

Local & Munl. (1896) Department.

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[Despatch Abstract.]

Inspection. Communicating to the local boards concerned for attention Dy Sanitary Commissioner's notes on the — of the rural tracts in the Tanjore district.

BACK PAPERS.

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

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Government { 1896 } of Madras. LOCAL AND MUNICIPAL.

For A. S.

Proof for approval.

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Enclosures

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1896.

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G.O., No. 1907 L., 14th October 1896.

OCTOBER.

Inspection.

Communicating to the local boards concerned, for attention, Deputy Sanitary Commissioner's notes on the — of the rural tracts in the Tanjore district.

GOVERNMENT OF MADRAS.

LOCAL AND MUNICIPAL DEPARTMENT.

READ—the following paper:—

INSPECTION Notes of the Inspector of Vaccination and Deputy Sanitary Commissioner for Madras.

TANJORE DISTRICT—RURAL TRACTS.

TRANQUEBAR.

Inspected 23rd August 1896.

Population 1,965

This seaport town is built on sandy porous soil, and, as there is an irrigation channel on either side of it, the sub-soil water is at no great depth. The town is neatly laid out in parallel streets running east and west, which arrangement allows the full benefit of the sea breeze to be felt in the houses. The town is surrounded by a wall, and entered by gates at each side. There are side channels in two of the streets, but otherwise no attempt at surface drainage. All the sullage water soaks into the sub-soil, and, as the drinking water is derived from shallow wells within the fort, it is no doubt largely contaminated. As the well within the old jail enclosure is the farthest removed from habitations, I would recommend that it be thoroughly repaired and used for the drinking supply for the town. It requires to be plastered with cement inside, down to the low water level and to have the platform similarly treated. There is one night-soil cart that perambulates the streets and picks up any offensive matter it may find, but other than this there is no attempt to cleanse the inhabited area of night-soil. There are no public latrines. Rubbish is removed in two carts to a spot outside where it is used to reclaim certain low-lying land. The sale of rubbish in the whole union realised last year Rs. 84. This is the head-quarter station of a vaccinator, and as a consequence most of the children to be seen in the streets are protected. I marked nine cases for verification, of which four were found to be correct and five absent. The glycerine paste used is obtained from Negapatam in split reeds, not being protected by this method from contact with the air; it should be sent out in glass tubes of the Saigon pattern, or between glass plates. No unprotected lists are kept. The registers show for the seven months of the present year 10 deaths and 13 births, or at the rate of 8.7 and 11.3 per 1,000 for twelve months. It is manifest from this that registration is greatly neglected.

SATTANGUDI.

Inspected 24th August 1896.

Population 3,476

2. This division of the Tranquebar union comprises several villages. The fisherman's village to the north of the fort is in a very dirty state. The thatched huts of which it is composed are arranged without any attempt at order, it would be well when a fire occurs—as it must sooner or later here—to lay out the streets in parallel rows from east to west so as to let in the sea breeze. The surroundings of the huts are strewn with fish offal, &c., which should be removed to the fields for manure. The foreshore is in a similar state. There are no latrines. The water-supply is from

the irrigation channel in the wet weather and from two wells in the hot season. These latter have been at one time repaired by the district board, but require attention again. As the surroundings are not good, it would be better to sink a new well near the irrigation channel and to close the present ones.

3. *Veliapalaiyam*, to the west of the fort, is a small agricultural village with the usual conditions of manure in the backyards, &c. There is a small market here consisting of a thatched shed unpaved. The meat is exposed on wooden tables and the fish on dirty mats. This should be altered, and smooth cement platforms or slab tables substituted. Drinking water for this and the surrounding villages is got from the Sattangudi tank, which is fed by a branch from the irrigation channel. The feeding channel is at present liable to pollution from surface drainage, which could be stopped without much difficulty or cost. The tank itself is polluted by people entering it to draw water; this should, if possible, be prevented by the erection of a platform overhanging the water from which people could draw water by buckets, and so arranged that any water spilled on it should not be able to run back into the tank. If then the tank be fenced so that people cannot get at the water to wash their pots, a very fairly protected water-supply will be got. Three cases of vaccination were verified here and found correct. The registers showed 19 deaths and 20 births for the seven months; which is equivalent to 9.3 and 9.8 per 1,000 per annum, which manifestly cannot be correct.

PORAIYAR.

Population 5,725

4. This is a large agricultural village about $1\frac{1}{2}$ miles west of the fort, and with the same soil and surroundings, *i.e.*, wet cultivation. Many of the backyards here are very filthy having heaps of manure in them. There are four rubbish carts by means of which the street sweepings are removed to the low-lying ground above mentioned. There is a night-soil cart which goes round the streets to remove the faecal matter that is freely deposited there, for there are no latrines. The night-soil is removed to a piece of waste land to the north and there buried in trenches. Drinking water is got from a reserved tank fed by an irrigation channel; there is a watchman over it, but he is practically of little use, for in his very presence I found a woman cleaning her brass pot with mud in the tank itself! The measures recommended for the Sattangudi tank should be adopted here also. Twenty cases of vaccination were verified here, and all except one were found successful. The vaccinator had entered a wrong number of vesicles in two cases. The registers for the seven months of the year showed 83 births and 56 deaths, which is equivalent to 2.4 and 1.7 per mille per annum, respectively, an absurdly small number.

5. *Sanitary administration of the Tranquebar Union*.—There are two maistries to look after twenty sweepers, ten rubbish carts and two night-soil carts. The Civil Apothecary superintends this establishment in his spare time, but as he has both an hospital and a dispensary to look after, he has very little more than a nominal control. For a large scattered union like this I consider that the services of a certificated Sanitary Inspector absolutely essential to ensure the proper working of the scavengers and to bring to the notice of the Medical Officer defects requiring to be dealt with. The villages of Veliapalaiyam, Sattangudi, Arsikarapaliyam, Chunampaliyam and Ramanaikapaliyam have only one rubbish cart and two sweepers among them which is inadequate as they are some what scattered; another cart and two sweepers should be supplied.

ULLIKOTTAI.

Inspected 28th August 1896.

Population 1,838

6. A small agricultural village, 6 miles south of Mannargudi. It has the usual collections of manure in the vicinity of each hut. The drinking water is taken from wells, many of which are brackish. The well most favoured appears to be the one beside the chattram, which is quite unprotected by parapet or platform and which has

insanitary surroundings. The owner of the chattram—who is suffering from an incurable malady—promised me that he would dig a new well in a spot near by; it might be as well if the taluk board were to keep him in mind of this from time to time. I verified 45 cases here, and found 38 successful, 5 absent and 2 dead. The vaccinator had entered the results correctly in all cases. The karnam was absent, so I did not see the birth and death registers.

MAHADEVAPATNAM.

Inspected 29th August 1896.

Population 1,325

7. A scattered agricultural village similar to the above, and about half a mile from it. I verified 14 cases here and found 13 successful and 1 absent; the vaccinator was correct in all cases. The registers for the seven months of the year showed 27 births and 21 deaths, which is equivalent to 34.7 and 27.2 per 1,000 per annum, respectively.

MADUKUR.

Inspected 29th August 1896.

Population 4,093

8. A considerable village, 12 miles south of Mannárgudi, consisting of several streets and of scattered houses. There are three sweepers who clean the roads and market place; they have no cart at present, so the sweepings are deposited within the limits of the village. A cart has been sanctioned, and when it is brought it is to be hoped the rubbish will be removed out of the town and covered with earth till such time as it is converted into manure. The village is in a very filthy condition, as heaps of manure are to be met with everywhere about the houses. There are no latrines. The water-supply is from wells, many of which are brackish. Of the four public wells, only two are usable from this cause. A private well near the north public well is much resorted to and should be put in proper order, as it has no parapet or platform and the lining is permeable. The inside should be plastered with cement and, if possible, the hut in the vicinity removed to a more distant part of the garden. As the wells here are very narrow only some two or at most three people can draw water at one time, so it would be a great boon to all if a pump were put down to discharge into a cistern from which many people could draw at once by means of taps. The market is in the centre of the town surrounded by houses; as there is a large weekly market held here, it would be advisable to choose some place in the outskirts for this purpose. I verified 16 cases and found 13 successful, 2 absent and 1 dead; of these, the vaccinator had entered a wrong number of vesicles in 2 cases. I examined 60 school children and found 32 vaccinated, 7 unprotected and 21 with marks of small-pox. The registers show for the seven months that are past, 67 births and 35 deaths, which is equal to 28.1 and 14.6 per 1,000 per annum, which is manifestly below what it ought to be.

VEPANKOLAM.

Population 362

9. A hamlet of the above is an agricultural village of widely scattered huts. Water-supply from wells, mostly unprotected. Twelve cases were verified, ten were successful, two were absent. The register showed 7 births and 5 deaths for the seven months, or 33.1 and 23.5 per 1,000 per annum respectively.

AUTHIKATTAL.

Population 598

10. A village similar to the last and 3 miles east of it. Here out of 7 cases examined all were unsuccessful, owing to the bad lymph sent out from the Tanjore dépôt during the months of May, June and part of July. All the cases were

vaccinated again in my presence. The births and deaths registered during this year numbered 15 and 3, respectively, or 42.6 and 8.4 per mille per annum. The births are probably correct, but the deaths are manifestly wrong.

PATTUKKÓTTAL.

Inspected 31st August 1896.

Population 5,028

11. This town is situated on light porous soil, and the main roads are fairly well kept though the lanes are not in good order. There are no latrines and no drains. The street sweepings are removed by four sweepers in two rubbish carts. This is the extent of the conservancy arrangements and it is evidently inadequate, for there are heaps of rubbish to be seen in most of the backyards. Rs. 24 was the sum realized last year by sale of sweepings. Water is derived chiefly from two tanks, each under the care of a watchman. The large tank to the north is in very bad repair and the supply of water has of late years become scanty, as the cultivators along the banks of the supply channel retain the water for their fields. The other tank to the east is also in bad order, and, in my opinion, it is impossible to keep the water in either of them clean, even if wholesome water were supplied to begin with. I was told by the Chairman that the Local Fund Engineer has elaborated a scheme for supplying these tanks with water at a cost of some Rs. 20,000, but I would suggest that if such a sum is to be spent on water-supply, it would be much better, from a sanitary point of view, if a scheme capable of protection were devised. I would therefore direct attention to the village of Maharaj Samudram, half a mile to the west of the town, where abundance of good water is to be had at a depth of twenty feet. The water is quite free from brackishness and the place being at a slight elevation lends itself to the formation of a piped supply at small cost. A pump worked by a couple of coolies delivering into a cistern of modest dimensions and connected with a single line of piping laid through the middle of the town would be all that is required to begin with. Such a scheme would not cost much and would confer the boon of a protected water-supply on the inhabitants. As this is the head-quarters of a Tahsildar one expects to find vaccination well carried on, but I regret to say that this is not the case. Of 127 children examined, 95 were vaccinated, 10 had marks of small-pox, and 22 or 17.2 were unprotected. I verified 42 cases, of which 31 were successful, 2 unsuccessful and 9 absent. The results were wrongly entered by the vaccinator in 2 cases. The registers showed 87 births and 56 deaths during the first seven months of the year, which is equal to 29.6 and 18.9 per 1,000 per annum, respectively, evidently much too small a number.

MUTUPET.

Inspected 1st and 2nd September 1896.

A major union with a population of 8,084

12. The main portions of the town are two—one inhabited chiefly by Lubbai Muhammadans thickly crowded together, and the other where the houses are more scattered and the inhabitants are largely Hindu. The site is a sandy one on the right bank of the Coveyar river which here serves as a channel of communication with the sea. The roads are mere sandy tracks, very difficult to keep clean; now that the railway has reached these parts, it is to be hoped that the main roads may be gravelled. The houses in the northern portions of the union are mostly of a very poor type being built of mud and thatched. The streets are very narrow and irregular and there are small lanes leading through the labyrinth of houses which are largely used as latrines. There are 18 dust-bins, and the rubbish is removed from them in two carts to a tope where it is thrown out at random; the rubbish should be collected into a heap and daily covered with 4 inches of soil. This practice not only prevents all smell, but also improves the quality of the resulting manure. The conservancy establishment consists of one maistry, five sweepers and one scavenger. There are no latrines and no night-soil cart, the scavenger simply buries the faecal matter where it is found! There is urgent need for a standard plan latrine near the Arasadi tank as the catchment

area near this spot is the favourite squatting ground of a large section of the inhabitants. The accommodation required here is twenty seats for males and a similar number for females. A single bullock night-soil cart and one toty would have to be entertained to look after such a large latrine.

The water-supply is derived mainly from tanks though a few use the well near the railway. The Pattarai tank is situated near the river and is not reserved; it has a burning-ground near it and a good deal of faecal matter is found round the sides. The burning-ground should be removed as there are huts close by. The Arasadi tank to the west of the town is reserved and is in charge of a watchman, but the surroundings are hopelessly bad. The tank should be carefully fenced in and the banks so raised that surface drainage cannot find its way into it, and before the annual supply of water is let in the feeder channel should be carefully cleansed. A cess-pool tank near here should be filled up as soon as possible.

The market is in a very dirty, crowded locality, and I would recommend its removal to a better site. Meat is exposed in temporary thatched sheds with earthen floor, and fish is laid out on stinking boards. Sheep are slaughtered in one of the market stalls and as there are no drains to carry off washings the mess is horrible. There are a great many unprotected children to be found in the streets, especially in the petta though the vaccinator declared he could get no cases as the children were all protected! Out of 146 school children examined, 112 were vaccinated, 20 bore marks of small-pox and 11 were unprotected. I verified 16 cases from the register and found 5 wrongly entered by the 2nd-class vaccinator V. S. Krishna Rao. As this man's register bears constant marks of correction by the Deputy Inspector, I recommend that he be no longer retained in the department. The registers for seven months show 128 births and 68 deaths, which is equal to 27.1 and 14.4 per mille per annum, much too small a number.

TIRUTTURAIPPUNDI.

Inspected 3rd September 1896.

Population 3,167

13. Situated on flat soil surrounded by wet cultivation on all sides and with a good deal of salt in the layers of the sub-soil, so that most of the wells dug are useless for drinking purposes. The surroundings of the houses are, as a rule, very far from sanitary, heaps of manure and rubbish being found in most backyards. There are 40 dust-bins, 23 of corrugated iron and the rest brick masonry structures, difficult to clean. Rubbish is removed in two carts to the fields where it is thrown out; Rs. 33 was realised last year by its sale. There are five sweepers under the charge of a maistry. There are no latrines and as a consequence the vacant sites are much defiled by night-soil. Drinking water is got from tanks or the irrigation channel that supplies them. Thachankolam is reserved and has a watchman, it has been enclosed and banded on two sides, but the other sides are open to gross pollution. On the road side there are huts within five yards of the water and all the drainage of these is liable to flow into the tank; behind one of the houses cows were tied. These huts should be removed, as there is no room to construct a bund between them and the tank. Thailikolam is also only partially fenced, this should be seen to. Tirukolam belongs to the temple, and is used for washing and bathing as well as for drinking. The drainage from a row of houses on the east bank finds its way into it. As this is a public nuisance and dangerous to the health of the public, I would suggest that the District Magistrate interdict the use of it till the tank is properly protected by a wall all round, so that no drainage from the surroundings can find its way into the water. Rama Mattam tank is reserved and has been partially banded, this should be more thoroughly done and a fence erected. Close to it is another reserved tank which is well protected by a wall all round; to complete the protection as far as possible I would recommend that the steps be removed and that platforms overhanging the water be erected for people to draw from. In this way people would be prevented from entering the water and vessels would have to be washed elsewhere. Out of 164 scholars examined, 136 were vaccinated, 15 had marks of small-pox and

13 were unprotected. I verified 169 cases in the town and surrounding villages and found 138 successful, 6 unsuccessful and 25 absent. Of these, I found that 14 cases had been wrongly entered by 1st-class vaccinator T. Appaswami Pillai; I would therefore recommend that he be temporarily reduced to 2nd class as a punishment and warning to others. The number of births and deaths registered during the first eight months of the year was 49 in each case, or at the rate of 23.2 per 1,000 per annum, which is manifestly too low.

(Signed) W. B. BANNERMAN, M.D., B.Sc., Surgn.-Major,
Inspr. of Vaccn. and Dy. Sany. Comr., Madras.

FORT ST. GEORGE,
15th September 1896.

No. 1713-S.

Submitted to Government.

FORT ST. GEORGE,
16th September 1896.

W. G. KING, Surgn.-Lieut.-Col.,
Sanitary Commissioner for Madras.

ORDER—No. 1907 L., dated 14th October 1896.

Communicated to the local boards concerned for attention.

(True Extract.)

for Ag. Chief Secretary.

To the President, District Board, Tanjore.
Sanitary Commissioner.
Editors' Table.

6/10/10

Deputy Sanitary Commissioner
Inspection notes of the rural tracks
in the Tangone District.

W.
P.S.

A 5/10

(With order written)

GOVERNMENT OF MADRAS.

LOCAL AND MUNICIPAL DEPARTMENT.

Read—the following paper:—

INSPECTION Notes of the Inspector of Vaccination and Deputy Sanitary Commissioner for Madras.

TANJORE DISTRICT—RURAL TRACTS.

TRANQUEBAR.

Inspected 23rd August 1896.

Population 1,965

This seaport town is built on sandy porous soil, and, as there is an irrigation channel on either side of it, the sub-soil water is at no great depth. The town is neatly laid out in parallel streets running east and west, which arrangement allows the full benefit of the sea breeze to be felt in the houses. The town is surrounded by a wall, and entered by gates at each side. There are side channels in two of the streets, but otherwise no attempt at surface drainage. All the sullage water soaks into the sub-soil, and, as the drinking water is derived from shallow wells within the fort, it is no doubt largely contaminated. As the well within the old jail enclosure is the farthest removed from habitations, I would recommend that it be thoroughly repaired and used for the drinking supply for the town. It requires to be plastered with cement inside, down to the low water level and to have the platform similarly treated. There is one night-soil cart that perambulates the streets and picks up any offensive matter it may find, but other than this there is no attempt to cleanse the inhabited area of night-soil. There are no public latrines. Rubbish is removed in two carts to a spot outside where it is used to reclaim certain low-lying land. The sale of rubbish in the whole union realised last year Rs. 84. This is the head-quarter station of a vaccinator, and as a consequence most of the children to be seen in the streets are protected. I marked nine cases for verification, of which four were found to be correct and five absent. The glycerine paste used is obtained from Negapatam in split reeds, not being protected by this method from contact with the air; it should be sent out in glass tubes of the Saigon pattern, or between glass plates. No unprotected lists are kept. The registers show for the seven months of the present year 10 deaths and 13 births, or at the rate of 8.7 and 11.3 per 1,000 for twelve months. It is manifest from this that registration is greatly neglected.

SATTANGUDI.

Inspected 24th August 1896.

Population 3,476

2. This division of the Tranquebar union comprises several villages. The fisherman's village to the north of the fort is in a very dirty state. The thatched huts of which it is composed are arranged without any attempt at order, it would be well when a fire occurs—as it must sooner or later here—to lay out the streets in parallel rows from east to west so as to let in the sea breeze. The surroundings of the huts are strewn with fish offal, &c., which should be removed to the fields for manure. The foreshore is in a similar state. There are no latrines. The water-supply is from

the irrigation channel in the wet weather and from two wells in the hot season. These latter have been at one time repaired by the district board, but require attention again. As the surroundings are not good, it would be better to sink a new well near the irrigation channel and to close the present ones.

3. *Veliapelliam*, to the west of the fort, is a small agricultural village with the usual conditions of manure in the backyards, &c. There is a small market here consisting of a thatched shed unpaved. The meat is exposed on wooden tables and the fish on dirty mats. This should be altered, and smooth cement platforms or slab tables substituted. Drinking water for this and the surrounding villages is got from the Sattangudi tank, which is fed by a branch from the irrigation channel. The feeding channel is at present liable to pollution from surface drainage, which could be stopped without much difficulty or cost. The tank itself is polluted by people entering it to draw water; this should, if possible, be prevented by the erection of a platform overhanging the water from which people could draw water by buckets, and so arranged that any water spilled on it should not be able to run back into the tank. If then the tank be fenced so that people cannot get at the water to wash their pots, a very fairly protected water-supply will be got. Three cases of vaccination were verified here and found correct. The registers showed 19 deaths and 20 births for the seven months; which is equivalent to 9.3 and 9.8 per 1,000 per annum, which manifestly cannot be correct.

PORAIYAR.

Population 5,725

4. This is a large agricultural village about $1\frac{1}{2}$ miles west of the fort, and with the same soil and surroundings, i.e., wet cultivation. Many of the backyards here are very filthy having heaps of manure in them. There are four rubbish carts by means of which the street sweepings are removed to the low-lying ground above mentioned. There is a night-soil cart which goes round the streets to remove the faecal matter that is freely deposited there, for there are no latrines. The night-soil is removed to a piece of waste land to the north and there buried in trenches. Drinking water is got from a reserved tank fed by an irrigation channel; there is a watchman over it, but he is practically of little use, for in his very presence I found a woman cleaning her brass pot with mud in the tank itself! The measures recommended for the Sattangudi tank should be adopted here also. Twenty cases of vaccination were verified here, and all except one were found successful. The vaccinator had entered a wrong number of vesicles in two cases. The registers for the seven months of the year showed 83 births and 56 deaths, which is equivalent to 2.4 and 1.7 per mille per annum, respectively, an absurdly small number.

5. *Sanitary administration of the Tranquebar Union*.—There are two maistries to look after twenty sweepers, ten rubbish carts and two night-soil carts. The Civil Apothecary Superintends this establishment in his spare time, but as he has both an hospital and a dispensary to look after, he has very little more than a nominal control. For a large scattered union like this I consider that the services of a certificated Sanitary Inspector absolutely essential to ensure the proper working of the scavengers and to bring to the notice of the Medical Officer defects requiring to be dealt with. The villages of *Veliapelliam*, *Sattangudi*, *Arsikarapelliam*, *Chunampelliam* and *Ramanakapelliam* have only one rubbish cart and two sweepers among them which is inadequate as they are some what scattered; another cart and two sweepers should be supplied.

ULLIKOTTAL.

Inspected 28th August 1896.

Population 1,838

6. A small agricultural village, 6 miles south of Mannargudi. It has the usual collections of manure in the vicinity of each hut. The drinking water is taken from wells, many of which are brackish. The well most favoured appears to be the one beside the chattram, which is quite unprotected by parapet or platform and which has

insanitary surroundings. The owner of the chattram—who is suffering from an incurable malady—promised me that he would dig a new well in a spot near by; it might be as well if the taluk board were to keep him in mind of this from time to time. I verified 45 cases here, and found 38 successful, 5 absent and 2 dead. The vaccinator had entered the results correctly in all cases. The karnam was absent, so I did not see the birth and death registers.

MAHADEVAPATNAM.

Inspected 29th August 1896.

Population 1,325

7. A scattered agricultural village similar to the above, and about half a mile from it. I verified 14 cases here and found 13 successful and 1 absent; the vaccinator was correct in all cases. The registers for the seven months of the year showed 27 births and 21 deaths, which is equivalent to 34.7 and 27.2 per 1,000 per annum, respectively.

MADUKUR.

Inspected 29th August 1896.

Population 4,093

8. A considerable village, 12 miles south of Mannārgudi, consisting of several streets and of scattered houses. There are three sweepers who clean the roads and market place; they have no cart at present, so the sweepings are deposited within the limits of the village. A cart has been sanctioned, and when it is brought it is to be hoped the rubbish will be removed out of the town and covered with earth till such time as it is converted into manure. The village is in a very filthy condition, as heaps of manure are to be met with everywhere about the houses. There are no latrines. The water-supply is from wells, many of which are brackish. Of the four public wells, only two are usable from this cause. A private well near the north public well is much resorted to and should be put in proper order, as it has no parapet or platform and the lining is permeable. The inside should be plastered with cement and, if possible, the hut in the vicinity removed to a more distant part of the garden. As the wells here are very narrow only some two or at most three people can draw water at one time, so it would be a great boon to all if a pump were put down to discharge into a cistern from which many people could draw at once by means of taps. The market is in the centre of the town surrounded by houses; as there is a large weekly market held here, it would be advisable to choose some place in the outskirts for this purpose. I verified 16 cases and found 13 successful, 2 absent and 1 dead; of these, the vaccinator had entered a wrong number of vesicles in 2 cases. I examined 60 school children and found 32 vaccinated, 7 unprotected and 21 with marks of small-pox. The registers show for the seven months that are past, 67 births and 35 deaths, which is equal to 28.1 and 14.6 per 1,000 per annum, which is manifestly below what it ought to be.

VEPANKOLAM.

Population 362

9. A hamlet of the above is an agricultural village of widely scattered huts. Water-supply from wells, mostly unprotected. Twelve cases were verified, ten were successful, two were absent. The register showed 7 births and 5 deaths for the seven months, or 33.1 and 23.5 per 1,000 per annum respectively.

AUTHIKATTAL.

Population 598

10. A village similar to the last and 3 miles east of it. Here out of 7 cases examined all were unsuccessful, owing to the bad lymph sent out from the Tanjore dépôt during the months of May, June and part of July. All the cases were

vaccinated again in my presence. The births and deaths registered during this year numbered 15 and 3, respectively, or 42.6 and 8.4 per mille per annum. The births are probably correct, but the deaths are manifestly wrong.

PATTUKKÓTTAI.

Inspected 31st August 1896.

Population 5,028

11. This town is situated on light porous soil, and the main roads are fairly well kept though the lanes are not in good order. There are no latrines and no drains. The street sweepings are removed by four sweepers in two rubbish carts. This is the extent of the conservancy arrangements and it is evidently inadequate, for there are heaps of rubbish to be seen in most of the backyards. Rs. 24 was the sum realized last year by sale of sweepings. Water is derived chiefly from two tanks, each under the care of a watchman. The large tank to the north is in very bad repair and the supply of water has of late years become scanty, as the cultivators along the banks of the supply channel retain the water for their fields. The other tank to the east is also in bad order, and, in my opinion, it is impossible to keep the water in either of them clean, even if wholesome water were supplied to begin with. I was told by the Chairman that the Local Fund Engineer has elaborated a scheme for supplying these tanks with water at a cost of some Rs. 20,000, but I would suggest that if such a sum is to be spent on water-supply, it would be much better, from a sanitary point of view, if a scheme capable of protection were devised. I would therefore direct attention to the village of Maharaj Samudram, half a mile to the west of the town, where abundance of good water is to be had at a depth of twenty feet. The water is quite free from brackishness and the place being at a slight elevation lends itself to the formation of a piped supply at small cost. A pump worked by a couple of coolies delivering into a cistern of modest dimensions and connected with a single line of piping laid through the middle of the town would be all that is required to begin with. Such a scheme would not cost much and would confer the boon of a protected water-supply on the inhabitants. As this is the head-quarters of a Tahsildar one expects to find vaccination well carried on, but I regret to say that this is not the case. Of 127 children examined, 95 were vaccinated, 10 had marks of small-pox, and 22 or 17.2 were unprotected. I verified 42 cases, of which 31 were successful, 2 unsuccessful and 9 absent. The results were wrongly entered by the vaccinator in 2 cases. The registers showed 87 births and 56 deaths during the first seven months of the year, which is equal to 29.6 and 18.9 per 1,000 per annum, respectively, evidently much too small a number.

MUTUPET.

Inspected 1st and 2nd September 1896.

A major union with a population of 8,084

12. The main portions of the town are two—one inhabited chiefly by Lubbai Muhammadans thickly crowded together, and the other where the houses are more scattered and the inhabitants are largely Hindu. The site is a sandy one on the right bank of the Coveyar river which here serves as a channel of communication with the sea. The roads are more sandy tracks, very difficult to keep clean; now that the railway has reached these parts, it is to be hoped that the main roads may be gravelled. The houses in the northern portions of the union are mostly of a very poor type being built of mud and thatched. The streets are very narrow and irregular and there are small lanes leading through the labyrinth of houses which are largely used as latrines. There are 18 dust-bins, and the rubbish is removed from them in two carts to a tope where it is thrown out at random; the rubbish should be collected into a heap and daily covered with 4 inches of soil. This practice not only prevents all smell, but also improves the quality of the resulting manure. The conservancy establishment consists of one maistry, five sweepers and one scavenger. There are no latrines and no night-soil cart, the scavenger simply buries the faecal matter where it is found! There is urgent need for a standard plan latrine near the Arasadi tank as the catchment

area near this spot is the favourite squatting ground of a large section of the inhabitants. The accommodation required here is twenty seats for males and a similar number for females. A single bullock night-soil cart and one toty would have to be entertained to look after such a large latrine.

The water-supply is derived mainly from tanks though a few use the well near the railway. The Pattarai tank is situated near the river and is not reserved; it has a burning-ground near it and a good deal of faecal matter is found round the sides. The burning-ground should be removed as there are huts close by. The Arasadi tank to the west of the town is reserved and is in charge of a watchman, but the surroundings are hopelessly bad. The tank should be carefully fenced in and the banks so raised that surface drainage cannot find its way into it, and before the annual supply of water is let in the feeder channel should be carefully cleansed. A cess-pool tank near here should be filled up as soon as possible.

The market is in a very dirty, crowded locality, and I would recommend its removal to a better site. Meat is exposed in temporary thatched sheds with earthen floor, and fish is laid out on stinking boards. Sheep are slaughtered in one of the market stalls and as there are no drains to carry off washings the mess is horrible. There are a great many unprotected children to be found in the streets, especially in the petta though the vaccinator declared he could get no cases as the children were all protected! Out of 146 school children examined, 112 were vaccinated, 20 bore marks of small-pox and 11 were unprotected. I verified 16 cases from the register and found 5 wrongly entered by the 2nd-class vaccinator V. S. Krishna Rao. As this man's register bears constant marks of correction by the Deputy Inspector, I recommend that he be no longer retained in the department. The registers for seven months show 128 births and 68 deaths, which is equal to 27.1 and 14.4 per mille per annum, much too small a number.

TIRUTTUR APPENDI.

Inspected 3rd September 1896.

Population 3,167

13. Situated on flat soil surrounded by wet cultivation on all sides and with a good deal of salt in the layers of the sub-soil, so that most of the wells dug are useless for drinking purposes. The surroundings of the houses are, as a rule, very far from sanitary, heaps of manure and rubbish being found in most backyards. There are 40 dust-bins, 23 of corrugated iron, and the rest brick masonry structures, difficult to clean. Rubbish is removed in two carts to the fields where it is thrown out; Rs. 33 was realised last year by its sale. There are five sweepers under the charge of a maistry. There are no latrines and as a consequence the vacant sites are much defiled by night-soil. Drinking water is got from tanks or the irrigation channel that supplies them. Thachankulam is reserved and has a watchman, it has been enclosed and banded on two sides, but the other sides are open to gross pollution. On the road side there are huts within five yards of the water and all the drainage of these is liable to flow into the tank; behind one of the houses cows were tied. These huts should be removed, as there is no room to construct a bund between them and the tank. Thailikulam is also only partially fenced, this should be seen to. Tirukulam belongs to the temple, and is used for washing and bathing as well as for drinking. The drainage from a row of houses on the east bank finds its way into it. As this is a public nuisance and dangerous to the health of the public, I would suggest that the District Magistrate interdict the use of it till the tank is properly protected by a wall all round, so that no drainage from the surroundings can find its way into the water. Rama Mattam tank is reserved and has been partially banded, this should be more thoroughly done and a fence erected. Close to it is another reserved tank which is well protected by a wall all round; to complete the protection as far as possible I would recommend that the steps be removed and that platforms overhanging the water be erected for people to draw from. In this way people would be prevented from entering the water and vessels would have to be washed elsewhere. Out of 164 scholars examined, 136 were vaccinated, 15 had marks of small-pox and

13 were unprotected. I verified 169 cases in the town and surrounding villages and found 138 successful, 6 unsuccessful and 25 absent. Of these, I found that 14 cases had been wrongly entered by 1st-class vaccinator T. Appaswamy Pillai; I would therefore recommend that he be temporarily reduced to 2nd class as a punishment and warning to others. The number of births and deaths registered during the first eight months of the year was 49 in each case, or at the rate of 23.2 per 1,000 per annum, which is manifestly too low.

(Signed) W. B. BANNERMAN, M.D., B.Sc., Surgn.-Major,
Fort St. George, Inspr. of Vaccn. and Dy. Sany. Comr., Madras.
15th September 1896.

No. 1713-S.

Submitted to Government.

Fort St. George, W. G. KING, Surgn.-Lieut.-Col.,
16th September 1896. Sanitary Commissioner for Madras.

Order
P.S.

Order No. 1907 L dt 14.10.96

Communicated to the Local Boards concerned

for attention.

12
8/10/96

To The Presb. Dist. Ad. Tansone.
Sanitary Commissioner.
Editors Table.

Recd. 29/10/96

Local & Munl. (1896) Department.

CURRENT No. 2566 L.

From The Sanitary Commission
for Madras

No. 1713
8

Dated 16 September 1896.

Received 18 SEP 96

Registered 18/9

Enclosures 1.

Spare copies.

SUBJECT.

Forwarding Inspection Notes
of the Inspector of Vaccination
and Deputy Sanitary Commission
on the rural tracts of the Tanjore
District.

Pure

Please find this in type

249 - Local copies.

25/9

Order

Info 19072
11/10/96

BACK PAPERS.

G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.

18
Inspection Notes of the Inspector of Vaccination and Deputy Sanitary Commissioner for Madras.

Tanjore District — Rural Tracts.

Tranquebar.

Inspected 23rd August 1896.

Population 1965

1. This seaport town is built on sandy porous soil, and, as there is an irrigation channel on either side of it, the sub-soil water is at no great depth. The town is neatly laid out in parallel streets running east and west, which arrangement allows the full benefit of the sea breeze to be felt in the houses. The town is surrounded by a wall and entered by gates at each side. There are side channels in two of the streets but otherwise no attempt at surface drainage. All the sullage water soaks into the sub-soil, and, as the drinking water is derived from shallow wells within the fort, it is no doubt largely contaminated. As the well within the old jail enclosure is the farthest removed from habitations, I would recommend that it be thoroughly repaired and used for the drinking supply for the town. It requires to be plastered with cement inside, down to the low water level and to have the platform similarly treated. There is

25866/96
[Signature]

is our night soil cart that perambulates the streets and picks up any offensive matter it may find, but other than this there is no attempt to cleanse the inhabited area of night soil. There are no public latrines. Rubbish is removed in two carts to a spot outside where it is used to reclaim certain low-lying land. The sale of rubbish in the whole Union realised last year Rs 84. This is the headquarter station of a Vaccinator, and as a consequence most of the children to be seen in the streets are protected. I marked 9 cases for verification, of which 4 were found to be correct and 5 absent. The glycerine paste used is obtained from Negapatam in split peeds, not being protected by this method from contact with the air; it should be sent out in glass tubes of the Saigon pattern, or between glass plates. No unprotected lists are kept. The registers show for the 7 months of the present year, 10 deaths and 13 births; or at the rate of 8.7 and 11.3 per 1000 for twelve months. It is manifest from this that registration is greatly neglected.

Sattangudi.

Inspected 24th August 1896.

Population - - - 3476.

This division of the Tranquibar Union comprises several villages. The fisherman's village to the north of the fort is in a very
dirty

dirty state. The thatched huts of which it is composed are arranged without any attempt at order, it would be well when a fire occurs - as it must sooner or later here - to lay out the streets in parallel rows from east to west so as to let in the sea breeze. The surroundings of the huts are strewn with fish offal &c which should be removed to the fields for manure. The foreshore is in a similar state. There are no latrines. The water-supply is from the irrigation channel in the wet weather and from two wells in the hot season. These latter have been at one time repaired by the District Board, but require attention again. As the surroundings are not good it would be better to sink a new well near the irrigation channel and to close the present ones.

3. Velipollai to the west of the fort is a small agricultural village with the usual conditions of manure in the backyards &c. There is a small market here consisting of a thatched shed unpaved. The meat is exposed on wooden tables and the fish on dirty mats. This should be altered, and smooth cement platforms or slab tables substituted. Drinking water for this and the surrounding villages is got from the Sattangudi tank - which is fed by a branch from the irrigation channel. The feeding channel is at present
liable

is liable to pollution from surface drainage, which
could be stopped without much difficulty or
cost. The tank itself is polluted by people
entering it to draw water; this should, if pos-
sible, be prevented by the erection of a plat-
form overhanging the water from which people
could draw water by buckets, and so arranged
that any water spilled on it should not be able
to run back into the tank. If then the tank
be fenced so that people cannot get at the
water to wash their pots, a very fairly protected
water-supply will be got. Three cases of vac-
cination were verified here and found correct.
The registers showed 19 deaths and 20 births
for the 7 months; which is equivalent to 9.3 and
9.8 per 1000 per annum, which manifestly
cannot be correct.

Poraiyar - Population - 5,725.

4. This is a large agricultural village about
1 1/2 miles west of the fort, and with the same
soil and surroundings, i.e., wet cultivation.
Many of the back yards here are very filthy
having heaps of manure in them. There are
4 rubbish carts by means of which the street
sweepings are removed to the low lying
ground above mentioned. There is a night-
soil cart which goes round the streets to re-
move the faecal matter that is freely deposited
there, for there are no latrines. The night-
soil

soil is removed to a piece of waste land to the
north and there buried in trenches. Drinking
water is got from a reserved tank fed by an
irrigation channel; there is a watchman over
it but he is practically of little use for in his
very presence I found a woman cleaning her
brass pot with mud in the tank itself! The
measures recommended for the Sattangudi
tank should be adopted here also. Twenty
cases of Vaccination were verified here,
and all except one were found successful.
The Vaccinator had entered a wrong number
of vesicles in two cases. The registers for the
seven months of the year showed 83 births
and 56 deaths, which is equivalent to 2.4
and 1.7 per mille per annum respectively,
an absurdly small number.

5. Sanitary administration of the Tranque-
bar Union. - There are two maistries to look
after 20 sweepers, 10 rubbish carts and two
night-soil carts. The Civil Apothecary super-
intends this establishment in his spare time,
but as he has both an hospital and a dispen-
sary to look after he has very little more
than a nominal control. For a large
scattered Union like this I consider that
the services of a Certificated Sanitary In-
specter absolutely essential to ensure the
proper working of the scavengers and to
bring

bring to the notice of the Medical Officer defects requiring to be dealt with. ~~The~~ The villages of Valiapoliyam, Sathanguai, Arsikarapoliyam, Chunnampoliyam and Ramanaikapoliyam, have only one rubbish cart and 2 sweepers among them which is inadequate as they are somewhat scattered; another cart and two sweepers should be supplied.

Ullikottai.

Inspected 28th August 1896.

Population - - - - 1838

6. A small agricultural village 6 miles south of Mannargudi. It has the usual collections of manure in the vicinity of each hut. The drinking water is taken from wells many of which are brackish. The well most favoured appears to be the one beside the chattram, which is quite unprotected by parapet or platform and which has in sanitary surroundings. The owner of the chattram - who is suffering from an incurable malady - promised me that he would dig a new well in a spot near by; it might be as well if the Taluk Board were to keep him in mind of this from time to time. I verified 45 cases here, and found 38 successful 5 absent and 2 dead. The Vaccinator had entered the results correctly in all cases. The Karnam was absent, so I did not see the birth

birth and death registers.

Mahadevapatnam.

Inspected 29th August 1896.

Population - - - - 1325.

7. A scattered agricultural village similar to the above, and about half a mile from it. I verified 14 cases here and found 13 successful and one absent; the Vaccinator was correct in all cases. The registers for the 7 months of the year showed 27 births and 21 deaths, which is equivalent to 34.7 and 27.2 ^{per annum} per 1000 respectively.

Madukur

Inspected 29th August 1896.

Population - - - - 4093.

8. A considerable village, 12 miles south of Mannargudi, consisting of several streets and of scattered houses. There are 3 sweepers who clean the roads and market place; they have no cart at present so the sweepings are deposited within the limits of the village. A cart has been sanctioned, and when it is brought it is to be hoped the rubbish will be removed out of the town and covered with earth till such time as it is converted into manure. The village is in a very filthy condition as heaps of manure are to be met with everywhere about the houses. There are no latrines. The water supply is from wells many of which are brackish. Of the four public wells only

only two are usable from this cause. A private well near the north public well is much resorted to and should be put in proper order as it has no parapet or platform and the lining is permeable. The inside should be plastered with cement and if possible the hut in the vicinity removed to a more distant part of the garden. As the wells here are very narrow only some two or at most three people can draw water at one time, so it would be a great boon to all if a pump were put down to discharge into a cistern from which many people could draw at once by means of taps. The market is in the centre of the town surrounded by houses; as there is a large weekly market held here it would be advisable to choose some place in the outskirts for this purpose. I verified 16 cases and found 13 successful 2 absent and one dead; of these the Vaccinator had entered a wrong number of vesicles in two cases. I examined 60 school children and found 32 vaccinated, 7 unprotected and 21 with marks of small-pox. The registers show for the 7 months that are past, 67 births and 35 deaths, which is ^{equal} to 28.1 and 14.6 per 1000 per annum which is manifestly below what it ought to be.

Vepankolam.

Population - - - 362.

9. A hamlet of the above is an agricultural village

village of widely scattered huts. Water supply from wells, mostly unprotected. Twelve cases were verified, 10 were successful, 2 were absent. The registers showed 7 births and 5 deaths for the 7 months or 33.1 and 23.5 per 1000 per annum respectively.

Anthikkattai.

Population - - - 598.

10. A village similar to the last and three miles east of it. None out of 7 cases examined all were unsuccessful, owing to the bad lymph sent out from the Tanjore depot during the months of May, June and part of July. All the cases were vaccinated again in my presence. The births and deaths registered during this year numbered 15 and 3 respectively or 42.6 and 8.4 per mille per annum. The births are probably correct, but the deaths are manifestly wrong.

Patukota.

Inspected 31st August 1896.

Population - - - 5028.

11. This town is situated on light porous soil, and the main roads are fairly well kept though the lanes are not in good order. There are no latrines and no drains. The street sweepings are removed by 4 sweepers in 2 rubbish carts. This is the extent of the Conservancy arrangements and it is evidently inadequate for there are

are heaps of rubbish to be seen in most of the back yards. Rs 24 was the sum realised last year by sale of sweepings. Water is derived chiefly from two tanks, each under the care of a watchman. The large tank to the north is in very bad repair and the supply of water has of late years become scanty as the cultivators along the banks of the supply channel retain the water for their fields. The other tank to the east is also in bad order, and in my opinion, it is impossible to keep the water in either of them clean, even if wholesome water were supplied to begin with. I was told by the Chairman that the Local Fund Engineer has elaborated a scheme for supplying these tanks with water at a cost of some Rs 20,000 but I would suggest that if such a sum is to be spent on water-supply, it would be much better from a sanitary point of view if a scheme ^{capable} of protection were devised. I would therefore direct attention to the village of Maharaj Samudram half a mile to the west of the town where abundance of good water is to be had at a depth of 20 feet. The water is quite free from brackishness and the place being at a slight elevation lends itself to the formation of a piped supply at small cost. A pump worked by a couple of coolies delivering into a cistern of modest dimensions and connected with

with a single line of piping laid through the middle of the town would be all that is required to begin with. Such a scheme would not cost much and would confer the boon of a protected water-supply on the inhabitants. As this is the head-quarters of a Tahsildar one expects to find vaccination well carried on, but I regret to say that this is not the case. Of 127 children examined, 95 were vaccinated 10 had marks of small-pox and 22 or 17.2 were unprotected. I verified 42 cases of which 31 were successful, 2 unsuccessful and 9 absent. The results were wrongly entered by the Vaccinator in two cases. The registers showed 87 births and 56 deaths during the first seven months of the year which is ^{equal} to 29.6 and 18.9 per 1000 per annum respectively, evidently much too small a number.

Mutapur.
A Major Union with a population of 8084. Inspected 1st and 2^d September 1896.

12. The main portions of the town are two; one inhabited chiefly by Lubbai Mahummadans thickly crowded together and the other where the houses are more scattered and the inhabitants are largely Hindu. The site is a sandy one on the right bank of the Coveyar river which here serves as a channel of communication with the sea. The roads are mere sandy tracks very difficult to keep clean; now that the Railway has reached

reached these parts it is to be hoped that the main roads may be gravelled. The houses in the northern portions of the Union are mostly of a very poor type being built of mud and thatched. The streets are very narrow and irregular and there are small lanes leading through the labyrinth of houses which are largely used as latrines. There are 18 dust bins, and the rubbish is removed from them in two carts to a top where it is thrown out at random; the rubbish should be collected into a heap and daily covered with 4 inches of soil. This practice not only prevents all smell but also improves the quality of the resulting manure. The conservancy establishment consists of one mistry, 5 sweepers and 1 scavenger. There are no latrines and no night soil cart, the scavenger simply buries the faecal matter where it is found! There is urgent need for a standard plan latrine near the Arasadi tank as the catchment area near this spot is the favourite squatting ground of a large section of the inhabitants. The accommodation required here is 20 seats for males and a similar number for females. A single bullock night soil cart and one toty would have to be entertained to look after such a large latrine.

The water supply is derived mainly from tanks though a few use the well near the Railway. The Pattarai tank is situated near the

the river and is not reserved; it has a burning ground near it and a good deal of faecal matter is found round the sides. The burning ground should be removed as there are huts close by. The Arasadi tank to the west of the town is reserved and is in charge of a watchman, but the surroundings are hopelessly bad. The tank should be carefully fenced in and the banks so raised that surface drainage cannot find its way into it and before the annual supply of water is let in the feeder channel should be carefully cleansed. A cess-pool tank near here should be filled up as soon as possible.

The market is in a very dirty crowded locality and I would recommend its removal to a better site. Meat is exposed in temporary thatched sheds with earthen floor, and fish is laid out on stinking boards. Sheep are slaughtered in one of the market stalls and as there are no drains to carry off washings the mess is horrible. There are a great many unprotected children to be found in the streets, especially in the petta though there the Vaccinator declared he could get no cases as the children were all protected! Out of the 146 school children examined, 112 were vaccinated, 20 bore marks of small-pox and 11 were unprotected. I verified 16 cases from the

the register and found 5 wrongly entered by the 2nd class Vaccinator V. S. Krishna Rao. As this man's register bears constant marks of correction by the Deputy Inspector, I recommend that he be no longer retained in the department. The registers for 7 months show 128 births and 68 deaths, which is equal to 27.1 and 14.4 per mille per annum, much too small a number.

Tiruturaipundi.

Inspected 3rd September 1896.

Population - - - 3167.

13. Situated on flat soil surrounded by wet cultivation on all sides and with a good deal of salt in the layers of the subsoil, so that most of the wells dug are useless for drinking purposes. The surroundings of the houses are as a rule very far from sanitary, heaps of manure and rubbish being found in most back yards. There are 40 dust bins, 23 of corrugated iron and the rest brick masonry structures difficult to clean. Rubbish is removed in two carts to the fields where it is thrown out; Rs 33 was realised last year by its sale. There are 5 sweepers under the charge of a mistry. There are no latrines and as a consequence the vacant sites are much defiled by night soil. Drinking water is got from tanks or the irrigation channel that supplies them.

them. Thachankulam is reserved and has a watchman, it has been enclosed and banded on two sides but the other sides are open to gross pollution. On the road side there are huts within 5 yards of the water and all the drainage of these is liable to flow into the tank; behind one of the houses cows were tied. These huts should be removed as there is no room to construct a band between them and the tank. Thailikulam is also only partially fenced, this should be seen to. Tirinkulam belongs to the temple, and is used for washing and bathing as well as for drinking. The drainage from a row of houses on the east bank finds its way into it. As this is a public nuisance and dangerous to the health of the public I would suggest that the District Magistrate interdict the use of it till the tank is properly protected by a wall all round, so that no drainage from the surroundings can find its way into the water. Ramamattam tank is reserved and has been partially banded, this should be more thoroughly done and a fence erected. Close to it is another reserved tank which is well protected by a wall all round; to complete the protection as far as possible I would recommend that the steps be removed and that platforms overhanging the water be erected for people to draw

the draw from. In this way people would be pre-
vented from entering the water and vessels
would have to be washed elsewhere. Out of
164 scholars examined, 136 were vaccinated,
15 had marks of small-pox and 13 were un-
protected. I verified 169 cases in the town
and surrounding villages and found 138
successful, 6 unsuccessful and 25 absent.
Of these I found that 14 cases had been wrong-
ly entered by 1st class Vaccinator T. Appa-
swamy Pillai, I would therefore recom-
mend that he be temporarily reduced to
2^d class as a punishment and warning to
others. The number of births and deaths
registered during the first 8 months of the
year was 49 in each case, or at the rate of
23.2 per 1000 per annum which is manifest-
ly too low.

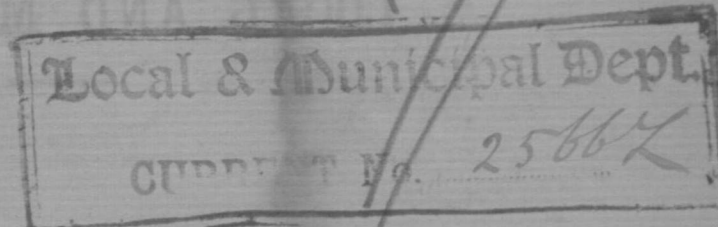
M. S. Bannerman

M. D. 1381

Surgeon-Major,
Inspector of Vaccination and
Deputy Sanitary Commissioner,
Madras.

Fort St George }
15th Sep 1896 }

Government {1896} of Madras.
LOCAL AND MUNICIPAL.



No. 1713
S

Submitted to Govern-
ment.

Surgeon Col,
Sanitary Commissioner
for Madras.

Fort St George }
16th Sep 1896 }
Despd 18th Sept 1896

Recd.

Regd.

Enclosures

1896.

Spare copies

G.O., No. 1907 L., 14th October 1896.

OCTOBER.

Inspection.

Communicating to the local boards concerned, for attention, Deputy Sanitary Commis-
sioner's notes on the — of the rural tracts in the Tanjore district.

(With endorsement)

GOVERNMENT OF MADRAS.

LOCAL AND MUNICIPAL DEPARTMENT.

READ—the following paper:—

INSPECTION Notes of the Inspector of Vaccination and Deputy Sanitary Commissioner for Madras.

TANJORE DISTRICT—RURAL TRACTS.

TRANQUEBAR.

Inspected 23rd August 1896.

Population 1,965

This seaport town is built on sandy porous soil, and, as there is an irrigation channel on either side of it, the sub-soil water is at no great depth. The town is neatly laid out in parallel streets running east and west, which arrangement allows the full benefit of the sea breeze to be felt in the houses. The town is surrounded by a wall, and entered by gates at each side. There are side channels in two of the streets, but otherwise no attempt at surface drainage. All the sullage water soaks into the sub-soil, and, as the drinking water is derived from shallow wells within the fort, it is no doubt largely contaminated. As the well within the old jail enclosure is the farthest removed from habitations, I would recommend that it be thoroughly repaired and used for the drinking supply for the town. It requires to be plastered with cement inside, down to the low water level and to have the platform similarly treated. There is one night-soil cart that perambulates the streets and picks up any offensive matter it may find, but other than this there is no attempt to cleanse the inhabited area of night-soil. There are no public latrines. Rubbish is removed in two carts to a spot outside where it is used to reclaim certain low-lying land. The sale of rubbish in the whole union realised last year Rs. 84. This is the head-quarter station of a vaccinator, and as a consequence most of the children to be seen in the streets are protected. I marked nine cases for verification, of which four were found to be correct and five absent. The glycerine paste used is obtained from Negapatam in split reeds, not being protected by this method from contact with the air; it should be sent out in glass tubes of the Saigon pattern, or between glass plates. No unprotected lists are kept. The registers show for the seven months of the present year 10 deaths and 13 births, or at the rate of 8.7 and 11.3 per 1,000 for twelve months. It is manifest from this that registration is greatly neglected.

SATTANGUDI.

Inspected 24th August 1896.

Population 3,476

2. This division of the Tranquebar union comprises several villages. The fisherman's village to the north of the fort is in a very dirty state. The thatched huts of which it is composed are arranged without any attempt at order, it would be well when a fire occurs—as it must sooner or later here—to lay out the streets in parallel rows from east to west so as to let in the sea breeze. The surroundings of the huts are strewn with fish offal, &c., which should be removed to the fields for manure. The foreshore is in a similar state. There are no latrines. The water-supply is from

the irrigation channel in the wet weather and from two wells in the hot season. These latter have been at one time repaired by the district board, but require attention again. As the surroundings are not good, it would be better to sink a new well near the irrigation channel and to close the present ones.

3. *Veliapalaiyam*, to the west of the fort, is a small agricultural village with the usual conditions of manure in the backyards, &c. There is a small market here consisting of a thatched shed unpaved. The meat is exposed on wooden tables and the fish on dirty mats. This should be altered, and smooth cement platforms or slab tables substituted. Drinking water for this and the surrounding villages is got from the Sattangudi tank, which is fed by a branch from the irrigation channel. The feeding channel is at present liable to pollution from surface drainage, which could be stopped without much difficulty or cost. The tank itself is polluted by people entering it to draw water; this should, if possible, be prevented by the erection of a platform overhanging the water from which people could draw water by buckets, and so arranged that any water spilled on it should not be able to run back into the tank. If then the tank be fenced so that people cannot get at the water to wash their pots, a very fairly protected water-supply will be got. Three cases of vaccination were verified here and found correct. The registers showed 19 deaths and 20 births for the seven months; which is equivalent to 9.3 and 9.8 per 1,000 per annum, which manifestly cannot be correct.

PORAIYAR.

Population 5,725

4. This is a large agricultural village about $1\frac{1}{2}$ miles west of the fort, and with the same soil and surroundings, i.e., wet cultivation. Many of the backyards here are very filthy having heaps of manure in them. There are four rubbish carts by means of which the street sweepings are removed to the low-lying ground above mentioned. There is a night-soil cart which goes round the streets to remove the faecal matter that is freely deposited there, for there are no latrines. The night-soil is removed to a piece of waste land to the north and there buried in trenches. Drinking water is got from a reserved tank fed by an irrigation channel; there is a watchman over it, but he is practically of little use, for in his very presence I found a woman cleaning her brass pot with mud in the tank itself! The measures recommended for the Sattangudi tank should be adopted here also. Twenty cases of vaccination were verified here, and all except one were found successful. The vaccinator had entered a wrong number of vesicles in two cases. The registers for the seven months of the year showed 83 births and 56 deaths, which is equivalent to 2.4 and 1.7 per mille per annum, respectively, an absurdly small number.

5. *Sanitary administration of the Tranquebar Union*.—There are two maistries to look after twenty sweepers, ten rubbish carts and two night-soil carts. The Civil Apothecary superintends this establishment in his spare time, but as he has both an hospital and a dispensary to look after, he has very little more than a nominal control. For a large scattered union like this I consider that the services of a certificated Sanitary Inspector absolutely essential to ensure the proper working of the scavengers and to bring to the notice of the Medical Officer defects requiring to be dealt with. The villages of Veliapalaiyam, Sattangudi, Arsikarapaliyam, Chunampaliyam and Ramanaikapaliyam have only one rubbish cart and two sweepers among them which is inadequate as they are some what scattered; another cart and two sweepers should be supplied.

ULLIKOTTAL.

Inspected 28th August 1896.

Population 1,838

6. A small agricultural village, 6 miles south of Mannargudi. It has the usual collections of manure in the vicinity of each hut. The drinking water is taken from wells, many of which are brackish. The well most favoured appears to be the one beside the chattram, which is quite unprotected by parapet or platform and which has

insanitary surroundings. The owner of the chattram—who is suffering from an incurable malady—promised me that he would dig a new well in a spot near by; it might be as well if the taluk board were to keep him in mind of this from time to time. I verified 45 cases here, and found 38 successful, 5 absent and 2 dead. The vaccinator had entered the results correctly in all cases. The karnam was absent, so I did not see the birth and death registers.

MAHADEVAPATNAM.

Inspected 29th August 1896.

Population 1,325

7. A scattered agricultural village similar to the above, and about half a mile from it. I verified 14 cases here and found 13 successful and 1 absent; the vaccinator was correct in all cases. The registers for the seven months of the year showed 27 births and 21 deaths, which is equivalent to 34.7 and 27.2 per 1,000 per annum, respectively.

MADUKUR.

Inspected 29th August 1896.

Population 4,093

8. A considerable village, 12 miles south of Mannārgudi, consisting of several streets and of scattered houses. There are three sweepers who clean the roads and market place; they have no cart at present, so the sweepings are deposited within the limits of the village. A cart has been sanctioned, and when it is brought it is to be hoped the rubbish will be removed out of the town and covered with earth till such time as it is converted into manure. The village is in a very filthy condition, as heaps of manure are to be met with everywhere about the houses. There are no latrines. The water-supply is from wells, many of which are brackish. Of the four public wells, only two are usable from this cause. A private well near the north public well is much resorted to and should be put in proper order, as it has no parapet or platform and the lining is permeable. The inside should be plastered with cement and, if possible, the hut in the vicinity removed to a more distant part of the garden. As the wells here are very narrow only some two or at most three people can draw water at one time, so it would be a great boon to all if a pump were put down to discharge into a cistern from which many people could draw at once by means of taps. The market is in the centre of the town surrounded by houses; as there is a large weekly market held here, it would be advisable to choose some place in the outskirts for this purpose. I verified 16 cases and found 13 successful, 2 absent and 1 dead; of these, the vaccinator had entered a wrong number of vesicles in 2 cases. I examined 60 school children and found 32 vaccinated, 7 unprotected and 21 with marks of small-pox. The registers show for the seven months that are past, 67 births and 35 deaths, which is equal to 28.1 and 14.6 per 1,000 per annum, which is manifestly below what it ought to be.

VEPANKOLAM.

Population 362

9. A hamlet of the above is an agricultural village of widely scattered huts. Water-supply from wells, mostly unprotected. Twelve cases were verified, ten were successful, two were absent. The register showed 7 births and 5 deaths for the seven months, or 33.1 and 23.5 per 1,000 per annum respectively.

AUTHIKATTAI.

Population 598

10. A village similar to the last and 3 miles east of it. Here out of 7 cases examined all were unsuccessful, owing to the bad lymph sent out from the Tanjore dépôt during the months of May, June and part of July. All the cases were

vaccinated again in my presence. The births and deaths registered during this year numbered 15 and 3, respectively, or 42.6 and 8.4 per mille per annum. The births are probably correct, but the deaths are manifestly wrong.

PATTUKKÓTTAI.

Inspected 31st August 1896.

Population 5,028

11. This town is situated on light porous soil, and the main roads are fairly well kept though the lanes are not in good order. There are no latrines and no drains. The street sweepings are removed by four sweepers in two rubbish carts. This is the extent of the conservancy arrangements and it is evidently inadequate, for there are heaps of rubbish to be seen in most of the backyards. Rs. 24 was the sum realized last year by sale of sweepings. Water is derived chiefly from two tanks, each under the care of a watchman. The large tank to the north is in very bad repair and the supply of water has of late years become scanty, as the cultivators along the banks of the supply channel retain the water for their fields. The other tank to the east is also in bad order, and, in my opinion, it is impossible to keep the water in either of them clean, even if wholesome water were supplied to begin with. I was told by the Chairman that the Local Fund Engineer has elaborated a scheme for supplying these tanks with water at a cost of some Rs. 20,000, but I would suggest that if such a sum is to be spent on water-supply, it would be much better, from a sanitary point of view, if a scheme capable of protection were devised. I would therefore direct attention to the village of Maharaj Samudram, half a mile to the west of the town, where abundance of good water is to be had at a depth of twenty feet. The water is quite free from brackishness and the place being at a slight elevation lends itself to the formation of a piped supply at small cost. A pump worked by a couple of coolies delivering into a cistern of modest dimensions and connected with a single line of piping laid through the middle of the town would be all that is required to begin with. Such a scheme would not cost much and would confer the boon of a protected water-supply on the inhabitants. As this is the head-quarters of a Tahsildar one expects to find vaccination well carried on, but I regret to say that this is not the case. Of 127 children examined, 95 were vaccinated, 10 had marks of small-pox, and 22 or 17.2 were unprotected. I verified 42 cases, of which 31 were successful, 2 unsuccessful and 9 absent. The results were wrongly entered by the vaccinator in 2 cases. The registers showed 87 births and 56 deaths during the first seven months of the year, which is equal to 29.6 and 18.9 per 1,000 per annum, respectively, evidently much too small a number.

MUTUPET.

Inspected 1st and 2nd September 1896.

A major union with a population of 8,084

12. The main portions of the town are two—one inhabited chiefly by Lubbai Muhammadans thickly crowded together, and the other where the houses are more scattered and the inhabitants are largely Hindu. The site is a sandy one on the right bank of the Coveyar river which here serves as a channel of communication with the sea. The roads are mere sandy tracks, very difficult to keep clean; now that the railway has reached these parts, it is to be hoped that the main roads may be gravelled. The houses in the northern portions of the union are mostly of a very poor type being built of mud and thatched. The streets are very narrow and irregular and there are small lanes leading through the labyrinth of houses which are largely used as latrines. There are 18 dust-bins, and the rubbish is removed from them in two carts to a tope where it is thrown out at random; the rubbish should be collected into a heap and daily covered with 4 inches of soil. This practice not only prevents all smell, but also improves the quality of the resulting manure. The conservancy establishment consists of one maistry, five sweepers and one scavenger. There are no latrines and no night-soil cart, the scavenger simply buries the faecal matter where it is found! There is urgent need for a standard plan latrine near the Arasadi tank as the catchment

area near this spot is the favourite squatting ground of a large section of the inhabitants. The accommodation required here is twenty seats for males and a similar number for females. A single bullock night-soil cart and one toty would have to be entertained to look after such a large latrine.

The water-supply is derived mainly from tanks though a few use the well near the railway. The Pattarai tank is situated near the river and is not reserved; it has a burning-ground near it and a good deal of faecal matter is found round the sides. The burning-ground should be removed as there are huts close by. The Arasadi tank to the west of the town is reserved and is in charge of a watchman, but the surroundings are hopelessly bad. The tank should be carefully fenced in and the banks so raised that surface drainage cannot find its way into it, and before the annual supply of water is let in the feeder channel should be carefully cleansed. A cess-pool tank near here should be filled up as soon as possible.

The market is in a very dirty, crowded locality, and I would recommend its removal to a better site. Meat is exposed in temporary thatched sheds with earthen floor, and fish is laid out on stinking boards. Sheep are slaughtered in one of the market stalls and as there are no drains to carry off washings the mess is horrible. There are a great many unprotected children to be found in the streets, especially in the petta though the vaccinator declared he could get no cases as the children were all protected! Out of 146 school children examined, 112 were vaccinated, 20 bore marks of small-pox and 11 were unprotected. I verified 16 cases from the register and found 5 wrongly entered by the 2nd-class vaccinator V. S. Krishna Rao. As this man's register bears constant marks of correction by the Deputy Inspector, I recommend that he be no longer retained in the department. The registers for seven months show 128 births and 68 deaths, which is equal to 27.1 and 14.4 per mille per annum, much too small a number.

TIRUTTURAIPPUNDI.

Inspected 3rd September 1896.

Population 3,167

13. Situated on flat soil surrounded by wet cultivation on all sides and with a good deal of salt in the layers of the sub-soil, so that most of the wells dug are useless for drinking purposes. The surroundings of the houses are, as a rule, very far from sanitary, heaps of manure and rubbish being found in most backyards. There are 40 dust-bins, 23 of corrugated iron and the rest brick masonry structures, difficult to clean. Rubbish is removed in two carts to the fields where it is thrown out; Rs. 33 was realised last year by its sale. There are five sweepers under the charge of a maistry. There are no latrines and as a consequence the vacant sites are much defiled by night-soil. Drinking water is got from tanks or the irrigation channel that supplies them. Thachankolam is reserved and has a watchman, it has been enclosed and bunded on two sides, but the other sides are open to gross pollution. On the road side there are huts within five yards of the water and all the drainage of these is liable to flow into the tank; behind one of the houses cows were tied. These huts should be removed, as there is no room to construct a bund between them and the tank. Thailikolam is also only partially fenced, this should be seen to. Tirukolam belongs to the temple, and is used for washing and bathing as well as for drinking. The drainage from a row of houses on the east bank finds its way into it. As this is a public nuisance and dangerous to the health of the public, I would suggest that the District Magistrate interdict the use of it till the tank is properly protected by a wall all round, so that no drainage from the surroundings can find its way into the water. Rama Mattam tank is reserved and has been partially bunded, this should be more thoroughly done and a fence erected. Close to it is another reserved tank which is well protected by a wall all round; to complete the protection as far as possible I would recommend that the steps be removed and that platforms overhanging the water be erected for people to draw from. In this way people would be prevented from entering the water and vessels would have to be washed elsewhere. Out of 164 scholars examined, 136 were vaccinated, 15 had marks of small-pox and

13 were unprotected. I verified 169 cases in the town and surrounding villages and found 138 successful, 6 unsuccessful and 25 absent. Of these, I found that 14 cases had been wrongly entered by 1st-class vaccinator T. Appaswami Pillai; I would therefore recommend that he be temporarily reduced to 2nd class as a punishment and warning to others. The number of births and deaths registered during the first eight months of the year was 49 in each case, or at the rate of 23.2 per 1,000 per annum, which is manifestly too low.

(Signed) W. B. BANNERMAN, M.D., B.Sc., Surgn.-Major,
Inspr. of Vaccn. and Dy. Sany. Comr., Madras.
FORT ST. GEORGE,
15th September 1896.

No. 1713-S.

Submitted to Government.

W. G. KING, Surgn.-Lieut.-Col.,
Sanitary Commissioner for Madras.
FORT ST. GEORGE,
16th September 1896.

ORDER—No. 1907 L., dated 14th October 1896.

Communicated to the local boards concerned for attention.

(True Extract.)

A. T. ARUNDEL,
Ag. Chief Secretary.

To the President, District Board, Tanjore.
" Sanitary Commissioner.
Editors' Table.

Ed. C. M. Thambuswamy.

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