J. F. PRICE,
Chief Secretary.

To the Chairman, Municipal Council, Srirangam.
" Collector of Trichinopoly.
" Sanitary Commissioner.
" Sanitary Engineer.
Editor's Table.

Exd. R. Jenkins.

Govt. of {1895} Madras.

LOCAL AND MUNICIPAL.

Issued

Recd. *Encl.*

G.O., 13th March 1895, No. 427 M.

MARCH.

Inspection Notes.

Recording, with remarks, Sanitary Commissioner's — on the Srirangam municipality.

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No. 427 m

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[Despatch Abstract.]

Inspection notes

Recording with remarks,

Sanitary communications

on the Municipality

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