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Revenue (1897) Department.

MISCELLANEOUS SERIES.

G.O., No. 5115

DATED 29 Sept 97

[Despatch Abstract.]

Covering to the Board of Revenue G.O. Local and Municipal Department reviewing the reports on Sanitation for 1896.

BACK PAPERS.

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

FURTHER PAPERS.

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

Government {1897} of Madras.

LOCAL AND MUNICIPAL.

GOVERNMENT OF MADRAS
22 SEP 97
REVENUE DEPARTMENT

Recd. } 1897. *Enclosures*

Regd. } 1897. *Spare copies*

G.O., &c., Nos. 1705, 1705-A L., 6th September 1897.

SEPTEMBER.

G.O. No. 1705-31 29 Sept 97

Communicated to the Board of Revenue.

Jan 24/1/98

1. The Board of Rev (Col)
2. (Rev Dept)

Lisk

24/9/97

GOVERNMENT OF MADRAS.

LOCAL AND MUNICIPAL DEPARTMENT.

READ—the following paper:—

From the Sanitary Board, dated 1st July 1897, No. 492-S.

ABSTRACT.—Submitting the Sanitary reports for 1896.

ORDER—No. 1705 L., dated 6th September 1897.

With the proceedings read above, the Sanitary Board submits the reports of the Sanitary Commissioner and the Sanitary Engineer on the administration of their departments for the year 1896 and a separate report of the work done by the Board itself during the same period. These reports were due in the Government Office on the 15th May 1897 and the delay, which is to be regretted, was due mainly to the pressure of work in connection with the famine.

2. Early in the year under review, revised rules for the conduct of business by the Sanitary Board as reconstituted on the 1st January 1895 were issued, and in September 1896 the constitution of the Board was altered, the Chief Engineer, Public Works department, continuing to be the President, and the Surgeon-General and a member of the Indian Civil Service being appointed as members in lieu of the Sanitary Commissioner and the Sanitary Engineer, who were, however, to be the advisers of the Board in their respective professional capacities and to correspond with it in all matters connected with the Board's work. The Chief Assistant, for the time being, of the Chief Engineer's office was appointed Secretary to the Board, and considerable changes were made in the rules for its working.

GENERAL SANITATION.

3. *Rainfall.*—The mean quantity of rain registered was 26·85 inches during the south-west, and 16·19 inches during the north-east, monsoon, or slightly less than in the previous year, the average for the ten years ending 1893 being 24·34 and 16·32 inches, respectively. In the distribution of rainfall among the several districts there were considerable variations as compared with the average. The south-west monsoon was considerably in excess of the average in the Nilgiris, South Canara and Malabar, while in Gódávari, Tanjore, Kurnool and Cuddapah there was a marked deficiency. The north-east monsoon was almost a total failure in Ganjám, Vizagapatam, Gódávari, Kistna, Kurnool, Cuddapah, Bellary and Anantapur, while in Madras, Chingleput and Madura the rainfall in each exceeded the average by more than 10 inches.

4. *Prices of Food-grains.*—The following table compares the prices of the principal food-grains with those of the preceding two years and with the average for the ten years ending with 1893:—

	Number of seers for the rupee.			Average for the ten years ending with 1893.
	1896.	1895.	1894.	
Rice	12·7	12·8	12·5	13·2
Ragi	25·8	26·5	23·5	25·4
Cholam	22·6	23·5	21·3	23·1

A rise as compared with the previous year appears in all the districts except in Coimbatore, Madura, Malabar, Tinnevelly and Trichinopoly as regards rice, ragi and cholam, in Tanjore as regards rice and ragi, in Salem as regards rice and cholam, in South Arcot and South Canara as regards rice and in Chingleput as regards cholam. The increase in the prices is reported to be due, to some extent, to the deficiency of the south-west monsoon in the north midland districts, but mostly to the export of large quantities of grain to Bombay and the North-West Provinces where famine prevailed. The effect of this demand was at once felt in the markets of this Presidency and is reported to have hastened by fully two months the effects of the failure of the north-east monsoon in the districts comprising the north midland group.

5. **Vital Statistics.*—Returns of births and deaths were received in respect of a population of 32,761,209 against 33,605,784 in 1895, the decrease being due to the fact that in Ganjám the total population of the district was adopted in that year in the absence of information as to the population for which returns were received. The system of registration continued the same as in the previous year, but in its order, No. 476, Revenue, dated 21st September 1896, the Government decided to take steps for its improvement—

(1) by placing the village establishments in the zamindari tracts under adequate control;
(2) by initiating legislation with the object of making registration in certain more advanced areas compulsory by law; and
(3) by gradually transferring the duty of conducting registration in rural areas from the overworked village accountant to the village headman.

With reference to paragraph 11 of the report, it is observed that the Sanitary Commissioner is under a misapprehension in supposing that by G.O., No. 476, Revenue, dated 21st September 1896, the number of union and municipal registrars is to be fixed with reference to the population and area of the towns concerned, and that special inducements are to be offered to municipal servants for reporting cases of unregistered births or deaths. The suggestion to employ a special staff for registration in unions has been disallowed in that order and the remaining proposals are still under the consideration of Government.

6. *Births.*—The number of births registered during the year was 979,981, or 26·7 per mille of the estimated population against 27·0 in the previous year. Calculated, however, on the census population, the birth-rate was 29·9 per mille against 29·1 in 1895, the rates for urban and rural areas being 34·4 and 29·5 against 33·6 and 28·7, respectively, in that year. The table in paragraph 18 should have shown the rates only in the rural areas of the districts, exclusive of municipalities which are shown separately. Excluding Madras, the highest birth-rate was, as in the preceding three years, recorded in the Chingleput district (39·5 per mille) and the results achieved in the districts of Bellary, Cuddapah, Kistna, Kurnool, Madura, Salem, South Arcot, South Canara, Tinnevelly and Vizagapatam were also fair, the rate being more than 30 per mille. The improvement in the Ganjám, Vizagapatam and the Nilgiri districts is gratifying. In Malabar and Gódávari the rate was only 22·5 and 25·8 per mille, respectively—results which are very unsatisfactory. The Collectors of these districts will give their earnest attention to the matter. Among municipalities the rate exceeded 40 per mille in Adóni, Conjeeveram, Coimbatore, Erode, Guntúr, Dindigul, Periyakulam, Calicut, Palghat, Cochin, Cannanore, Coonoor, Gudiyáttam, Salem, Vániyambádi, Tiruppattúr and Cuddalore. As in the previous two years, Vániyambádi headed the list with a rate of 56·9. In 31 towns it ranged between 30 and 40. In seven others the rate was between 20 and 30, while in Berhampur it fell from 24·2 to 18·3—figures which plainly indicate gross neglect on the part of the municipal executive. Notwithstanding the repeated instructions of Government in the matter, penalties for failure to register births and deaths were inflicted in only 31 out of 58 towns. The Government must again impress upon the municipal councils concerned their bounden duty of enforcing the compulsory provisions of the law.

* The figures given in this paragraph include Europeans and Eurasians, numbering some 40,000; the succeeding paragraphs give statistics relating to Natives only. Full particulars regarding Europeans and Eurasians will be found in Appendix XII.

7. *Deaths.*—The annexed statement shows the number of deaths per mille of the (census) population during the year under review, as compared with the figures of the preceding five years:—

—	1891.	1892.	1893.	1894.	1895.	1896.
Cholera	2·9	2·3	1·0	1·3	0·6	1·5
Small-pox	1·2	1·3	0·8	0·8	0·4	0·3
Fevers	7·3	8·3	7·7	8·0	8·3	8·0
Dysentery and diarrhœa	1·0	1·0	0·7	0·7	0·7	0·7
Injuries	0·4	0·3	0·3	0·4	0·3	0·3
Other causes	9·4	9·1	8·8	9·5	9·6	9·8
Total ..	22·2	22·3	19·3	20·6	19·6	20·6

8. The total number of deaths recorded in 1896 was 675,787, or 17,068 more than in the previous year. The mortality among infants under one year of age was 163·0 per mille of the registered births of the year against 162·3 in 1895, while the rate for municipalities rose from 223 to 232·9. The rates of infantile mortality for each district and municipal town have not been furnished.

9. As in previous years, the highest district mortality (38·2) was recorded in Madras—a result due partly to the insanitary condition of the city and partly to comparative accuracy in registration. The Municipal Commissioners were able to carry out for the improvement of the sanitation of the city only a few measures. The water-supply in the first and eighth divisions was improved and extended by increasing the size and number of the mains; preliminaries were settled as to the construction of incinerators for the disposal of the town rubbish; some of the objectionable burial-grounds in crowded parts of the city were closed and removed to other situations; and several wide streets were opened through parcheris and hutting grounds for the better perflation of these localities. All these, however, are only measures of alleviation, as, until complete systems of water-supply and drainage are introduced and the purification of the river Cooum is accomplished, the health of the town cannot be expected to improve materially. Since the close of the year under review, the scheme for the drainage of Madras, accepted by the Municipal Commissioners and estimated to cost Rs. 31,81,000, has been approved, while their proposal to undertake immediately the subsidiary scheme for the drainage of Mylapore at a cost of three lakhs and to lay pipe-sewers along Ice House and Sydenham roads at a cost of Rs. 50,000 has also been sanctioned.

10. The average registered death-rate in rural villages was 19·9 per mille against 19·0 in the previous year. The registration thus continues to be very defective. It was higher in the Nilgiris (25·3) and Bellary (24·5), while in Chingleput, Coimbatore, Ganjám, Kurnool, South Arcot, Tanjore, Tinnevelly and Trichinopoly it ranged from 20·3 to 24·0. In the remaining districts it was below 20, being lowest in Malabar, where it was only 14·6. The rates for rural towns were also very low and in some * of them indicate the wholly untrustworthy character of the returns.

*Samalkot	6·6
Ramnad	10·8
Aruppukkóttai	10·6
Paramagudi	8·1
Shandomangalam	11·7
Virudupatti	10·1

The very serious attention of the Collectors concerned is again drawn to the matter. It is noteworthy that Ambúr, which recorded a rate of 6·1 in 1895, and to which special attention was called in the review of that year, registered a rate of 34·4 in the year under review. It is observed that the heading "Deaths in rural areas" should have been inserted before paragraph 26 instead of before paragraph 24 of the report.

11. The average rate for municipalities, where more trustworthy statistics are obtained, was 30·7 per mille against 28·9 in the previous year, while the individual rate ranged from 53·8 in Vániyambádi to 16·5 in Ellore. In three towns rates above 40 were recorded, and in twenty-two others rates above 30. In Ellore, Cocanada and Mangalore, it was below 20, and in Cuddapah it declined from 32·1 to 21·9. These unsatisfactory results have been commented upon in the annual reviews of the municipal administration of the towns in question.

12. *Principal Diseases—Cholera.*—The mortality from this cause was higher than in the previous year. The disease was prevalent throughout the year, being most fatal in December, when nearly 38 per cent. of the total number of deaths occurred, and least virulent in March and April. No district was free from the epidemic, and in Bellary, Malabar, South Arcot and Tanjore it prevailed throughout the year. It was felt most severely in Coimbatore and Bellary, which lost 5·4 and 4·7 per mille, respectively, of the population, while in South Canara, Kistna and Nellore the rate was only 0·01, 0·03 and 0·04, respectively. The average death-rate in municipal and other towns was 2·3 per mille against 0·8 in 1895 and in rural tracts 1·4 against 0·6. Among municipalities, Parlákimedi, Masulipatam, Guntúr, Cannanore, Nellore, Ongole, Mangalore and Srivilliputtúr enjoyed immunity from this disease, while in eleven others the number of deaths was less than ten in each. On the other hand, Vániyambádi and Tiruppattúr returned death-rates of 18·2 and 16·2 per mille, respectively, and in the town of Kilakarai in Madura the reported rate per mille was no less than 60·6, while Ambúr in North Arcot followed next with a rate of 23·4. The Sanitary Commissioner's remarks in paragraphs 33, 46 and 47 on the subject of combating cholera in municipal towns are commended to the earnest attention of all municipal councils and Collectors.

13. *Small-pox.*—The number of deaths from small-pox was 9,410 against 5,111 in 1895 and 11,207 in 1894. The average rate of mortality in districts was 0·3 and in municipalities 0·2 against 0·2, and 0·1, respectively, in 1895. The large increase in the number of deaths as compared with the previous year is unsatisfactory, Kurnool, North Arcot and Ganjám, where the deaths from this cause were 1·8, 1·2 and 1·2 per mille, respectively, being the districts chiefly responsible for this result. The lowest death-rate (0·02) was recorded in Coimbatore, and the rates in Tinnevelly (0·03), Trichinopoly (0·03), South Canara (0·04), Kistna (0·05) and Madura (0·06) were also low. Among district municipalities the death-rate from this cause was heaviest in Vellore (5·3), Gudiyáttam (2·1) and Cuddapah (1·2)—a fact which indicates that compulsory vaccination is not being strictly enforced in these towns. There were 20 towns against 22 in the previous year which enjoyed perfect immunity from the disease.

14. *Fevers.*—The mortality under this head fell from 277,337 to 260,769. The highest death-rates were recorded in the Nilgiris (19·5), Kurnool (15·4), Vizagapatam (15·3), Cuddapah (14·2), Ganjám (14·0) and Madras (13·6), and the lowest in Tanjore (2·5), Anantapur (2·9), Tinnevelly (3·7) and Trichinopoly (4·7). As compared with the previous year, there was a decrease in three out of the four Deccan districts. This as well as the fall from 18·3 to 10·2 in the town of Cuddapah is ascribed by the Sanitary Commissioner to the deficiency of the monsoon. The mortality in municipalities was, as usual, higher than in rural tracts, nine towns recording a rate exceeding ten per mille. The rate was high in Karúr (16·5), Tirupati (13·8) and Kurnool (13·5) and low in Palni (2·4), Cocanada (2·6) and Palamcottah (4·0). The especially heavy mortality in Karúr is ascribed by the Sanitary Commissioner to the saturation of the sub-soil of the town with soakage from cess-pools; the matter should receive the immediate attention of the municipal council.

15. *Dysentery and Diarrhœa.*—The deaths recorded from these diseases were 24,802 against 23,937 in 1895. The mortality in rural areas was 0·7 per mille against 3·8 in municipalities where insanitary conditions are more operative. The district rate ranged from 2·1 in Chingleput to 0·2 in Kurnool, while in Madras it rose from 4·9 to 5·3. In district municipalities the mortality was high in Coonoor (7·9), Tanjore (6·9), Vizagapatam (6·6), Calicut (6·5) and Tuticorin (6·1), and low in Adóni (0·2), Palni (0·2), Nellore (0·3) and Cuddapah (0·8).

16. *Injuries, &c.*—The number of deaths attributed to injuries and suicides rose from 10,357 to 10,822, while unspecified causes accounted for 322,137 as against 320,805 in the previous year.

17. *Sanitary Works—Civil.*—The subjects dealt with by the Sanitary Commissioner under section V will be noticed at length in the reviews of the administration reports of the local bodies concerned and in the general municipal and local fund reviews. It is sufficient to note here that the rules drawn up by the Sanitary

Commissioner for the guidance of municipal councils in dealing with cholera were made operative during the year, and should prove of the greatest value to those bodies in systematizing their efforts to combat epidemics of that disease. Rules prepared by the same officer were similarly notified for dealing with incursions of the bubonic plague, which happily, however, did not visit the Presidency. The scheme for replacing the unqualified sanitary inspectors of municipal towns by certified and trained officers was also brought into force. Further, at the beginning of the year, the Government directed the use in all unions of the "Village Sanitary Inspection Book," which is intended to form a permanent record of sanitary conditions and requirements, and to furnish the data on the basis of which the sanitary defects of rural areas may be more effectually and methodically treated. With regard to Dr. King's remarks at the end of paragraph 71 of his report, the Government desires that, as additional clerical assistance has been recently sanctioned for the Sanitary Board, that body should forward to the Sanitary Commissioner a copy of their final orders on all the schemes which come before them.

18. *General Remarks.*—The Sanitary Commissioner and his Deputy inspected 24 municipalities and 49 unions and other villages against 28 and 87, respectively, in 1895. The decrease in the former case was due to the Sanitary Commissioner's being engaged, with the approval of Government, in touring in the famine districts. The short touring of the latter has not been explained. The District Medical and Sanitary Officers visited, on an average, 21 places against 24 in the previous year. The Sanitary Commissioner's testimony to the good work done by Surgeon-Major Bannerman is noted with satisfaction. His Excellency in council is also pleased to record his approbation of the services rendered by Dr. King himself in connection with the advance of sanitation in the Presidency during the year.

SANITARY ENGINEERING.

19. In the course of the year under review, which is the seventh since this department was organised, the Sanitary Engineer visited twelve towns and the Assistant Sanitary Engineer eleven, against fourteen and nine, respectively, in 1895. The Assistant Engineer is not a member of the *indoor* staff, as he is inadvertently described in paragraph 1 of the Sanitary Engineer's report.

20. Four water-supply works, estimated to cost Rs. 11,32,309 in the aggregate, were in progress during the year. Of these, the Trichinopoly and Dindigul works were completed and handed over to the municipal councils concerned, and fair progress was made in carrying out the schemes for the water-supply of Kurnool and Conjeeveram. With reference to paragraph 13 of the report, the Government desires to be informed whether the Adóni water-supply did hold out through the hot weather, and if not what arrangements were made for the supply of the town.

21. Nine surveys were completed and five water-supply schemes were prepared and submitted to the Sanitary Board during the year, while the estimates for five other water-supply schemes underwent revision. The schemes submitted to Government by the Sanitary Board for the water-supply of Tirupati and Vizagapatam during the year under review have since been sanctioned by Government, and the Public Works department has been directed to take the works in hand. The water-supply project of Bellary, which was also received from the Sanitary Board in 1896, has since been approved, but, as it is beyond the means of the municipal council and as the Government is unable to promise any grant from Provincial funds, the Government of India has been addressed in view of their providing the required capital from Imperial funds in case the execution of the scheme is urgently called for in the interest of the troops stationed in the cantonment. It is observed that the figures for the cost of the combined scheme for Bellary are given as Rs. 7,96,000 in paragraph 15 and as Rupees 9,35,000 in the table in paragraph 16. The discrepancy should be explained. The statement in Appendix I of the Sanitary Board's report that a scheme for the water-supply of Coonoor was, among others, dealt with by the Board in 1896, does not appear to be correct, as from paragraph 33 of the Sanitary Engineer's report it appears that the preparation of the design was undertaken by him just before the close of the year

and was expected to be completed only in 1897. It should be explained, with reference to paragraphs 21 and 23, why the boring apparatus used at Cochin was not lent to the Calicut Municipal Council.

22. The drainage and water-supply of Ootacamund received attention, while the filling in of the upper lake and the drainage of the portion filled in, as well as the reconstruction of the intercepting sewer, will be completed by the Public Works department during the current year. Plans and estimates for improving the water-supply of this town—the preparation of which was during the year under review entrusted to Mr. Walch, late Chief Engineer for Irrigation—have since been received by Government, and orders on it are under issue.

23. The Sanitary Board scrutinised plans and estimates for 72 municipal and 87 local fund works estimated to cost Rs. 2,75,931 in the aggregate. The funds at the disposal of local bodies for sanitary purposes being very limited, the Board found it necessary to approve of a certain number of schemes which, though not in all respects sanitarily perfect, were nevertheless calculated to effect a distinct improvement in the sanitary condition of the areas concerned. Type plans for hospital buildings were prepared by the Consulting Architect to Government in consultation with the Sanitary Commissioner and the Sanitary Engineer and were under the consideration of the Sanitary Board at the end of the year. Type designs for nineteen sanitary works were issued by the Board during the year.

(True Extract.)

for Secretary to Government.

To the Sanitary Board.
" the Sanitary Commissioner.
" the Sanitary Engineer.
" the Surgeon-General.
" the Public Works Department.
" the Public Department.
" the Revenue Department.
" the Deputy Adjutant-General, Madras Command.
" the Inspector-General of Police.
" the Inspector-General of Prisons.
" the Accountant-General.
" the Director of Public Instruction.
" all Collectors.
" all Presidents of District Boards.
" all Chairmen of Municipal Councils.
" the President, Municipal Commission, Madras.
Editors' Table.

ENDORSEMENT—No. 1705-A L., dated 6th September 1897.

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G. S. FORBES,
Secretary to Government.

Ed. A. F. Eccleston.

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