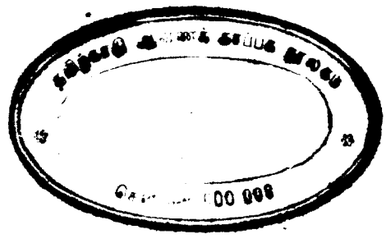

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MADRAS:
PRINTED BY THE SUPERINTENDENT, GOVERNMENT PRESS.

1897.

Class I No. 366
Book-case 16
10 1897

THE

FIRST ANNUAL REPORT OF THE SANITARY BOARD,

THE THIRTY-THIRD ANNUAL REPORT OF THE SANITARY COMMISSIONER,

AND THE

SEVENTH REPORT OF THE SANITARY ENGINEER,

MADRAS.

1896.

REPORT OF THE SANITARY BOARD.

REPORT OF THE SANITARY BOARD

FOR THE YEAR 1896.

THE Sanitary Board was composed during the first part of the year as follows:—

President.—The Honourable Colonel D. McNEIL CAMPBELL, R.E., Chief Engineer, Public Works Department.

Members.—Surgeon-Lieutenant-Colonel W. G. KING, Sanitary Commissioner for Madras, and Mr. J. A. JONES, Sanitary Engineer to Government.

Towards the end of the year the Board was reconstituted as shown below:—

President.—The Chief Engineer and Secretary to Government, Public Works Department;

Members.—The Surgeon-General with Government, and a member of the Civil Service;

Secretary.—The Chief Assistant to the Chief Engineer and Secretary to Government, Public Works Department;

and the following revised rules were issued for the working of the Board:—

Rules for conducting the Business of the Sanitary Board.

1. The Sanitary Board shall consist of three members—

(1) The Chief Engineer, Public Works Department.
(2) The Surgeon-General with the Government of Madras.
(3) A member of the Indian Civil Service to be appointed by His Excellency the Governor in Council.

2. The Chief Engineer, Public Works Department, shall be the President, and the Chief Assistant of his office shall be the Secretary, of the Board.

3. All communications to the Sanitary Board, except those made by Government, should be addressed to the Secretary. The Government will address the Board direct.

4. All resolutions of the Board will be signed by the Secretary.

5. In the event of a difference of opinion among the members of the Board, the majority shall decide. But any member in the minority may record a minute of dissent and require that the same shall be submitted with a copy of the resolution for the orders of Government, and the President shall forthwith submit the same with such remarks as he may have to offer.

6. The President may, through the Secretary, call for such information from local bodies and Government officers as may be necessary to elucidate matters which have to be laid before the Board. All such references should be in letter form and not by proceedings.

7. No sanitary work, estimated to cost more than Rs. 200, shall be undertaken by any local board or municipal council without the prior approval of the Sanitary Board.

Notes.—(*a*) Works such as those relating to (1) building of hospitals, dispensaries, markets, slaughter-houses, latrines, incinerators, urinals, cess-pools, &c.; (2) water-supply; and (3) drainage, are sanitary works.
(*b*) The limit of Rs. 200 laid down in this rule does not include the cost of site.

8. Whenever it is proposed by any local board or municipal council to make any considerable improvements in existing village-sites or to lay out new sites, the proposals relating thereto shall first be submitted to the Sanitary Commissioner for approval.

9. The Sanitary Commissioner shall, on receipt of such proposals, deal with the points of sanitary principle involved, and either return them to the forwarding authority for reconsideration, or transmit them to the Sanitary Engineer with such remarks or proposals as the circumstances may require.

10. Should the Sanitary Engineer find himself unable to agree with the Sanitary Commissioner as to the general character of the engineering measures to be taken to secure the sanitary requirements of the work, he shall refer the matter to the Sanitary Board, which shall decide the points at issue.

11. When the sanitary requirements of the work have been agreed to or have been decided upon by the Sanitary Board, the Sanitary Engineer will deal with the proposals from an engineering point of view, as laid down in Rules 7 or 16 as the case may be.

12. Standard plans for wells, tanks, latrines, markets, hospitals, dispensaries, slaughter-houses, incinerators, urinals, cess-pools or the like shall be prepared by the Sanitary Engineer and forwarded by him to the Sanitary Commissioner for his remarks from a sanitary point of view. They will then be submitted to the Board for consideration, and when formally approved shall be lithographed for distribution to Presidents of Local Boards and Chairmen of Municipal Councils, who may, however, address the Sanitary Commissioner or Sanitary Engineer in regard to any advice required in connection with the execution of any works in accordance with these plans.

13. The Sanitary Engineer shall not be required to design particular works such as the above for municipal councils or local boards, except with the approval of the Sanitary Board. Applications for such designs shall be made by the Sanitary Commissioner or by local bodies to the Sanitary Board.

14. In the case of major sanitary schemes, it will be the duty of the Sanitary Commissioner to bring to the notice of the Board any local or municipal area where a water-supply or drainage scheme or any other major sanitary work is required. The Board will then call on the Sanitary Engineer to report how the schemes can best be carried out, and his report will be forwarded to the Sanitary Commissioner for his opinion from a sanitary point of view. Should the Sanitary Commissioner condemn the Sanitary Engineer's scheme on sanitary grounds, it will be for the Board to decide whether the Sanitary Engineer should be required to modify his proposals or whether the matter should be at once referred for the orders of Government as to the preparation of detailed plans and estimates.

15. The Sanitary Engineer will, in concert with the Sanitary Commissioner, draw up and submit to the Board in the last week of November of each year a statement of the major works he proposes to deal with in the ensuing year. The list will, after approval by the Board, be submitted for the orders of Government.

16. All plans and estimates for works of a sanitary nature costing less than Rs. 500 shall be prepared by the local bodies and those costing Rs. 500 and upwards by the Sanitary Engineer under the orders of the Sanitary Board. The plans and estimates for works costing Rs. 500 and upwards shall, after completion by the Sanitary Engineer, be forwarded to the Sanitary Commissioner for opinion on sanitary grounds only. The Sanitary Commissioner will forward them with his opinion to the Sanitary Board, which will consider them either in meeting or by circulation of the correspondence; and, after approval or amendment, forward them to Government if the project is estimated to cost Rs. 5,000 or more.

17. Resolutions of the Board shall be circulated to all members, but the President may, in cases of urgency, direct the Secretary to issue a resolution prior to such full circulation, the papers being fully circulated as soon after as possible.

18. The President may call a meeting of the Board whenever he considers it desirable.

19. The Sanitary Commissioner and the Sanitary Engineer may address Government on matters unconnected with the Sanitary Board's work as laid down above, in their respective capacities as heretofore, and may communicate direct with Government or local bodies in regard to—

(1) Matters of routine.
(2) The status, discipline and promotion of, and the conduct of their duties by, their own subordinates.
(3) In the case of the Sanitary Commissioner, the sanitary state of works inspection notes, arrangements for improved sanitation, &c.
(4) In the case of the Sanitary Engineer, the execution of works not being or to be carried out by the Department of Public Works and arrangements with local boards and municipal councils in reference thereto, or the after maintenance of such works.
(5) Reports required by Government.

20. The Sanitary Commissioner and the Sanitary Engineer will each prepare an annual report with reference to his own particular branch, and these will be compiled by the Secretary in the form of an annual report of the Sanitary Board. The report should be submitted to Government by the 15th of May in each year.

These revised rules involved the amendment of certain of the Local Fund and Municipal Rules, which was duly sanctioned and notified in the *Fort St. George* and *District Gazettes*.

The new Board entered on its duties with effect from the 24th October 1896.

The following is a brief summary of the work done by the Board (old and new) during the year under review.

The necessity for drawing up, and issuing for the guidance of local bodies, a complete set of type designs for hospital buildings has long been recognised, and the details, with a set of rules, were fully discussed by the Sanitary Commissioner, the Sanitary Engineer and the Consulting Architect; the following type plans being finally prepared:—

(1) Site plan of cottage hospital with 52 beds.
(2) Administrative block.
(3) Do. do.
(4) Store block.
(5) Kitchen.
(6) Semi-permanent ward for 14 beds.
(7) Semi-permanent ward for 8 beds.
(8) Semi-permanent ward for 4 beds.
(9) Lying and isolation wards.
(10) Laundry.
(11) Mortuary and *post-mortem* room.
(12) Matrons' quarters.
(13) Hospital Assistants' quarters.
(14) Out-houses for Matrons' and Hospital Assistants' quarters.
(15) Compounders', Hospital Assistants' and Midwive's quarters.
(16) Out-patients' dispensary.
(17) Do. do.

The plans and rules are now under the consideration of the Sanitary Board.

The Board scrutinised during the year the plans and estimates of 159 sanitary works, of which 72 were for municipalities and 87 for local fund boards: the total estimated value of the projects amounted to Rs. 2,75,331. The works are shown in detail in the appendix.

The funds at the disposal of local bodies for sanitary purposes are usually very limited, and it has thus been necessary for the Sanitary Board to approve of a great many schemes which, though not sanitarily perfect, will yet mark a distinct advance in the sanitary condition of the population and areas affected.

The following type designs were issued during the year:—

No. 4. Latrine with 12 seats in each compartment.
No. 12. Iron latrine with 12 seats for rural towns.
No. 16. Open wells.
No. 17. Built wells.
No. 18. Sunk wells.
No. 19. Do.
No. 20. Abattoir.
No. 21. Sheep slaughter-house.
No. 22. Urinals.
No. 23. Cess-pools.
No. 24. Vaccine depôt.
No. 25. Subsidiary vaccine depôt.
No. 26. Dispensary for women and children with Apothecary's quarters.
No. 27. Sewage filter.
No. 28. Do.
No. 29. Stoneware well (Class A. Sunk well).
No. 30. Stoneware well (Class B. Sunk well).
No. 31. Stoneware dip well (Class C. Sunk well).
No. 32. Cholera hospital.

Statement giving particulars of works referred to the Sanitary Board for scrutiny from Taluk Boards.

Names of Taluk Boards.	Description of work.	Amount of estimate.
		RS.
Bezwada	Repairing the tank at Ravalpad	305
	Constructing a local fund choultry at Mylaveram	2,600
Calicut	Constructing stalls for the Manasseri market	300
Chittoor	Constructing market sheds at Chowdaipalli village in Punganúru division.	1,225
Cocanada ...	Constructing Nadakudura main drain outlet and inlet sluice for tank ...	4,450
	Constructing drinking-water well at Potuluru	730
	Constructing in-patient wards in the compound of Tuni dispensary ...	3,240
	Constructing a well on the Pittapur road side near the Rajah's bungalow.	900
Cuddalore ...	Sinking a well at Sathikuppam in the Cuddalore taluk	550
	Sinking a well at Ellamedu	220
Dindigul	Sinking a well in the market compound at Allinagaram	700
	Constructing dry goods market shed at Ammayanáyakkanúr	1,400
	Constructing a compound wall around the weekly market at Allinagaram.	2,710
Ellore	Constructing 4 markets at Attily	4,760
	Improving a well at Sutampeta, Ellore taluk	260
	Repairing fresh-water tank in Tazalagunta	550
	Extending village site for improving Vellpur village	6,000
Gooty	Constructing a market shed at Tadpatri	3,450
	Repairing a female latrine at Tadpatri	350
Guntúr	Converting a descending fresh-water well into a draw well	561
	Constructing a well at Mandipudi	600
	Repairing the washerman's tank at Kornipad	480
Hosúr	Repairing the Kaligunta, Hosúr union	350
Kumbakónam ...	Repairing the tank at Achalpuram	1,000
	Repairing the tank at Ullattur	400
	Repairing the tank at Melavidayal	1,300
	Repairing the tank at Sathangudi	500
Madanapalle	Constructing main drains in Kummara and Kunnara streets in Madanapalle.	3,000
Madura	Repairing a drinking-water well in Sembakulam village	265
Mannárgudi ...	Repairing the tank at Desingarajapuram	400
	Constructing Hospital Assistant's quarters at Mannárgudi	2,120
Masulipatam	Sinking wells at Gudiváda	800
Námakkal ...	Constructing market sheds in the Mohanur market	300
	Constructing market shed at Sultanpet	1,100
	Constructing market shed in Manianore	570
	Constructing market shed at Puliancholai	880
Negapatam	Opening of cesspools in the union and engaging sewage carts for clearing the same.	872
Pollachi	Constructing a dispensary at Véttaikaranputhúr	2,800
Rajahmundry ...	Constructing 8 market sheds at Kottapeta	5,200
	Repairing and improving the hospital building at Dowlaishweram ...	1,130
	Constructing steps to the Vura tank of Velugubanda	315
	Constructing dispensary building at Kottapetta	4,330
Bánipéttai	Improving the fresh-water pond in Pudupet village	390
Sérmádévi	Constructing latrines in Sérmádévi	235
Sivaganga	Improving the Chetti Urani at Sivaganga	3,000
Tanjore	Repairing the tank at Melattur	1,650
	Constructing a dispensary at Tiruvádi	3,850
Tindivanam	Constructing a drinking-water pond at Koradikuppam Sayer	500
Tirumangalam	Repairing a well in the Mathur village in the Saptur estate	300
Tiruppattúr	Constructing market sheds at Mattrapalli and Pudupet markets ...	2,100
Vinukonda	Converting the descending well at Miryala into a drawing well	540
	Total ..	76,538
	Total, Local Boards ... { 45,185 / 76,538	
		1,21,723
	Total { Municipalities ... 1,53,608 / Local Boards ... 1,21,723	
	Grand Total ...	2,75,331

THIRTY-THIRD ANNUAL REPORT

OF THE

SANITARY COMMISSIONER FOR MADRAS.

SECTION I.

RAINFALL.

SECTION II.

PRICES OF FOOD.

SECTION III.

VITAL STATISTICS.

SECTION IV.

CHIEF DISEASES.

SECTION V.

SANITARY WORKS—CIVIL.

SECTION VI.

PERSONAL PROCEEDINGS.

APPENDIX I.

List of the chief schemes dealt with by the Sanitary Board in 1896.

(1) Water-supply of Bezwada.
(2) Do. of Coonoor.
(3) Do. of Gudiyáttam.
(4) Do. of Tirupati.
(5) Do. of Tuticorin.
(6) Do. of Vizagapatam.
(7) Do. of Vizianagram.
(8) Do. of Trichinopoly District Jail.
(9) Do. of Cuddalore District Jail.
(10) Do. of Tanjore District Jail.
(11) Drainage of Sholayappa Mudali Street in Kumbakónam.
(12) Water-supply of Kumbakónam.
(13) Do. of Tanjore.
(14) Do. of Dindigul.
(15) Do. of Bellary.
(16) Do. of Penukonda.
(17) Water-supply and drainage of Cuddapah.
(18) Drainage of Ootacamund.

Statement giving particulars of works referred to the Sanitary Board for scrutiny from Municipalities.

Names of Municipalities.	Description of work.	Amount of estimate.
		RS.
Adóni	Constructing 3 double iron latrines	2,895
Anakápalle	Constructing masonry compartments in the latrine for males at Paikarow bushes.	280
	Constructing an iron latrine on the standard plan	700
Bellary	Deepening, widening and fencing the Mainwaring tank supply channel ...	2,500
	Excavating a new well in Cowl Bazaar	4,000
	Cutting, burning and removing prickly-pear	7,500
	Removing silt and deepening the tank to strengthen the existing bund of Nallacheruvu tank commencing from the east Calingula.	2,[illegible]
Berhampur ...	Converting cholera sheds into isolation hospitals	...
Chicacole ...	Constructing a shop in the Pendragadia market	215
Cocanada ...	Erecting a sheep slaughter-house	800
Cochin	Constructing a supply channel from Cocanada canal	9,010
Conjeeveram	Constructing a fish market	300
Coonoor	Constructing a tiled shed in the Muttancherry fish market	3,100
	Constructing a dispensary in front of the present hospital building ...	422
Cuddalore	Constructing midwife's quarters in the municipal hospital compound ...	868
	Constructing matron's quarters in Coonoor hospital	303
Cuddapah	Constructing hospital cistern	960
	Constructing a vaccination depôt in the hospital compound at Manjakkuppam.	580
Dindigul	Roofing the hospital building at Manjakkuppam	512
	Extending the main pipe from the junction of Hyathkhan street in the Bellary road to the junction of the Cantonment road at Almospet.	1,450
Guntúr	Improving the Fort tank	1,225
	Constructing U-shaped drains in a portion of the great bazaar street ...	650
	Constructing a beef market	1,400
Kumbakónam	Deepening the red tank	5,050
	Improving the Pottamarai tank	6,250
	Improving the Solayappa Mudali street drainage	2,636
	Pumping out the present capacity of water and removing 2 feet silt of the Mahamaka tank.	4,650
Kurnool	Constructing a branch hospital for out-patients	2,389
	Constructing Hospital Assistant's quarters attached to the branch hospital in Tanjore road.	5,000
	Constructing a market at Kurnool	412
	Improving the municipal hospital buildings	

Statement giving particulars of works referred to the Sanitary Board for scrutiny from Municipalities—cont.

Names of Municipalities.	Description of work.	Amount of estimate.
		RS.
Madura	Improving one of the markets and slaughter-houses and constructing a calf shed in the municipal hospital.	750
Masulipatam	Constructing oil and sweetmeat stalls	2,790
Máyavaram	Constructing a new dead-house in the hospital compound	560
	Constructing fish market at Máyavaram	1,800
Ootacamund	Constructing fruit stalls	310
	Repairing slaughter-house	410
Salem	Constructing a cholera shed attached to the municipal hospital ...	850
	Constructing a tiled drain in the bazaar street	1,082
	Constructing an isolation ward in the municipal hospital	400
Tanjore	Constructing a branch drain in Vanakkara street	116
Tinnevelly	Constructing shops in Pennington market	2,871
Tirupati	Constructing a slaughter-house	400
Tiruvannámalai ...	Constructing 2 latrines	500
Trichinopoly	Constructing an out-patient ward in the municipal hospital	2,600
	Constructing an abattoir	1,020
Vániyambádi	Constructing a sheep slaughter-house	1,560
Vellore	Repairing and improving the market buildings	1,500
	Removing the old floor of the slaughter-house and re-flooring it with cut stones.	500
	Plastering commissary bazaar latrine	207
	Plastering market latrine	243
	Repairing market stalls	935
	Ten Famine Relief works	62,577
Vizagapatam	Constructing a drain at Kottapetta	400
Wallajapet	Constructing a cattle shed in the cart stand near Vinayaga Chetty kulam.	220
	Constructing a bullock shed	450
	Total ...	1,53,608

Statement giving particulars of works referred to the Sanitary Board for scrutiny from District Boards.

Names of District Boards.	Description of work.	Amount of estimate.
		RS.
Anantapur	Replacing the existing irrigation channel in Tadpatri town by an inverted syphon.	4,700
Arcot, South	Fitting up a pump and laying pipe to the well in the District Jail at Cuddalore.	3,000
	Constructing a well at Palamcottah, Melputty, Mathurs, Ramapuram, Chidambaram taluk.	300
Chingleput	Extending Agaram drainage and constructing cesspool in Sembium union.	810
Coimbatore	Constructing quarters for the Civil Apothecary at Kollégal	2,530
Ganjám	Constructing market sheds at Calingapatam	210
Gódávari	Constructing a well at Devarapalli	1,130
Kistna	Constructing a well at Saddhapally, Guntúr taluk	460
	Constructing a well for Madigas at Salapad	300
	Repairing tanks at Pusapadu	250
	Repairing tanks at Pothukatla	320
	Repairing tanks at Narasayapoliem	267
	Repairing tanks at Adusumalli	1,130
Kurnool	Improving and extending the market at Nandyal	7,527
Madura	Constructing dry goods market sheds at Nattam	830
	Constructing compound wall round the weekly market at Usilampatti ...	895
	Constructing compound wall round the weekly market at Allinagaram ...	3,750
	Constructing compound wall round the weekly market at Chinnamanúr.	2,160
Nellore	Constructing a choultry at Addanki, Ongole taluk	7,700
	Repairing a well at Chipinapi, Rapur taluk	206
Salem	Constructing slab drains in the union of Dharmapuri	900
	Constructing dispensary building at Sendamangalam	1,500
	Constructing compound wall to Kolikal-Nattam market	200
	Constructing dispensary at Ómalúr	1,500
	Constructing dispensary at Thammampatti	1,500
	Constructing brick-in-mud compound wall for Ballipalle market ...	250
	Improving the market at Kilamangalam	300
	Planting trees in the Pochampalli market	290
Tanjore	Fixing a pump to the District Jail well	850
	Repairing the tank at Desingarajapuram	400
	Total ...	45,185

PART I.

GENERAL SANITATION.

THIRTY-THIRD ANNUAL REPORT

OF THE

SANITARY COMMISSIONER FOR MADRAS, 1896.

SECTION I.

RAINFALL.

During the south-west and north-east monsoons of 1896, there were received 26·85 and 16·19 inches of rainfall, respectively, throughout the Presidency. These amounts correspond closely with the average of the last ten years. In the distribution of rainfall, however, there was a considerable departure from the normal. The east coast north districts received about the average during the south-west monsoon, but in three of the four districts the north-east monsoon was a failure. The east coast central group received an average amount during the south-west monsoon, and a decided excess during the north-east; to this statement, however, the North Arcot district is an exception, both monsoons yielding below the average. The south-western group obtained in the south-west monsoon an excess over the average, but, on the other hand, the north-east monsoon was less than normal.

2. In Madras, which has received scanty monsoons from and including 1890, the north-east monsoon yielded 21·72 inches above the average. Just as in the years alluded to the scanty rainfall was of a local nature, so in this instance was the abnormal abundance, as shown by the fact that in the Chingleput district only 14·11 inches above the average were received.

3. In the north midland districts both monsoons were scanty, the north-east monsoon being practically a failure. Even such rainfall as was received in this group, fell in an irregular manner, so that whilst some tracts had a sufficiency for cultivation, others were in the plight of having a mere nominal amount. Although in the districts through which the Kistna and Gódávari flow the rainfall was not in excess of ordinary years, certain areas in the neighbourhood of these were subjected to severe floods, owing to freshes received in localities beyond the confines of this Presidency.

Table contrasting the Monthly Rainfall in Inches in the Madras Presidency during 1894, 1895 *and* 1896, *with the Average of previous ten years ending* 1893, *distributed according to Monsoon Currents.*

Groups.	Number.	Districts.		Number of places of observation.	North-East Monsoon. January.* Rainfall.	January.* Days.	Inter-Monsoon.† February. Rainfall.	February. Days.	March. Rainfall.	March. Days.	April. Rainfall.	April. Days.	May. Rainfall.	May. Days.	Total. Rainfall.	Total. Days.
East Coast, North.	1	Ganjám ...	Average of 10 years	19	0·21	0·3	0·65	1·2	1·02	2·2	0·55	1·3	2·46	3·7	4·89	8·7
			1894		0·16	0·3	1·10	2·1	0·03	0·2	1·73	3·2	0·98	2·2	4·00	8·0
			1895		0·02	0·1	1·41	2·7	0·08	0·3	1·72	3·0	2·48	3·0	5·71	9·1
			1896		...	...	...	...	0·53	0·6	0·88	1·0	1·88	4·2	3·29	5·8
	2	Vizagapatam.	Average of 10 years	27	0·19	0·3	0·32	0·7	1·05	1·6	0·68	1·0	2·17	3·7	4·41	7·3
			1894		0·21	0·3	0·82	1·3	0·07	0·2	2·32	3·7	1·34	2·5	4·76	8·0
			1895		0·12	0·3	0·35	0·8	0·03	0·1	1·52	3·2	2·78	4·4	4·80	8·8
			1896		...	...	...	...	0·41	0·8	0·76	1·2	2·26	3·9	3·43	5·9
	3	Gódávari ...	Average of 10 years	23	0·06	0·1	0·15	0·1	0·44	0·5	0·33	0·7	1·40	2·4	2·38	3·8
			1894		0·20	0·5	0·05	...	...	...	0·93	1·9	0·86	0·2	2·04	2·6
			1895		0·03	0·1	0·04	0·1	0·08	0·2	1·40	2·0	1·60	2·0	3·15	4·4
			1896		0·01	...	...	...	0·19	0·4	0·11	0·2	0·81	1·4	1·12	2·0
	4	Kistna ...	Average of 10 years	13	0·11	0·2	0·15	0·1	0·60	0·7	0·16	0·3	1·14	1·8	2·16	3·1
			1894		0·35	0·5	...	...	...	...	1·50	1·7	0·40	1·2	2·25	3·4
			1895		...	...	0·04	0·1	0·05	0·1	0·73	1·5	2·27	3·1	3·09	4·8
			1896		0·02	0·1	...	...	0·07	0·3	0·08	0·1	0·69	1·0	0·86	1·5
East Coast, Central.	5	Nellore ...	Average of 10 years	22	0·27	0·4	0·13	0·1	0·27	0·3	0·20	0·5	0·94	1·3	1·81	2·6
			1894		0·72	1·0	0·09	0·4	0·01	0·1	0·90	1·5	0·49	1·4	2·21	4·4
			1895		0·01	...	...	...	...	...	0·42	0·7	1·66	2·4	2·09	3·1
			1896		0·29	0·6	...	...	0·03	0·1	0·14	0·2	0·70	1·4	1·16	2·3
	6	Madras ...	Average of 10 years	1	0·54	1·5	0·07	0·3	0·29	0·9	0·44	0·8	1·03	2·0	2·37	5·5
			1894		0·39	1·0	1·14	2·0	...	...	0·86	2·0	...	...	2·39	5·0
			1895		...	...	...	...	...	...	...	...	0·94	1·0	0·94	1·0
			1896		0·13	1·0	...	...	...	...	...	...	...	...	0·13	1·0
	7	Chingle.	Average of 10 years	15	0·44	0·6	0·12	0·4	0·28	0·4	0·24	0·5	1·47	1·9	2·55	3·8
			1894		1·24	1·5	0·62	1·2	...	...	1·53	1·7	0·12	0·2	3·51	4·6
			1895		0·01	...	...	...	...	...	0·17	0·4	0·91	1·4	1·09	1·8
			1896		0·08	0·3	...	...	...	...	...	...	0·16	0·5	0·24	0·8
	8	North Arcot.	Average of 10 years	19	0·17	0·3	0·15	0·4	0·29	0·5	0·46	0·7	2·05	2·9	3·12	4·8
			1894		0·18	0·6	0·88	1·3	...	...	1·23	1·9	1·92	3·8	4·21	7·6
			1895		...	...	...	...	...	...	1·39	2·1	2·21	4·5	3·60	6·6
			1896		0·02	0·7	...	...	0·10	0·1	...	...	2·21	3·5	2·93	4·3
East Coast, South.	9	South Arcot.	Average of 10 years	17	0·46	0·8	0·27	0·4	0·46	0·5	0·33	0·6	2·31	2·9	3·83	5·2
			1894		1·05	1·4	0·48	1·6	0·19	0·1	2·10	2·4	1·56	3·0	6·38	8·5
			1895		1·02	0·1	...	...	...	...	1·23	1·9	0·94	1·9	2·19	3·9
			1896		0·22	0·6	...	...	...	...	...	...	0·84	1·6	1·06	2·2
	10	Trichinopoly.	Average of 10 years	11	0·18	0·7	0·33	0·5	0·59	0·8	1·04	1·3	3·05	4·1	5·19	7·4
			1894		0·29	0·8	0·58	1·0	0·65	1·0	3·33	3·5	2·31	3·8	7·16	10·1
			1895		0·01	0·1	...	...	...	...	3·16	3·6	2·22	3·0	5·39	6·7
			1896		0·02	0·1	...	...	0·11	0·3	0·05	0·2	2·77	4·6	2·95	5·2
	11	Tanjore ...	Average of 10 years	21	0·53	1·0	0·41	0·6	0·64	0·6	0·66	1·3	2·67	3·1	4·91	6·6
			1894		1·84	2·4	0·50	1·7	1·11	2·0	1·95	2·6	0·56	1·5	6·05	10·2
			1895		0·04	0·2	...	...	...	...	0·79	2·1	1·54	2·0	2·37	4·3
			1896		0·15	0·5	...	...	0·27	0·1	0·10	0·3	0·66	1·4	1·18	2·3
South-eastern.	12	Madura ...	Average of 10 years	24	0·22	0·6	0·45	0·7	0·97	1·6	1·90	2·7	1·98	3·4	5·62	9·0
			1894		0·11	0·4	0·77	1·0	2·43	2·8	2·57	4·2	1·98	3·3	7·86	11·7
			1895		0·21	0·6	0·01	...	0·01	...	4·00	6·7	1·95	3·1	6·18	10·4
			1896		0·35	0·7	...	...	0·59	1·3	0·41	0·7	2·21	3·9	3·56	6·6
	13	Tinnevelly ...	Average of 10 years	19	0·36	0·9	0·74	1·3	1·72	2·6	2·10	3·3	1·38	2·9	6·30	11·0
			1894		0·13	0·5	0·38	0·8	2·94	3·5	1·53	3·1	0·72	1·5	5·70	9·4
			1895		0·15	0·5	...	...	...	...	3·82	4·9	1·22	2·3	5·19	7·7
			1896		0·30	0·6	...	...	1·39	0·2	0·54	1·3	1·71	2·7	3·94	4·8

Groups.	Number.	Districts.		South-West Monsoon. June. Rainfall.	June. Days.	July. Rainfall.	July. Days.	August. Rainfall.	August. Days.	September. Rainfall.	September. Days.	Total. Rainfall.	Total. Days.	North-East Monsoon. October. Rainfall.	October. Days.	November. Rainfall.	November. Days.	December. Rainfall.	December. Days.	Total. Rainfall.	Total. Days.	Grand Total. Rainfall.	Grand Total. Days.
East Coast, North.	1	Ganjám ...	Average of 10 years	4·68	6·9	7·45	10·9	7·71	12·0	8·09	11·1	27·93	40·9	7·94	7·9	3·91	3·7	0·90	0·9	12·75	12·5	45·57	62·1
			1894	5·25	8·4	13·41	16·3	5·42	9·5	7·63	13·1	31·71	47·3	7·68	11·9	2·70	3·6	0·01	...	10·39	15·5	46·10	70·8
			1895	13·42	12·6	8·92	11·3	11·54	16·2	6·85	11·0	40·73	51·1	8·71	6·9	0·68	0·7	0·01	0·1	9·40	7·7	55·84	67·9
			1896	7·03	11·6	8·49	12·9	10·02	12·5	4·41	7·2	29·95	44·2	0·07	0·4	0·13	0·3	...	...	0·20	0·7	33·44	50·7
	2	Vizagapatam.	Average of 10 years	4·88	7·4	6·07	10·3	6·78	10·7	8·53	10·6	26·26	39·0	7·43	8·1	3·66	4·0	0·84	1·2	11·93	13·3	42·60	59·6
			1894	7·15	11·1	10·16	14·4	7·15	1·2	8·77	13·7	33·23	40·4	13·02	7·4	1·92	3·2	...	...	14·94	10·6	52·93	59·0
			1895	9·85	11·6	9·36	13·5	13·69	17·4	7·71	12·0	40·61	54·5	7·39	7·4	0·76	1·0	...	...	8·15	8·4	53·56	71·7
			1896	6·60	10·3	7·56	11·9	10·59	13·9	6·34	11·3	31·09	47·4	0·05	0·1	0·36	0·6	...	...	0·41	0·7	34·93	54·0
	3	Gódávari ...	Average of 10 years	5·59	6·7	7·45	10·0	6·67	9·3	6·81	7·7	26·52	33·7	7·69	7·7	4·08	3·2	0·49	0·5	12·26	11·4	41·16	48·9
			1894	6·76	8·0	3·82	7·4	5·16	8·5	6·87	9·8	22·61	33·7	13·31	12·3	1·72	3·1	0·01	...	15·04	15·4	39·69	51·7
			1895	3·76	5·9	10·30	14·7	8·18	11·4	11·59	8·7	33·83	40·7	9·97	9·3	0·69	1·0	...	...	10·66	10·3	47·64	55·4
			1896	3·27	5·3	7·24	11·1	7·25	11·4	4·03	7·0	21·79	34·8	0·24	0·3	1·95	3·0	...	...	2·19	3·3	25·10	40·1
	4	Kistna ...	Average of 10 years	4·76	6·6	5·92	9·1	5·83	8·7	5·79	8·3	22·30	32·7	6·12	7·6	3·24	3·5	0·50	0·8	9·86	11·9	34·32	47·7
			1894	2·97	6·1	3·59	5·5	5·03	9·1	5·21	9·5	16·80	30·2	9·14	10·1	2·97	4·2	...	...	12·11	14·3	31·16	47·9
			1895	3·93	5·2	8·96	11·5	7·25	10·7	10·90	7·9	31·04	35·3	7·66	9·7	0·61	1·1	0·03	0·1	8·30	10·9	42·43	51·0
			1896	4·11	5·7	5·46	6·7	5·86	9·8	5·45	8·2	20·88	30·4	0·33	0·9	3·75	4·2	...	...	4·08	5·1	25·82	37·0
East Coast, Central.	5	Nellore ...	Average of 10 years	1·86	3·2	2·54	5·1	2·77	4·9	3·68	5·9	10·85	19·1	9·33	9·1	9·09	7·3	3·12	3·5	21·54	19·9	34·20	41·6
			1894	1·05	2·5	1·83	3·1	5·09	9·9	3·53	5·8	11·50	21·3	11·30	8·9	6·87	7·7	0·38	1·2	18·55	17·8	32·26	43·5
			1895	1·58	3·0	2·10	5·3	3·35	5·2	5·28	7·4	12·31	20·9	10·83	11·3	2·71	4·7	2·69	3·5	16·23	19·5	30·63	43·5
			1896	0·95	2·1	2·79	5·3	5·29	8·8	5·88	8·4	14·91	24·6	1·23	2·4	16·30	11·1	2·31	3·0	19·84	16·5	35·91	43·4
	6	Madras ...	Average of 10 years	2·71	9·5	4·39	14·6	4·31	13·9	4·15	10·4	15·56	48·4	11·88	14·1	12·73	13·5	6·60	9·4	31·21	37·0	49·14	90·9
			1894	1·54	2·0	1·89	4·0	13·24	14·0	6·41	10·0	23·08	30·0	11·02	11·0	10·55	13·0	0·74	3·0	22·31	27·0	47·78	62·0
			1895	0·90	3·0	5·43	11·0	4·36	12·0	4·41	7·0	15·19	33·0	11·61	19·0	14·67	16·0	5·05	6·0	31·33	41·0	47·37	75·0
			1896	1·49	2·0	2·05	5·0	6·11	13·0	5·97	7·0	15·62	27·0	2·97	5·0	32·75	19·0	17·21	10·0	52·93	34·0	68·68	62·0
	7	Chingle.	Average of 10 years	3·34	5·3	3·72	6·4	5·16	8·2	4·56	6·6	16·78	26·5	9·21	9·2	11·85	9·4	5·79	5·4	26·25	24·0	46·19	[illegible]
			1894	0·88	2·2	2·76	5·6	10·48	13·9	6·50	9·0	20·62	30·7	8·22	9·8	9·68	11·2	1·92	2·8	19·82	23·8	43·95	[illegible]
			1895	0·83	1·9	5·92	10·4	5·78	8·9	5·92	7·9	18·45	29·1	14·21	15·2	7·91	9·1	6·04	5·1	28·16	29·4	47·70	[illegible]
			1896	0·50	1·4	1·76	4·2	6·39	10·5	4·96	7·1	13·61	23·2	2·28	4·4	25·33	17·2	13·35	8·8	40·96	30·4	54·81	51·4
	8	North Arcot.	Average of 10 years	3·46	5·2	3·43	5·0	4·43	6·6	4·97	6·5	16·29	23·3	7·94	8·6	7·07	7·0	3·74	3·9	18·75	19·5	38·16	47·6
			1894	1·41	2·9	2·54	5·9	6·28	10·8	5·68	7·1	15·91	26·7	7·36	11·0	2·97	6·1	1·11	1·9	11·44	19·0	31·56	53·3
			1895	1·46	2·7	4·49	7·4	4·44	6·1	7·86	8·6	18·25	24·8	8·29	12·2	2·10	4·4	6·87	3·3	17·26	19·9	39·11	51·8
			1896	1·82	3·2	1·68	2·6	4·25	7·9	7·53	9·2	15·28	22·9	1·32	3·1	10·23	11·2	3·84	6·7	15·39	21·0	33·60	48·2
East Coast, South.	9	South Arcot.	Average of 10 years	2·36	4·2	3·16	4·6	5·37	7·7	5·15	6·3	16·04	22·8	9·28	9·3	9·82	9·1	6·45	5·6	25·55	24·0	45·42	52·0
			1894	1·03	2·0	3·55	6·3	9·14	12·3	5·63	7·5	19·35	28·1	6·93	8·8	7·52	9·7	2·02	3·8	16·47	22·3	42·20	58·9
			1895	0·74	1·1	4·61	7·6	6·57	7·6	10·80	10·1	22·72	26·4	17·42	16·6	6·88	9·3	8·60	3·8	32·90	29·7	57·81	60·0
			1896	1·21	2·7	0·68	2·0	2·99	5·9	7·21	8·3	12·09	18·9	3·18	5·2	14·22	13·9	10·46	9·8	27·86	28·9	41·01	50·0
	10	Trichinopoly.	Average of 10 years	1·65	2·6	1·80	2·8	3·90	5·4	3·54	5·4	10·89	16·2	8·39	10·5	5·16	7·4	3·58	4·9	17·13	22·8	33·21	46·4
			1894	0·77	1·3	1·19	2·0	4·87	7·8	4·57	5·5	11·40	16·6	6·63	10·5	2·90	7·0	0·92	2·5	10·45	20·0	29·01	46·7
			1895	0·97	1·6	1·51	2·2	6·43	7·2	7·99	10·7	16·90	21·7	8·56	12·1	4·09	6·6	6·14	3·4	18·79	22·1	41·08	50·5
			1896	1·29	2·3	0·54	0·7	1·69	3·5	7·13	7·5	10·65	14·0	6·43	8·8	9·55	11·8	5·23	8·2	21·21	28·8	34·81	48·0
	11	Tanjore ...	Average of 10 years	2·07	3·4	2·83	4·5	4·09	6·0	3·53	4·9	12·52	18·8	9·96	11·1	11·34	10·6	8·34	8·2	29·64	29·9	47·07	55·3
			1894	0·40	1·1	0·95	2·5	5·54	9·1	5·93	7·3	12·82	20·0	4·81	7·5	8·94	14·0	6·05	9·0	19·80	30·5	38·67	60·7
			1895	0·37	0·6	2·15	4·1	8·42	9·3	7·01	7·7	17·95	21·7	12·65	15·7	10·00	10·9	11·24	7·0	33·89	33·6	54·21	59·6
			1896	1·24	1·7	1·28	2·8	1·94	4·7	3·51	5·3	7·97	14·5	6·63	9·2	15·47	14·2	14·31	14·9	36·61	38·3	45·76	55·1
South-eastern.	12	Madura ...	Average of 10 years	1·41	2·3	1·36	2·5	2·18	3·6	2·24	3·9	7·19	12·3	8·16	9·9	5·45	7·2	3·40	4·7	17·01	21·8	29·82	43·1
			1894	0·59	1·2	0·93	1·7	3·64	6·3	3·04	4·8	8·20	14·0	7·97	9·9	6·03	9·9	2·29	4·1	16·29	23·9	32·35	49·6
			1895	0·83	1·5	0·73	1·8	3·85	6·7	3·48	5·5	8·89	15·5	11·10	14·1	3·48	5·9	5·73	4·8	20·31	24·8	35·38	50·7
			1896	1·60	2·6	0·85	2·1	0·81	2·3	5·38	7·3	8·64	14·3	7·74	11·2	11·55	13·0	8·38	12·6	27·67	36·8	39·87	57·7
	13	Tinnevelly ...	Average of 10 years	0·79	2·2	0·51	1·5	0·85	1·8	1·16	2·2	3·31	7·7	7·26	9·7	6·70	8·6	3·67	4·9	17·63	23·2	27·24	41·9
			1894	0·18	0·7	0·24	0·8	1·38	2·1	0·42	1·1	2·22	4·7	3·41	5·3	7·17	9·2	1·36	4·0	11·94	18·5	19·86	32·6
			1895	0·78	2·1	0·20	0·6	0·80	1·7	1·09	1·9	2·87	6·3	10·54	13·3	3·47	5·8	8·39	5·2	22·40	24·3	30·46	38·3
			1896	1·57	2·9	1·41	2·7	0·21	0·8	2·96	3·7	6·15	10·1	6·74	9·8	12·89	11·6	7·39	9·0	27·02	30·4	37·11	45·8

* The rainfall of this month should be classed with the north-east monsoon of the previous year; but, as the report deals with the calendar year, its inclusion under the 'Inter-monsoon' period is unavoidable.

† Dr. Bellew.

SECTION II.

PRICES OF FOOD.

4. Up to May 1896, whilst the tendency remarked upon in this office report of the preceding year for rice to command higher prices continued, dry food grains had become cheaper than during the previous years. In that month, however, there was a rise of prices of the latter grains. By November these had reached or exceeded 'warning rates' in the districts of Anantapur, Bellary, Coimbatore, Cuddapah, Kurnool, Madura, Nellore, North Arcot, Salem, South Arcot, and Tinnevelly, and had exceeded 'scarcity rates' in the districts of Kurnool, Cuddapah, Bellary and Anantapur.

5. Hence, although the subjoined table affords useful information in the matter of the annual average price of food grains, it fails to exhibit the full influence of extremes, which can only be properly appreciated by reference to the diagrams illustrating the subject of mortality and prices of food that follow this chapter. Consequently, notwithstanding the remarks of the Army Sanitary Commission as to the inutility of these diagrams, I venture to again adopt this method of illustrating results.

6. This sudden rise of the prices of food grains was due in part to the poor south-west monsoons of the north midland districts; but especially it was brought about by the activity of merchants collecting grain for export to Bombay and the North-West Provinces where famine prevailed. The free railway communication of the present day enabled the agents of these merchants to penetrate into villages that had never before been visited by any one in quest of grain, beyond the sowcars of the district.

7. Unaware of the existence of famine elsewhere, and still hoping the north-east monsoon would yield normal results, the ryots gladly sold their grain at advantageous prices. As soon, however, as they realized the true condition of affairs, they held back from further sales, and thus the local markets were suddenly depleted.

8. The Board of Revenue had watched the situation carefully, and warnings were issued by the member responsible (Mr. LeFanu) to all Collectors. With the consent of Government, towards the end of October famine works were in operation in the districts of Kurnool, Bellary, Anantapur and Cuddapah. The question as to the area likely to be affected in the presence of high prices, chiefly brought about at the stage in question by demands from elsewhere, could only be answered on its being ascertained to what extent districts would profit by the north-east monsoon. This anxiety was not relieved till the last week in November, when the hope of securing a good monsoon had almost died out. Thus it was for one or two weeks the condition became acute in localities that subsequently were not seriously affected. For example, in certain parts of the Salem and North Arcot districts the tension was so great as to require considerable attention from the revenue authorities to the local markets, so as to induce merchants to sell at reasonable prices and prevent panic. Ultimately, however, with the arrival of the rains it was felt that the distress would be limited to the north midland group—the great cholum eating districts—and might possibly exhibit influence in those of the East Coast, North. By December, 26,553 persons were on famine relief works, and 785 were in receipt of gratuitous relief.

9. In this office report for 1894 the growing tendency towards the levelling up of prices of food grains, as an effect of increased facilities for transport by means of railways, was dwelt upon. This influence was apparent in the conditions above noted. The effect of the demand from the North-West Provinces and Bombay was at once felt in the markets of the Presidency, and hastened by fully two months the

effect of the failure of north-east monsoon in the north midland districts. Further, as I then held, I have since found, as the result of personal enquiries, that the ryot has now commercial instincts or, perhaps it would be more correct to say, that the local sowcar who holds him under his thumb has undergone a development in this respect, that has resulted in each advance of prices being taken advantage of; so that the stock of grain, which the ryot was in the habit of holding against adverse times, is no longer of the bulk it was prior to the 1877–78 famine. Instead of a two and three years' stock, which was formerly common enough, a six or nine months' stock is frequently all the ryot judges it necessary to keep against the evil day of crop failure.

Table contrasting the Monthly Rainfall in Inches in the Madras Presidency during 1894, 1895 *and* 1896 *with the Average of previous ten years ending* 1893, *distributed according to Monsoon Currents*—cont.

Groups.	Number.	Districts.		Number of places of observation.	North-East Monsoon. January.* Rainfall.	January.* Days.	Inter-Monsoon.† February. Rainfall.	February. Days.	March. Rainfall.	March. Days.	April. Rainfall.	April. Days.	May. Rainfall.	May. Days.	Total. Rainfall.	Total. Days.	South-West Monsoon. June. Rainfall.	June. Days.	July. Rainfall.	July. Days.	August. Rainfall.	August. Days.	September. Rainfall.	September. Days.	Total. Rainfall.	Total. Days.	North-East Monsoon. October. Rainfall.	October. Days.	November. Rainfall.	November. Days.	December. Rainfall.	December. Days.	Total. Rainfall.	Total. Days.	Grand Total. Rainfall.	Grand Total. Days.
South-western.	14	Nilgiris ...	Average of 10 years	11	0·42	0·9	1·31	1·6	1·78	3·1	3·61	6·9	5·34	10·1	12·46	22·6	9·38	14·0	13·50	16·4	9·06	14·0	6·56	11·6	38·50	56·0	12·13	14·6	5·92	8·1	3·15	3·8	21·20	26·5	72·16	105·1
			1894		0·58	1·6	1·19	1·3	3·77	5·1	3·79	9·5	4·33	8·9	13·66	26·4	8·42	12·0	10·53	12·5	9·86	1·6	4·38	9·5	33·19	35·6	8·92	14·8	3·11	8·6	0·41	1·2	12·44	24·6	59·29	86·6
			1895		0·06	0·2	0·32	0·7	0·09	0·4	5·57	10·5	3·24	6·5	9·28	18·3	13·79	12·4	9·92	14·7	9·40	15·5	6·36	11·1	39·47	53·7	13·59	16·6	3·71	7·3	3·22	2·6	20·52	26·5	69·27	98·5
			1896		0·49	0·9	...	...	0·17	0·4	0·83	2·1	2·69	5·4	4·18	8·8	20·59	19·3	19·06	15·8	10·64	16·0	10·59	15·0	60·88	66·1	5·96	8·7	7·97	10·0	6·48	9·2	20·41	27·9	85·47	102·8
	15	South Canara.	Average of 10 years	9	0·02	...	0·02	...	0·09	0·1	1·49	2·7	6·10	7·3	7·72	10·1	39·71	24·8	44·47	28·7	26·35	25·9	10·42	16·4	120·95	95·8	10·49	12·3	3·23	4·5	0·47	0·7	14·19	17·5	142·86	123·4
			1894		...	...	0·82	0·6	0·74	1·1	4·23	5·0	0·62	1·4	6·41	8·7	35·68	27·0	35·55	28·7	44·12	26·0	12·70	19·4	128·05	101·1	8·25	11·9	1·04	1·6	...	...	9·29	13·5	143·75	123·3
			1895		...	...	...	...	0·01	...	1·94	3·4	1·92	4·1	3·87	7·5	40·99	20·6	60·50	30·4	23·79	28·6	5·67	11·9	130·95	91·5	9·72	12·4	1·43	1·5	...	...	11·15	13·9	145·97	112·9
			1896		...	...	...	...	...	...	2·03	2·4	5·78	6·9	7·81	9·3	38·96	26·3	41·17	29·7	47·18	29·3	6·20	10·0	141·51	95·3	5·23	7·2	3·47	5·9	0·46	0·9	9·16	14·0	158·48	118·6
	16	Malabar ...	Average of 10 years	16	0·04	...	0·26	0·4	0·75	1·5	3·47	5·5	8·06	9·4	12·58	16·8	31·44	24·1	30·06	26·3	15·95	19·3	7·08	12·3	84·53	82·0	9·87	12·9	4·26	6·2	0·87	1·5	15·00	20·6	112·11	119·4
			1894		0·13	0·2	0·21	0·4	3·57	4·5	5·47	8·4	4·64	5·9	14·02	19·4	31·16	25·0	25·78	26·4	19·33	23·6	5·91	10·8	82·18	85·18	6·51	10·2	1·60	3·0	0·12	0·3	8·23	13·5	104·43	118·7
			1895		0·03	0·1	...	...	0·21	0·4	6·87	8·3	3·59	5·1	10·70	13·9	38·47	20·9	29·90	27·8	13·81	19·9	4·14	9·4	86·32	78·0	12·26	14·5	2·05	2·4	0·15	0·2	14·46	17·1	111·48	109·0
			1896		0·32	0·4	...	...	0·26	0·6	2·52	3·8	7·49	9·0	10·59	13·8	46·22	25·9	36·82	27·9	26·04	24·9	3·50	7·5	112·58	86·2	6·73	9·0	4·40	6·7	1·42	2·8	12·55	18·5	135·72	118·5
South Midland.	17	Salem ...	Average of 10 years	22	0·10	0·3	0·21	0·5	0·58	0·9	1·12	2·2	3·56	5·8	5·57	9·7	2·93	5·1	2·52	4·3	4·09	6·3	4·08	6·2	13·62	21·9	6·36	9·2	3·30	5·4	1·60	2·6	11·26	17·2	30·45	48·8
			1894		0·03	0·1	0·86	1·0	0·39	0·8	1·90	3·9	4·27	7·7	7·45	13·5	1·37	2·0	3·46	5·8	6·21	9·6	4·15	6·2	15·19	23·6	6·97	10·4	2·26	5·3	0·17	0·6	9·40	16·3	32·04	53·4
			1895		...	...	0·01	...	0·02	...	2·58	4·6	3·31	5·0	5·92	9·6	1·75	2·7	2·72	6·1	6·43	7·7	8·91	10·6	19·81	27·1	7·94	10·5	2·68	4·4	0·03	2·7	12·65	17·6	38·38	54·3
			1896		0·09	0·3	...	...	0·05	0·2	0·02	0·1	2·91	5·0	3·07	5·6	2·82	4·9	0·69	2·1	2·64	7·1	9·97	11·0	16·12	25·1	4·16	5·5	4·49	7·7	2·36	4·4	11·01	17·6	30·20	48·3
	18	Coimbatore.	Average of 10 years	16	0·13	0·2	0·35	0·5	0·86	1·2	2·05	2·9	3·13	5·4	6·52	10·2	1·87	3·9	1·16	2·8	1·84	3·8	2·25	4·0	7·12	14·5	6·72	8·9	3·45	5·5	1·51	2·7	11·68	17·1	25·32	41·8
			1894		0·03	0·1	0·63	1·0	0·78	1·3	2·22	3·9	3·45	5·8	7·11	12·1	0·90	1·6	0·91	2·4	3·09	6·0	1·77	3·8	6·67	13·8	7·16	9·8	1·89	4·2	0·02	0·1	9·07	14·1	22·85	40·0
			1895		...	...	0·13	0·1	0·01	0·1	5·01	6·9	2·76	3·5	7·91	10·6	1·74	3·7	1·09	2·8	3·73	6·6	3·00	5·3	9·56	18·4	7·86	10·5	3·15	4·6	1·38	2·7	12·39	17·8	29·86	46·8
			1896		0·14	0·2	...	...	0·05	0·1	0·26	0·6	2·52	4·5	2·97	5·4	3·47	6·2	1·11	2·9	1·02	3·2	5·61	7·8	11·21	20·1	5·03	7·8	4·92	7·7	3·38	6·0	13·33	21·5	27·51	47·0
North Midland.	19	Kurnool ...	Average of 10 years	12	0·07	0·2	0·02	...	0·31	0·5	0·43	0·9	0·93	2·1	1·76	3·7	3·43	5·5	4·51	7·6	5·21	7·8	5·16	7·9	18·31	28·8	5·56	6·2	1·65	3·1	0·38	0·7	7·59	10·0	27·66	42·5
			1894		0·15	0·3	...	...	...	...	0·74	1·6	0·88	2·8	1·77	4·7	1·26	2·6	5·06	7·4	8·37	12·7	3·60	6·1	18·29	28·8	6·01	7·6	2·44	4·8	...	...	8·45	12·4	28·51	45·9
			1895		...	...	0·06	0·3	0·02	0·1	1·34	2·7	1·28	2·6	2·70	5·7	2·32	5·3	3·35	9·5	3·52	7·3	6·62	10·2	15·81	32·3	7·36	6·8	0·23	0·4	0·04	0·2	7·63	7·4	26·14	45·4
			1896		...	...	...	...	0·05	0·1	0·45	1·0	1·07	2·4	1·57	3·5	2·16	4·6	2·56	5·7	4·56	9·2	2·57	4·8	11·85	24·3	0·17	0·5	2·10	4·3	...	...	2·27	4·8	15·69	32·6
	20	Cuddapah ...	Average of 10 years	14	0·04	0·1	0·07	0·2	0·17	0·3	0·37	0·7	1·20	2·3	1·85	3·6	2·53	4·5	3·18	5·5	4·17	6·5	4·40	6·1	14·23	22·6	6·36	8·2	4·33	5·0	1·39	[illegible]	[illegible]	16·5	[illegible]	[illegible]
			1894		0·03	0·1	0·53	0·5	0·08	0·3	0·53	1·1	1·25	2·6	2·42	4·6	1·19	2·7	3·79	5·8	8·68	12·1	3·82	5·2	17·48	25·8	7·31	9·1	1·43	4·1	0·14	[illegible]	[illegible]	13·9	[illegible]	[illegible]
			1895		...	...	...	...	...	...	0·56	1·4	2·01	3·7	2·57	5·1	1·43	3·5	3·52	7·6	3·24	6·1	9·32	9·8	17·51	27·0	6·58	8·0	0·80	2·4	[illegible]	[illegible]	10·41	13·7	[illegible]	[illegible]
			1896		0·92	0·7	...	...	0·07	0·1	0·23	0·5	1·67	2·8	2·89	4·1	1·53	3·1	1·65	4·1	3·70	7·0	2·93	5·6	9·81	19·8	0·40	1·3	5·10	8·1	[illegible]	[illegible]	6·10	11·2	[illegible]	35·1
	21	Bellary ...	Average of 10 years	11	0·05	0·1	0·04	0·1	0·27	0·5	0·66	1·5	1·59	2·9	2·61	5·1	2·67	5·0	2·29	6·3	3·54	6·5	4·75	7·5	13·25	25·3	4·68	6·7	1·72	2·8	0·20	0·5	6·60	10·0	22·46	40·4
			1894		...	...	...	...	0·22	0·4	0·91	2·9	2·47	3·9	3·00	7·2	0·81	2·2	3·03	4·9	4·82	9·2	3·58	6·7	12·24	23·0	4·48	8·2	1·94	4·3	...	...	6·42	12·5	22·26	42·7
			1895		...	...	0·33	0·2	...	...	1·66	3·6	1·81	2·9	3·50	6·7	3·64	5·3	3·74	9·0	2·74	7·1	6·15	8·3	16·27	29·7	5·93	7·2	1·23	1·9	0·05	0·3	7·21	9·4	26·98	45·8
			1896		0·02	0·1	...	...	...	...	0·04	0·5	2·06	3·5	2·12	4·1	1·88	5·1	2·92	6·4	3·38	6·5	1·32	2·6	9·50	20·6	0·45	1·2	1·64	2·2	...	...	2·09	3·4	13·71	28·1
	22	Anantapur...	Average of 10 years	11	0·02	0·1	0·02	0·1	0·16	0·3	0·56	1·2	1·51	2·6	2·27	4·3	2·41	4·1	2·61	5·2	3·26	5·4	4·36	5·9	12·64	20·6	4·86	6·9	2·19	3·3	0·40	1·0	7·45	11·2	22·36	36·1
			1894		...	...	0·03	0·1	0·07	0·4	1·15	2·3	1·42	3·0	2·67	5·8	0·89	1·5	2·17	3·5	6·39	9·4	2·38	3·5	11·83	17·9	6·53	8·6	0·91	2·9	...	...	7·44	11·5	21·94	35·2
			1895		...	...	...	...	...	...	1·57	3·4	1·56	2·9	3·13	6·3	1·79	4·7	2·32	6·0	1·43	3·2	8·49	7·6	14·03	21·5	6·34	7·1	1·28	2·1	0·25	1·1	7·87	10·3	25·03	38·1
			1896		...	...	...	...	...	...	0·26	0·6	2·49	3·7	2·75	4·3	2·69	4·5	1·31	4·0	2·20	4·9	2·52	3·7	8·72	17·1	0·43	1·5	2·47	3·1	0·12	0·2	3·02	4·8	14·49	26·2
		Total ...	Average of 10 years	353	0·22	0·4	0·28	0·5	0·62	1·0	1·04	1·8	2·52	3·8	4·68	7·5	6·18	7·1	7·04	8·6	6·06	8·8	5·06	7·7	24·34	32·2	8·07	9·4	5·64	6·3	2·61	3·2	16·32	18·9	45·34	58·6
			1894		0·36	0·6	0·58	0·9	0·78	1·1	1·97	3·3	1·66	3·0	5·35	8·9	5·08	5·7	6·23	7·9	8·79	10·2	5·11	8·0	25·21	31·8	7·87	9·8	4·02	6·4	0·80	1·6	12·69	17·8	43·25	58·5
			1895		0·03	0·1	0·10	0·2	0·03	0·1	2·16	3·5	2·01	3·2	4·33	7·1	0·61	6·0	8·26	9·8	6·94	10·1	6·80	8·7	28·61	34·6	9·84	11·6	3·40	4·7	3·22	2·5	16·46	18·8	49·40	60·5
			1896		0·19	0·4	...	...	0·20	0·3	0·44	0·7	2·07	3·3	2·90	4·7	7·32	6·9	6·77	7·7	7·49	9·7	5·27	7·5	26·85	31·8	3·08	4·7	8·68	8·5	4·43	4·9	16·19	18·1	45·94	54·6

* The rainfall of this month should be classed with the norte-east monsoon of the previous year; but, as the report deals with the calendar year, its inclusion under the 'Inter-monsoon' period is unavoidable.

† Dr. Bellew.

Statement showing the influence of Prices of Food upon the birth and death rates in each district in the Madras Presidency.

Districts.	Years.	Rainfall.			Prices of food grains.												Ratio per mille of population.		Ratio per mille of population.			
									Rice.		Cholum.		Ragi.		Cumbu.				Birth.		Death.	
		Quantity in inches.	Increase.	Decrease.	Rice.	Cholum.	Ragi.	Cumbu.	Increase.	Decrease.	Increase.	Decrease.	Increase.	Decrease.	Increase.	Decrease.	Birth.	Death.	Decrease.	Increase.	Decrease.	Increase.
Anantapur ...	Average.	22·36	7·87	...	13·8	26·8	29·7	...	2·3	...	0·1	...	0·6	...	...	...	30·4	20·2	3·0	...	2·0	...
	1894 ...	21·94	7·45	...	12·4	24·2	26·7	...	0·9	...	...	2·5	...	2·4	...	...	28·3	17·1	0·9	...	...	1·1
	1895 ...	25·03	10·54	...	11·8	29·4	32·0	...	0·3	...	2·7	...	2·9	...	...	...	28·6	15·3	1·2	...	...	2·9
	1896 ...	14·49	...	...	11·5	26·7	29·1	...	...	...	...	...	...	...	...	...	27·4	18·2	...	...	...	...
					Warning rate. 24·0																	
Bellary	Average.	22·46	8·75	...	12·3	26·6	31·1	...	1·5	...	...	0·4	...	2·1	...	...	35·7	22·8	5·9	...	1·5	...
	1894 ...	22·26	8·55	...	11·3	24·7	27·8	...	0·5	...	...	2·3	...	5·4	...	...	30·8	21·8	1·0	...	0·5	...
	1895 ...	26·98	13·27	...	11·4	28·7	34·4	...	0·6	...	1·7	...	1·2	...	...	...	31·8	18·8	2·0	...	...	2·5
	1896 ...	13·71	...	...	10·8	27·0	33·2	...	...	...	...	...	...	...	...	...	29·8	21·3	...	...	...	...
					Warning rate. 23·3																	
Chingleput ...	Average.	46·18	...	8·63	13·4	17·3	23·4	...	0·3	...	...	2·8	2·4	...	...	...	34·6	23·3	...	1·8	1·4	...
	1894 ...	43·95	...	10·86	12·9	...	20·4	...	...	0·2	...	...	...	0·6	...	...	34·1	20·7	...	2·3	...	1·2
	1895 ...	47·70	...	7·11	13·2	19·6	22·1	...	0·1	...	...	0·5	1·1	...	...	...	35·9	21·0	...	0·5	...	0·9
	1896 ...	54·81	...	...	13·1	20·1	21·0	...	...	...	...	...	...	...	...	...	36·4	21·9	...	...	...	...
					Warning rate. 12·8																	
Coimbatore ...	Average.	25·32	...	2·19	12·6	20·3	24·9	23·4	0·6	...	...	0·6	...	0·4	...	1·0	27·2	17·2	2·2	...	...	4·6
	1894 ...	22·85	...	4·66	11·9	19·8	22·7	21·8	...	0·1	...	1·1	...	2·6	...	2·6	25·8	15·5	0·8	...	...	6·3
	1895 ...	29·86	2·35	...	11·4	20·8	25·0	23·5	...	0·6	...	0·1	...	0·3	...	0·9	26·8	16·4	1·8	...	...	5·4
	1896 ...	27·51	...	...	12·0	20·9	25·3	24·4	...	...	...	...	...	...	...	...	25·0	21·8	...	...	...	...
							Warning rate.	21·8														
Cuddapah ...	Average.	28·16	9·36	...	13·6	25·1	28·3	...	1·8	...	1·4	...	1·4	...	...	...	26·6	20·7	...	1·5	2·5	...
	1894 ...	28·78	9·96	...	12·8	22·2	23·5	...	1·0	...	...	1·5	...	3·4	...	...	25·7	21·1	...	2·4	2·9	...
	1895 ...	30·49	11·69	...	13·2	27·1	29·0	...	1·4	...	3·4	...	2·1	...	...	...	27·2	19·8	...	0·9	1·6	...
	1896 ...	18·80	...	...	11·8	23·7	26·9	...	...	...	...	...	...	...	...	...	28·1	18·2	...	...	...	...
					Warning rate. 22·5																	
Ganjám	Average.	45·57	12·13	...	15·1	...	27·3	...	...	1·4	...	...	0·1	...	...	...	13·8	11·2	...	2·8	...	1·7
	1894 ...	46·10	12·66	...	15·2	...	25·8	...	...	1·3	...	...	...	1·4	...	...	18·5	12·3	1·9	...	...	0·6
	1895 ...	55·84	22·40	...	17·2	...	29·1	...	0·7	...	...	...	1·9	...	...	...	16·8	13·2	0·2	...	0·3	...
	1896 ...	33·44	...	...	16·5	...	27·2	...	...	...	...	...	...	...	...	...	16·6	12·9	...	...	...	...
					Warning rate. 14·4																	
Gódávari ...	Average.	41·16	16·06	...	14·4	24·3	26·3	...	1·5	...	2·4	...	1·5	...	...	...	20·2	20·1	...	3·5	5·3	...
	1894 ...	39·69	14·59	...	13·6	21·8	25·4	...	0·7	...	...	0·1	0·6	...	...	...	22·2	16·3	...	1·5	0·5	...
	1895 ...	47·64	22·54	...	14·9	25·9	28·2	...	2·0	...	4·0	...	3·4	...	...	...	22·8	18·1	...	0·9	2·3	...
	1896 ...	25·10	...	...	12·9	21·9	24·8	...	...	...	...	...	...	...	...	...	23·7	15·8	...	...	...	...
					Warning rate. 13·1																	
Kistna	Average.	34·32	8·50	...	13·8	20·6	26·4	...	0·9	...	Balanced.		1·7	...	...	...	30·4	21·4	...	0·3	3·9	...
	1894 ...	31·16	5·34	...	13·6	19·0	25·2	...	0·7	...	...	1·6	0·5	...	...	...	30·9	18·8	0·2	...	1·3	...
	1895 ...	42·43	16·61	...	14·5	22·7	27·7	...	1·6	...	2·1	...	3·0	...	...	...	31·0	16·[illegible]	0·3	...	...	1·0
	1896 ...	25·82	...	...	12·9	20·6	24·7	...	...	...	...	...	...	...	...	...	30·7	17·5	...	...	...	...
					Warning rate. 12·0																	
Kurnool	Average.	27·66	11·97	...	12·4	25·3	26·2	...	0·6	...	0·1	...	1·1	...	...	...	34·3	25·4	6·4	...	4·5	...
	1894 ...	28·51	12·82	...	12·8	25·1	26·4	...	1·0	...	...	0·1	1·3	...	...	...	29·5	24·6	1·6	...	3·7	...
	1895 ...	26·14	10·45	...	12·9	28·3	27·4	...	1·1	...	3·1	...	2·3	...	...	...	30·9	19·0	3·0	...	...	1·9
	1896 ...	15·69	...	...	11·8	25·2	25·1	...	...	...	...	...	...	...	...	...	27·9	20·1	...	...	...	...
					Warning rate. 22·5																	
Madras	Average.	49·14	...	19·54	12·3	18·7	23·5	...	1·6	...	0·1	...	2·3	...	...	...	36·7	39·[illegible]	...	1·0	4·3	...
	1894 ...	47·78	...	20·90	11·4	17·3	20·9	...	0·7	...	...	1·3	...	0·3	...	...	36·4	35·2	...	1·3	0·5	...
	1895 ...	47·37	...	21·31	11·1	20·1	21·8	...	0·4	...	1·5	...	0·6	...	...	...	39·1	34·9	1·4	...	0·2	...
	1896 ...	68·68	...	...	10·7	18·6	21·2	...	...	...	...	...	...	...	...	...	37·7	34·7	...	...	...	...
					Warning rate. 10·8																	
Madura	Average.	29·82	...	10·05	12·6	23·5	23·8	...	...	0·6	1·3	...	...	0·9	...	...	28·9	19·1	1·8	...	1·1	...
	1894 ...	32·35	...	7·52	12·0	20·2	22·9	...	...	1·2	...	2·0	...	1·8	...	...	26·9	19·8	...	0·2	1·8	...
	1895 ...	35·38	...	4·49	12·0	19·9	22·8	...	...	1·2	...	2·3	...	1·9	...	...	28·3	17·5	1·2	...	...	0·5
	1896 ...	39·87	...	...	13·2	22·2	24·7	...	...	...	...	...	...	...	...	...	27·1	18·0	...	...	...	...
							Warning rate.	22·5														
Malabar	Average.	112·11	...	23·61	12·6	...	22·8	...	0·7	...	...	...	...	6·2	...	...	22·1	18·1	1·0	...	3·4	...
	1894 ...	104·43	...	31·29	11·7	...	...	...	...	0·2	...	...	...	...	...	...	21·3	14·8	0·2	...	0·1	...
	1895 ...	111·48	...	24·24	11·7	...	28·3	...	...	0·2	...	...	...	0·7	...	...	22·4	15·7	1·3	...	1·0	..
	1896 ...	135·72	...	...	11·9	...	29·0	...	...	...	...	...	...	...	...	...	21·1	14·7	...	...	...	...
					Warning rate. 11·0																	
Nellore	Average.	34·20	...	1·71	13·5	22·4	25·5	...	0·3	...	...	3·0	...	1·7	...	...	22·8	14·8	...	1·9	...	0·5
	1894 ...	32·26	...	3·65	13·0	23·0	24·9	...	...	0·2	...	2·0	...	2·3	...	...	23·2	15·6	...	1·5	0·3	...
	1895 ...	30·63	...	5·28	14·0	26·5	27·5	...	0·8	...	1·1	...	0·3	...	...	...	24·4	15·2	...	0·3	...	0·1
	1896 ...	35·91	...	...	13·2	25·4	27·2	...	...	...	...	...	...	...	...	...	24·7	15·3	...	...	...	...
							Warning rate.	21·8														
Nilgiris	Average.	72·16	...	13·31	10·3	...	19·4	...	0·9	...	...	...	0·2	...	...	...	19·4	18·1	...	6·0	...	6·8
	1894 ...	59·29	...	26·18	9·2	...	18·4	...	...	0·2	...	...	...	0·8	...	...	28·9	22·8	3·5	...	...	2·1
	1895 ...	69·27	...	16·20	9·7	...	19·7	...	0·3	...	...	...	0·5	...	...	...	26·6	23·2	1·2	...	...	1·7
	1896 ...	85·47	...	...	9·4	...	19·	...	...	...	...	...	...	...	...	...	25·4	24·9	...	...	...	...
					Warning rate. 8·8																	

SECTION III.

VITAL STATISTICS.

(a) REGISTRATION.

10. The population for which birth and death registration returns were received in this office during the year amounted, according to the census, to 32,761,209—or 91·9 per cent. of the total of 35,641,828 ascertained on last census. Allowing for the intercensal rate of increase, the population under registration amounted to 36,656,033 on the 31st December 1896. Taking the net result of emigration and immigration statistics for the year under report, it is found that the Presidency lost 32,833 souls.

11. *System of birth and death registration.*—The question of improving the registration of births and deaths in Local Fund areas where compulsory registration is not provided for under existing Acts, was fully considered by Government. Suggestions made by the Surgeon-General with the Government of Madras, various Revenue officers, and by myself were duly reviewed. The result was G.O., No. 476, Revenue, dated 21st September 1896, in which it was shown that any radical change in the *personnel* entrusted with this duty could not be afforded. Nevertheless, the following changes were sanctioned:—

"(1) Candidates for the public service and school boys, who were born in municipal towns in which the compulsory system of registration has been in force for many years, should be required, after a certain date, to produce attested extracts from birth registers.

(2) That the number of Union and Municipal registrars be calculated with reference to the population and area of the municipal towns and unions.

(3) That printed forms [in lieu of existing loose forms] bound into books be supplied to all registrars.

(4) That steps be taken to punish negligence.

(5) That special inducements be offered to all municipal servants for reporting cases of unregistered births or deaths."

In other respects, the system remains as described by me in my report of 1893.

12. The inspection report forms used by District Medical and Sanitary Officers were revised by me so as to require further attention to the details of registration. Information gathered from these sources, together with that secured by personal inspections by my Deputy and self, was duly forwarded with remarks to the Collectors of the districts concerned, who, in all cases where neglect of duty by Village Heads was proved, took action to prevent a recurrence of omissions. In the month of October 1896, having regard to the approaching scarcity, a special circular letter was forwarded to Collectors advising increased attention to the question of correct registration.

13. The following statement, inserted at the request of the Army Sanitary Commission, exhibits the municipalities in which failure to register domestic events has been followed by prosecution. A circular letter was issued to all municipalities directing their attention to the importance from a sanitary, economical and medico-legal point of view of insisting upon prompt registration. This exhortation has, I believe, had a satisfactory influence:—

Districts.	Municipal Towns.	Penalties inflicted for failure to register births and deaths.	
		Births.	Deaths.
Anantapur	Anantapur	..	..
	Adóni	3	3
Bellary	Bellary	10	7
	Chingleput	..	..
Chingleput	Conjeeveram	..	..
	Coimbatore	13	..
Coimbatore	Erode	..	..
	Karúr	4	5
Cuddapah	Cuddapah	19	10
	Berhampur	Records not maintained.	
Ganjám	Chicacole	8	4
	Parlákimedi	6	..
	Cocanada	..	..
Gódávari	Ellore	..	..
	Rajahmundry	..	..
	Bezwada	13	11
Kistna	Guntúr	5	..
	Masulipatam	8	6
Kurnool	Kurnool	11	7
	Dindigul	..	..
Madura	Madura	95	97
	Palni	8	..
	Periyakulam	9	..
Malabar	Calicut	26	28
	Cannanore	..	..
	Cochin	..	..
	Palghat	51	21
	Tellicherry	29	..
Nellore	Nellore	..	..
	Ongole	10	7
Nilgiris	Coonoor	..	..
	Ootacamund	7	11
	Gudiyáttam	39	30
North Arcot	Tirupati	3	1
	Vellore	..	..
	Wallajapet	1	..
	Salem	..	1
Salem	Tiruppattúr	..	1
	Vániyambádi	20	31
	Chidambaram	13	29
South Arcot	Cuddalore	6	..
	Tiruvannámalai	..	..
South Canara ..	Mangalore	..	..
	Kumbakónam	..	..
Tanjore	Máyavaram	13	13
	Mannárgudi	9	11
	Negapatam	..	..
	Tanjore	..	..
Tinnevelly	Palamcottah	..	..
	Srívilliputtúr	..	..
	Tinnevelly	..	..
	Tuticorin	..	..
Trichinopoly ..	Srírangam	59	52
	Trichinopoly	45	21
	Anakápalle	..	..
Vizagapatam ..	Bimlipatam	..	..
	Vizagapatam	..	..
	Vizianagram	..	..
	Total ..	543	407

(b) BIRTHS IN RURAL AREAS.

14. In rural areas 904,112 births were registered: the birth-rate for the Presidency as registered was therefore 29·5, against 28·7 of 1895 and 26·9—the average of the previous five years.

Statement showing the influence of Prices of Food upon the birth and death rates in each district in the Madras Presidency—cont.

Districts.	Years.	Rainfall.			Prices of food grains.										Ratio per mille of population.		Ratio per mille of population.			
									Rice.		Cholum.		Ragi.		Cumbu.		Birth.		Death.	
		Quantity in inches.	Increase.	Decrease.	Rice.	Cholum.	Ragi.	Cumbu.	Increase.	Decrease.	Increase.	Decrease.	Increase.	Decrease.	Increase.	Decrease.	Birth.	Death.	Decrease.	Increase.	Decrease.	Increase.
North Arcot	Average.	38·16	4·56	...	13·9	22·7	26·9	...	1·1	...	2·0	...	1·8	...	...	...	27·3	18·8	1·3	...	2·6	...
	1894 ...	31·56	...	2·04	13·1	19·5	23·3	...	0·3	...	...	2·2	...	1·8	...	...	26·1	15·4	1·1	...	...	0·8
	1895 ...	39·11	5·51	...	12·9	24·0	26·6	...	0·1	...	2·3	...	1·5	...	...	...	26·3	15·0	0·3	...	...	1·2
	1896 ...	33·60	...	...	12·8	21·7	25·1	...	...	...	...	...	...	...	...	...	26·0	16·2	...	...	...	...
					Warning rate.		24·0															
Salem	Average.	30·45	0·25	...	13·4	23·3	27·3	...	0·8	...	1·6	...	1·5	...	...	...	31·7	18·6	3·0	...	0·4	...
	1894 ...	32·04	1·84	...	12·4	20·5	24·7	...	...	0·2	...	1·2	...	1·1	...	...	30·1	16·4	1·4	...	...	1·8
	1895 ...	38·38	8·18	...	11·9	21·0	26·3	...	...	0·7	...	0·7	0·5	...	...	...	29·1	16·2	0·4	...	...	2·0
	1896 ...	30·20	...	...	12·6	21·7	25·8	...	...	...	...	...	...	...	...	...	28·7	18·2	...	...	...	...
					Warning rate.		23·3															
South Arcot	Average.	45·42	4·41	...	13·8	...	24·6	24·4	...	1·0	...	...	...	2·6	...	3·8	26·6	20·8	...	3·2	0·3	...
	1894 ...	42·20	1·19	...	13·3	...	21·3	21·6	...	1·5	...	...	...	5·9	...	6·6	27·6	21·8	...	2·2	1·3	...
	1895 ...	57·81	16·80	...	13·9	...	27·8	29·2	...	0·9	...	...	0·6	...	1·0	...	30·4	21·1	0·6	...	0·6	...
	1896 ...	41·01	...	...	14·8	...	27·2	28·2	...	...	...	...	...	...	...	...	29·8	20·7	...	...	...	...
					Warning rate.			21·8														
South Canara	Average.	142·86	...	15·62	13·6	...	...	...	0·2	...	...	...	...	...	...	...	29·7	21·3	...	2·3	5·0	...
	1894 ...	143·75	...	14·73	12·5	...	...	...	...	0·9	...	...	...	...	...	...	32·2	207	0·2	...	4·1	...
	1895 ...	145·97	...	12·51	13·3	...	...	...	...	0·1	...	...	...	...	...	...	28·9	190	...	3·1	2·4	...
	1896 ...	158·48	...	...	13·4	...	...	...	...	...	...	...	...	...	...	...	32·0	166	...	...	...	...
				Warning rate.	11·8																	
Tanjore	Average.	47·07	1·31	...	13·7	...	24·0	...	...	1·2	...	...	...	5·4	...	...	28·0	24·9	...	1·0	0·8	...
	1894 ...	38·67	...	7·09	13·4	...	22·6	...	...	1·5	...	...	...	6·8	...	...	25·3	26·2	...	3·7	2·1	...
	1895 ...	54·21	8·45	...	13·5	...	27·2	...	...	1·4	...	...	...	2·2	...	...	28·5	22·6	...	0·5	...	1·5
	1896 ...	45·76	...	...	14·9	...	29·4	...	...	...	...	...	...	...	...	...	29·0	24·1	...	...	...	...
				Warning rate.	12·6																	
Tinnevelly	Average.	27·24	...	9·87	11·9	19·9	21·5	17·8	...	0·4	0·2	...	...	0·3	...	0·6	26·7	22·0	...	1·7	1·7	...
	1894 ...	19·86	...	17·25	11·2	18·8	20·9	18·5	...	1·1	...	0·9	...	0·9	0·1	...	27·7	25·9	...	0·7	5·6	...
	1895 ...	30·46	...	6·65	11·2	17·8	19·7	17·4	...	1·1	...	1·9	...	2·1	...	1·0	28·5	23·7	0·1	...	3·4	...
	1896 ...	37·11	...	...	12·3	19·7	21·8	18·4	...	...	...	...	...	...	...	...	28·4	20·3	...	...	...	...
					Warning rate.			18·0														
Trichinopoly	Average.	33·21	...	1·60	12·6	28·9	24·1	22·8	...	0·6	5·1	...	...	4·0	...	3·2	28·6	21·9	2·6	...	...	0·6
	1894 ...	29·01	...	5·80	12·2	22·6	20·2	19·2	...	1·0	...	1·2	...	7·9	...	6·8	24·4	21·5	...	1·6	...	1·0
	1895 ...	41·08	6·27	...	11·5	21·3	25·0	23·5	...	1·7	...	2·5	...	3·1	...	2·5	28·0	20·7	2·0	...	...	1·8
	1896 ...	34·81	...	...	13·2	23·8	28·1	26·0	...	...	...	...	...	...	...	...	26·0	22·5	...	...	...	...
					Warning rate.			21·0														
Vizagapatam	Average.	42·60	7·67	...	13·9	...	26·6	...	0·2	...	...	...	0·4	...	...	...	18·9	14·4	...	6·6	...	0·5
	1894 ...	52·93	18·00	...	13·2	...	26·5	...	...	0·5	...	...	0·3	...	...	...	25·7	16·2	0·2	...	1·3	...
	1895 ...	53·56	18·63	...	14·3	...	29·4	...	0·6	...	...	...	3·2	...	...	...	24·1	18·7	...	1·4	3·8	...
	1896 ...	34·93	...	...	13·7	...	26·2	...	...	...	...	...	...	...	...	...	25·5	14·9	...	...	...	...
				Warning rate.	12·8																	
Total, Madras Presidency.	Average.	45·34	...	0·60	13·2	23·1	25·4	...	0·5	...	0·5	...	...	0·4	...	...	26·2	19·7	...	0·7	1·2	...
	1894 ...	43·25	...	2·69	12·5	21·3	23·5	...	...	0·2	...	1·3	...	2·3	...	...	26·4	19·0	...	0·5	0·5	...
	1895 ...	49·40	3·46	...	12·8	23·5	26·5	...	0·1	...	0·9	...	0·7	...	...	...	29·8	18·5	2·9	...	...	...
	1896 ...	45·94	...	...	12·7	22·6	25·8	...	...	...	...	...	...	...	...	...	26·9	18·5	...	...	...	...

15. The natural increase of the population of the districts, as a whole, was 35,144,977. Reckoned upon the 'estimated population,' the birth-rate was 26·7 per mille of the population, or 0·3 per mille less than registered during 1895. A further method of correction is legitimate in attempting to gauge the birth-rate of the Presidency or—to put the matter in more exact terms—the efficiency of registration; namely, by excluding the districts of Ganjám and Vizagapatam, where, on account of large tracts being up to date under the administration of zemindars, the statistics are markedly less reliable than elsewhere. If a calculation be made on this basis, it is found that the birth-rate of the Presidency for 1896 was 30·0 when reckoned upon the Census, and 27·4 upon the 'estimated population.'

16. The birth-rate of Muhammadans, Hindus and Native Christians will be found at page 107 of the Appendix D.

17. The births of boys were in the proportion of 104·8 to every 100 girls. The months in which the greatest numbers of births occurred were July and August, which allowing for an average interval would indicate the influence of the favourite marriage seasons of Chitrai, Vaikasi and Ani corresponding to the months of April, May, June and July.

18. In the following table districts are classified so as to show increase and decrease of the birth-rate, respectively, with regard to the previous year, and the average of the five previous years :—

Districts.	Years.	Ratio per mille of population.		Ratio per mille of population.			
		Birth.	Death.	Birth.		Death.	
				Decrease.	Increase.	Decrease.	Increase.
Anantapur	Average ...	27·7	18·9	...	1·4	...	0·5
	1895	29·9	16·0	0·8	...	...	3·4
	1896	29·1	19·4	...	...	...	...
Bellary	Average ...	34·2	23·2	...	0·1	...	1·3
	1895	35·7	21·1	1·4	...	...	3·4
	1896	34·3	24·5	...	...	...	...
Chingleput	Average ...	32·4	22·4	...	7·1	...	1·4
	1895	38·4	22·4	...	1·1	...	1·4
	1896	39·5	23·8	...	...	...	...
Coimbatore	Average ...	28·1	18·5	0·3	...	...	5·7
	1895	29·1	17·8	1·3	...	...	6·4
	1896	27·8	24·2	...	...	...	...
Cuddapah	Average ...	25·6	22·6	...	4·5	...	...
	1895	28·7	20·9	...	1·4	3·1	...
	1896	30·1	19·5	...	...	1·4	...
Ganjám	Average ...	18·2	12·5	...	8·4	...	...
	1895	17·3	13·6	...	9·3	...	8·1
	1896	26·6	20·6	...	...	...	7·0
Gódávari	Average ...	22·4	19·9	...	3·4	...	...
	1895	24·3	19·4	...	1·5	2·8	...
	1896	25·8	17·1	...	...	2·3	...
Kistna	Average ...	31·2	21·8	...	2·7	...	...
	1895	33·6	17·9	...	0·3	2·5	...
	1896	33·9	19·3	...	...	...	...
Kurnool	Average ...	31·2	26·5	0·3	...	...	1·4
	1895	33·5	20·6	2·6	...	...	...
	1896	30·9	23·1	...	...	3·4	...
Madras	Average ...	39·5	43·6	...	...	...	2·5
	1895	42·5	38·0	1·0	2·0	...	...
	1896	41·5	38·2	...	...	5·4	...
Madura	Average ...	29·8	20·2	...	...	...	0·2
	1895	30·8	19·0	0·7	0·3	...	...
	1896	30·1	20·1	...	...	0·1	...
Malabar	Average ...	21·5	18·6	...	...	...	1·1
	1895	24·0	16·5	1·5	1·0	...	...
	1896	22·5	15·7	...	...	2·9	...
Nellore	Average ...	23·8	17·1	...	...	0·8	...
	1895	26·5	16·5	...	3·5	...	...
	1896	27·3	16·9	...	0·8	0·2	...
Nilgiris	Average ...	26·7	23·6	...	...	...	0·4
	1895	28·5	24·9	0·9	0·9	...	...
	1896	27·6	27·0	...	...	...	3·4
North Arcot	Average ...	27·8	18·4	...	...	...	2·1
	1895	28·5	16·2	...	0·9	0·5	...
	1896	28·7	17·9	...	0·2	...	...
Salem	Average ...	30·4	18·4	...	...	...	1·7
	1895	31·9	17·7	...	1·7	...	...
	1896	32·1	20·4	...	0·2	...	2·0
				...	...	...	2·7
							...

Districts.	Years.	Ratio per mille of population.		Ratio per mille of population.			
		Birth.	Death.	Birth.		Death.	
				Decrease.	Increase.	Decrease.	Increase.
South Arcot	Average ...	29·3	22·6	...	3·5	0·1	...
	1895	32·8	22·7	Equal.		0·2	...
	1896	32·8	22·5	...	...	...	...
South Canara	Average ...	30·8	20·2	...	2·9	2·7	...
	1895	30·1	19·8	...	3·6	2·3	...
	1896	33·7	17·5	...	...	...	...
Tanjore	Average ...	28·3	25·7	...	1·4	1·0	...
	1895	29·1	23·0	...	0·6	...	1·7
	1896	29·7	24·7	...	...	...	...
Tinnevelly	Average ...	28·0	23·7	...	2·3	2·0	...
	1895	30·1	25·0	...	0·2	3·3	...
	1896	30·3	21·7	...	...	...	...
Trichinopoly	Average ...	28·0	22·7	0·2	...	...	1·4
	1895	29·5	21·9	1·7	...	...	2·2
	1896	27·8	24·1	...	...	...	...
Vizagapatam	Average ...	23·4	17·0	...	8·3	...	1·5
	1895	26·7	20·7	...	5·0	2·2	...
	1896	31·7	18·5	...	...	...	...
Total, Madras Presidency.	Average ...	27·2	20·7	...	2·7	0·1	...
	1895	29·1	19·6	...	0·8	...	1·0
	1896	29·9	20·6	...	...	...	...

The above figures show that there was a decrease of the births in 1896 in 9 and an increase in 12 of a total of 22 districts.

19. Seeing that it is well recognized that up to date it has not been possible to secure in tracts of the country where registration is not compulsory any approach to the normal birth-rate as proved by the ascertained intercensal rate of increase, it is a matter of difficulty to decide how far the decrease in 9 districts is due to carelessness in registration and how far to actual diminution in the number of births. So far as Revenue authorities are concerned, I should feel inclined to believe that the pressure brought to bear upon them by Government has been productive of greater zeal on the part of village heads. The only factor which, it is easily recognised, would have operated adversely as to zeal in registration is the steadily decreasing number of rural inspections (under the influence of G.O., No. 57, Public, dated 24th January 1895), effected by District Medical and Sanitary Officers, seeing that, when the rates obtained from areas where registration is compulsory are regarded, there is no evidence forthcoming that the decrease in births has been real; on the opposite, municipalities, as a whole, show a decided increase. Against this, however, it might be pleaded that the town and municipal populations irrespective of age constitution cannot, in all respects as to vital statistics, be considered fairly comparable. Thus having regard to the advent of an 'evil cycle' in which it is prophesied by Hindus that famine and pestilence will affect the land, it is quite possible that marriages in the rural tracts have been postponed on the advice of astrologers during 1895–96. Again it was the rural population that suffered chiefly during the famine of 1876–77, and in which consequently, as the survival of the fittest, the people at child-bearing ages have since been predominant. As shown by Mr. Stuart, the rate of increase between the Census of 1881 and 1891 was thus beyond what might normally be expected. Taking into account the probable child-bearing period of the Indian, it may now well be that we are entering upon a period when a fall in the rural birth-rate must be expected. But, whilst some influence from these factors may be conceded, it must be held that, if there has been no decrease of activity in registration of births in these districts there has at least been no increase, seeing that between, the rate as registered and the actual birth-rate, even if such allowance be made, there is an enormous gap.

20. In Ganjám, Vizagapatam and the Nilgiri districts, a considerable improvement in tracts long notorious for their slackness in registration has occurred. The advance accomplished by South Arcot is noteworthy, and significant of the interest

in matters sanitary, generally taken in this district. On the other hand, Malabar shows even worse results than in former years.

(c) BIRTHS IN MUNICIPALITIES.

21. There were 75,869 births registered in municipalities, yielding a ratio of 36·1 per mille of the census population and 33·2 of the 'estimated population,' against 35·3 and 32·8, respectively, during 1895.

22. The births of boys were in the proportion of 104·9 to every 100 girls—a very close approximation to the rural rate.

23. The following table contrasts the rates registered for 1896 with those of 1895 and the average for the five previous years :—

Municipalities.	Years.	Ratio per mille of population.		Ratio per mille of population.			
		Birth.	Death.	Birth.		Death.	
				Decrease.	Increase.	Decrease.	Increase.
Anantapur	Average ...	31·1	23·0	...	7·5	...	4·2
	1895	40·1	16·5	1·5	...	...	10·7
	1896	38·6	27·2	...	...	...	...
Bellary	Average ...	32 1	27·4	...	1·0	0·3	...
	1895	32·7	26·0	...	0·4	...	1·1
	1896	33·1	27·1	...	...	...	...
Ádóni	Average ...	35·0	28·5	...	9·1	3·1	...
	1895	44·7	23·7	0·6	...	...	1·7
	1896	44·1	25·4	...	...	...	...
Conjeeveram	Average ...	36·9	32·5	...	3·3	...	0·8
	1895	38·3	23·6	...	1·9	...	9·7
	1896	40·2	33·3	...	...	...	...
Coimbatore	Average ..	36·6	28·0	...	3·6	...	10·8
	1895	40·5	28·0	0·3	...	...	10·8
	1896	40·2	38·8	...	...	...	...
Erode	Average ...	31·3	28·3	...	10·6	...	0·7
	1895	35·3	24·5	...	6·6	...	4·5
	1896	41·9	29·0	.	...	...	...
Karúr	Average ...	37·4	29·0	0·2	...	...	12·1
	1895	37·5	28·5	0·3	...	...	12·6
	1896	37·2	41·1	...	...	...	...
Cuddapah	Average ...	21·7	36·5	...	2·9	14·6	...
	1895	22·7	33·2	...	1·9	11·3	...
	1896	24·6	21·9	...	...	...	...
Chicacole	Average ...	24·1	23·1	3·0	...	Equal.	
	1895	21·6	25·8	0·5	..	2·7	...
	1896	21·1	23·1	...	...	...	...
Berhampur	Average ...	28·2	21·6	9·9	...	...	12·3
	1895	24·2	24·2	5·9	...	...	9·7
	1896	18·3	33·9	...	...	...	...
Parlákimedi	Average ...	34·7	22·1	...	1·8	2·1	...
	1895	32·1	21·7	...	4·4	1·7	...
	1896	36·5	20·0	...	...	...	...
Cocanada	Average ...	23 5	21·8	...	1·7	3·0	...
	1895	20·2	17·3	...	5·0	...	1·5
	1896	25·2	18·8	...	...	...	...
Rajahmundry	Average ...	32·0	30·8	...	3·0	...	1·9
	1895	34·9	32·5	...	0·1	...	0·2
	1896	35·0	32·7	...	...	...	...
Ellore	Average ...	25·5	24·8	5·1	...	8·3	...
	1895	27·7	21·8	7·3	...	5·3	...
	1896	20·4	16·5	...	...	...	...
Masulipatam	Average ...	28·6	28·0	...	2·4	4·2	...
	1895	33·4	27·5	2·4	...	3·7	...
	1896	31·0	23·8	...	...	...	...
Guntúr	Average ...	33·3	29·5	...	8·3	...	6·8
	1895	36·7	26·5	...	4·9	...	9·8
	1896	41·6	36.3	...	...	...	...
Bezwada	Average ...	30·5	33·0	0·2	...	3·6	...
	1895	33·3	27·7	3·0	...	...	1·7
	1896	30·3	29·4	...	...	...	...
Kurnool	Average ...	31·1	35·0	0·5	...	4·5	...
	1895	34·6	30·5	4·0	...	Equal.	
	1896	30·6	30·5	...	...	...	...

Municipalities.	Years.	Ratio per mille of population.		Ratio per mille of population.			
		Birth.	Death.	Birth.		Death.	
				Decrease.	Increase.	Decrease.	Increase.
Madras	Average ...	39·5	43·6	...	2·0	5·4	...
	1895	42·5	38·0	1·0	...	...	0·2
	1896	41·5	38·2	..	...	...	...
Madura	Average ...	32·3	29·9	0·3	...	6·7	...
	1895	29·0	26·1	...	3·0	2·9	...
	1896	32·0	23·2	...	...	...	...
Dindigul	Average ...	42·9	23·5	1·5	...	0·4	...
	1895	42·6	21·7	1·2	...	...	1·4
	1896	41·4	23·1	...	...	...	...
Periyakulam	Average ...	37·8	33·0	...	8·1	...	0·1
	1895	41·0	37·1	...	4·9	4·0	...
	1896	45·9	33·1	...	...	...	...
Palni	Average ...	36·1	27·7	8·0	...	2·9	...
	1895	29·1	25·6	1·0	...	0·8	...
	1896	28·1	24·8	...	...	...	...
Tellicherry	Average ...	32·7	24·5	...	3·2	0·1	...
	1895	34·8	25·2	...	1·1	0·8	...
	1896	35·9	24·4	...	...	...	...
Calicut	Average ...	33·5	32·8	...	6·6	0·7	...
	1895	38·5	31·7	...	1·6	...	0·4
	1896	40·1	32·1	...	...	...	...
Palghat	Average ...	34·0	28·1	...	9·1	...	7·3
	1895	40·9	28·5	...	2·2	...	6·9
	1896	43·1	35·4	...	...	...	...
Cochin	Average ...	33·9	37·9	...	6·5	...	1·5
	1895	36·0	27·4	...	4·4	...	12·0
	1896	40·4	39·4	...	...	...	...
Cannanore	Average ...	36·2	28·2	...	4·9	2·5	...
	1895	42·8	29·1	1·7	...	3·4	...
	1896	41·1	25·7	...	...	...	...
Nellore	Average ...	26·7	22·7	...	2·7	2·3	...
	1895	31·3	21·3	1·9	...	0·9	...
	1896	29·4	20·4	...	...	...	...
Ongole	Average ...	31·7	23·9	...	4·9	...	5·9
	1895	34·8	23·4	...	1·8	...	6·4
	1896	36·6	29·8	...	...	...	...
Ootacamund	Average ...	30·0	22·7	...	7·4	...	7·4
	1895	32·8	23·8	...	4·6	...	6·3
	1896	37·4	30·1	...	...	...	...
Coonoor	Average ...	35·4	31·6	...	8·2	...	11·4
	1895	37·4	28·6	...	6·2	...	14·4
	1896	43·6	43·0	...	...	...	...
Vellore	Average ...	35·9	25·5	2·7	...	Equal.	
	1895	36·0	23·6	2·8	...	...	1·9
	1896	33·2	25·5	...	...	...	...
Walajapet	Average ...	36·8	27·4	...	0·7	0·9	...
	1895	33·4	29·3	...	4·1	2·8	...
	1896	37·5	26·5	...	...	...	...
Gudiyáttam	Average ...	32·2	26·5	...	11·5	1·9	...
	1895	40·2	23·6	...	3·5	...	1·0
	1896	43·7	24·6	...	...	...	...
Tirupati	Average ...	27·8	30·0	...	3·2	...	0·1
	1895	30·3	29·0	...	0·7	...	1·1
	1896	31·0	30·1	...	...	...	...
Salem	Average ...	34·5	23·3	...	6·2	...	3·4
	1895	39·3	20·9	...	1·4	...	5·8
	1896	40·7	26·7	...	...	...	...
Vániyambádi	Average ...	47·7	29·6	...	9·2	...	24·2
	1895	53·0	28·7	...	3·9	...	25·1
	1896	56·9	53·8	...	...	...	...
Tiruppattúr	Average ...	39·8	26·1	...	1·3	...	15·7
	1895	45·8	24·2	4·7	...	...	17·6
	1896	41·1	41·8	...	...	...	...
Cuddalore	Average ...	31·8	21·4	...	10·8	...	6·4
	1895	37·1	21·7	...	5·5	...	6·1
	1896	42·6	27·8	...	...	...	...
Chidambaram	Average ...	27·0	31·9	...	2·2	1·7	...
	1895	24·0	25·2	...	5·2	...	5·0
	1896	29·2	30·2	...	...	...	...
Mangalore	Average ...	30·7	25·4	...	2·3	6·1	...
	1895	29·5	26·0	...	3·5	6·7	...
	1896	33·0	19·3	...	...	...	...
Tanjore	Average ...	28 8	29·3	...	3·5	2·3	...
	1895	29·6	25·6	...	2·7	...	1·4
	1896	32·3	27·0	...	...	...	..
Kumbakónam	Average ...	29·7	32·9	...	4·7	...	1·2
	1895	33·0	31·2	...	1·4	...	2·9
	1896	34·4	34·1	...	...	...	...

Municipalities.	Years.	Ratio per mille of population.		Ratio per mille of population.			
		Birth.	Death.	Birth.		Death.	
				Decrease.	Increase.	Decrease.	Increase.
Máyavaram	Average ...	33·0	29·7	...	5·3	...	0·7
	1895	23·4	26·2	...	4·9	...	4·2
	1896	38·3	30·4	...	...	...	...
Negapatam	Average ...	28·2	30·9	...	1·8	...	1·8
	1895	32·5	29·8	2·5	...	...	2·9
	1896	30·0	32·7	...	...	...	...
Mannárgudi	Average ...	31·6	28·9	...	2·8	1·5	...
	1895	37·7	26·9	3·3	...	...	0·5
	1896	34·4	27·4	...	...	...	...
Tinnevelly	Average ...	35·5	34·0	1·7	...	...	4·0
	1895	35·7	32·0	1·9	...	...	6·0
	1896	33·8	38·0	...	...	...	...
Palamcottah	Average ...	33·1	27·5	0·3	...	...	5·7
	1895	33·5	26·8	0·7	...	...	6·4
	1896	32·8	33·2	...	...	...	...
Tuticorin	Average ...	28·8	30·5	...	5·4	...	1·7
	1895	31·5	31·3	...	2·7	...	0·9
	1896	34·2	32·2	...	...	...	...
Srívilliputtúr	Average ...	...	...	...	...	...	...
	1895	26·5	17·4	...	5·0	...	4·4
	1896	31·5	21·8	...	...	...	...
Trichinopoly	Average ...	22·3	27·9	...	8·4	...	2·8
	1895	23·2	23·5	...	7·5	...	7·2
	1896	30·7	30·7	...	...	...	...
Srírangam	Average ...	30·8	32·1	...	0·6	...	2·8
	1895	34·4	32·5	3·0	...	...	2·4
	1896	31·4	34·9	...	...	...	...
Vizagapatam	Average ...	33·7	28·5	...	2·2	1·3	...
	1895	35·1	29·0	...	0·8	1·8	...
	1896	35·9	27·2	...	...	...	...
Bimlipatam	Average ...	31·4	28·2	...	6·1	3·3	...
	1895	31·1	23·4	...	6·4	...	1·5
	1896	37·5	24·9	...	...	...	...
Vizianagram	Average ...	26·6	24·2	...	3·5	...	3·7
	1895	27·6	25·5	...	2·5	...	2·4
	1896	30·1	27·9	...	...	...	...
Anakapalle	Average ...	34·1	27·3	2·2	...	5·8	...
	1895	34·9	27·1	3·0	...	5·6	...
	1896	31·9	21·5	...	...	...	...
Total, Municipalities ...	Average ...	33·3	31·4	...	2·8	0·7	...
	1895	35·3	28·9	...	0·8	...	1·8
	1896	36·1	30·7	...	...	...	...

It will thus be seen that in 34 municipalities an improvement has occurred, and in 23, namely, Anantapur, Adóni, Coimbatore, Karúr, Chicacole, Berhampur, Ellore, Masulipatam, Bezwada, Kurnool, Madras, Dindigul, Palni, Cannanore, Nellore, Vellore, Tíruppattúr, Negapatam, Mannárgudi, Tinnevelly, Palamcottah, Srírangam, and Anakapalle there has been a falling off.

(*d*) DEATHS IN RURAL AREAS.

24. The following statement exhibits the incidence of death causes in the whole Presidency per mille of the 'estimated population':—

Years.	Birth-rate per mille of the estimated population.	Death-rate per mille of the estimated population.						
		Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.	Injuries.	All other causes.	Total.
1891	27·1	2·9	1·2	7·1	1·0	0·3	9·3	21·8
1892	24·4	2·3	1·3	8·1	0·9	0·3	8·8	21·7
1893	25·9	0·9	0·8	7·3	0·7	0·3	8·5	18·5
1894	26·1	1·2	0·3	7·6	0·7	0·3	8·8	18·9
1895	27·0	0·6	0·1	7·7	0·6	0·3	8·9	18·2
1896	26·7	1·3	0·2	7·1	0·7	0·3	8·8	18·4

The total death-rate was therefore slightly above that of the preceding year, which was the healthiest for a period of eight years.

25. The infantile death-rate was 163·0 per mille of births registered.

26. 611,201 deaths were registered in rural areas yielding a ratio of 20·0 per mille on the census and 17·8 on the 'estimated population,' against 19·0 and 17·6, respectively, of the year 1895, and 20·0, the average for the previous five years.

27. During the last quarter, famine conditions prevailed in the Deccan Districts. Labour was, however, promptly supplied by Government. Under the influence of drought, malarial fevers declined. Hence no increase of gross mortality is demonstrable; but, in certain areas of the affected districts, the death-rate rose with respect to the susceptible ages of from 1 to 4 and above 50 years.

(*e*) DEATHS IN MUNICIPALITIES.

28. The death-rate in the total municipal towns amounted to 30·7 per mille of the census, and 28·2 per mille of the 'estimated population.' In 100 deaths, the following was the proportion borne by the various causes :—

	Percentage of deaths from various causes.
Cholera	6·8
Small-pox	0·8
Fevers	27·7
Dysentery and diarrhœa	12·2
Injuries	1·3
All other causes	51·2
Total deaths ...	100·0

29. The increase of mortality beyond that of 1895 occurred chiefly under the head of cholera. In the case of only 15 towns was any decrease of total mortality noted when compared with that of 1895; of these, the decrease of death-rate synchronous with increased birth-rate of Cuddapah was most noteworthy.

30. The total infantile mortality was 232·9 per mille of births, against 223·0 of the previous year.

SECTION IV.

CHIEF DISEASES.

(a) CHOLERA.

31. A total of 47,847 persons died of cholera during the year under review, or 1·3 per mille of the estimated population. This was considerably in excess of the incidence of this disease last year, when the rate registered was 0·6 per mille. Nevertheless, this heavy mortality compares favourably with that of such recent periods as 1891 and 1892. Certain districts suffered out of all proportion to others. Thus, Bellary lost a total of 4,205 and Coimbatore 10,731, or 4·7 and 5·4 per mille, respectively, of their populations. In Malabar, Bellary, South Arcot and Tanjore cholera was present in each month throughout the year.

32. The following table shows that the incidence of the disease, having regard to season, follows the rule to which I drew attention in my report for 1893:—

Cholera incidence exhibited according to monsoon periods.

	Districts.	South-west monsoon.					North-east monsoon.				Grand total of both the monsoon periods.
		June.	July.	August.	September	Total.	October.	November.	December.	Total.	
Districts chiefly affected by south-west monsoon.	*East coast, north—*										
	Ganjám	...	23	367	481	871	263	136	209	608	1,479
	Vizagapatam	...	...	70	369	439	97	19	18	134	573
	Gódávari	1	...	130	350	481	179	16	...	195	676
	Kistna	...	4	4	32	40	3	10	12	25	65
	North midland—										
	Kurnool	238	395	379	181	1,193	60	2	...	62	1,255
	Cuddapah	2	6	70	145	223	61	50	249	360	583
	Bellary	1,354	1,110	474	170	3,108	165	28	13	206	3,314
	Anantapur	39	596	471	468	1,574	454	286	204	944	2,518
	South-western—										
	South Canara	...	...	2	1	3	...	...	...	...	3
	Malabar	67	49	165	201	482	141	167	460	768	1,250
	Nilgiris	...	...	...	6	6	11	4	16	31	37
	Total ...	1,701	2,183	2,132	2,404	8,420	1,434	718	1,181	3,333	11,753
	Incidence per mille of population of south-west monsoon group.	...	...	...	...	0·55	...	...	...	0·22	0·77

Cholera incidence exhibited according to monsoon periods—cont.

	Districts.	South-west monsoon.					North-east monsoon.				Grand total of both the monsoon periods.
		June.	July.	August.	September	Total.	October.	November.	December.	Total.	
Districts chiefly affected by north-east monsoon.	*East coast, central—*										
	Nellore	23	...	...	21	44	13	...	13	26	70
	Madras	3	4	7	43	57	14	8	11	33	90
	Chingleput	6	1	...	8	15	42	59	219	320	335
	North Arcot	307	418	207	123	1,055	64	38	230	332	1,387
	East coast, south—										
	South Arcot	350	597	326	251	1,524	180	469	2,671	3,320	4,844
	Trichinopoly	...	18	8	5	31	61	644	2,660	3,365	3,396
	Tanjore	12	23	35	17	87	199	980	2,368	3,547	3,634
	South-eastern—										
	Madura	...	...	...	...	...	66	429	2,471	2,966	2,966
	Tinnevelly	...	1	...	1	2	...	68	1,958	2,026	2,028
	South midland—										
	Salem	297	230	282	295	1,104	836	552	1,327	2,715	3,819
	Coimbatore	...	148	1,068	2,730	3,941	1,904	1,996	2,890	6,790	10,731
	Total ...	998	1,435	1,933	3,494	7,860	3,379	5,243	16,818	25,440	33,300
	Incidence per mille of population of north-east monsoon group.	...	...	...	...	0·39	...	...	...	1·25	1·64

33. The mortality in municipalities from this disease was at the rate of 2·1 per mille of the population, there being a total of 4,371 deaths. The towns of Tiruppattúr and Vániyambádi contributed 556 deaths, yielding a rate on their small populations of 16·2 and 18·2 per mille respectively. In paragraph 46 I have referred to the fact that there is a regrettable tendency on the part of councils to delay taking the necessary steps under G.O., No. 1536 M. of 9th September 1896 with sufficient promptitude for the combating of cholera. Unless councils can be taught to take a pride in being absolutely prompt in appointing the necessary staffs, instead of pursuing the impotent method of saving a few rupees at the commencement of an epidemic whilst waiting till they are *quite sure* cholera has established a firm foothold in their towns, I need not say that, irrespective of the favouring influence of the evil conditions of water-supplies in most of them, loss of human lives from this preventible cause is inevitable.

Statement illustrating the distribution, &c., of Cholera in the Madras Presidency during the year 1896, to accompany the Cholera Map.

1	2	3		4	5	6	7		8	9	10	
Districts.	Number of Circles of Registration.	Name of Circle.		Population for which Returns were received.	Date of First Case of Cholera in the Circle during the Year.	Date of Last Case of Cholera in the Circle during the Year.	Cholera. Total Deaths in each of the Circles.	Cholera. Ratio per 10,000 of Population.	Period of Maximum Intensity of the Disease.	Number of Villages in each of the Circles.	Number of those Affected by Cholera.	Number of those Not affected by Cholera.
Anantapur.	1	Anantapur	M.T.C.	6,973	16th Oct.	22nd Nov.	50	71·7	November.	1	1	...
	2	Tadpatri	T.C.	10,275	17th June	17th Aug.	103	100·2	July	1	1	...
	3	Anantapur	R.C.	97,481	12th July	30th Dec.	872	89·4	August	126	51	75
	4	Gooty	R.C.	142,577	29th May	30th Dec.	533	37·4	October	153	35	118
	5	Tadpatri	R.C.	102,373	28th June	19th Sept.	435	42·5	July	95	20	75
	6	Penukonda	R.C.	81,100	...	...	...	...	...	105	2	103
	7	Dharmavaram	R.C.	66,113	9th Sept.	29th Dec.	295	44·6	October	94	15	79
	8	Hindúpur	R.C.	80,843	...	...	...	...	...	99	...	99
	9	Madakasíra	R.C.	67,992	...	...	...	...	...	150	...	150
	10	Kalyandroog	R.C.	71,592	6th July	6th Nov.	231	32·2	September.	141	19	122
	10	Total, District		727,319	29th May	30th Dec.	2,519	34·6	July	965	144	821
Bellary.	11	Bellary	M.T.C.	57,780	15th April.	19th Oct.	78	13·5	May	1	1	...
	12	Ádóni	M.T.C.	26,216	2nd April.	23rd Aug.	7	26·7	April	1	1	...
	13	Hospet	T.C.	12,869	9th May	23rd Aug.	77	59·8	May	1	1	...
	14	Kampli	T.C.	10,528	16th April.	9th July	25	23·7	May	1	1	...
	15	Rayadrug	T.C.	10,378	23rd May	30th Aug.	6	5·8	June	1	1	...
	16	Bellary	R.C.	120,800	14th May	28th Sept.	332	27·5	June	129	46	83
	17	Hospet	R.C.	69,103	20th March.	2nd Aug.	352	50·9	May	77	45	32
	18	Kódligi	R.C.	94,295	11th May	6th Nov.	420	44·5	September.	105	34	71
	19	Hadagalli	R.C.	104,035	15th May	1st Sept.	455	43·7	June	85	35	50
	20	Harpanahalli	R.C.	82,240	19th May	9th Dec.	147	17·9	July	83	16	67
	21	Alúr	R.C.	88,076	17th April	15th Dec.	852	96·7	June	91	48	43
	22	Ádóni	R.C.	134,551	1st Jan.	12th Sept.	890	66·1	June	129	65	64
	23	Rayadrug	R.C.	68,243	16th May	9th Nov.	510	74·7	July	67	31	36
	24	Zemindari	...	11,371	29th May	26th Aug.	54	47·5	July	24	7	17
	14	Total, District		890,485	1st Jan.	15th Dec.	4,205	47·2	June	795	332	463
Chingleput.	25	Conjeeveram	M.T.C.	42,543	27th Nov.	31st Dec.	136	31·9	December	1	1	...
	26	St. Thomas' Mount	T.C.	12,140	...	...	...	...	...	1	...	1
	27	Saidapet	R.C.	209,477	16th Sept.	30th Dec.	42	2·0	October	275	9	266
	28	Chingleput	R.C.	137,176	11th Nov.	18th Dec.	4	0·3	...	300	2	298
	29	Madurántakam	R.C.	263,130	12th Jan.	30th Dec.	30	1·1	December	514	10	504
	30	Conjeeveram	R.C.	176,121	3rd Dec.	31st Dec.	30	1·7	...	372	6	366
	31	Tirnvallúr	R.C.	236,916	18th June	29th Dec.	43	1·8	December	431	7	424
	32	Ponnéri	R.C.	122,398	13th Oct.	30th Dec.	52	4·2	November.	240	8	232
	8	Total, District		1,199,901	12th Jan.	31st Dec.	337	2·8	December	2,134	43	2,091
Coimbatore.	33	Coimbatore	M.T.C.	46,007	25th July	31st Dec.	248	53·9	September.	1	1	...
	34	Erode	M.T.C.	12,288	23rd Sept.	25th Dec.	39	31·8	October	1	1	...
	35	Karúr	M.T.C.	10,740	10th Oct.	31st Dec.	93	86·6	December.	1	1	...
	36	Coimbatore	R.C.	260,421	12th July	31st Dec.	3,642	139·8	September.	263	103	160
	37	Erode	R.C.	234,677	18th Aug.	31st Dec.	469	20·0	October	202	34	168
	38	Satyamangalam	R.C.	184,088	20th Aug.	31st Dec.	954	51·8	November.	191	55	136
	39	Pollachi	R.C.	183,650	11th Aug.	31st Dec.	1,720	93·7	September.	161	68	93
	40	Palladam	R.C.	270,384	21st Aug.	31st Dec.	722	26·7	December.	195	35	160
	41	Bhaváni	R.C.	119,867	5th Sept.	28th Dec.	317	26·4	November.	63	31	32
	42	Kollegal	R.C.	88,524	10th July	27th Dec.	95	10·7	July	130	11	119
	43	Udamalpet	R.C.	143,056	14th July	31st Dec.	262	18·3	December.	93	17	76
	44	Karúr	R.C.	201,043	24th Sept.	31st Dec.	1,068	53·1	December	95	58	37
	45	Dhárápuram	R.C.	249,216	23rd Aug.	31st Dec.	1,102	44·2	December.	82	50	32
	13	Total, District		2,003,911	10th July	31st Dec.	10,731	53·5	December.	1,478	465	1,013
Cuddapah.	46	Cuddapah	M.T.C.	17,211	6th Dec.	30th Dec.	2	1·2	...	1	1	...
	47	Badvél	R.C.	93,150	...	...	...	...	...	120	...	120
	48	Proddatur	R.C.	98,417	...	...	...	...	...	91	...	91
	49	Sidhavattam	R.C.	66,809	23rd Nov.	20th Dec.	10	1·5	December.	79	5	74
	50	Pullampet	R.C.	149,093	16th Nov.	31st Dec.	264	17·7	December.	135	19	116
	51	Cuddapah	R.C.	137,455	27th June	17th Dec.	7	0·6	December.	151	2	149
	52	Jammalamadugu	R.C.	101,273	14th July	20th Sept.	81	8·0	August	127	13	114
	53	Pulivendla	R.C.	105,842	27th July	24th Nov.	219	20·7	September.	106	13	93
	54	Ráyachóti	R.C.	113,234	...	...	...	...	...	94	...	94
	55	Kadiri	R.C.	134,892	...	...	...	...	...	142	...	142
	56	Vayalpad	R.C.	127,035	...	...	...	...	...	125	...	125
	57	Madanapalle	R.C.	127,310	...	...	...	...	...	105	...	105
	12	Total, District		1,271,721	27th June	31st Dec.	583	4·6	December.	1,276	53	1,223

Statement illustrating the distribution, &c., of Cholera in the Madras Presidency during the year 1896, to accompany the Cholera Map—cont.

1	2	3		4	5	6	7		8	9	10	
Districts.	Number of Circles of Registration.	Name of Circle.		Population for which Returns were received.	Date of First Case of Cholera in the Circle during the Year.	Date of Last Case of Cholera in the Circle during the Year.	Cholera. Total Deaths in each of the Circles.	Cholera. Ratio per 10,000 of Population.	Period of Maximum Intensity of the Disease.	Number of Villages in each of the Circles.	Number of those Affected by Cholera.	Number of those Not affected by Cholera.
Ganjám.	58	Chicacole	M.T.C.	18,204	26th Aug.	1st Dec.	42	23·1	September.	1	1	...
	59	Berhampur	M.T.C.	25,493	26th Aug.	31st Dec.	226	88·6	October	1	1	...
	60	Parlákimedi	M.T.C.	16,379	...	...	...	...	...	1	...	1
	61	Chicacole	R.C.	168,893	1st Jan.	31st Dec.	351	20·8	January	305	44	261
	62	Berhampur	R.C.	247,607	13th Feb.	31st Dec.	527	21·3	August	543	57	486
	63	Goomsur	R.C.	165,838	17th Aug.	30th Dec.	14	0·8	December	710	7	703
	64	Zamíndaries	...	559,609	22nd July	31st Dec.	444	7·9	September.	2,630	58	2,572
	65	Agency Tracts	...	34,074	4th Feb.	13th Feb.	6	1·8	...	1,846	1	1,845
	8	Total, District		1,236,097	1st Jan.	31st Dec.	1,610	13·0	September.	6,037	169	5,868
Gódávari.	66	Cocanada	M.T.C.	40,068	22rd Aug.	4th Sept.	16	4·0	August	1	1	...
	67	Rajahmundry	M.T.C.	28,279	26th June	12th Sept.	55	19·4	August	1	1	...
	68	Ellore	M.T.C.	29,296	26th Aug.	8th Sept.	5	1·7	...	1	1	...
	69	Pithápuram	T.C.	13,731	27th Aug.	21st Oct.	11	8·0	August	1	1	...
	70	Peddápuram	T.C.	13,652	...	...	...	...	...	1	...	1
	71	Samalkot	T.C.	13,409	...	...	...	...	...	1	...	1
	72	Dowlaishweram	T.C.	10,454	29th Aug.	17th Sept.	19	18·2	September.	1	1	...
	73	Rámachandrapuram	R.C.	261,183	20th Aug.	11th Nov.	245	9·4	September.	164	59	105
	74	Narsapúr	R.C.	230,315	7th Sept.	12th Nov.	45	1·9	October	139	14	125
	75	Amalápuram	R.C.	256,072	24th Aug.	11th Nov.	98	3·8	October	170	22	148
	76	Tanuku	R.C.	204,040	9th Sept.	18th Sept.	7	0·3	...	176	4	172
	77	Bhímavaram	R.C.	121,990	8th Sept.	15th Sept.	19	1·5	...	138	1	137
	78	Ellore	R.C.	142,585	2nd Sept.	4th Oct.	13	0·9	September.	219	5	214
	79	Yernagúdem	R.C.	136,204	21st Sept.	16th Oct.	22	1·6	October	137	1	136
	80	Rajahmundry	R.C.	106,866	26th Aug.	2nd Oct.	60	5·6	September.	116	8	108
	81	Peddápuram	R.C.	124,028	30th Aug.	25th Oct.	31	2·5	September.	123	4	119
	82	Bhadráchalam	R.C.	* 127,114	6th Oct.	8th Oct.	2	0·1	...	969	2	967
	83	Zamíndaries	...	218,572	28th Aug.	13th Oct.	28	1·3	September.	245	12	233
	18	Total, District		2,077,858	26th June	12th Nov.	676	3·2	September.	2,603	137	2,466
Kistna.	84	Masulipatam	M.T.C.	38,667	...	...	...	...	...	1	...	1
	85	Guntúr	M.T.C.	23,267	...	...	...	...	...	1	...	1
	86	Bezwada	M.T.C.	20,611	21st Aug.	21st Aug.	1	0·5	...	1	1	...
	87	Chírála	T.C.	10,581	...	...	...	...	...	1	...	1
	88	Répalle	R.C.	222,756	19th July	30th July	2	0·09	...	151	1	150
	89	Bápatla	R.C.	171,345	6th July	15th Oct.	14	0·8	September.	116	7	109
	90	Guntúr	R.C.	143,367	25th Aug.	26th Aug.	3	0·2	...	112	2	110
	91	Palnad	R.C.	142,005	...	...	...	...	...	98	...	98
	92	Narasaraopet	R.C.	156,364	...	...	...	...	...	115	...	115
	93	Gudiváda	R.C.	118,308	...	...	...	...	...	213	...	213
	94	Sattenapalle	R.C.	138,611	1st July	1st July	1	0·07	...	176	1	175
	95	Masulipatam	R.C.	159,547	...	...	...	...	...	188	...	188
	96	Nandigáma	R.C.	126,698	15th Sept.	31st Dec.	44	3·5	September.	169	6	163
	97	Bezwada	R.C.	85,731	...	...	...	...	...	108	...	108
	98	Vinukonda	R.C.	82,431	...	...	...	...	...	72	...	72
	99	Zamíndaries	...	214,735	...	...	...	...	...	326	...	326
	16	Total, District		1,855,024	1st July	31st Dec.	65	0·3	September.	1,848	18	1,830
Kurnool.	100	Kurnool	M.T.C.	24,306	29th June	22nd Sept.	30	12·3	August	1	1	...
	101	Nandyal	T.C.	10,704	8th Sept.	11th Sept.	2	1·9	...	1	1	...
	102	Ramallakot	R.C.	100,590	7th May	14th Oct.	176	17·5	August	106	29	77
	103	Pattikonda	R.C.	138,703	11th Jan.	2nd Nov.	992	71·5	July	107	43	64
	104	Nandikotkur	R.C.	88,559	22nd July	7th Oct.	47	5·3	September.	113	6	107
	105	Nandyal	R.C.	85,542	20th May	29th Sept.	134	15·7	September.	100	10	90
	106	Koilkuntla	R.C.	86,543	27th Sept.	8th Oct.	3	0·3	...	85	1	84
	107	Sirvél	R.C.	65,164	25th Aug.	20th Nov.	3	0·5	...	87	2	85
	108	Cumbum	R.C.	117,578	...	...	...	...	...	108	...	108
	109	Markapúr	R.C.	99,971	...	...	...	...	...	94	...	94
	10	Total, District		817,660	11th Jan.	20th Nov.	1,387	16·9	July	802	93	709
Madras.	110	Madras	M.T.C.	436,375	11th June	31st Dec.	90	2·0	September.	1	1	...

* Including Agency Hill Tracts.

Statement illustrating the distribution, &c., of Cholera in the Madras Presidency during the year 1896, *to accompany the Cholera Map*—cont.

1	2	3		4	5	6	7		8	9	10	
Districts.	Number of Circles of Registration.	Name of Circle.		Population for which returns were received.	Date of First Case of Cholera in the Circle during the Year.	Date of Last Case of Cholera in the Circle during the Year.	Cholera. Total Deaths in each of the Circles.	Cholera. Ratio per 10,000 of Population.	Period of Maximum Intensity of the Disease.	Number of Villages in each of the Circles.	Number of those Affected by Cholera.	Number of those Not affected by Cholera.
Tinnevelly.	221	Tinnevelly ...	M.T.C.	24,756	15th Jan. ...	31st Dec. ...	161	65·0	December.	1	1	...
	222	Palamcottah ...	M.T.C.	18,612	29th Jan. ...	30th Dec. ...	182	97·8	December.	1	1	...
	223	Tuticorin ...	M.T.C.	24,964	21st Nov. ...	27th Dec. ...	115	46·0	December.	1	1	...
	224	Srivilliputtúr ...	M.T.C.	29,541	...	...	...	...	...	1	...	1
	225	Kulasékarapatnam ...	T.C.	15,910	11th Dec. ...	30th Dec. ...	3	1·9	...	1	1	...
	226	Virudupatti ...	T.C.	14,075	...	...	...	...	...	1	...	1
	227	Viravanallúr ...	T.C.	13,951	15th July ...	31st Dec. ...	67	48·0	December.	1	1	...
	228	Rajahpalaiyam	T.C.	13,301	...	...	...	...	...	1	...	1
	229	Tenkási ...	T.C.	12,861	3rd Jan. ...	31st Dec. ...	4	3·1	December.	1	1	...
	230	Sivakási ...	T.C.	12,184	31st Dec. ...	31st Dec. ...	1	0·8	...	1	1	...
	231	Káyalpatnam ...	T.C.	11,464	15th Dec. ...	25th Dec. ...	3	2·6	...	1	1	...
	232	Kalladakurchi ...	T.C.	11,096	1st Nov. ...	28th Dec. ...	2	1·8	...	1	1	...
	233	Ottappidáram	R.C.	316,990	21st Jan. ...	31st Dec. ...	31	1·0	December.	395	13	382
	234	Srivikuntam ...	R.C.	260,196	5th Jan. ...	31st Dec. ...	651	25·0	December.	146	85	61
	235	Tinnevelly ...	R.C.	141,252	1st Jan. ...	31st Dec. ...	526	37·2	December.	120	67	53
	236	Srivilliputtúr ...	R.C.	152,253	...	...	...	...	...	98	...	98
	237	Sankaranayinárkóyil ...	R.C.	209,213	1st Jan. ...	24th Dec. ...	23	1·1	December.	127	3	124
	238	Nánguméri ...	R.C.	174,410	1st Jan. ...	31st Dec. ...	133	7·6	December.	236	26	210
	239	Ambásamudram ...	R.C.	158,552	3rd Jan. ...	31st Dec. ...	283	17·8	December.	94	38	56
	240	Sáttúr ...	R.C.	158,046	8th Dec. ...	31st Dec. ...	6	0·4	...	209	3	206
	241	Tenkási ...	R.C.	142,075	3rd Jan. ...	31st Dec. ...	69	4·8	December.	101	14	87
	21	Total, District ...		1,915,702	1st Jan. ...	31st Dec. ...	2,260	11·8	December.	1,538	258	1,280
Trichinopoly.	242	Trichinopoly ...	M.T.C.	89,666	29th Aug. ...	31st Dec. ...	529	59·0	December.	1	1	...
	243	Srirangam ...	M.T.C.	21,632	16th Oct. ...	30th Dec. ...	55	25·4	December.	1	1	...
	244	Trichinopoly ...	R.C.	248,561	24th Jan. ...	31st Dec. ...	1,418	57·0	December.	364	221	143
	245	Musiri ...	R.C.	282,615	15th Oct. ...	31st Dec. ...	513	18·1	December.	223	70	153
	246	Kulittalai ...	R.C.	243,685	9th May ...	31st Dec. ...	507	20·8	December.	246	38	208
	247	Perambalúr ...	R.C.	195,004	29th Jan. ...	31st Dec. ...	189	9·7	December.	219	42	177
	248	Udaiyárpálaiyam.	R.C.	201,530	2nd Feb. ...	31st Dec. ...	198	9·8	December.	335	38	297
	249	Zemindaries ...	...	89,033	10th Jan. ...	31st Dec. ...	12	1·3	December.	113	13	100
	8	Total, District ...		1,371,726	10th Jan. ...	31st Dec. ...	3,421	24·9	December.	1,502	424	1,078
Vizagapatam.	250	Vizagapatam ...	M.T.C.	33,961	23rd Aug. ...	25th Sept.	39	11·5	September.	1	1	...
	251	Bimlipatam ...	M.T.C.	9,696	10th Sept.	1st Oct. ...	11	11·3	September.	1	1	...
	252	Vizianagram ...	M.T.C.	30,735	25th Aug. ...	1st Oct. ...	36	11·7	September.	1	1	...
	253	Anakápalle ...	M.T.C.	17,001	21st Aug. ...	21st Aug. ...	1	0·6	...	1	1	...
	254	Bobbili ...	T.C.	14,448	27th Aug. ...	15th Sept.	9	6·2	...	1	1	...
	255	Sálúru ...	T.C.	12,910	3rd Sept.	24th Sept.	47	36·4	...	1	1	...
	256	Palkonda ...	T.C.	10,364	31st Aug. ...	13th Oct. ...	32	30·8	September.	1	1	...
	257	Párvatipuram ...	T.C.	10,053	...	...	...	...	...	1	...	1
	258	Sarvasiddhi ...	R.C.	148,846	23rd Aug. ...	1st Oct. ...	8	0·5	...	145	7	138
	259	Narasapatnam or Golgonda ...	R.C.	104,456	...	...	...	...	...	176	...	176
	260	Anakápalle ...	R.C.	128,909	28th Aug. ...	7th Oct. ...	17	1·3	September.	142	1	141
	261	Vizagapatam ...	R.C.	53,511	23rd Aug. ...	30th Aug. ...	7	1·3	...	74	1	73
	262	Viravilli ...	R.C.	172,368	...	...	...	...	...	240	...	240
	263	Bimlipatam ...	R.C.	93,289	18th Mar. ...	12th Oct. ...	27	2·9	September.	117	9	108
	264	Srungavarapukota ...	R.C.	114,840	20th Aug. ...	25th Oct. ...	52	4·5	October ...	181	2	179
	265	Vizianagram ...	R.C.	104,243	26th Aug. ...	18th Oct. ...	75	7·2	September.	193	14	179
	266	Gajapatinagaram	R.C.	90,747	25th Aug. ...	5th Oct. ...	26	2·8	September.	222	9	213
	267	Chipurupalle ...	R.C.	129,149	29th Aug. ...	24th Nov. ...	132	10·2	September.	268	15	253
	268	Sálúru ...	R.C.	76,063	3rd Sept.	28th Sept.	7	1·2	...	159	5	154
	269	Bobbili ...	R.C.	85,579	27th Aug. ...	9th Nov. ...	20	2·3	September.	169	5	164
	270	Palkonda ...	R.C.	144,043	...	...	...	...	...	371	...	371
	271	Párvatipuram ...	R.C.	65,375	1st Sept. ...	27th Dec. ...	28	4·3	December.	203	3	200
	22	Total, District ...		1,630,586	18th Mar. ...	27th Dec. ...	574	3·5	September.	2,668	78	2,590

(*b*) SMALL-POX.

34. With few exceptions, deaths were reported from small-pox in each district in each month of the year. Nevertheless, in only four districts—Anantapur, Ganjám, Kurnool and North Arcot—did the mortality exceed ·3 per mille of the population. The total deaths amounted to 8,867 in rural areas.

35. In municipalities, the death-rate upon the estimated population from small-pox amounted to 0·2 per mille, representing a total of 543 deaths. The incidence of small-pox mortality did not exceed 0·5 per mille in 50 of the total towns. The brunt of the mortality was, however, borne by the towns of Vellore and Gudiyattám, amounting to 5·3 and 2·1 per mille, respectively. In the case of Vellore, the Municipal Council must, in great part, be held responsible for the mortality which occurred, as they neglected, in spite of remonstrances, to enforce vaccination assigning as their reason that they considered this operation inappropriate during the existence of small-pox—a want of action that was duly condemned by Government on my bringing the fact to its notice. In the case of Gudiyáttam from enquiries on the spot, there would seem to have been at first a want of appreciation of the efficacy, and necessity for re-vaccination.

(*c*) FEVERS.

36. Table IX in appendix D given at page 111 will show that the incidence of fever on the population varies but slightly from year to year. 1896 shows a decrease of 0·6 compared with 1895, and we have to go back to 1891 to find an equal decline. Both these years of small fever incidence were, as in the case of 1896, periods of deficient monsoon in the Ceded Districts, where malarial fevers are largely prevalent. In the case of Cuddapah, there were 2,292 deaths less registered from this cause alone. The following figures showing the monthly rate of mortality from fevers in these districts during 1895 and 1896 illustrate this fact :—

—		Fever death-rate per mille of population per annum.											
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Anantapur ...	1895 ...	2·3	2·0	2·5	2·5	3·4	2·9	2·8	2·7	2·8	2·6	3·4	3·4
	1896 ...	2·8	2·9	5·8	2·9	2·8	3·0	2·3	2·5	2·5	2·3	2·3	1·9
Bellary ...	1895 ...	8·5	7·1	9·6	8·0	9·2	8·5	8·2	8·9	7·8	7·1	6·6	8·1
	1896 ...	8·0	10·8	12·4	7·6	8·0	7·4	7·5	8·3	7·3	7·2	7·5	8·2
Cuddapah ...	1895 ...	17·1	14·2	18·4	17·0	15·4	13·3	13·8	16·0	16·1	16·0	16·6	18·2
	1896 ...	15·0	13·4	20·1	20·7	15·7	11·1	11·3	11·8	12·2	12·7	12·1	14·4
Kurnool ...	1895 ...	14·7	12·2	16·3	15·3	16·1	13·7	15·8	16·7	15·3	14·8	14·0	16·1
	1896 ...	15·4	14·6	19·2	20·0	17·7	13·8	13·9	15·1	14·3	15·4	11·9	13·2

37. In Municipal towns, a satisfactory decrease occurred in Cuddapah, and a less marked but still appreciable decrease is evident in the case of Madras. In the former, the decrease must be ascribed to conditions common to it and the District—to which I have already alluded; in the case of Madras, nearer approach to the normal sub-soil water level than has existed since the exacerbation of malarial fever prevalence attracted attention, namely, in 1890, has, in my opinion, resulted in a decline of the fever rate. On this matter, a special report has, at its request, been submitted to Government. The town of Karúr exhibited a heavy increase of mortality from fever during the year, namely, 16·5 against 10·6 of 1895. In this case, the sub-soil of the town is saturated with soakage from cesspools, and as typhoid is a recognized disease in this town, it need not be assumed that solely malarial fever was dealt with.

Statement illustrating the distribution, &c., of Cholera in the Madras Presidency during the year 1896, to accompany the Cholera Map—cont.

1	2	3	4	5	6	7		8	9	10	
Districts.	Number of Circles of Registration.	Name of Circle.	Population for which Returns were received.	Date of First Case of Cholera in the Circle during the Year.	Date of Last Case of Cholera in the Circle during the Year.	Cholera. Total Deaths in each of the Circles.	Cholera. Ratio per 10,000 of Population.	Period of Maximum Intensity of the Disease.	Number of Villages in each of the Circles.	Number of those Affected by Cholera.	Number of those Not affected by Cholera.
Madura.	111	Madura ... M.T.C.	87,121	29th Nov. ...	31st Dec. ...	8	0·9	December...	1	1	...
	112	Dindigul ... M.T.C.	20,115	24th Oct. ...	31st Dec. ...	42	20·8	December...	1	1	...
	113	Periyakulam ... M.T.C.	16,363	22nd Feb....	20th Dec. ..	6	3·7	December...	1	1	...
	114	Palni ... M.T.C.	16,940	23rd Nov....	31st Dec. ...	97	57·3	December...	1	1	...
	115	Ramnad ... T.C.	13,589	...	...	...	...	...	1	...	1
	116	Aruppukóttai T.C.	12,673	28th Nov....	28th Nov....	1	0·8	...	1	1	...
	117	Kilakarai ... T.C.	12,396	9th Nov. ...	31st Dec....	751	605·8	December...	1	1	...
	118	Paramagudi ... T.C.	10,001	27th Nov....	30th Dec. ...	30	30·0	December...	1	1	...
	119	Madura ... R.C.	173,755	19th Jan. ...	31st Dec. ...	341	19·6	December...	280	45	235
	120	Mélúr ... R.C.	148,650	24th Feb. ...	31st Dec. ...	62	4·2	December...	100	10	90
	121	Tirumangalam R.C.	264,620	21st Oct. ...	31st Dec. ...	22	0·8	December...	273	8	265
	122	Periyakulam R.C.	246,845	26th Nov...	31st Dec. ...	125	5·0	December...	85	12	73
	123	Dindigul ... R.C.	370,857	22nd Oct. ...	31st Dec. ...	757	20·4	December...	213	42	171
	124	Palni ... ... R.C.	178,110	18th Oct. ...	31st Dec. ...	728	40·9	December...	115	53	62
	125	Sattenandal Villages, &c.	1,283	...	...	...	...	...	4	...	4
	15	Total, District ...	1,573,318	19th Jan. ...	31st Dec. ...	2,970	18·8	December...	1,078	177	901
Malabar.	126	Tellicherry ... M.T.C.	26,631	25th Mar....	15th April...	15	5·6	March ...	1	1	...
	127	Calicut ... M.T.C.	64,798	21st May...	31st Dec. ...	85	13·1	December...	1	1	...
	128	Palghat ... M.T.C.	39,267	6th July ...	31st Dec. ...	206	52·3	December...	1	1	...
	129	Cochin ... M.T.C.	16,147	19th Feb. ...	10th Dec....	174	107·7	May ...	1	1	...
	130	Cannanore ... M.T.C.	26,653	...	...	...	...	...	1	...	1
	131	Chirakkal ... R.C.	283,471	11th Aug....	8th Sept....	14	0·5	August ...	282	2	280
	132	Kóttayam ... R.C.	168,260	...	...	...	..	...	220	...	220
	133	Kurumbranád... R.C.	304,011	15th Jan....	31st Dec. ...	65	2·1	August ...	340	8	332
	134	Calicut ... R.C.	171,582	25th Aug....	31st Dec....	23	1·3	December...	191	6	185
	135	Ernád ... R.C.	339,187	18th June...	14th Dec....	7	0·2	...	233	1	232
	136	Ponnáni ... R.C.	449,253	14th Feb. ...	31st Dec. ...	268	6·0	October ...	460	26	434
	137	Walavanád ... R.C.	332,334	18th May...	30th Dec....	178	5·3	December...	317	19	298
	138	Palghat ... R.C.	332,627	29th Apr....	31st Dec. ...	392	11·8	December...	136	45	91
	139	Wynaad ... R.C.	76,365	...	...	...	...	...	58	...	58
	140	Cochin ... R.C.	5,988	17th Jan....	26th Feb. ...	66	110·2	February ...	3	1	2
	15	Total, District ...	2,636,674	15th Jan....	31st Dec. ...	1,493	5·6	December...	2,245	112	2,133
Nellore.	141	Nellore ... M.T.C.	29,128	...	...	...	...	...	1	...	1
	142	Ongole ... M.T.C.	10,832	...	...	...	...	...	1	...	1
	143	Gudur ... R.C.	116,758	...	...	...	...	...	121	...	121
	144	Rapúr ... R.C.	61,305	...	...	...	...	...	113	...	113
	145	Nellore ... R.C.	168,548	...	...	...	...	...	150	...	150
	146	Átmakúru ... R.C.	96,349	4th June ...	31st Dec. ...	34	3·5	June ...	104	5	99
	147	Kávali ... R.C.	68,876	...	...	...	...	...	55	...	55
	148	Udayagiri ... R.C.	55,382	28th Dec....	28th Dec....	1	0·2	...	53	1	52
	149	Kandukúr ... R.C.	113,357	...	...	...	...	...	115	...	115
	150	Kanigiri ... R.C.	61,066	...	...	...	...	...	50	...	50
	151	Ongole ... R.C.	166,979	17th Sept....	12th Dec....	35	2·1	September...	112	7	105
	152	Zamindaries	514,777	...	...	...	...	...	918	...	918
	12	Total, District ...	1,463,357	4th June ...	31st Dec....	70	0·4	June ...	1,793	13	1,780
Nilgiris.	153	Ootacamund ... M.T.C.	13,991	12th Oct. ...	11th Dec....	4	2·8	...	1	1	...
	154	Coonoor ... M.T.C.	5,586	10th Dec....	16th Dec....	7	12·5	...	1	1	...
	155	Nilgiris ... R.C.	52,168	15th Sep. ...	30th Dec....	24	4·6	Oct. and Dec.	38	10	28
	156	South-East Wynaad R.C.	25,020	22nd Oct....	6th Dec. ...	2	0·8	...	12	1	11
	4	Total, District ...	96,765	15th Sep....	30th Dec....	37	3·8	December...	52	13	39
North Arcot.	157	Vellore ... M.T.C.	44,724	4th Aug....	31st Dec. ...	46	10·3	August ...	1	1	...
	158	Wálajápet ... M.T.C.	10,485	7th July ...	26th Sept....	5	4·8	...	1	1	...
	159	Gudiyáttam ... M.T.C.	10,745	1st Aug. ...	15th Aug. ...	6	3·2	...	1	1	...
	160	Tirupati ... M.T.C.	14,238	29th June...	29th Dec....	22	15·4	December...	1	1	...
	161	Kálahasti ... T.C.	11,715	...	...	...	...	...	1	...	1
	162	Arcot ... T.C.	10,928	9th Sept. ..	14th Oct. ...	23	21·0	September...	1	1	...
	163	Ambúr ... T.C.	10,588	19th April .	31st Dec....	248	234·3	May ...	1	1	...
	164	Chittoor ... R.C.	200,186	3rd July ...	30th Dec....	8	0·4	...	337	5	332
	165	Chendragiri ... R.C.	100,080	...	...	...	...	...	231	...	231
	166	Palmanér ... R.C.	48,131	29th May...	18th June...	6	1·2	...	93	2	91
	167	Gudiyáttam ... R.C.	157,863	22nd April...	27th Dec....	361	22·9	June ...	183	56	127

Statement illustrating the distribution, &c., of Cholera in the Madras Presidency during the year 1896, to accompany the Cholera Map—cont.

1	2	3	4	5	6	7		8	9	10	
Districts.	Number of Circles of Registration.	Name of Circle.	Population for which Returns were received.	Date of First Case of Cholera in the Circle during the Year.	Date of Last Case of Cholera in the Circle during the Year.	Cholera. Total Deaths in each of the Circles.	Cholera. Ratio per 10,000 of Population.	Period of Maximum Intensity of the Disease.	Number of Villages in each of the Circles.	Number of those Affected by Cholera.	Number of those Not affected by Cholera.
N. Arcot—cont.	168	Vellore ... R.C.	137,367	28th April .	31st Dec. ...	254	18·5	June ...	149	32	117
	169	Pólúru ... R.C.	139,697	20th June...	3rd Nov....	162	11·6	July ...	263	23	240
	170	Wandiwash ... R.C.	177,719	9th July...	31st Dec. ...	10	0·6	...	285	4	281
	171	Arcot ... R.C.	165,948	25th June...	29th Nov....	135	8·1	July ...	258	23	235
	172	Wálajápet ... R.C.	228,630	2nd June...	30th Dec. ...	157	6·9	December...	250	20	230
	173	Zamindaries ...	636,596	11th May...	31st Dec. ...	297	4·7	December...	2,272	43	2,229
	17	Total, District ...	2,113,585	19th April...	31st Dec. ...	1,741	8·2	July ...	4,328	214	4,114
Salem.	174	Salem ... M.T.C.	67,640	20th Aug....	31st Dec. ...	172	25·4	December...	1	1	...
	175	Vániyambádi ... M.T.C.	15,838	6th May ...	31st Dec. ...	289	182·5	June ...	1	1	...
	176	Tiruppattur ... M.T.C.	16,463	4th June ...	14th Dec....	267	162·2	August ...	1	1	...
	177	Sendamangalam T.C.	13,354	30th Oct. ...	29th Dec....	10	7·5	December...	1	1	...
	178	Rásipuram ... T.C.	10,539	13th Dec....	31st Dec. ...	5	4·7	...	499	65	434
	179	Salem ... R.C.	338,759	11th June...	31st Dec. ...	482	14·2	December...	176	75	101
	180	Atúr ... R.C.	183,202	31st Aug....	31st Dec. ...	588	32·1	December...	347	83	264
	181	Námakkal ... R.C.	286,686	6th Sept....	31st Dec. ...	791	27·6	October ...	108	32	136
	182	Tiruchengódu R.C.	248,667	20th Sept...	31st Dec....	138	5·5	October ...	757	6	751
	183	Hosúr ... R.C.	155,693	17th Aug....	26th Dec. ..	18	1·1	August ...	510	19	491
	184	Krishnagiri ... R.C.	152,116	20th June...	29th Dec....	95	6·2	November...	575	23	552
	185	Dharmapuri ... R.C.	178,420	3rd Sept....	31st Dec. ...	188	10·5	December...	322	72	250
	186	Tiruppattúr ... R.C.	156,295	8th May ...	31st Dec. ...	719	46·0	July ...	452	30	422
	187	Úttangarai ... R.C.	138,112	24th May...	29th Dec....	108	7·8	October ...			
	14	Total, District ...	1,961,784	6th May...	31st Dec....	3,870	19·7	December...	3,811	410	3,401
South Arcot.	188	Cuddalore ... M.T.C.	47,025	27th Jan. ...	31st Dec....	129	27·4	December...	1	1	...
	189	Chidambaram... M.T.C.	18,634	1st July ...	30th Dec....	86	46·1	July ...	1	1	...
	190	Porto Novo ... T.C.	14,045	6th Jan. ...	31st Dec. ...	28	19·9	November...	1	1	...
	191	Tiruvannámalai T.C	12,148	2nd Oct....	16th Oct. ...	3	2·5	...	231	93	138
	192	Cuddalore ... R.C.	289,908	1st Jan. ...	31st Dec. ...	1,482	51·1	December...	305	79	226
	193	Villupuram ... R.C.	301,690	2nd Jan....	31st Dec. ...	995	33·0	December...	437	58	379
	194	Chidambaram R.C.	249,569	1st Jan. ...	31st Dec. ...	947	37·9	July ...	474	33	441
	195	Tindivanam ... R.C.	315,994	5th Feb....	31st Dec. ...	300	9·2	December...	383	55	328
	196	Kallakurchi ... R.C.	240,179	2nd Jan....	31st Dec. ...	324	13·5	December...	354	77	277
	197	Tirukkóyilúr .. R.C.	257,115	15th Jan....	31st Dec. ...	651	25·3	December...	402	21	381
	198	Tiruvannámalai R.C.	193,238	22nd Jan....	31st Dec. ...	99	5·1	December...	307	69	238
	199	Vriddhachalam R.C.	222,791	5th Jan....	31st Dec. ...	464	20·8	December...			
	12	Total, District ...	2,162,336	1st Jan. ...	31st Dec. ...	5,508	25·4	December ..	2,897	489	2,408
S. Canara.	200	Mangalore ... M.T.C.	40,620	...	...	...	...	...	1	...	1
	201	Mangalore ... R.C.	237,974	15th Mar....	15th Mar....	1	0·04	...	307	1	306
	202	Kasaragód ... R.C.	280,655	...	...	...	...	...	243	...	243
	203	Uppinangadi ... R.C.	118,804	16th Aug....	26th Sept....	3	0·2	...	277	2	275
	204	Udipi ... R.C.	253,699	...	..	...	...	...	259	...	259
	205	Coondapoor ... R.C.	120,250	5th Jan....	23rd Jan. ...	9	0·7	January ...	190	4	186
	6	Total, District ...	1,052,002	5th Jan....	26th Sept....	13	0·1	January ...	1,277	7	1,270
Tanjore.	206	Tanjore ... M.T.C.	54,258	7th July...	30th Dec. ...	54	9·9	December...	1	1	...
	207	Kumbakónam... M.T.C.	54,254	16th Jan....	31st Dec. ...	173	31·9	December...	1	1	...
	208	Máyavaram ... M.T.C.	23,754	28th Jan....	31st Dec. ...	41	17·2	December...	1	1	...
	209	Negapatam ... M.T.C.	58,573	14th July ..	31st Dec....	158	27·0	November...	1	1	...
	210	Mannárgudi ... M.T.C.	20,392	28th Oct....	30th Dec....	32	15·7	December...	1	1	...
	211	Tiruválúr ... T.C.	12,934	28th Oct. ...	29th Dec....	32	24·7	November...	426	110	316
	212	Tanjore ... R.C.	356,021	14th Sept....	31st Dec....	502	14·1	December...	519	179	340
	213	Kumbakónam... R.C.	323,350	8th Feb....	31st Dec....	759	23·4	December...	338	109	229
	214	Máyavaram ... R.C.	220,977	2nd Jan....	31st Dec. ...	355	16·0	December...	191	25	166
	215	Shiyali ... R.C.	119,801	19th June...	31st Dec. ...	147	12·3	December...	388	116	272
	216	Nannilam ... R.C.	215,905	2nd April...	31st Dec. ...	365	16·9	December...	317	50	267
	217	Negapatam ... R.C.	148,177	24th Jan. ...	31st Dec. ...	241	16·3	November...	308	60	248
	218	Mannárgudi ... R.C.	167,033	3rd Jan. ...	31st Dec. ...	190	11·4	December ..	226	54	172
	219	Tirutturaippúndi R.C.	180,293	2nd May...	31st Dec. ...	348	19·3	November...	831	31	800
	220	Pattukkóttai... R.C.	271,359	18th Oct....	31st Dec. ...	290	10·7	November...			
	15	Total, District ...	2,227,081	2nd Jan....	31st Dec....	3,687	16·5	December...	3,550	740	2,810

44. Acting upon the suggestion as to the backward state of conservancy in municipal towns conveyed in my Report of 1894, paragraph 63, Government called upon the Sanitary Board to draw up schemes for the various towns. As, however, the Board, instead of using the data at its disposal for excogitating schemes that might subsequently have undergone modification, on discussion by the councils, have referred the whole question to the councils without adding, as far as I know, any suggestions as to the lines to be pursued, it is very unlikely that any sweeping reform will take place at their hands; for the reason that had they appreciated the necessity for such schemes the councils would, of their own accord, have effected these years ago.

45. It cannot, however, be said that in the important matter of conservancy municipalities have effected no advance. Forty-two night-soil, 19 rubbish, 18 sewage carts, and 54 public latrines were added during the year, whilst an addition of 2,900 houses attended to under the private scavengering system was made. 147 toties and 49 sweepers were added to the menial staffs. Sanitary peons and sanitary maistries as well as Sanitary Inspectors underwent reduction, in conformity with the policy of introducing a better class—Certificated Sanitary Inspectors—to take the place of the numerous low-paid and ignorant men till recently employed on sanitary inspection work.

46. The rules for guidance of municipalities as to cholera prevalence were finally approved by Government (G.O., No. 1536-M., dated 9th September 1896). Their sphere of utility has, however, been much cramped by Government permitting discretion to local authorities as to employment of the staffs with the consent of the Collector. Collectors are very human in this matter, and are liable to assume a safety from loss of life that is the result of the wish being the father of the thought, and, consequently, efforts to convince municipalities as to the necessity for employment of full staffs are at times delayed. The staff advised by the committee which sat on this subject was regarded by it as the minimum requirement, and it seems to me that to permit municipalities with the self-confidence of amateurs to modify this staff 'in the interests of economy,' is a great mistake in the interests of life. In prompt action is really the key to ultimate economy. It may be held that in the exercise of the right of self-government a certain amount of discretion is advisable; but it seems to me that the matter is of provincial not solely local concern, and that, if a council is determined to effect economy by providing inadequate staffs for epidemics, it should not be allowed to do so to the detriment of its neighbours. What I now say would doubtless apply with equal force to the rules for combating bubonic plague where much the same staff and arrangements are held to be requisite (G.O., No. 1985-M., dated 18th November 1896). Yet, if hesitation occurs in this case in any municipality, the consequences to the presidency generally would shortly become undesirably obvious.

47. I trust I may not be misunderstood as to economy. This is, of course, essential on all occasions when dealing with public money. But calculation shows that the expenses of meeting an ordinary epidemic of cholera under the system required is not beyond the means of a municipality, provided their funds are in all other respects carefully managed and *proportionately* spent, and when, in rare cases, notwithstanding this care, the council is in the unfortunate position of saying it really has no funds, it seems to me but reasonable that rather than they should employ inadequate measures the credit of the council should be pledged in obtaining a loan.

48. During the year the public water-supply works at Trichinopoly and Dindigul were completed and opened. Water works were also in progress at Conjeeveram and Kurnool. No improvements were made in the sanitary condition of the town of Madras, but a scheme for the sewerage of the city received the sanction of Government. Preliminaries seem to have been settled as to the erection of incinerators for the consumption of the town rubbish. The supply available to the inhabitants of the present unfiltered and but partially protected water-supply in certain areas was rendered more constant by increasing the size and number of mains. Calicut erected a Silchar incinerator, and received sanction from Government for the conservancy-tramway suggested by me in 1893.

49. Pending the effecting of complete schemes of sewerage in municipal towns, it cannot be expected that much advance can be made as to sewage farming. Nevertheless it has been pointed out to municipalities that much can be effected by extending existing systems sufficiently to serve suitable plots of land. Schemes for disposal by filtration of sewage from a small area of the town of Kumbakónam, and by improvement of existing arrangement at Tanjore, were discussed by the Sanitary Board during the year, but they have not been put into execution. Filtration of sewage is effected with good results at Vizagapatam previous to its entrance to the neighbouring swamp, where it was formerly a great nuisance, and at Vizianagram before entering into the Pedda Cheruvu. The former town has selected a place for a sewage farm, and has submitted a requisition under the Land Acquisition Act. At Vizianagram and Bellary filtration of sewage at households is also pursued with satisfactory results. At Rajahmundry the municipality opened during the year an experimental plot of one acre, which is cultivated by sewage that was formerly thrown hither and thither in waste places. The result, as I found on a late inspection, is a magnificent crop of vegetables which are being sold at profit. The council now intends to extend the area. The plot taken up under ordinary systems of cultivation, would have been worthless, being almost solely sand. The sewage farm at Negapatam in Hathaway's Park continued to be a source of revenue to the municipality; Rs. 415 being realized from this source during 1895–96. Erode practised the cultivation of reeds successfully under sewage. The use of night-soil and rubbish for cultivation advances in appreciation year by year. During 1895–96 the sum of Rs. 28,484 was realized by municipalities under this head against Rs. 24,755 during 1894–95.

50. The following statements show the allotment and expenditure for sanitary purposes and the conservancy establishment, plant, &c., available in each municipality during 1896:—

(d) DYSENTERY AND DIARRHŒA.

38. The death-rate for dysentery and diarrhœa showed little difference in rural areas when contrasted with that found in 1895. Chingleput took the lead with a death-rate from this cause of 2·1 against 1·9 of last year. This district is notorious for bowel affections. This increase may be due to a better rainfall in certain parts of the district than it has had for some years past, bringing about access of water to tanks from more than usually distant parts and with it filth, that would have been out of range of influence in ordinary years, or to fluctuation of the sub-soil water beyond normal limits. It is probable that much of the so-called dysentery and diarrhœa of South Canara and Malabar is due to catarrhal inflammation of the intestines following exposure to wet, which must form a prominent feature of the every-day life of the labourer in these districts.

39. The rate for municipalities, as a whole, was 3·8 per mille against 0·7 in the case of districts. With the exception of Coonoor, Guntúr, Coimbatore and Vizianagram, no municipality showed a marked increase of rate above the preceding year, whilst there were several noteworthy decreases, namely, in the case of Karúr, Chicacole, Rajahmundry, Palni, Tirupati, Mangalore and Vizagapatam.

(e) INJURIES.

40. A total of 10,822 deaths was recorded from injuries which (*vide* Table in paragraph 24, page 28) affords the invariable figure 0·3 per mille of the population—a ratio which demonstrates the well-known fact that the occupations of the population vary but little from year to year, and that consequently the chances of injuries are the same even to subjection to deaths by snake-bite. Not until huge manufacturing or mining enterprises are started in the Madras Presidency is this curiously definite figure likely to vary from year to year. When this occurs, not only will the ratio for injuries alter, but also for suicides, as a result of change of habits and nature of demand upon the nervous system.

SECTION V.

SANITARY WORKS—CIVIL.

(a) MUNICIPALITIES.

41. Including Tiruvannámalai which was formed into a municipality in October 1895 and Chingleput made so in the latter part of the year under report, there were in all 59 municipalities. These embrace a population of 2,153,921 or 6 per cent. of the total population of the Presidency. As the District Boards Act (Act No. V of 1884) is of very little use in respect to sanitary provisions, it may be said that practically the population stated represents the total subjected to constant sanitary discipline.

42. It cannot be said that the rate of sanitary progress in municipalities is such as to render the sanitarian sanguine. Still progress is apparent, and, this being so, it may be assumed that reforms will be introduced in an ever-increasing ratio, as one improvement is almost necessarily followed by another with the object of securing full results. Many legal difficulties that have been rendered apparent in the past, will be swept away by the Amended District Municipalities Act which will come into force in 1897.

43. Although there are certain municipalities which still remain unpersuaded as to the necessity for action in this respect, as a rule there is no doubt that the sanitary safety and convenience offered by public water-supplies are well appreciated; indeed, more municipalities have represented their willingness to undertake schemes than Government can supply with grants-in-aid or the requisite engineering staff. This tendency I regard as a noteworthy sign of advance, as it is but a short time back they were well content that reform should commence by getting rid of sewage from the areas under their charge—regardless of grossly insanitary and repugnant forms of water contamination; in reality not from any just appreciation of the sanitary results that might be expected, but with the object of aiding public comfort. Nevertheless, whilst it is fully understood that the obtaining of Government sanction for water-works will be of benefit to the people—works that are carried out at their expense, but do not depend upon their personal efforts for elaboration—it is extraordinary the apathy with which small measures which in the aggregate would do much to improve the general health of towns, and which are within the power of councils to accomplish, are frequently regarded. This results from the fact that the actions of most councils are trammelled by factions. A suggestion for a sanitary improvement from one of the 'Opposition' is liable to be regarded as equivalent to a vote of want of confidence in the Chairman and his party, it being a reflection on the sanitary administration of the town; and, if a proposal proceed from the party in power, it is equally likely to fall to the ground, because the Opposition feels it incumbent upon it to protect the pockets of the tax-payers and pose as their protectors from the influence of expensive changes founded upon mere theory. It is only in treating the advice of the Sanitary Commissioner that a really safe neutral ground is obtained; here both parties are not infrequently of opinion that the "least there is said the sooner it will be mended;" suggestions from this source are very often buried in peace with the superscription "will be attended to." I, however, unfortunately for the peace of the councils arrange for a resurrection of these proposals at intervals, by seeing that all promises of this description are duly registered in my office; in the end, even with so unpromising a method of disposal, action is *occasionally* secured.

Table showing the conservancy establishment and plant available in each Municipality during 1896.

Districts.	Municipalities.	Population as per census of 1891.	Sanitary inspectors.	Sanitary overseers.	Sanitary maistries.	Sanitary peons.	Sweepers for cleaning roads, streets, &c.	Toties for cleaning public latrines.	Toties for private scavengering.	Private latrines. Total number in town.	Private latrines. Number cleaned by the municipal toties.	Carts. Night-soil.	Carts. Rubbish.	Carts. Sewage.	Public latrines. Puka built.	Public latrines. Brick-wall enclosures.	Public latrines. Mud-wall enclosures.	Public latrines. Tatty.	Dust-bins. Wooden.	Dust-bins. Masonry.	Dust-bins. Iron.	Tank watchers.
Anantapur ...	Anantapur	6,973	1	...	...	2	14	8	3	135	135	1	3	...	1	5	21	...	...	26	46	...
Bellary ...	Ádóni	26,216	1	...	3	6	30	26	16	1,500	893	12	12	3	6	* 7	4	...	...	74	51	5
	Bellary	57,780	8	...	...	23	66	30	24	2,492	1,374	32	33	...	25	...	4	...	...	285	95	5
Chingleput ...	Chingleput	...	1	...	...	1	10	5	2	500	62	2	5	..	3	3	* 1	...	...	25	18	4
	Conjeeveram	42,543	1	4	...	...	44	12	16	1,221	1,048	9	22	...	20	9	...	...	...	376	139	6
Coimbatore ...	Coimbatore	46,007	3	1	8	...	78	28	25	712	374	10	27	7	14	8	7	...	...	...	112	1
	Erode	12,238	1	...	...	5	24	16	5	...	340	9	11	2	4	‡ 3	6	2	...	42	118	1
	Karór	10,740	2	...	1	3	30	8	4	495	204	2	7	...	3	...	6	...	...	25	55	...
Cuddapah ...	Cuddapah	17,211	2	...	1	6	29	25	17	...	1,001	4	12	1	22	2	7	§ 7	...	183	12	...
Ganjám ...	Berhampur	25,493	5	...	* 6	...	78	23	26	...	623	...	11	10	2	5	17	...	...	98	22	2
	Chicacole	18,204	...	1	1	4	39	4	17	350	302	2	8	2	† 4	8	2	...	2	28	31	3
	Parlákimedi	16,379	1	...	...	3	26	7	20	400	150	...	5	1	4	10	...	..	50	...	...	3
Gódávari ...	Cocanada	40,068	1	1	...	6	49	38	27	...	836	6	12	...	10	...	...	7	...	...	125	9
	Ellore	29,296	5	...	4	5	52	11	9	400	237	2	9	4	...	9	...	9	...	46	54	1
	Rajahmundry ...	28,279	2	1	1	7	48	21	43	922	922	...	...	...	4	...	5	‡ 6	46	112	5	3
Kistna	Bezwada	20,611	1	2	1	6	33	20	14	700	570	7	15	3	4	...	...	16	...	...	179	...
	Guntúr	23,267	...	6	4	6	44	35	22	1,194	1,104	22	22	2	19	...	...	...	...	3	66	4
	Masulipatam	38,667	6	1	...	...	74	8	12	329	329	4	32	...	5	8	...	...	...	...	111	2
Kurnool	Kurnool	24,306	1	...	1	8	38	17	4	1,763	308	4	5	...	38	...	...	...	...	255	...	...
Madura ...	Dindigul	20,115	2	...	...	6	18	19	10	532	400	5	15	6	2	3	14	...	...	26	18	5
	Madura	87,121	10	...	...	12	122	18	20	12,500	1,296	24	61	...	...	7	...	2	...	59	334	...
	Palni	16,940	1	...	...	3	9	5	10	1,272	855	3	8	...	1	2	4	...	...	23	20	2
	Periyakulam	16,363	1	...	...	2	8	6	9	1,500	647	4	10	2	...	1	10	‡ 2	...	13	75	2
Malabar ...	Calicut	64,798	5	...	...	...	79	42	16	...	1,189	15	15	...	14	...	...	...	...	20	121	...
	Cannanore	26,653	1	1	1	2	24	16	8	...	263	6	6	...	12	...	...	...	10	25	...	...
	Cochin	16,147	1	4	1	..	21	24	15	...	258	7	3	...	8	...	...	6	2	...	19	...
	Palghat	39,367	1	...	8	2	48	17	20	1,000	657	7	23	...	9	...	...	4	...	...	151	...
	Tellicherry	26,631	3	...	3	...	23	16	20	2,000	493	5	4	...	5	...	...	...	...	...	16	...
Nellore ...	Nellore	29,128	2	...	6	..	54	27	17	1,275	960	8	18	4	4	13	...	13	...	66	172	1
	Ongole	19,832	1	...	1	2	20	6	8	...	266	1	2	...	...	7	...	4	...	57	21	1
Nilgiris ...	Coonoor	5,586	1	...	2	...	16	7	7	145	145	8	6	2	12	...	...	...	...	...	61	...
	Ootacamund	13,991	3	2	8	...	76	24	20	520	261	20	17	5	48	...	...	...	...	...	4	...

* Depôt keepers. † Food inspectors. ‡ Corrugated iron. § Stone wall.

Table showing the conservancy establishment and plant available in each Municipality during 1896—cont.

Districts.	Municipalities.	Population as per census of 1891.	Sanitary inspectors.	Sanitary overseers.	Sanitary maistries.	Sanitary peons.	Sweepers for cleaning roads, streets, &c.	Toties for cleaning public latrines.	Toties for private scavengering.	Private latrines. Total number in town.	Private latrines. Number cleaned by the municipal toties.	Carts. Night-soil.	Carts. Rubbish.	Carts. Sewage.	Public latrines. Puka built.	Public latrines. Brick-wall enclosures.	Public latrines. Mud-wall enclosures.	Public latrines. Tatty.	Dust-bins. Wooden.	Dust-bins. Masonry.	Dust-bins. Iron.	Tank watchers.
North Arcot ...	Gudiyáttam	18,745	1	...	5	...	18	13	2	223	223	7	12	...	8	4	2	...	...	¶ 100	74	5
	Tirupati	14,238	1	...	3	...	36	11	7	510	185	4	16	...	1	1	...	11	...	145	35	3
	Vellore	44,724	6	...	...	7	40	48	22	2,016	955	16	39	‡ 2	1	28	...	...	...	309	252	7
	Wallajapet	10,485	1	...	2	2	21	9	6	1,000	550	3	6	...	9	...	...	...	¶ 480	40	...	5
Salem	Salem	67,640	3	...	11	...	148	60	32	1,195	1,038	17	29	3	15	10	26	...	...	37	248	2
	Tiruppattúr	16,463	1	...	2	...	40	12	11	3,390	463	8	12	...	1	8	2	...	...	39	105	1
	Vániyambádi ...	15,838	2	...	5	...	44	12	7	3,500	357	15	17	‡ 2	1	3	2	5	...	...	124	4
South Arcot ...	Chidambaram ...	18,634	1	...	5	...	22	4	5	...	228	5	11	3	2	2	...	3	...	168	102	4
	Cuddalore	47,025	8	...	...	6	57	28	6	366	260	13	27	3	13	...	...	12	23	187	173	3
	Tiruvannámalai ...	13,643	1	...	...	1	20	5	1	1,000	42	6	5	...	...	...	...	...	...	10	66	1
South Canara ...	Mangalore	40,620	1	8	...	1	24	8	29	4,157	2,358	5	4	‡ 1	8	1	1	§ 10	...	75	54	1
Tanjore	Kumbakónam ...	54,254	9	...	...	9	35	20	49	...	1,282	19	33	6	...	21	...	§ 3	...	170	253	2
	Mannárgudi	20,392	1	...	2	...	38	9	...	400	311	3	11	8	...	3	...	...	20	18	72	5
	Máyavaram	23,754	3	...	...	6	17	7	15	...	496	5	17	1	4	...	...	13	...	179	32	4
	Negapatam	58,573	5	...	1	13	96	20	96	5,000	1,850	11	17	19	8	11	...	1	...	500	99	11
	Tanjore	54,258	1	1	5	18	31	50	20	...	732	12	24	...	...	29	...	...	...	194	62	14
Tinnevelly ...	Palamcottah	18,612	3	...	...	3	9	10	36	3,500	2,515	34	9	4	6	2	...	‖ 4	...	96	49	2
	Srívilliputtúr ...	29,541	1	...	1	4	24	8	4	1,000	129	5	2	2	6	1	...	...	...	24	10	3
	Tinnevelly	24,756	4	...	...	6	27	14	21	3,000	1,460	6	10	7	7	...	1	4	...	18	162	2
	Tuticorin	24,964	3	...	...	5	27	13	14	1,037	1,037	...	...	...	10	2	...	6	...	46	120	4
Trichinopoly ...	Srírangam	21,632	4	...	1	10	14	21	18	...	983	9	16	1	...	10	...	7	...	83	82	2
	Trichinopoly	89,666	13	* 3	...	16	62	84	93	...	3,636	36	62	5	7	4	72	1	...	212	152	5
Vizagapatam ...	Anakápalle	17,001	1	...	5	...	30	22	5	200	146	12	4	...	2	2	19	2	...	5	116	1
	Bimlipatam	9,696	1	4	...	2	39	7	21	300	276	...	2	...	4	...	...	3	...	29	1	1
	Vizagapatam ...	33,961	1	18	13	...	119	57	52	1,193	1,183	12	21	...	5	36	...	36	** 50	180	93	1
	Vizianagram ...	30,735	4	...	11	† 46	101	28	63	1,320	1,050	5	30	2	30	...	...	...	17	13	190	9
	Total for 1896 ...	1,677,800	154	58	133	275	2,463	1,149	1,121	68,164	42,247	509	875	123	451	288	233	199	700	4,744	4,977	162
	Total for 1895 ...	1,664,157	166	47	116	305	2,390	1,104	982	59,650	38,310	467	856	105	431	273	211	272	410	4,757	4,926	151
Madras	Madras City	436,375	7	20	50	183	1,917	263	18	...	11	290	284	189	128	92	...	3	...	760	44	...

* Food inspectors. † Drain cleaners. ‡ Urinal carts. § Corrugated iron. ‖ Iron. ¶ Stone slab. ** Wicker baskets.

Statement showing the estimated income, allotment, and expenditure for sanitary purposes in each Municipality during the year 1896–97.

Districts.	Municipalities.	Population as per census of 1891.	Estimated income, 1896–97.	Rate per cent. of sanitary allotment to estimated income.	Rate per cent. of sanitary expenditure to amount sanctioned.	1896–97. Sanitary allotment. Allotment.	Sanitary allotment. Expenditure during the 9 months ending December 1896.	Conservancy. Allotment.	Conservancy. Expenditure.	Improvement of village sites. Allotment.	Improvement of village sites. Expenditure.	Improvement of water-supply, including cleansing, repairing, &c. Allotment.	Improvement of water-supply, including cleansing, repairing, &c. Expenditure.	Sanitary arrangements during fairs and festivals. Allotment.	Sanitary arrangements during fairs and festivals. Expenditure.	Construction and repairs of markets and slaughter-houses. Allotment.	Construction and repairs of markets and slaughter-houses. Expenditure.	Other sanitary objects including construction and repair of tanks. Allotment.	Other sanitary objects including construction and repair of tanks. Expenditure.
			RS.			RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Anantapur ...	Anantapur ...	6,973	20,010	20·2	85·0	4,050	3,444	2,600	1,769	750	755	100	108	50	166	150	208	400	438
Bellary ...	Ádóni ...	26,216	46,580	50·7	60·1	23,620	14,204	12,310	8,581	2,500	2,520	3,930	1,494	...	...	1,300	28	3,580	1,581
	Bellary ...	57,780	1,02,590	48·2	77·2	49,480	38,240	32,280	25,730	10,100	8,978	5,500	3,187	...	...	200	15	1,400	330
Chingleput.	Chingleput * ...	...	...	...	32·1	840	270	840	270	...	...	...	...	...	...	...	...	...	...
	Conjeeveram ...	42,543	1,41,860	128·2	27·8	1,82,720	50,863	11,660	7,432	7,860	3,783	1,59,300	38,036	1,670	1,470	1,510	32	720	110
Coimbatore.	Coimbatore ...	46,007	43,550	32·3	64·1	14,100	9,039	10,700	8,763	...	...	700	45	...	...	100	...	2,600	231
	Erode ...	12,238	19,890	32·8	62·9	6,540	4,119	3,580	2,490	2,350	1,249	160	148	150	119	180	20	120	93
	Karúr ...	10,740	18,020	39·1	65·7	7,050	4,636	3,930	2,856	2,000	1,632	170	79	...	...	50	17	900	52
Cuddapah ...	Cuddapah ...	17,211	2,00,440	64·4	79·2	12,920	10,243	8,850	6,155	...	...	3,670	3,678	...	23	400	85	...	302
Ganjám ...	Berhampur ...	25,493	29,510	37·4	81·5	11,040	9,004	6,350	5,110	3,730	3,268	80	226	...	...	260	183	620	217
	Chicacole ...	18,204	25,960	24·6	68·0	6,400	4,354	3,690	1,914	2,000	1,911	210	137	...	...	100	62	400	330
	Parlákimedi ...	16,379	13,120	26·3	59·5	3,460	2,060	3,050	1,756	...	...	10	25	...	...	...	2	400	277
Gódávari ...	Cocanada ...	40,068	56,890	35·9	129·2	20,450	26,429	12,710	10,349	5,800	11,498	940	3,552	...	...	...	...	1,000	1,030
	Ellore ...	29,296	36,490	45·4	66·2	16,590	10,987	8,170	5,959	5,750	3,990	370	214	...	...	800	40	1,500	784
	Rajahmundry	28,279	40,770	41·4	74·8	16,880	12,633	12,060	9,339	3,680	1,879	740	215	400	400	...	613	...	187
Kistna ...	Beswada ...	20,611	95,570	17·6	75·1	16,900	12,700	11,270	8,430	3,500	3,500	550	430	80	...	300	210	1,200	130
	Guntúr ...	23,267	48,030	46·9	78·8	22,570	17,798	12,140	8,694	6,660	6,896	1,700	1,376	...	...	670	315	1,400	515
	Masulipatam ...	38,667	65,580	51·0	53·3	34,994	18,655	14,190	9,901	11,944	5,979	4,260	1,682	...	...	2,500	23	2,100	1,070
Kurnool ...	Kurnool ...	24,306	1,38,070	79·6	103·9	1,10,030	1,14,424	7,110	5,406	2,500	1,808	1,00,320	1,07,118	...	...	...	17	100	75
Madura ...	Dindigul ...	20,115	34,100	47·3	173·0	16,130	27,905	6,490	4,524	3,350	1,868	3,970	20,834	...	167	270	115	2,050	397
	Madura ...	87,121	1,50,120	41·2	54·4	61,880	33,706	29,720	23,867	12,000	4,663	6,660	2,695	1,500	2,068	5,500	413	6,500	...
	Palni ...	16,940	12,540	49·2	52·9	6,180	3,272	3,270	2,320	1,250	793	120	73	50	10	1,040	35	450	41
	Periyakulam ...	16,363	12,280	45·5	67·3	5,590	3,764	3,920	2,964	1,220	708	130	92	...	...	...	...	320	...
Malabar ...	Calicut ...	64,798	63,750	35·4	79·6	22,575	17,990	13,400	10,273	9,000	7,286	...	333	...	39	175	59	...	...
	Cannanore ...	26,653	28,850	41 5	49·4	12,000	5,934	6,480	4,348	4,120	1,464	600	2	...	...	60	120	740	...
	Cochin ...	16,147	21,670	34·1	68·3	7,390	5,051	4,550	3,579	1,200	884	10	2	...	...	1,140	362	490	224
	Palghat ...	39,367	64,370	34·8	51·2	22,418	11,492	8,130	5,865	7,160	5,461	400	33	100	21	6,428	...	200	112
	Tellicherry ...	26,631	45,420	26·3	67 5	11,980	8,088	8,780	5,742	2,300	1,643	50	13	...	...	100	...	750	690
Nellore ...	Nellore ...	29,128	41,570	37·4	67·8	15,550	10,549	7,950	5,585	5,000	3,819	250	225	...	...	1,000	31	1,350	889
	Ongole ...	10,832	13,210	41·8	56·5	5,525	3,125	3,000	2,238	885	271	930	137	...	...	...	1	710	478
Nilgiris ...	Coonoor ...	5,586	1,58,180	12·4	90·4	19,646	17,769	7,580	6,684	7,000	6,943	3,091	2,377	...	...	750	742	1,225	1,023
	Ootacamund ...	13,991	2,17,300	33·5	46·7	72,907	34,105	25,520	17,608	17,100	9,271	11,820	4,881	...	...	6,000	778	12,467	1,567

* This town was constituted into a municipality on the 1st October 1896.

Statement showing the estimated income, allotment, and expenditure for sanitary purposes in each Municipality during the year 1896–97—continued.

Districts.	Municipalities.	Population as per census of 1891.	Estimated income, 1896–97.	Rate per cent. of sanitary allotment to estimated income.	Rate per cent. of sanitary expenditure to amount sanctioned.	1896–97. Sanitary allotment. Allotment.	Sanitary allotment. Expenditure during the 9 months ending December 1896.	Conservancy. Allotment.	Conservancy. Expenditure.	Improvement of village sites. Allotment.	Improvement of village sites. Expenditure.	Improvement of water-supply, including cleansing, repairing, &c. Allotment.	Improvement of water-supply, including cleansing, repairing, &c. Expenditure.	Sanitary arrangements during fairs and festivals. Allotment.	Sanitary arrangements during fairs and festivals. Expenditure.	Construction and repairs of markets and slaughter houses. Allotment.	Construction and repairs of markets and slaughter houses. Expenditure.	Other sanitary objects, including construction and repair of tanks. Allotment.	Other sanitary objects, including construction and repair of tanks. Expenditure.
			RS.			RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
North Arcot.	Gudiyáttam ...	18,745	17,090	32·9	73·3	5,630	4,130	3,450	2,567	1,430	1,016	286	276	20	2	200	...	250	269
	Tirupati ...	14,238	1,37,100	95·3	3·9	1,30,730	5,203	4,490	3,539	2,010	1,098	1,22,580	158	500	350	400	42	750	16
	Vellore ...	44,724	59,520	48·9	52·3	29,140	15,260	14,320	11,593	9,650	1,890	810	479	...	...	2,000	234	2,360	1,064
	Wallajapet ...	10,485	16,530	33·1	52·0	5,471	2,845	3,230	1,981	1,050	415	741	162	...	...	95	95	325	192
Salem ...	Salem ...	67,640	73,060	53·2	59·6	38,896	23,207	21,220	15,017	10,340	4,699	1,838	558	...	...	1,131	879	4,367	2,054
	Tiruppattúr ...	16,463	22,170	35·7	64·8	7,932	5,141	4,870	3,757	2,240	884	250	201	...	...	234	...	338	299
	Vániyambádi ...	15,838	20,220	35·1	68·1	7,110	4,846	4,000	2,803	1,740	1,515	210	175	..	...	800	195	360	158
South Arcot.	Chidambaram ...	18,634	25,290	53·9	53·6	13,650	7,325	5,360	3,607	5,300	2,147	2,140	781	100	496	600	..	150	294
	Cuddalore ...	47,025	54,290	49·1	87·0	26,690	23,231	11,160	7,630	13,100	13,418	330	617	...	...	...	...	2,100	1,566
	Tiruvannámalai...	13,643	23,470	43·4	47·8	10,190	4,879	2,220	1,235	4,340	215	550	226	2,500	3,127	...	...	580	76
South Canara.	Mangalore ...	40,620	51,800	47·3	82·7	24,540	20,307	8,410	6,197	11,000	10,141	2,350	2,135	...	...	280	225	2,500	1,609
Tanjore ...	Kumbakónam ...	54,254	94,460	82·4	45·0	77,840	35,053	22,460	13,996	11,690	3,444	7,160	2,168	27,640	...	200	...	8,690	15,445
	Mannárgudi ...	20,392	23,080	40·8	38·5	9,420	3,629	4,770	2,776	3,500	146	200	224	300	229	50	175	600	79
	Máyavaram ...	23,754	35,750	50·3	74·2	18,010	13,374	6,960	4,994	4,670	4,327	810	720	170	179	1,000	138	4,400	3,016
	Negapatam ...	58,573	77,670	58·4	66·4	45,420	30,199	23,790	16,449	14,600	8,176	5,210	4,174	530	578	655	355	635	467
	Tanjore ...	54,258	94,670	43·7	89·3	41,420	37,000	14,920	10,740	1,500	570	20,400	23,860	...	...	2,100	260	2,500	1,570
Tinnevelly.	Palamcottah ...	18,612	27,090	34·7	55·2	9,410	5,203	7,590	4,659	900	179	60	50	...	...	170	...	690	315
	Srívilliputtúr ...	29,541	15,440	43·3	57·7	6,691	3,863	3,620	2,156	1,830	1,145	411	186	160	137	...	...	670	239
	Tinnevelly ...	24,756	29,250	47·4	62·7	13,890	8,856	9,390	6,264	2,400	2,111	350	258	50	8	200	132	1,500	83
	Tuticorin ...	24,964	43,520	54·2	55·6	23,540	13,092	10,090	7,526	8,500	3,839	1,450	1,235	...	...	2,850	...	650	492
Trichinopoly.	Srírangam ...	21,632	29,650	52·4	55·3	15,560	8,615	9,660	5,532	3,820	2,605	310	138	1,000	30	70	...	700	310
	Trichinopoly ...	89,666	1,96,900	66·3	78·6	1,31,720	1,03,548	42,340	31,816	13,000	10,711	69,980	58,101	...	...	3,400	1,036	3,000	1,884
Vizagapatam.	Anakápalle ...	17,001	15,320	53·4	77·7	8,188	6,364	4,640	3,393	1,800	2,106	590	331	...	...	...	...	1,158	534
	Bimlipatam ...	9,696	13,570	36·0	60·1	4,890	2,942	3,040	2,269	1,250	485	...	...	...	...	...	...	600	188
	Vizagapatam ...	33,961	91,130	38·3	60·3	34,970	21,115	15,980	11,648	11,000	6,752	640	482	...	...	400	224	6,950	2,009
	Vizianagram ..	30,735	31,040	60·7	84·8	18,850	16,020	9,820	7,647	4,700	5,204	850	605	...	...	120	90	3,360	2,474
	Total for 1896 ...	1,677,800	33,25,370	48·1	66·7	16,00,203	9,72,097	5,78,110	4,18,292	2,90,069	1,93,958	5,51,241	2,91,747	36,970	9,619	47,938	8,606	95,875	49,875
	Total for 1895 ...	1,664,157	28,86,470	56·2	44·6	16,23,540	7,25,250	5,23,901	3,62,982	2,45,577	1,58,139	7,23,917	1,40,359	5,440	4,681	49,493	16,947	75,212	35,142
	Madras City ...	436,375	14,38,560	31·2	79·8	4,48,826	3,58,466	2,89,130	2,54,343	95,940	50,704	3,954	2,976	282	270	1,050	786	58,470	49,387

—	1895-96.		Rate per cent. of expenditure to total allotment.	1896-97.		Rate per cent. of expenditure to total allotment.
	Amount sanctioned.	Amount expended.		Amount sanctioned.	Amount expended in nine months ending with December 1896.	
	RS.	RS.		RS.	RS.	
For conservancy	5,22,271	5,04,288	96·4	5,78,110	4,18,292	72·3
For improvement of village or town sites	2,48,987	2,34,335	94·1	2,90,069	1,93,958	66·8
For improvement of water-supply, cleansing, repairing, and construction of tanks and wells	8,38,737	2,92,168	34·8	5,51,241	2,91,747	52·9
For sanitary arrangements during fairs and festivals ..	5,440	6,518	119·8	36,970	9,619	26·0
For construction and repair of markets and slaughter-houses	51,421	25,336	49·3	47,938	8,606	17·9
For other sanitary objects ..	82,172	58,924	71·7	95,875	49,875	52·0
Total ..	17,49,028	11,21,569	64·1	16,00,203	9,72,097	60·7

(b) THE SANITARY CONDITION OF WORKS AND THEIR RESULTS ON PUBLIC HEALTH.

51. The following table is inserted by order of the Government of India, with the object of showing the effect of public water and sewerage works in securing the sanitary end of decreasing mortality. (Government of India letter No. 10—326, dated 8th December 1894, Home Department (Sanitary), communicated with G.O., No. 2654 L., Mis., dated 20th December 1894, Local and Municipal.)

Name of Municipality.	Date of completion of works of		Average annual death-rate since the introduction of drainage system or water-supply.	Average annual death-rate for the five-year period preceding the introduction of drainage system or water-supply.
	Drainage.	Water-supply.		
Coonoor	January 1893.	...	1893 ... 31·9 1894 ... 31·9 1895 ... 27·9 1896 ... 41·3	1888 ... ... 28·4 1889 ... ... 26·9 1890 ... ... 42·7 1891 ... ... 37·2 1892 ... ... 37·0
Cuddapah	...	July 1893 ...	1893 ... 46·9 1894 ... 33·9 1895 ... 32·9 1896 ... 21·7	1888 ... ... 31·7 1889 ... ... 30·5 1890 ... ... 43·0 1891 ... ... 27·0 1892 ... ... 38·3
Kumbakónam	October 1894.	Do. ...	1894 ... 37·5 1895 ... 31·2 1896 ... 34·2	1889 ... ... 34·8 1890 ... ... 31·6 1891 ... ... 33·1 1892 ... ... 29·1 1893 ... ... 36·2
Madura	...	April 1894 ...	1894 ... 32·6 1895 ... 26·1 1896 ... 23·2	1889 ... ... 31·2 1890 ... ... 32·7 1891 ... ... 35·7 1892 ... ... 29·3 1893 ... ... 29·9

Name of Municipality.	Date of completion of works of		Average annual death-rate since the introduction of drainage system or water-supply.	Average annual death-rate for the five-year period preceding the introduction of drainage system or water-supply.
	Drainage.	Water-supply.		
Madras	...	1872 ...	1872 ... 35·2 1873 ... 36·7 1874 ... 36·6 1875 ... 35·6 1876 ... 39·6 1877 (Famine year.) 1878 ... 47·5 1879 ... 34·7 1880 ... 37·4 1881 ... 38·9 1882 ... 35·6 1883 ... 39·1 1884 ... 49·5 1885 ... 36·8 1886 ... 36·2 1887 ... 39·8 1888 ... 37·4 1889 ... 42·0 1890 ... 42·4 1891 ... 58·6 1892 ... 46·0 1893 ... 41·1 1894 ... 36·6 1895 ... 37·7 1896 ... 37·8	1890 ... ... 19·2 1891 ... ... 44·5 1892 ... ... 34·7 1893 ... ... 22·2 1894 ... ... 24·3
Ádóni	...	September 1895	1895 ... 23·6 1896 ... 25·4	1890 ... ... 28·2 1891 ... ... 29·1 1892 ... ... 29·2 1893 ... ... 35·7 1894 ... ... 26·9
Tanjore	...	October 1895.	1895 ... 25·5 1896 ... 27·0	1891 ... ... 41·4 1892 ... ... 20·5 1893 ... ... 23·5 1894 ... ... 23·7 1895 ... ... 21·7
Dindigul	...	August 1896.	1896 ... 23·1	1891 ... ... 31·6 1892 ... ... 25·6 1893 ... ... 36·6 1894 ... ... 24·4 1895 ... ... 23·6
Trichinopoly	...	December 1896, but water supplied from April 1896.	1896 ... 30·4	

It cannot be said that results acquired so far are very striking. No other than a mediocre result from sanitary works in this Presidency can, however, be expected, so long as they are not constructed so as to involve not the major portion of towns but the whole, so long as the facilities afforded are not such as to permit of free use of the water by the inhabitants in all parts of the town and at all times of the day, and, above all, so long as the Municipal Councils persist in retaining the old wells and tanks which the public water-supplies should have replaced.

(*a*) *Coonoor.*—I remarked as to Coonoor in my last report that it might be hoped that sewerage works were about to show an influence upon the death-rate; this hope has, however, been set aside by the vital statistics for 1896. The increased death-rate is due to dysentery. The actual number of deaths (44) was small, but materially swells the total rate when calculated on a small population. I invited the Medical officer's attention to the matter, but he is not in a position to ascribe any special cause for the increase under this head—further than the existence of the well-known factor of impure water-supply, which is quite sufficient to account for the condition. The Coonoor sewerage works cannot be said to be complete in any sense; they do not embrace the entire town; the house connections are incomplete, and sanitarily very imperfect. The discharge of the town sewage untreated into the Coonoor stream is, in my opinion, a possible source of danger to Méttupálaiyam.

Thus, against a total allotment of Rs. 6,96,498 for 1895 that for 1896 amounted to only Rs. 6,70,172 or 8·4 per cent. of the total income, against 9·2 per cent. of 1895. Unfortunately, the decrease of expenditure occurred chiefly under improvement of water-supply, as to the necessity for which there is undoubted urgency. Whilst funds have thus been diverted from sanitation, there has also been enforced by Government more judicious expenditure of funds available for conservancy. It was formerly a frequent matter to find that Taluk Boards sanctioned the employment of men in villages for the sweeping of rubbish, who would not remove much more dangerous material in the shape of fæcal matter. Such staffs have now been correctly modified. The tendency for unions to regard the fitting up of lamps as a first call upon their incomes has also been successfully curbed.

54. Village Sanitary Inspection Report books (G.O., No. 25 L., dated 7th January 1896) were in use in all unions in all districts of the presidency at the end of the year except in Vizagapatam, Anantapur and Cuddapah.* Assurances have been received from District Medical officers that arrangements will be completed shortly. In response to requests received from several officers, sample forms embracing all the required information were issued from this office for general adoption.

55. The following statements exhibit the allotment and expenditure on sanitation in each district:—

District Boards.	Population as per census of 1891.	Area in square miles.	Number of villages in the circles.	Number of villages conserved.		Estimated income of 1896–97.	Rate per cent. of allotment to estimated income.	Rate per cent. of sanitary expenditure to allotment.	1896–97.			
									Sanitary allotment.		Conservancy.	
				Number of unions.	Number of villages.				Allotment.	Expenditure for 9 months ending December 1896.	Allotment.	Expenditure.
1	2	3	4	5	6	7	8	9	10	11	12	13
						RS.			RS.	RS.	RS.	RS.
Anantapur ...	720,346	5,275	941	11	12	1,24,170	14·6	49·0	18,140	8,902	9,750	6,842
Bellary ...	806,489	6,136	819	20	10	2,22,390	13·8	54·3	30,760	16,712	13,890	10,726
Chingleput ...	1,157,358	2,842	2,134	16	8	2,61,260	7·8	72·5	20,621	14,955	12,801	8,632
Coimbatore ...	1,934,926	7,860	1,478	20	17	3,80,630	8·2	45·0	31,284	14,083	14,424	10,855
Cuddapah ...	1,254,510	8,722	1,276	18	48	2,40,070	7·7	63·7	18,651	11,898	15,042	10,596
Ganjám ...	1,836,324	8,370	6,037	15	6	2,72,950	4·7	58·8	12,840	7,558	8,870	6,645
Gódávari ...	1,980,215	7,857	2,603	26	109	9,03,940	9·0	50·3	81,420	40,983	27,610	21,093
Kistna ...	1,772,479	8,397	1,848	38	19	6,16,270	7·1	41·2	43,880	18,084	24,670	16,727
Kurnool ...	793,354	7,514	802	19	13	1,74,950	11·5	58·6	20,231	11,860	10,874	8,368
Madura ..	1,432,779	5,024	1,078	36	24	4,88,490	10·7	59·1	52,260	30,892	30,640	20,853
Malabar ...	2,463,078	5,585	2,245	...	30	4,64,590	2·3	47·0	10,935	5,141	5,120	3,758
Nellore ...	1,423,397	8,765	1,793	14	19	2,83,780	6·3	76·6	17,939	13,750	6,413	4,410
Nilgiris ...	77,188	957	52	...	...	1,53,560	2·0	64·1	3,120	2,000	1,920	1,481
North Arcot.	2,025,393	7,616	4,328	21	30	4,02,220	6·7	62·8	27,114	17,050	16,849	12,239
Salem ...	1,861,843	7,529	3,811	32	23	3,69,460	12·5	57·8	46,349	26,802	23,332	16,238
South Arcot...	2,096,677	5,217	2,897	17	12	4,07,500	12·1	53·4	49,468	26,438	20,797	13,329
South Canara.	1,011,382	3,902	1,277	...	20	2,36,580	3·5	64·4	8,290	5,343	3,600	2,799
Tanjore ...	2,015,850	3,709	3,550	18	22	8,47,900	6·6	56·9	55,996	31,901	28,659	18,706
Tinnevelly ...	1,817,829	5,387	1,538	29	48	4,71,700	14·7	53·5	69,443	37,184	35,574	24,943
Trichinopoly.	1,260,428	3,631	1,502	13	29	2,98,830	10·5	45·1	31,543	14,232	12,834	9,056
Vizagapatam.	1,850,802	4,619	2,668	15	15	3,46,590	5·7	69·1	19,888	13,741	12,430	9,100
Total for 1896 ...	31,592,647	124,914	44,678	378	514	79,67,830	8·4	55·1	6,70,172	3,69,509	3,36,099	2,37,346
Total for 1895 ...	31,592,647	124,914	44,678	361	570	75,47,420	9·2	51·4	6,96,498	3,57,775	3,36,745	2,36,576

* Up to date no replies to queries have been received from Bellary, Kistna and Gódávari.

District Boards.	1896–97—*cont.*									
	Improvement of village sites.		Improvement of water-supply, including cleansing, repairing, and construction of tanks and wells.		Sanitary arrangements at fairs and festivals.		Construction and repair of markets and slaughter-houses.		Other sanitary objects, including construction and repair of latrines, dust-bins, drains, &c.	
	Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.
	14	15	16	17	18	19	20	21	22	23
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Anantapur ...	930	179	2,060	1,032	300	147	3,550	69	1,550	633
Bellary ...	500	319	1,350	1,634	1,290	56	7,700	3,755	6,030	222
Chingleput ...	2,582	2,395	2,897	1,844	1,307	717	50	...	984	1,367
Coimbatore ...	2,447	470	5,497	729	829	340	5,780	960	2,307	729
Cuddapah ...	1,310	498	1,597	618	325	93	17	16	360	77
Ganjám ...	1,390	58	1,310	667	220	...	180	...	870	188
Gódávari ...	6,570	6,145	27,910	5,208	1,220	4,152	13,750	3,386	4,360	999
Kistna ...	5,370	...	11,690	1,002	1,420	188	...	...	730	167
Kurnool ...	995	239	4,198	1,000	670	...	1,300	1,412	2,194	841
Madura ...	4,650	3,294	4,730	4,056	500	267	9,970	1,866	1,770	556
Malabar ...	175	10	1,300	131	320	204	3,590	898	430	140
Nellore ...	2,597	2,377	7,683	5,804	400	366	...	...	846	793
Nilgiris ...	600	360	400	195	...	...	...	...	200	14
North Arcot ...	582	1,174	4,396	2,109	1,417	1,019	3,070	469	800	40
Salem ...	6,665	4,988	3,919	3,319	510	169	9,893	675	2,030	1,413
South Arcot ...	4,178	365	21,392	12,130	685	264	...	...	2,416	350
South Canara ...	...	...	1,349	699	1,120	836	1,585	856	636	153
Tanjore ...	3,130	217	5,647	1,854	16,929	10,576	...	...	1,631	548
Tinnevelly ...	9,608	4,983	13,041	3,665	1,915	1,386	4,140	60	5,165	2,147
Trichinopoly ...	1,856	838	5,009	1,758	130	59	9,533	1,687	2,181	834
Vizagapatam ...	2,810	1,948	2,387	1,931	510	30	1,156	319	595	413
Total for 1896 ...	58,945	30,857	1,29,762	51,385	32,017	20,869	75,264	16,428	38,085	12,624
Total for 1895 ...	61,456	26,466	1,48,318	54,940	19,298	10,636	97,647	17,300	33,034	11,857

—	1895–96.		Rate per cent. of expenditure to allotment.	1896–97.		Rate per cent. of expenditure to allotment.
	Amount sanctioned.	Amount expended.		Amount sanctioned.	Amount spent in nine months ending with December 1896.	
	RS.	RS.		RS.	RS.	
For conservancy	3,36,228	3,02,935	90·0	3,36,099	2,37,346	70·6
For improvement of village or town sites	64,910	42,852	66·0	58,945	30,857	52·3
For improvement of water-supply, including cleansing, repairing, and construction of tanks and wells	1,48,734	1,08,925	73·2	1,29,762	51,385	39·5
For sanitary arrangements during fairs and festivals.	20,966	18,083	86·2	32,017	20,869	65·1
For construction and repair of markets and slaughter-houses	1,04,214	63,506	60·9	75,264	16,428	21·8
For other sanitary objects ..	31,857	24,140	75·7	38,085	12,624	33·1
Total ..	7,06,909	5,60,441	79·2	6,70,172	3,69,509	55·1

(*d*) MECCA PILGRIMAGE.

56. No pilgrims are reported to have embarked to witness the last Haj at Mecca from any of the ports of this Presidency.

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(*b*) *Cuddapah.*—In the malarious town of Cuddapah, a decided improvement is noticeable, and this is the more remarkable, in that lessened mortality has been attended with an increased birth-rate. In this town extensions have been freely effected by the municipality, and the public water-supply is fairly well adhered to by the people. All this looks hopeful, but, as in the district itself there has also been a marked decline this year from malarious fever, it is too early to draw decided conclusions, except to further exhibit the well-known fact that a decrease of malaria favours the increase of the birth-rate. Certain insanitary conditions of the head works were brought to notice by me during the year, and Government directed the more serious to be at once rectified.

(*c*) *Kumbakónam.*—These works are of a very partial description and effect the removal of surface water only, although in addition they may have a slight influence on sub-soil water within a limited area; but no permanent effect upon the health rate of the town can be expected from these works.

(*d*) *Madura.*—Until the opening of Periyár irrigation works threw into the Vaigai (from the bed of which stream, Madura derives its supply by infiltration) its surplus and wastage, it cannot be said that the supply of water in this town by the water-works was sufficiently continuous as to form a sanitary factor of importance. The municipality still maintains its old wells and tanks open for public use. The head works and adjoining areas were found in the same unsatisfactory condition as on my previous inspection; but, I believe, action has since been taken to remedy matters.

(*e*) *Madras.*—I have, in former reports, pointed out that no sanitary work as yet undertaken by the Municipality of Madras can be regarded as having fully met sanitary requirements, and that even such works as exist are not in respect to details so complete as to cause their beneficial influence to be felt in perfect measure. A decrease of the death-rate occurred in 1896, but this may fairly be ascribed to a return to a more normal condition of the sub-soil water level in a town where, on account of the filthy condition of the sub-soil, fluctuations are of peculiar importance.

(*f*) *Ádóni.*—The errors pointed out in the last report as existing in this work continued during the year. By December the water became undrinkable, owing to growth of masses of algæ and odour-producing micro-organisms in the storage reservoir. The action of the filter-beds was such as to remove them but partially; multiplication continued to take place in the service reservoirs, which, as formerly pointed out, were inappropriately constructed for storage of filtered water. I advised that the Council should be required to so alter the roofing that neither dust nor light should be admitted, and that the zinc-roofing unsuitable in reference to heat conduction should be removed. The Council in remarking on my report before transmission to Government denied the possibility of dust gaining entrance through a space of three inches throughout the length and breadth of the reservoirs, but thought blood-suckers—which are usually considerably larger in this presidency than dust particles—could gain admission. They rejected the light theory, which represents the outcome of the last seven years' labours of various bacteriologists, without argument, and desired that glass shutters should be employed. [The Sanitary Board has, however, since overruled this decision.] The use of a stick and tape by the overseer in charge in lieu of ordinary gauges does not seem, from the result attained by the filter-beds, to have conduced to his ability to control the rate of filtration, when added to the other peculiarities of this filter-bed mentioned at page 44 of my last year's report.

Dindigul-Tanjore-Trichinopoly.

(*g*) The water works of Dindigul, Tanjore and Trichinopoly have not been open sufficiently long to permit of any opinion as to results being given. Up to date, formerly existing sources are largely utilized in all these towns, in addition to the 'pipe' water. As in the case of Madura, the two last-named towns are supplied by infiltration from river sub-streams. Seeing that there can be no doubt as to conveyance of cholera by river water in this presidency, in accordance with the warning given at page 44 of my last year's report as to possible influence following the rapidly changing head of filtration, it would be advisable that more be known as to stoppage of the cholera microbe under these special conditions.

The following statistics have been supplied me by Surgeon-Lieutenant-Colonel W. O'Hara, District Medical and Sanitary Officer, Trichinopoly, showing the influence of water on cholera attacks in that town. It will be seen that the 'pipe' water has the advantage, but it is by no means such as ought to be demonstrable. The table, perhaps, is more an excellent statistical statement of how largely the people, instead of using a single supply, really use mixed supplies; but it is enough, I think, to dictate *caution*, as to adoption of this description of infiltration work in the shallow, sandy beds of rivers in this presidency without provision for subjection of the water to the action of ordinary filter-beds after gathering from the gallery. This, however, is a matter that, whilst I consider it necessary to warn concerning, can only be definitely answered by a series of bacteriological experiments:—

Trichinopoly Municipality.

Sources of water for drinking purposes.																											
Pipe.				Tank.				Channel.				River.				Well.				Unknown.			
Attacks.		Deaths.		Attacks		Deaths.		Attacks.		Deaths.		Attacks.		Deaths.		Attacks.		Deaths.		Attacks.		Deaths.	
Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
96	114	51	54	152	140	83	66	239	244	136	134	83	93	40	59	10	3	8	2	35	19	33	15
50·00				51·02				55·90				56·25				76·92				88·68			

(*c*) DISTRICT BOARDS.

52. Government, having disposed of the Amended District Municipalities Act, will, it is hoped, shortly be able to give attention to the amendment of the District Boards Act No. V of 1884. Until this is effected, sanitary advance in rural areas must necessarily be saddled with much difficulty. Equally on behalf of localities where fairs and festivals are held, it is hoped, Government will be able to deal with the promised Act on the lines of the Pooree Pilgrim Lodging House Act. Thus correctly equipped with legal power, it should be possible for a very decided advance to be made within a short period. In the meantime, in the absence of power to gather sufficient funds for general purposes, Government has considered it requisite that expenditure under sanitation in common with that under education and medical services should be curtailed, so that a minimum of 50 per cent. of the total land cess collections *plus* the net receipts from tolls of District Boards, shall be available for the better upkeep of communications. The effect of this order seems to me unfortunately to be that education suffers less in proportion to the other services, as the charges being in most part fixed permit of no reduction, whereas those of sanitation are not so and can readily be reduced. In consequence of this order, it is of little use to advise District Boards to employ either permanent sanitary staffs or those intended for combating epidemics, and indeed, the actual efforts made by Local Fund authorities to prevent the spread of the late epidemic of cholera were decidedly inadequate. Under the circumstances, all that can be done is to wait in patience till an improved Act gives the power of obtaining better machinery and more funds to work with in rural areas.

53. It is necessary for me to enter into the above explanation in reference to the falling off of expenditure under the head of sanitation under District Boards.

SECTION VI.

PERSONAL PROCEEDINGS AND GENERAL REMARKS.

57. Of the total of 365 days, I was absent from head-quarters on inspection duty 210 days. During this period, I travelled 9,784 miles by road, rail and canal. The Deputy Sanitary Commissioner was absent from head-quarters a total of 155 days, and travelled 7,185 miles by road, rail, canal and sea.

58. The following municipalities were formally inspected and reports thereon were furnished by me:—

Ádóni.	Ootacamund.
Karúr.	Gudiyáttam.
Cocanada.	Tiruppattúr.
Ellore.	Vániyambádi.
Rajahmundry.	Chidambaram.
Madura.	

59. The following towns and villages in rural areas were inspected and with the exception of nine were reported upon:—

Panium.	Vriddachalam.
Nandyal.	Bhuvanagiri.
Dibaguntla.	Pudupet.
Kanalapulli.	Kundyankuppam.
Yallur.	Oosypur.
Peddachintagunta.	Lingathinne.
Alagudda.	Pathakantha.
Dhone.	Duvur.
Rajoli.	Adinmayapalli.
Gotlur.	Mocha.
Ammapett.	Hagari.
	Kolur.
	Dowlaishwaram.
	Kalugudda.

60. The following places were also visited for special purposes in connection with current work, or in accordance with the special orders of Government:—

Cuddapah—to inspect the sanitary condition of the water-works.

Ellore—to attend a committee to discuss the condition of water-supply in reference to canal navigation.

Bellary—inspection of the area involved in Copper mountain water scheme, and also a second visit in reference to the epidemic of cholera in the town and district.

Kumbakónam—was visited three times to confer with the Council and Collector as to sanitary preparations for the Mahamagham festival.

Anantapur—with reference to conditions affecting the town sub-soil water-level.

Tirupati—inspected sanitary arrangements during the Brahmavutchavum festival.

Humphi—inspected sanitary arrangements during festival.

Erode—inspection as to insanitary conditions attending water-supply of the town.

Tiruvannámalai—inspected sanitary arrangements during the Karthigai festival.

Méttupalaiyam—inspection with regard to incorrect structure of a new latrine.

Hagari river—inspected twice in reference to a water scheme for Bellary.

61. The following localities were inspected and were reported upon by the Deputy Sanitary Commissioner:—

Municipalities.	*Rural areas.*
Conjeeveram.	Patapatnam.
Berhampur.	Sariapalli.
Chicacole.	Gurabunda.
Parlákimedi.	Mandusa.
Masulipatam.	Bápatla.
Kurnool.	Tsandaval.
Calicut.	Répalle.
Cochin.	Kodaikánal Union.
Palghat.	Kavali.
Coonoor.	Koppulu.
Mannárgudi.	Kotapatnam.
Máyavaram.	Kanuparti.
Ongole.	Tranquebar.
	Sattangudi.
	Veliapuliem.
	Periyár.
	Nellikottem.
	Mahadevapuram.
	Madukur.
	Vepenkulam.
	Authukottai.
	Patukotu.
	Mutupet.
	Tirutturaippúndi.

62. A total of 449 places were inspected by District Sanitary officers. Special parts of their reports were pressed on the attention of local authorities where it was found action was unduly delayed.

63. I should have accomplished the inspection of three more municipalities before the close of the year, but, with the approval of Government, I undertook a tour in the famine-stricken districts. Before the close of the year, I had inspected certain of the famine works in the Bellary and Ádóni taluks. From what I saw of the working of the Famine Code in these taluks and subsequently, I was enabled to advise Government to depart from the arrangements laid down in the Famine Code as to diet and other important particulars.

64. Towards the end of September, the fact that bubonic plague had appeared in Bombay induced me to issue circulars to all local authorities containing descriptions of the disease, stating the precautions and preventive measures to be taken, and asking that all persons should be warned of the risk they run in going to Bombay. Notices to the latter effect were also posted in all railway stations throughout the Presidency, with the consent of the Railway authorities. In consultation with the District Medical and Sanitary officers concerned, I instituted a system of inspection of passengers at Ádóni, Guntakal, Bezwada and Hospet. The names and addresses of all persons proceeding to Madras town were sent on by guards of trains to a Special Inspector of the Municipality of Madras which, in common with all mofussil municipalities, I advised to institute a system of inspection at railway stations followed by domicilliary visits for ten days of all arrivals from suspected or infected areas. All Port officers were warned by me, as, indeed, they had also been in July 1894, of the advance of plague, and they were exhorted to use their powers as to quarantine under G.O., No. 9, Marine, dated 17th January 1890. The necessity for prompt cleansing of municipal towns and the destruction of rubbish and packing materials from the houses of merchants dealing with Bombay was particularly impressed upon municipal councils. Government was advised to sanction a set of rules on the lines of those already in force for combating cholera with suitable alterations in respect to staff and methods. These rules received the approval of Government (G.O., No. 1985 M., dated 18th November 1896), so that should at any time plague appear, each municipality will know what staff and *matériel* to employ in proportion to its population and what action is requisite. These and other

fluctuation at chief points throughout the Presidency. The matter is still under consideration.

75. Surgeon-Major Mallins, who acted for Surgeon-Major W. B. Bannerman as Deputy Sanitary Commissioner and Inspector of Vaccination, vacated his post on the return of the incumbent in April. Surgeon-Major Bannerman devoted his furlough to study with the object of specially fitting himself for sanitary work, and took the B.Sc. in Public Health at Edinburgh. He has, since his return to office, exercised his functions with zeal and energy.

76. My manager and staff have executed the duties in face of increasing difficulties of slender numbers in relation to work demanded to the best of their ability.

77. The requirements of Government in G.O., No. 920, dated 18th September 1893, Financial, as to inspection of stock, have been duly effected. The service registers have been maintained up to date.

78. In concluding this report I have to state that, in accordance with my suggestion in paragraph 113 of my report for 1894, Government, in its order, dated 31st October 1895, No. 2085 L., Local and Municipal, was pleased to accept my recommendation that many of the forms and information supplied by my office at the request of various official authorities should no longer appear. I have further curtailed the body of the report in accordance with the desire of the Army Sanitary Commission by omitting any discussion as to disease causation or attempting to give more than the most casual allusion to results obtained from study of vital statistics, which are admittedly defective on account of existing modes of registration.

W. G. KING, M.B., C.M., D.P.H., Surgeon-Lt.-Col.,
Sanitary Commissioner for Madras.

FORT ST. GEORGE,
1st June 1897.

APPENDICES

TO

GENERAL SANITATION REPORT.

measures were ultimately reinforced and enlarged in scope by the direct action of Government armed with powers under the Epidemic Diseases Act of 1897.

65. Endeavours to control the sanitary care of festivals continue to be satisfactorily recognized by local officials concerned. The great festivals at Tiruvannámalai and Tirupati again passed off without being attended with outbreaks of cholera, all local authorities concerned co-operating cordially in effecting my recommendations. In the case of the latter, there was good reason to regard the arrangements as conducive to this result. A party of pilgrims arrived at Upper Tirupati from Mysore just before the festival, and were attacked with cholera. So far the circumstances of the cholera outbreak in 1893, and those of 1896 were the same; but, in the latter case, there was a sanitary staff already on the spot, in the former case, none had been appointed. Thus the Pushkaram tank—the medium of spread in 1893—escaped infection, as full precautions were at once taken by the staff.

66. Considerable time was consumed in correspondence with, and in personal visits to, Kumbakónam on the subject of the Mahamagam festival, where a collection of three to five lakhs of persons usually assemble. The Muncipal Council, which represents the most highly educated population of Southern India, proved most obstructive and dilatory in effecting recommendations, even where these were of the most obvious and simple character, and, as the sequel told, the festival found them in a state of unpreparedness that operated most adversely. I trust future legislation as to festivals will prevent important sanitary arrangements being subject to undefined standards evolved by local councils as to their necessity.

67. The movement as to obtaining correctly-instructed Sanitary Inspectors for local authorities inaugurated by Government under my advice in 1894 has progressed successfully. Fifty-two men gained the necessary certificates in 1896. Government has now made it compulsory that at least one trained man shall be entertained in each municipality, and has advised Councils to replace those now in employ by men of the certificated class. As an incentive to this end, men who have had less than five years' service are required to pass the qualifying examination or quit the service. Twenty-eight Councils now possess Certificated Sanitary Inspectors. Four are employed by District Boards, and provision has been made in the budget for 1897–98 for 5 more.

68. During the epidemic of cholera in the Bellary district, 14 Certificated Sanitary Inspectors were entertained by the District Board, although their services unfortunately were engaged late in the day. One was also employed by the District Board, Gódávari, during the outbreak of cholera following the Pushkaram festival.

69. Reports of their conduct and professional acquirements received from District Medical and Sanitary officers and from local authorities have been very satisfactory, although there have been a few notable exceptions.

70. By the end of December, 85 candidates had enrolled their names for the course of training in 1897. Of these, 61 were private students who paid for their course, 31 had passed the Madras University Matriculation examination, one was a B.A., four were F.As., two had undergone the full course for the L.M.&S. of the Madras University, and eight were qualified Hospital Assistants. Many of the matriculates held certificates of efficiency in Surveying, Construction, Estimating, Drawing and other engineering subjects. There is thus room to believe that, if further encouragement be given by local authorities and by Government, a well-educated class of men could be constantly secured as Sanitary Inspectors. It now remains to require that either additional subjects be uniformly passed before entrance to the Hygiene class is allowed, or that this course be prolonged, so as to include them.

71. Towards the end of the year, the constitution of the Sanitary Board underwent a change by removal of the Sanitary Commissioner and the Sanitary Engineer to Government from the Board, and according to them the position of advisers to the Sanitary Board. This step was apparently the outcome of endless differences of opinion that might naturally be expected to arise where two engineer members were associated with a single sanitarian. As the Sanitary Board will present its own report to Government, and is responsible for advising as to sanitary works,

I have not thought it necessary in the body of this report to enter into any details as to proposed improvements. Indeed, I could not do so, as of the ultimate opinion arrived at by the Sanitary Board on schemes presented to its scrutiny, I am under the present system kept in ignorance.

72. The question of the quantity of water, likely to be consumed by municipalities, is one open to doubt. There is no town in the Madras Presidency, that has been provided with a water-supply that does not adhere to the objectionable arrangement (but in some case an arrangement not to be avoided on account of the inadequacy or untrustworthiness of the supply) of maintaining the old sources of supply side by side with the new. The result is that any estimate of what would suffice for a native population founded upon existing sources of information derived from expenditure in public water-supplies, cannot be otherwise than misleading. For example, in Madras in a native house of a respectable, but not wealthy, class having a public water tap within 10 yards of it, the supply per head was found to be eleven gallons from a well in the premises, and 2·20 gallons from the public supply on observation carefully conducted and extending over a period of ten days: in another instance where only the public supply was used, the consumption was found to be 14·61 gallons per head—the experiment also extending over ten days. Again in such water works as have been formed in the mofussil, the works themselves do not offer the facilities, nor have the municipalities the apparatus, nor at present the wish to largely use the supply for municipal purposes. With the object of throwing some light on this important and strictly sanitary question, I circulated to District Sanitary officers forms asking for measurements of the water-supply of households for seven-day periods, under the superintendence of medical subordinates. For facilitating calculations an arithmetical table, and forms setting forth the various domestic purposes to which water is put, were supplied. Altogether, the results of 65 observations extending over the required period were received. The total average showed that the amount required for domestic consumption, under the ordinary conditions of native life was 16·9 gallons per head per day. This represented water drawn in all instances by manual labour and carried over varying distances, and it certainly would result, as experience elsewhere has shown, that when these difficulties were removed a large increase would be required. Taking, therefore, into consideration the amount necessary for municipal purposes and for 'unavoidable waste,' and excluding special demands for manufactures and fires, it is probable that 25 gallons would prove a fair supply, and 20 gallons a minimum safe supply for municipal towns. In my humble opinion, if water works in this Presidency are to be trustworthy factors in diminishing the death-rate, they must provide sufficient water for all domestic purposes, and not entail the occasional or habitual use of inferior sources they were intended to supplant. Mechanical arrangements must be provided in anticipation of the period when the advantages of free use for municipal purposes will be fully appreciated; and this may be expected to occur when the facilities offered by sewerage works will induce free consumption under this special head. For this reason, within reasonable limits as to economy, the smaller sizes of pipes should not be introduced into a system to an extent to prohibit the free use of hydrants. Whilst the liberal use of water means health to the individual in private life, it can only be by its equally liberal employment for municipal purposes that a correct sanitary condition re-acting upon the total community can be hoped for. In making these remarks, I, of course, assume, as above suggested, that increased use of water will coincide with provision in towns for its correct removal by sewerage works.

73. The bacteriological apparatus sanctioned by Government has not yet arrived for use of this office, but is expected shortly. Diagrams and other materials are also expected that will enable advice given to municipal councils to be illustrated during conferences with them before leaving towns that have been inspected.

74. In accordance with the orders of Government in reference to my suggestion conveyed in the report for 1894, I submitted to Government a simple and inexpensive instrument and a detailed scheme for measurement of sub-soil water

Places visited (not Municipalities).

By Sanitary Commissioner.

District.	Names of places.	Date of inspection.	Date of report.	G.O. on report.
Bellary ...	Hagari (a)	18th Feb. 1896 ...	24th Sept. 1896.	No. 2050-L., dated 2nd Nov. 1896.
	Humpi (b)	29th Mar. 1896.	.....	.....
	Bellary-Sirnuppa Road Works.	21st Dec. 1897 ...	.....	.....
	Kolar	22nd Dec. 1896 ...	.....	.....
	Mooka	21st Dec. 1896 ...	.....	.....
Gódávari ...	Dowlaishwaram *	27th Aug. 1896 ...	12th Oct. 1896.	No. 2103-L., dated 10th Nov. 1896.
Kurnool	Nandyal	2nd Jan. 1896 ...	15th May 1896.	No. 1266-L., dated 13th July 1896.
	Panium	4th and 5th Jan. 1896.		
	Dhone	16th Jan. 1896 ...		
	Dibegantla	10th Jan. 1896 ...		
	Kanalapulli	11th Jan. 1896 ...		
	Yallur	12th Jan. 1896 ...		
	Peddachintaguntu ...	13th Jan. 1896 ...		
	Alagudda	14th Jan. 1896 ...		
	Lingamthinna ...	14th Jan. 1896.		
	Pathakanthakur ...			
	Gotlur	15th Jan. 1896.		
	Rajoli			
Cuddapah ...	Duvour	10th Jan. 1896 ...	.....	.....
	Adinimayapalli ...	23rd Jan. 1896 ...	.....	.....
Madura ...	Kalligudu	31st July 1896 ...	.....	.....
Nilgiris ...	Mettupaliyam ...	23rd June 1896...	2nd July 1896.	.....
North Arcot ...	Upper Tirupati (c)	18th Sept. 1896 ...	.....	.....
	Vriddhachalam ...	7th and 8th Oct. 1896.	.....	.....
	Pudupett			
South Arcot ...	Kundyamkuppam ...	4th Oct. 1896 ...	2nd April 1897.	.....
	Bhuvanaghiri ...			
	Ammapet	10th and 11th Oct. 1896.		
	Ossepúr			

By Deputy Sanitary Commissioner.

District.	Names of places.	Date of inspection.	Date of report.	G.O. on report.
Ganjám ...	Patapatram	.....	.....	.....
	Sariápalli	3rd Nov. 1896 ...	14th Dec. 1896.	No. 142-L., dated 21st Jan. 1897.
	Gurabanda	2nd Nov. 1896 ...		
	Manduza	4th Nov. 1896 ...		
Kistna ...	Bapatla	17th Dec. 1896 ...	30th Jan. 1897.	No. 385-L., dated 23rd Feb. 1897.
	Tsandaval	18th Dec. 1896 ...		
	Repalli	19th Dec. 1896 ...		
Madura ...	Kodaikanal union ...	8th Oct. 1896 ...	.....	.....
Nellore ...	Kavali	7th Dec. 1896 ...	19th Jan. 1896.	No. 399-L., dated 24th Feb. 1897.
	Koppuia	12th Dec 1896 ...		
	Kotapatnam	12th Dec. 1896 ...		
	Kanuparti	14th Dec. 1896 ...		
Tanjore ...	Tranquebar	23rd Aug. 1896 ...	16th Sept. 1896.	No. 1907-L., dated 14th Oct. 1896.
	Sattanqndi	24th Aug. 1896 ...		
	Veliapoliem	.....		
	Peryar	.....		
	Nellikottem	28th Aug. 1896 ...		
	Mahadevapuram ...	29th Aug. 1896 ...		
	Madukur	.....		
	Vepemkalem	.....		
	Anthukottai	.....		
	Patikotu	31th Aug. 1896 ...		
	Matupet	1st and 2nd Sept. 1896.		
	Tirutturaipúndi ...	3rd Sept. 1896 ...		

* Re Pushkaram.
(a) To examine site of Bellary water-supply scheme.
(b) To inspect festival arrangements.
(c) Brahmotchavam festival arrangements on Tirumalai.

APPENDIX B.

Statement showing the Number of Towns and Villages inspected by the District Medical and Sanitary Officers during the year 1896.

Districts.	Number of towns and villages inspected and reports received.	Number of towns and villages inspected, but no reports received.	Total number of towns and villages inspected.	Remarks.
Anantapur	11	...	11	
Bellary	9	11	20	
Chingleput	11	13	24	
Coimbatore	11	6	17	
Cuddapah	18	13	31	
Ganjám	2	2	4	
Gódávari	12	21	33	
Kistna	...	24	24	
Kurnool	20	12	32	
Madura	26	...	26	
Malabar	10	...	10	
Nellore	25	...	25	
Nilgiris	13	...	13	
North Arcot	21	2	23	
Salem	19	10	29	
South Arcot	11	12	23	
South Canara	2	4	6	
Tanjore	17	8	25	
Tinnevelly	29	...	29	
Trichinopoly	14	12	26	
Vizagapatam	3	15	18	
Total ...	284	165	449	

APPENDIX C.

Statement showing Statistics of Sickness and Mortality in the Lawrence Asylum, Ootacamund, during the year 1896, *as required in G.O., No.* 2100 *L., dated* 4*th November* 1896.

—	Average strength.		Total number of admissions to hospital.		Number of deaths.		Rate of sickness (per 100 of population).		Death-rate (per 100).	
	1895.	1896.	1895.	1896.	1895.	1896.	1895.	1896.	1895.	1896.
Lawrence Asylum ...	395	395	239	346	...	2	60·5	87·6	...	0·5

APPENDIX A.

Tables showing places visited by Sanitary Commissioner and Deputy Sanitary Commissioner during 1896.

MUNICIPAL TOWNS INSPECTED BY

Sanitary Commissioner.					Deputy Sanitary Commissioner.				
District.	Municipalities.	Date of inspection.	Date of report.	G.O. on report.	District.	Municipalities.	Date of inspection.	Date of report.	G.O. on report.
Bellary ...	Ádóni	8th and 9th Apl. 1896.	4th July 1896.	No. 1769-M., dated 17th Oct. 1896.	Chingleput ...	Conjeeveram ...	1st to 3rd July 1895.	15th Aug. 1896.	No. 1770-M., dated 17th Oct. 1896.
Coimbatore ...	Karúr	5th to 8th Aug. 1896.	No. 1296-S., dated 15th Sept. 1896.	No. 2036-M., dated 27th Nov. 1896.	Ganjám ...	Berhampur ...	7th and 8th Nov. 1896.	.....	.....
Gódávari	Cocanada ...	2nd to 7th Sept. 1896.	7th Nov. 1896.	No. 289-M., dated 25th Feb. 1897.		Chicacole ...	26th and 27th Oct. 1896.	27th Jan. 1897.	No. 996-M., dated 27th April 1897.
	Ellore	9th to 12th Sept. 1896.	19th Dec. 1896.	.....		Parlákimedi ...	29th and 30th Oct. 1896.	.....	.....
	Rajahmundry ...	24th to 30th Aug. 1896.	12th Nov. 1896.	No. 860-M., dated 10th April 1897.	Kistna	Masulipatam ...	21st and 22nd Dec. 1896.	.....	.....
Madura ...	Madura ...	27th to 30th July 1896 and 1st to 4th Aug. 1896 ...	25th Sept. 1896.	No. 87-M., dated 25th Jan. 1896.	Kurnool ...	Kurnool	30th and 31st July and 18th Aug. 1896.	6th Sept. 1896.	No. 2011-M., dated 20th Nov. 1896.
Nilgiris ...	Ootacamund ...	11th to 19th June 1896.	2nd Sept. 1896.	No. 2021-M., dated 23rd Nov. 1896.	Malabar ...	Calicut	16th to 21st Sept. 1896.	22nd Nov. 1896.	.....
North Arcot ...	Gudiyáttam ...	11th to 13th Nov. 1896.	19th Dec. 1896.	No. 901-M., dated 13th April 1897.		Cochin	24th and 25th Sept. 1896.	.....	.....
Salem	Tiruppattúr ...	8th to 10th Nov. 1896.	19th Dec. 1896.	No. 754-M., dated 31st Mar. 1897.		Palghat	28th to 30th Sept 1896.	15th Jan. 1897.	No. 903-M., dated 13th April 1897.
	Vániyambádi ...	4th to 6th Nov. 1896.	18th Dec. 1896.	No. 755-M., dated 31st Mar. 1897.	Nellore ...	Ongole	10th and 11th Dec 1896.	2nd Mar. 1897.	.....
South Arcot ...	Chidambaram ...	29th and 30th Sept. 1896.	20th Nov. 1896.	.....	Nilgiri	Coonoor	1st to 5th June 1895.	15th July 1896.	No. 1771-M., dated 17th Oct. 1896.
					Tanjore ...	Mannárgudi ...	26th to 28th Aug. 1896.	22nd Oct. 1896.	No. 562-M., dated 16th Mar. 1897.
						Máyavaram ...	20th and 21st Aug. 1896.	9th Oct. 1896.	No. 480-M., dated 11th Mar. 1897.

Tables showing places visited by Sanitary Commissioner and Deputy Sanitary Commissioner during 1896—cont.

MUNICIPAL TOWNS INSPECTED BY

Sanitary Commissioner.					Deputy Sanitary Commissioner.				
District.	Municipalities.	Date of inspection.	Date of report.	G.O. on report.	District.	Municipalities.	Date of inspection.	Date of report.	G.O. on report.
Anantapur ...	Anantapur (a) ...	No. 1987-S., dated 20th Sept. 1897.	24th Oct. 1896.	.....					
Bellary ...	Ádóni (b) ...	27th to 31st Dec. 1896.	.....	.....					
	Bellary * ...	9th to 17th February 1896.	.....	.....					
	Bellary (c) ...	26th to 28th May 1896.	.....	.....					
	Bellary (b) ...	23rd to 25th Dec. 1896.	21st Sept. 1896.	No. 1736-M. Mis., dated 12th Oct. 1896.					
	Cuddapah ...	25th Jan. 1896 ...	19th Feb. 1896.	No. 394-M. Mis., dated 9th Mar. 1896.					
	Ellore (d) ...	5th and 6th Feb. 1896.	.....	.....					
Coimbatore ...	Erode (e) ...	24th June 1896 ...	4th July 1896.	No. 1378-M. Mis., 17th Aug. 1896.					
Nilgiris ...	Ootacamund (f) ...	10th to 12th July 1896.	.....	.....					
North Arcot ...	Tirupati (g) ...	17th Sept. 1896 ...	.....	.....					
South Arcot ...	Tiruvannamali (h)	18th to 21st Nov. 1896.	21st Feb. 1896.	No. 563-M., dated 16th March 1897.					
Tanjore ...	Kumbakónam (i).	2nd to 6th July 1896.	No. 6-T., 13th July 1896.	No. 1312-M. Mis., 7th Aug. 1896.					
		23rd to 27th Nov. 1896 and 15th Dec. 1896.	.....	.....					

(a) Special tour to inspect the tank in Anantapur town.
(b) Inspection of places affected by famine.
(c) Special tour in connection with cholera prevalence.
(d) As a member of the committee to discuss the question of removal of boat wharf.
(e) Special tour to inspect the land adjoining the chief drinking-water ghat in Erode town.
(f) *Re* Kumbakónam water-supply scheme.
(g) (h) (i) In connection with Brahmautchavam, Karthigai and Mahamagum festivals, respectively.

* Inspection of the area involved in Copper mountain scheme.

APPENDIX D.

VITAL STATISTICS OF THE GENERAL POPULATION.

No. 1.—*Showing the Births registered in the districts of the Madras Presidency during the year* 1896.

1	2			3	4			5			6			7	8	9	10		
Number.	Population (exclusive of Europeans and Eurasians) as per census of 1891.			Districts and Towns and Rural Circles.	Population (exclusive of Europeans and Eurasians) for which returns were received.			Number of births registered (exclusive of Europeans and Eurasians and still-births).			Ratio of births per 1,000 of population.			Number of males born to every 100 females born.	Excess of births over deaths per 1,000 of population.	Excess of deaths over births per 1,000 of population.	Mean ratio of births per 1,000 during previous five years.		
	Males.	Females.	Total.		Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.				Males.	Females.	Total
				ANANTAPUR.															
1	3,473	3,500	6,973	Anantapur ... ... M.T.C.	3,473	3,500	6,973	135	134	269	19·4	19·2	38·6	100·7	11·4	...	16·6	14·5	31·1
2	5,125	5,150	10,275	Tadpatri ... ... T.C.	5,125	5,150	10,275	116	115	231	11·3	11·2	22·5	100·9	5·4	...	9·4	8·8	18·2
3	51,030	46,451	97,481	Anantapur ... ... R.C.	51,030	46,451	97,481	1,524	1,524	3,048	15·6	15·6	31·2	100·0	6·9	...	13·9	13·5	27·4
4	72,693	69,884	142,577	Gooty ... ... R.C.	72,693	69,884	142,577	2,281	2,249	4,530	15·9	15·8	31·7	101·4	11·2	...	15·2	14·9	30·1
5	51,976	50,397	102,373	Tadpatri ... ... R.C.	51,976	50,397	102,373	1,503	1,413	2,916	14·6	13·8	28·4	106·3	5·6	...	14·0	13·3	27·3
6	41,447	39,653	81,100	Penukonda ... ... R.C.	41,447	39,653	81,100	1,216	1,175	2,391	14·9	14·5	29·4	103·4	12·8	...	14·9	14·6	29·5
7	34,204	31,909	66,113	Dharmavaram ... ... R.C.	34,204	31,909	66,113	903	950	1,853	13·6	14·4	28·0	95·0	7·1	...	23·7	23·7	47·4
8	40,903	39,940	80,843	Hindúpur ... ... R.C.	40,903	39,940	80,843	1,079	1,060	2,139	13·3	13·1	26·4	101·7	10·8	...	14·2	13·6	27·8
9	34,231	33,761	67,992	Madakasíra ... ... R.C.	34,231	33,761	67,992	889	891	1,780	13·0	13·1	26·1	99·7	13·4	...	13·8	12·8	26·6
10	36,952	34,640	71,592	Kalyandrug ... ... R.C.	36,952	34,640	71,592	997	1,010	2,007	13·9	14·1	28·0	98·7	10·9	...	...	...	...
10	372,034	355,285	727,319	Total, District ...	372,034	355,285	727,319	10,643	10,521	21,164	14·6	14·5	29·1	101·1	9·7	...	14·1	13·6	27·7
				BELLARY.															
11	29,130	28,650	57,780	Bellary ... ... M.T.C.	29,130	28,650	57,780	967	948	1,915	16·7	16·4	33·1	102·0	6·0	...	16·1	16·0	32·1
12	13,231	12,985	26,216	Ádóni ... ... M.T.C.	13,231	12,985	26,216	585	572	1,157	22·3	21·8	44·1	102·3	18·7	...	18·1	16·9	35·0
13	6,263	6,606	12,869	Hospet ... ... T.C.	6,263	6,606	12,869	164	187	351	12·7	14·5	27·2	87·7	9·8	...	14·1	12·0	26·1
14	5,406	5,122	10,528	Kampli ... ... T.C.	5,406	5,122	10,528	169	167	336	16·0	15·9	31·9	101·2	5·9	...	14·8	15·7	30·5
15	5,209	5,169	10,378	Rayadrug ... ... T.C.	5,209	5,169	10,378	167	187	354	16·1	18·0	34·1	89·3	16·1	...	17·3	17·2	34·5
16	61,444	59,356	120,800	Bellary ... ... R.C.	61,444	59,356	120,800	2,288	2,245	4,533	18·9	18·6	37·5	101·9	12·5	...	19·6	18·8	38·4
17	35,231	33,872	69,103	Hospet ... ... R.C.	35,231	33,872	69,103	1,101	1,068	2,169	15·9	15·4	31·3	103·1	3·9	...	16·3	15·8	32·1
18	47,281	47,014	94,295	Kúdligi ... ... R.C.	47,281	47,014	94,295	1,401	1,323	2,724	14·5	14·0	28·8	105·8	8·7	...	14·7	14·3	29·0
19	54,811	49,224	104,035	Hadagalli ... ... R.C.	54,811	49,224	104,035	1,537	1,482	3,019	14·8	14·2	29·0	103·7	9·5	...	13·9	13·7	27·6
20	41,370	40,870	82,240	Harpanahalli ... ... R.C.	41,370	40,870	82,240	1,526	1,555	3,081	18·5	18·9	37·4	98·1	16·2	...	17·5	16·6	34·1
21	44,685	43,391	88,076	Alúr ... ... R.C.	44,685	43,391	88,076	1,679	1,645	3,324	19·0	18·7	37·7	102·1	5·6	...	19·6	19·7	38·7
22	68,982	65,569	134,551	Ádóni ... ... R.C.	68,982	65,569	134,551	2,591	2,437	5,028	19·2	18·1	37·3	106·3	11·3	...	18·6	17·9	36·5
23	34,782	33,461	68,243	Rayadrug ... ... R.C.	34,782	33,461	68,248	1,090	1,082	2,172	15·9	15·9	31·8	100·7	7·1	...	20·8	20·6	41·4
24	5,712	5,659	11,371	Zemindari	5,712	5,659	11,371	204	221	425	17·9	19·4	37·3	92·3	9·9	...	16·3	15·1	31·4
14	453,537	436,948	890,485	Total, District ...	453,537	436,948	890,485	15,469	15,119	30,588	17·3	17·0	34·3	100·2	9·8	...	17·4	16·8	34·2
				CHINGLEPUT.															
25	20,611	21,932	42,543	Conjeeveram ... ... M.T.C.	20,611	21,932	42,543	863	847	1,710	20·3	19·9	40·2	101·9	6·9	...	18·7	18·2	36·9
26	5,781	6,359	12,140	St. Thomas' Mount ... T.C.	5,781	6,359	12,140	239	216	455	19·7	17·8	37·5	110·6	10·7	...	3·9	3·8	7·7
27	105,580	103,897	209,477	Saidapet ... ... R.C.	105,580	103,897	209,477	4,271	4,016	8,287	20·4	19·2	39·6	106·3	14·0	...	15·4	15·0	30·4
28	69,175	68,001	137,176	Chingleput* ... ... R.C.	69,175	68,001	137,176	3,002	2,838	5,840	21·9	20·6	42·5	105·8	19·0	...	18·7	18·3	37·0
29	132,734	130,396	263,130	Madurántakam ... R.C.	132,734	130,396	263,130	5,393	5,254	10,647	20·5	19·9	40·4	102·6	19·2	...	17·4	16·7	34·1
30	87,931	88,190	176,121	Conjeeveram ... ... R.C.	87,931	88,190	176,121	3,692	3,548	7,240	21·0	20·1	41·1	104·0	17·2	...	18·2	17·4	35·6
31	120,783	116,133	236,916	Tiruvallúr ... ... R.C.	120,783	116,133	236,916	4,449	4,366	8,815	18·8	18·4	37·2	101·9	15·0	...	14·4	13·8	28·2
32	62,221	60,177	122,398	Ponnéri ... ... R.C.	62,221	60,177	122,398	2,221	2,133	4,354	18·1	17·4	35·5	104·1	9·9	...	16·0	15·3	31·3
8	604,816	595,085	1,199,901	Total, District ...	604,816	595,085	1,199,901	24,130	23,218	47,348	20·1	19·4	39·5	103·9	15·7	...	16·5	15·9	32·4
				COIMBATORE.															
33	22,079	23,928	46,007	Coimbatore ... ... M.T.C.	22,079	23,928	46,007	957	894	1,851	20·8	19·4	40·2	107·0	1·4	...	18·3	18·3	36·6
34	6,074	6,164	12,238	Erode ... ... M.T.C.	6,074	6,164	12,238	276	237	513	22·5	19·4	41·9	116·4	12·9	...	15·5	15·8	31·3
35	5,157	5,583	10,740	Karúr ... ... M.T.C.	5,157	5,583	10,740	213	187	400	19·8	17·4	37·2	113·9	...	3·9	19·6	17·8	37·4
36	127,828	132,593	260,421	Coimbatore ... ... R.C.	127,828	132,593	260,421	3,875	3,885	7,760	14·9	14·9	29·8	99·8	...	3·5	15·2	14·2	29·4
37	116,150	118,527	234,677	Erode ... ... R.C.	116,150	118,527	234,677	3,024	2,844	5,868	12·8	12·1	24·9	106·3	6·2	...	13·5	13·1	26·6
38	90,279	93,809	184,088	Satyamangalam ... R.C.	90,279	93,809	184,088	2,819	2,599	5,418	15·3	14·1	29·4	108·4	6·2	...	15·4	14·7	30·1
39	89,249	94,401	183,650	Pollachi ... ... R.C.	89,249	94,401	183,650	2,685	2,421	5,106	14·7	13·1	27·8	110·9	...	3·9	14·1	13·8	27·9
40	132,332	138,052	270,384	Palladam ... ... R.C.	132,332	138,052	270,384	4,012	3,940	7,952	14·8	14·6	29·4	101·8	7·1	...	15·4	14·9	30·3
41	59,032	60,835	119,867	Bhaváni ... ... R.C.	59,032	60,835	119,867	1,629	1,556	3,185	13·6	12·9	26·5	104·7	8·2	...	13·1	12·6	25·7
42	43,575	44,949	88,524	Kollegal ... ... R.C.	43,575	44,949	88,524	1,327	1,259	2,586	15·0	14·2	29·2	105·4	10·8	...	14·7	14·3	29·0
43	69,346	73,710	143,056	Udamalpet ... ... R.C.	69,346	73,710	143,056	2,174	1,979	4,153	15·2	13·9	29·1	109·8	7·9	...	14·5	14·1	28·6
44	97,405	103,638	201,043	Karúr ... ... R.C.	97,405	103,638	201,043	2,276	2,204	4,480	11·3	10·9	22·2	103·2	0·4	...	12·2	11·9	24·1
45	122,727	126,489	249,216	Dhárápuram ... ... R.C.	122,727	126,489	249,216	3,348	3,088	6,436	13·4	12·3	25·7	108·4	4·1	...	13·2	12·6	25·8
13	981,233	1,022,678	2,003,911	Total, District ...	981,233	1,022,678	2,003,911	28,615	27,093	55,708	14·3	13·5	27·8	105·4	3·6	...	14·3	13·8	28·1
				CUDDAPAH.															
46	8,597	8,614	17,211	Cuddapah ... ... M.T.C.	8,597	8,614	17,211	215	209	424	12·5	12·1	24·6	102·9	2·7	...	11·5	10·2	21·7
47	46,792	46,358	93,150	Badvel ... ... R.C.	46,792	46,358	93,150	1,506	1,431	2,937	16·2	15·3	31·5	105·2	13·1	...	14·4	14·5	28·9
48	49,572	48,845	98,417	Proddatur ... ... R.C.	49,572	48,845	98,417	1,437	1,387	2,824	14·6	14·1	28·7	103·6	8·4	...	13·4	13·1	26·6
49	33,680	33,129	66,809	Siddhavattam ... ... R.C.	33,680	33,129	66,809	982	974	1,956	14·6	14·6	29·2	100·8	8·8	...	13·5	12·9	26·4
50	75,597	73,496	149,093	Pullampet ... ... R.C.	75,597	73,496	149,093	2,026	1,948	3,974	13·5	13·1	26·6	104·0	7·5	...	11·3	11·1	22·4
51	69,744	67,711	137,455	Cuddapah ... ... R.C.	69,744	67,711	137,455	2,057	1,802	3,859	15·0	13·1	28·2	114·1	8·9	...	12·6	12·0	24·6
52	51,393	49,880	101,273	Jammalamadugu ... R.C.	51,393	49,880	101,273	1,845	1,736	3,581	18·2	17·2	35·4	106·2	12·1	...	15·9	15·2	31·1
53	53,808	52,034	105,842	Pulivendla ... ... R.C.	53,808	52,034	105,842	1,522	1,535	3,057	14·3	14·5	28·8	99·1	4·4	...	14·5	13·9	28·4
54	57,770	55,464	113,234	Ráyachóti ... ... R.C.	57,770	55,464	113,234	1,654	1,528	3,182	14·7	13·4	28·1	108·2	11·0	...	11·0	10·7	21·7
55	69,718	65,174	134,892	Kadiri ... ... R.C.	69,718	65,174	134,892	2,176	2,147	4,323	16·1	15·9	32·0	101·3	12·2	...	13·7	13·2	26·9
56	64,247	62,788	127,035	Vayalpad ... ... R.C.	64,247	62,788	127,035	1,818	1,771	3,589	14·3	13·9	28·2	102·6	12·3	...	10·1	10·2	20·3
57	65,214	62,096	127,310	Madanapalle ... ... R.C.	65,214	62,096	127,310	2,334	2,306	4,640	18·4	18·1	36·5	101·2	18·8	...	13·9	13·8	27·7
12	646,132	625,589	1,271,721	Total, District ...	646,132	625,589	1,271,721	19,572	18,774	38,346	15·4	14·7	30·1	104·2	10·6	...	13·0	12·6	25·6
				GANJÁM.															
58	8,451	9,753	18,204	Chicacole ... ... M.T.C.	8,451	9,753	18,204	198	187	385	10·9	10·2	21·1	105·9	...	2·0	12·5	11·6	24·1
59	12,292	13,201	25,493	Berhampur ... ... M.T.C.	12,292	13,201	25,493	242	225	467	9·5	8·8	18·3	107·5	...	15·6	14·1	14·1	28·2

* As Chingleput was constituted a municipality in the latter part of the year, the particulars of births and deaths of the area are not available for the full year. Hence the statistics for the town are included in the Chingleput taluk as hitherto.

No. I.—*Showing the Births registered in the districts of the Madras Presidency during the year* 1896—cont.

1	2			3		4			5			6			7	8	9	10		
Number.	Population (exclusive of Europeans and Eurasians) as per census of 1891.			Districts and Towns and Rural Circles.		Population (exclusive of Europeans and Eurasians) for which returns were received.			Number of births registered (exclusive of Europeans and Eurasians and still-births).			Ratio of births per 1,000 of population.			Number of males born to every 100 females born.	Excess of births over deaths per 1,000 of population.	Excess of deaths over births per 1,000 of population.	Mean ratio of births per 1,000 during previous five years.		
	Males.	Females.	Total.			Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.				Males.	Females.	Total.
				GANJÁM—*cont.*																
60	7,717	8,662	16,379	Parlákimedi	M.T.C.	7,717	8,662	16,379	304	294	598	18·6	17·9	36·5	103·4	16·5	...	17·1	17·6	34·7
61	92,940	101,390	194,330	Chicacole	R.C.	[illegible],346	88,547	168,893	2,525	2,267	4,792	14·9	13·4	28·3	111·3	2·3	...	13·3	12·5	25·8
62	141,825	155,911	297,736	Berhampur	R.C.	117,936	129,671	247,607	3,750	3,569	7,319	15·1	14·4	29·5	105·1	7·6	...	12·6	11·8	24·4
63	89,283	96,548	185,831	Goomsur	R.C.	79,943	85,895	165,838	2,104	2,108	4,212	12·6	12·7	25·3	99·8	8·2	...	11·9	11·3	23·2
64	411,664	439,445	851,109	Zamíndaries	...	270,067	289,542	559,609	7,709	7,098	14,807	13·7	12·7	26·4	108·6	7·1	...	9·6	8·9	18·5
65	158,828	148,490	307,318	Agency Tracts	...	17,345	16,729	34,074	195	173	368	5·7	5·1	10·8	112·7	...	0·5	0·8	0·8	1·6
8	923,000	973,400	1,896,400	Total, District ...		594,097	642,000	1,236,097	17,027	15,921	32,948	13·8	12·8	26·6	106·9	6·0	...	9·8	8·8	18·2
				GÓDÁVARI.																
66	20,066	20,002	40,068	Cocanada	M.T.C.	20,066	20,002	40,068	484	528	1,012	12·1	13·1	25·2	91·7	6·4	...	11·7	11·8	23·5
67	13,869	14,410	28,279	Rajahmundry	M.T.C.	13,869	14,410	28,279	547	444	991	19·3	15·7	35·0	123·2	2·3	...	17·0	15·0	32·0
68	14,242	15,054	29,296	Ellore	M.T.C.	14,242	15,054	29,296	311	286	597	10·6	9·8	20·4	108·7	3·9	...	13·1	12·4	25·5
69	6,807	6,924	13,731	Pithápuram	T.C.	6,807	6,924	13,731	90	65	155	6·6	4·7	11·3	138·5	...	1·3	5·3	4·5	9·8
70	6,619	7,033	13,652	Peddápuram	T.C.	6,619	7,033	13,652	206	222	428	15·0	16·3	31·3	92·8	5·3	...	16·0	16·3	32·3
71	6,407	7,002	13,409	Samalkot	T.C.	6,407	7,002	13,409	63	70	133	4·7	5·2	9·9	90·0	3·3	...	6·0	6·0	12·0
72	4,818	5,636	10,454	Dowlaishweram ...	T.C.	4,818	5,636	10,454	143	185	328	13·7	17·7	31·4	77·3	8·9	...	17·5	15·6	33·1
73	129,355	131,828	261,183	Rámachandrapuram ...	R.C.	129,355	131,828	261,183	3,763	3,373	7,136	14·4	12·9	27·3	111·5	8·0	...	12·1	11·6	23·7
74	110,178	120,137	230,315	Narsapur	R.C.	110,178	120,137	230,315	3,041	2,739	5,780	13·2	11·8	25·0	111·0	11·1	...	8·5	8·3	16·8
75	125,189	130,883	256,072	Amaláapuram	R.C.	125,189	130,883	256,072	3,035	2,859	5,894	11·8	11·2	23·0	106·1	9·7	...	9·4	9·0	18·4
76	99,535	104,505	204,040	Tanuku	R.C.	99,535	104,505	204,040	3,179	2,921	6,100	15·6	14·3	29·9	108·8	12·1	...	12·3	11·8	24·1
77	59,624	62,366	121,990	Bhimavaram	R.C.	59,624	62,366	121,990	1,556	1,404	2,960	12·7	11·5	24·2	110·8	10·2	...	10·9	10·7	21·6
78	73,008	69,577	142,585	Ellore	R.C.	73,008	69,577	142,585	1,540	1,391	2,931	10·8	9·7	20·5	110·7	6·1	...	11·2	11·0	22·2
79	68,355	67,849	136,204	Yernagúdem	R.C.	68,355	67,849	136,204	1,767	1,681	3,448	13·0	12·3	25·3	105·1	9·2	...	12·8	12·6	25·4
80	53,693	53,173	106,866	Rajahmundry	R.C.	53,693	53,173	106,866	1,280	1,252	2,532	11·9	11·7	23·6	102·2	4·7	...	13·5	13·1	26·6
81	61,654	62,374	124,028	Peddápuram	R.C.	61,654	62,374	124,028	2,235	2,131	4,366	18·0	17·2	35·2	104·8	10·4	...	15·5	15·2	30·7
82	64,762	62,352	127,114	Bhadráchalam	R.C.	64,762	62,552	127,114	2,217	2,148	4,365	17·4	16·9	34·3	103·2	8·3	...	9·0	8·7	17·7
83	108,451	110,121	218,572	Zamíndaries	...	108,451	110,121	218,572	2,230	2,172	4,402	10·2	9·9	20·1	102·6	7·0		12·0	11·9	23·9
18	1,026,632	1,051,226	2,077,858	Total, District ...		1,026,632	1,051,226	2,077,858	27,687	25,871	53,558	13·3	12·5	25·8	107·0	8·7	...	11·4	11·0	22·4
				KISTNA.																
84	18,539	20,128	38,667	Masulipatam	M.T.C.	18,539	20,128	38,667	630	568	1,198	16·3	14·7	31·0	110·9	7·2	...	14·9	13·7	28·6
85	11,705	11,562	23,267	Gúdur	M.T.C.	11,705	11,562	23,267	500	469	969	21·5	20·1	41·6	106·6	5·3	...	17·1	16·2	33·3
86	11,330	9,281	20,611	Bezwada	M.T.C.	11,330	9,281	20,611	289	336	625	14·0	16·3	30·3	86·0	0·9	...	15·7	14·8	30·5
87	5,241	5,340	10,581	Chirála	T.C.	5,241	5,340	10,581	236	203	439	22·3	19·2	41·5	116·2	15·6	...	16·3	13·4	29·7
88	113,038	109,718	222,756	Répalle	R.C.	113,038	109,718	222,756	4,231	3,923	8,154	18·5	13·1	31·6	107·8	11·3	...	16·6	16·2	32·8
89	87,104	84,241	171,345	Bápatla	R.C.	87,104	84,241	171,345	3,291	3,155	6,446	13·4	12·5	25·9	104·3	4·7	...	16·0	15·4	31·4
90	73,383	69,984	143,367	Guntúr	R.C.	73,383	69,984	143,367	2,714	2,563	5,277	14·2	12·5	26·7	105·8	5·5	...	18·4	17·8	36·2
91	70,191	71,814	142,005	Palnad	R.C.	70,191	71,814	142,005	2,733	2,525	5,258	19·3	17·7	37·0	108·2	17·0	...	16·5	16·3	32·8
92	78,910	77,454	156,364	Narasaraopet	R.C.	78,910	77,454	156,364	2,413	2,299	4,712	15·4	14·7	30·1	104·9	13·9	...	14·4	13·9	28·3
93	60,088	58,220	118,308	Gudiváda	R.C.	60,088	58,220	118,308	1,900	1,788	3,688	16·1	15·0	31·1	106·2	13·3	...	16·5	15·9	32·4
94	70,034	68,577	138,611	Sattenapalle	R.C.	70,034	68,577	138,611	2,625	2,480	5,105	19·3	17·5	36·8	105·8	17·5	...	18·8	18·0	36·8
95	80,234	79,313	159,547	Masulipatam	R.C.	80,234	79,313	159,547	2,269	2,215	4,484	14·2	13·7	27·9	102·4	10·8	...	13·1	12·8	25·9
96	63,376	63,322	126,698	Nandigáma	R.C.	63,376	63,322	126,698	2,416	2,416	4,832	19·1	19·1	38·2	100·0	16·2	...	18·7	18·0	36·7
97	43,318	42,413	85,731	Bezwada	R.C.	43,318	42,413	85,731	1,581	1,471	3,052	18·1	17·5	35·6	107·4	15·2	...	16·5	16·1	32·6
98	41,760	40,671	82,431	Vinukonda	R.C.	41,760	40,671	82,431	1,370	1,298	2,668	16·6	15·7	32·3	105·5	15·4	...	16·8	16·1	32·9
99	109,806	104,929	214,735	Zamíndaries	...	109,806	104,929	214,735	3,107	2,906	6,013	14·4	13·6	28·0	106·9	13·6	...	11·7	11·4	23·1
16	938,057	916,967	1,855,024	Total, District ...		938,057	916,967	1,855,024	32,305	30,615	62,920	17·4	16·5	33·9	105·5	14·6	...	15·8	15·4	31·2
				KURNOOL.																
100	11,631	12,675	24,306	Kurnool	M.T.C.	11,631	12,675	24,306	375	369	744	15·4	15·2	30·6	101·6	0·1	...	15·2	15·9	31·1
101	5,330	5,374	10,704	Nandyal	T.C.	5,330	5,374	10,704	64	68	132	6·0	6·3	12·3	94·1	...	2·9	6·0	5·7	11·7
102	51,862	48,728	100,590	Ramallakot	R.C.	51,862	48,728	100,590	1,837	1,753	3,590	18·2	17·4	35·6	104·7	14·6	...	18·2	18·0	36·2
103	71,576	67,127	138,703	Pattikonda	R.C.	71,576	67,127	138,703	2,309	2,240	4,549	16·7	16·1	32·8	103·0	6·5	...	16·4	16·4	32·8
104	44,786	43,773	88,559	Nandikotkur	R.C.	44,786	43,773	88,559	1,632	1,515	3,147	18·4	17·1	35·5	107·7	8·7	...	18·3	17·8	36·1
105	43,307	42,235	85,542	Nandyal	R.C.	43,307	42,235	85,542	1,315	1,274	2,589	15·3	14·8	30·1	103·2	2·1	...	15·8	15·1	30·9
106	43,710	42,833	86,543	Koilkuntla	R.C.	43,710	42,833	86,543	1,242	1,203	2,445	14·3	14·0	28·3	103·2	3·5	...	15·9	15·7	31·6
107	32,915	32,249	65,164	Sirvel	R.C.	32,915	32,249	65,164	1,047	910	1,957	16·0	14·0	30·0	115·0	2·6	...	16·4	16·2	32·6
108	58,632	58,946	117,578	Cumbum	R.C.	58,632	58,946	117,578	1,541	1,461	3,002	13·1	12·4	25·5	105·4	10·9	...	12·2	12·1	24·3
109	50,286	49,685	99,971	Markapur	R.C.	50,286	49,685	99,971	1,617	1,540	3,157	16·1	15·4	31·5	105·0	13·7	...	14·9	14·5	29·4
10	414,035	403,625	817,660	Total, District ...		414,035	403,625	817,660	12,979	12,333	25,312	15·9	15·0	30·9	105·2	7·8	...	15·7	15·5	31·2
				MADRAS.																
110	217,690	218,685	436,375	Madras	M.T.C.	217,690	218,685	436,375	9,255	8,839	18,094	21·2	20·3	41·5	104·7	3·3	...	20·2	19·3	39·5
				MADURA.																
111	43,707	43,414	87,121	Madura	M.T.C.	43,707	43,414	87,121	1,430	1,361	2,791	16·4	15·6	32·0	105·0	8·8	...	16·0	16·3	32·3
112	9,984	10,131	20,115	Dindigul	M.T.C.	9,984	10,131	20,115	436	397	833	21·7	19·7	41·4	109·8	18·3	...	22·7	20·2	42·9
113	7,718	8,645	16,363	Periyakulam	M.T.C.	7,718	8,645	16,363	385	367	752	23·5	22·4	45·9	104·9	12·8	...	19·4	18·4	37·8
114	8,080	8,860	16,940	Palni	M.T.C.	8,080	8,860	16,940	257	219	476	15·2	12·9	28·1	117·3	3·3	...	17·7	18·4	36·1
115	6,414	7,175	13,589	Ramnad	T.C.	6,414	7,175	13,589	151	121	272	11·1	8·9	20·0	124·8	9·2	...	9·8	9·5	19·3
116	6,131	6,542	12,673	Aruppukóttai	T.C.	6,131	6,542	12,673	226	196	422	17·8	15·5	33·3	115·3	22·7	...	17·5	15·1	32·6
117	5,880	6,516	12,396	Kílakarai	T.C.	5,880	6,516	12,396	101	110	211	8·1	8·9	17·0	90·9	...	55·4	10·3	8·7	19·0
118	4,966	5,035	10,001	Paramagudi	T.C.	4,966	5,035	10,001	39	51	90	3·9	5·1	9·0	76·4	0·9	...	7·3	5·9	13·2
119	84,372	89,383	173,755	Madura	R.C.	84,372	89,383	173,755	2,481	2,421	4,902	14·3	13·9	28·2	102·4	6·8	...	12·8	11·9	24·7
120	71,498	77,152	148,650	Mélúr	R.C.	71,498	77,152	148,650	2,098	2,002	4,100	14·1	13·4	27·5	104·7	10·2	...	13·4	12·8	26·2

No. I.—*Showing the Births registered in the districts of the Madras Presidency during the year* 1896—cont.

1	2			3		4			5			6			7	8	9	10		
Number.	Population (exclusive of Europeans and Eurasians) as per census of 1891.			Districts and Towns and Rural Circles.		Population (exclusive of Europeans and Eurasians) for which returns were received.			Number of births registered (exclusive of Europeans and Eurasians and still-births).			Ratio of births per 1,000 of population.			Number of males born to every 100 females born.	Excess of births over deaths per 1,000 of population.	Excess of deaths over births per 1,000 of population.	Mean ratio of births per 1,000 during previous five years.		
	Males.	Females.	Total.			Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.				Males.	Females.	Total.
				SALEM—*cont.*																
177	6,416	6,938	**13,354**	Sendamangalam	T.C.	6,416	6,938	**13,354**	186	113	**299**	13·9	8·5	**22·4**	164·6	10·7	...	7·2	6·1	**13·3**
178	5,119	5,420	**10,539**	Rásipuram	T.C.	5,119	5,420	**10,539**	153	143	**296**	14·5	13·6	**28·1**	107·0	10·0	...	14·8	14·9	**29·7**
179	166,338	172,421	**338,759**	Salem	R.C.	166,338	172,421	**338,759**	5,653	5,353	**11,006**	16·6	15·8	**32·4**	105·6	14·5	...	15·8	15·0	**30·8**
180	89,211	93,991	**183,202**	Atur	R.C.	89,211	93,991	**183,202**	3,100	3,060	**6,160**	16·9	16·7	**33·6**	101·3	10·9	...	15·6	15·1	**30·7**
181	138,698	147,988	**286,686**	Námakkal	R.C.	138,698	147,988	**286,686**	4,236	4,065	**8,301**	14·7	14·1	**28·8**	104·2	7·1	...	14·9	14·4	**29·3**
182	123,072	125,595	**248,667**	Tiruchengodu	R.C.	123,072	125,595	**248,667**	4,217	4,088	**8,305**	16·9	16·4	**33·3**	103·1	14·1	...	16·5	15·7	**32·2**
183	76,954	78,739	**155,693**	Hosúr	R.C.	76,954	78,739	**155,693**	2,099	1,972	**4,071**	13·5	12·6	**26·1**	106·4	6·8	...	14·8	14·5	**29·3**
184	75,399	76,717	**152,116**	Krishnagiri	R.C.	75,399	76,717	**152,116**	2,546	2,449	**4,995**	16·7	16·1	**32·8**	103·9	16·6	...	13·9	13·8	**27·7**
185	87,559	90,861	**178,420**	Dharmapuri	R.C.	87,559	90,861	**178,420**	2,931	2,843	**5,774**	16·4	15·9	**32·3**	103·1	15·8	...	16·8	16·1	**32·9**
186	77,067	79,228	**156,295**	Tiruppattúr	R.C.	77,067	79,228	**156,295**	2,498	2,412	**4,910**	16·0	15·4	**31·4**	103·5	6·7	...	14·4	14·0	**28·4**
187	67,829	70,283	**138,112**	Uttangarai	R.C.	67,829	70,283	**138,112**	2,326	2,296	**4,622**	16·8	16·6	**33·4**	101·3	12·6	...	14·9	13·8	**28·7**
14	961,199	1,000,585	**1,961,784**	Total, District ...		961,199	1,000,585	**1,961,784**	32,136	30,935	**63,071**	16·4	15·7	**32·1**	103·9	11·7	...	15·5	14·9	**30·4**
				SOUTH ARCOT.																
188	23,026	23,999	**47,025**	Cuddalore	M.T.C.	23,026	23,999	**47,025**	1,015	988	**2,003**	21·6	21·0	**42·6**	102·7	14·8	...	15·8	16·0	**31·8**
189	9,077	9,557	**18,634**	Chidambaram	M.T.C.	9,077	9,557	**18,634**	286	258	**544**	15·4	13·8	**29·2**	110·8	...	1·0	13·7	13·3	**27·0**
190	6,179	7,866	**14,045**	Port Novo	T.C.	6,179	7,866	**14,045**	115	108	**223**	8·2	7·7	**15·9**	106·5	3·0	...	5·4	6·2	**11·6**
191	5,970	6,178	**12,148**	Tiruvannámalai* ...	T.C.	5,970	6,178	**12,148**	91	112	**203**	7·5	9·2	**16·7**	81·2	3·3	...	6·9	6·2	**13·1**
192	145,706	144,202	**289,908**	Cuddalore	R.C.	145,706	144,202	**289,908**	4,069	3,798	**7,867**	14·0	13·1	**27·1**	107·1	3·0	...	13·1	12·8	**25·9**
193	151,872	149,818	**301,690**	Villupuram	R.C.	151,872	149,818	**301,690**	5,536	5,192	**10,728**	18·3	17·2	**35·5**	106·6	11·8	...	16·6	15·9	**32·5**
194	123,014	126,555	**249,569**	Chidambaram	R.C.	123,014	126,555	**249,569**	4,427	3,992	**8,419**	17·7	16·0	**33·7**	110·8	6·8	...	15·4	14·5	**29·9**
195	159,076	156,918	**315,994**	Tindivanam	R.C.	159,076	156,918	**315,994**	5,551	5,297	**10,848**	17·5	16·8	**34·3**	104·8	16·2	...	16·1	15·4	**31·5**
196	119,209	120,970	**240,179**	Kallakurchi	R.C.	119,209	120,970	**240,179**	3,479	3,414	**6,893**	14·5	14·2	**28·7**	101·9	11·3	...	13·2	12·6	**25·8**
197	128,831	128,284	**257,115**	Tirukkóyilúr	R.C.	128,831	128,284	**257,115**	5,055	4,916	**9,971**	19·6	19·1	**38·7**	102·8	11·7	...	17·2	16·8	**34·0**
198	97,284	95,954	**193,238**	Tiruvannámalai ...	R.C.	97,284	95,954	**193,238**	3,394	3,279	**6,673**	17·5	17·0	**34·5**	103·5	16·2	...	14·6	13·7	**28·3**
199	109,611	113,180	**222,791**	Vriddhachalam ...	R.C.	109,611	113,180	**222,791**	3,334	3,286	**6,620**	15·0	14·7	**29·7**	101·4	6·6	...	13·2	13·1	**26·3**
12	1,078,855	1,083,481	**2,162,336**	Total, District ...		1,078,855	1,083,481	**2,162,336**	36,352	34,640	**70,992**	16·8	16·0	**32·8**	104·9	10·3	...	14·9	14·4	**29·3**
				SOUTH CANARA.																
200	21,168	19,452	**40,620**	Mangalore	M.T.C.	21,168	19,452	**40,620**	665	676	**1,341**	16·4	16·6	**33·0**	98·4	13·7	...	15·6	15·1	**30·7**
201	115,802	122,172	**237,974**	Mangalore	R.C.	115,802	122,172	**237,974**	3,846	3,670	**7,516**	16·1	15·4	**31·5**	104·8	15·9	...	14·5	14·0	**28·5**
202	137,596	143,059	**280,655**	Kasaragod	R.C.	137,596	143,059	**280,655**	[illegible]	[illegible]	**4,621**	19·9	18·9	**38·8**	105·4	[illegible]	...	[illegible]	16·0	**32·6**
203	60,612	58,192	**118,804**	Uppinangadi	R.C.	60,612	58,192	**118,804**	2,371	2,250	**9,233**	18·6	17·7	**36·3**	105·0	18·3	...	16·6	15·8	**32·8**
204	118,714	134,985	**253,699**	Udipi	R.C.	118,714	134,985	**253,699**	4,731	4,502	**4,636**	20·4	18·1	**38·5**	112·5	17·9	...	17·0		
205	55,078	65,172	**120,250**	Kundapur	R.C.	55,078	65,172	**120,250**	2,455	2,181										
6	508,970	543,032	**1,052,002**	Total, District ...		508,970	543,032	**1,052,002**	18,258	17,298	**35,556**	17·3	16·4	**33·7**	105·5	16·2	...	15·8	15·0	**30·8**
				TANJORE.																
206	25,870	28,388	**54,258**	Tanjore	M.T.C.	25,870	28,388	**54,258**	895	858	**1,753**	16·5	15·8	**32·3**	104·3	5·3	...	14·3	14·5	**28·8**
207	26,440	27,814	**54,254**	Kumbakónam	M.T.C.	26,440	27,814	**54,254**	965	900	**1,865**	17·8	16·6	**34·4**	107·2	0·3	...	15·1	14·6	**29·7**
208	11,526	12,228	**23,754**	Máyavaram	M.T.C.	11,526	12,228	**23,754**	449	461	**910**	18·9	19·4	**38·3**	97·4	7·9	...	17·1	15·9	**33·0**
209	26,668	31,905	**58,573**	Negapatam	M.T.C.	26,668	31,905	**58,573**	889	871	**1,760**	15·2	14·8	**30·0**	102·0	...	2·7	14·4	13·8	**28·2**
210	9,704	10,688	**20,392**	Mannárgudi	M.T.C.	9,704	10,688	**20,392**	357	344	**701**	17·5	16·9	**34·4**	103·7	7·0	...	16·5	15·1	**31·6**
211	6,063	6,871	**12,934**	Tiruválúr	T.C.	6,063	6,871	**12,934**	172	135	**307**	13·3	10·4	**23·7**	127·4	...	9·7	10·3	9·4	**19·7**
212	172,425	183,596	**356,021**	Tanjore	R.C.	172,425	183,596	**356,021**	4,922	4,646	**9,568**	13·8	13·0	**26·3**	105·9	4·0	...	13·7	12·8	**26·5**
213	156,320	167,030	**323,350**	Kumbakónam ...	R.C.	156,320	167,030	**323,350**	5,001	4,819	**9,820**	15·4	14·9	**30·3**	103·8	3·6	...	15·7	14·9	**30·6**
214	105,172	115,805	**220,977**	Máyavaram	R.C.	105,172	115,805	**220,977**	3,535	3,521	**7,056**	16·0	15·9	**31·9**	100·4	8·3	...	16·7	16·1	**32·8**
215	57,586	62,215	**119,801**	Shiyali	R.C.	57,586	62,215	**119,801**	2,045	1,967	**4,012**	17·0	16·4	**33·4**	103·9	11·6	...	16·5	16·1	**32·6**
216	100,250	115,655	**215,905**	Nannilam	R.C.	100,250	115,655	**215,905**	3,309	3,095	**6,404**	15·3	14·3	**29·6**	106·9	1·1	...	14·7	13·9	**28·6**
217	68,944	79,233	**148,177**	Negapatam	R.C.	68,944	79,233	**148,177**	2,106	2,005	**4,111**	14·2	13·5	**27·7**	105·0	1·5	...	13·8	13·1	**26·9**
218	80,143	86,890	**167,033**	Mannárgudi	R.C.	80,143	86,890	**167,033**	2,418	2,382	**4,800**	14·5	14·2	**28·7**	101·5	5·8	...	14·1	13·1	**27·2**
219	87,800	92,493	**180,293**	Tirutturaippúndi ...	R.C.	87,800	92,493	**180,293**	2,860	2,770	**5,630**	15·8	15·4	**31·2**	103·2	6·5	...	14·2	13·2	**27·4**
220	130,539	140,820	**271,359**	Pattukkóttai	R.C.	130,539	140,820	**271,359**	3,914	3,613	**7,527**	14·4	13·3	**27·7**	108·3	8·8	...	12·4	11·5	**23·9**
15	1,065,450	1,161,631	**2,227,081**	Total, District ...		1,065,450	1,161,631	**2,227,081**	33,837	32,387	**66,224**	15·2	14·5	**29·7**	104·5	5·0	...	14·5	13·8	**28·3**
				TINNEVELLY.																
221	11,752	13,004	**24,756**	Tinnevelly	M.T.C.	11,752	13,004	**24,756**	409	428	**837**	16·5	17·3	**33·8**	95·4	...	4·2	17·9	17·6	**35·5**
222	8,808	9,804	**18,612**	Palamcottah	M.T.C.	8,808	9,804	**18,612**	292	319	**611**	15·7	17·1	**32·8**	91·5	...	0·4	17·0	16·1	**33·1**
223	13,624	11,340	**24,964**	Tuticorin	M.T.C.	13,624	11,340	**24,964**	450	405	**855**	18·0	16·2	**34·2**	111·1	2·0	...	14·8	14·0	**28·8**
224	14,367	15,174	**29,541**	Srívilliputtúr ...	M.T.C.	14,367	15,174	**29,541**	469	463	**932**	15·9	15·6	**31·5**	101·3	9·7	...	...	...	...
225	7,012	8,898	**15,910**	Kulasékarapatnam ...	T.J.	7,012	8,898	**15,910**	237	251	**488**	14·9	15·8	**30·7**	94·4	7·8	...	15·1	13·4	**28·5**
226	6,547	7,528	**14,075**	Virudupatti	T.C.	6,547	7,528	**14,075**	121	125	**246**	8·6	8·9	**17·5**	96·8	7·4	...	8·9	8·0	**16·9**
227	6,504	7,447	**13,951**	Víravanallúr	T.C.	6,504	7,447	**13,951**	158	124	**282**	11·3	8·9	**20·2**	127·4	...	0·9	8·7	8·2	**16·9**
228	6,607	6,694	**13,301**	Rajapalaiyam	T.C.	6,607	6,694	**13,301**	355	223	**578**	26·7	16·7	**43·4**	159·1	27·3	...	22·4	15·6	**38·0**
229	6,151	6,710	**12,861**	Tenkási	T.C.	6,151	6,710	**12,861**	332	318	**650**	25·8	24·7	**50·5**	104·4	24·0	...	20·9	21·3	**42·2**
230	5,788	6,396	**12,184**	Sivakási	T.C.	5,788	6,396	**12,184**	281	256	**537**	23·0	21·0	**44·0**	109·8	12·0	...	21·2	21·2	**42·3**
231	4,404	7,060	**11,464**	Káyalpatnam	T.C.	4,404	7,060	**11,464**	156	157	**313**	13·6	13·7	**27·3**	99·4	3·8	...	21·1	20·4	**41·4**
232	5,230	5,866	**11,096**	Kalladakurchi	T.C.	5,230	5,866	**11,096**	163	152	**315**	14·7	13·7	**28·4**	107·2	4·2	...	15·7	13·7	**29·4**
233	155,341	161,649	**316,990**	Ottappidáram	R.C.	155,341	161,649	**316,990**	4,039	3,848	**7,887**	12·7	12·1	**24·8**	104·9	8·1	...	12·4	11·7	**24·1**
234	125,196	135,000	**260,196**	Srivaikundam	R.C.	125,196	135,000	**260,196**	4,326	4,027	**8,353**	16·6	15·5	**32·1**	107·4	8·7	...	15·2	14·1	**29·3**
235	68,436	72,816	**141,252**	Tinnevelly	R.C.	68,436	72,816	**141,252**	2,528	2,350	**4,878**	17·9	16·6	**34·5**	107·5	7·8	...	15·8	14·6	**30·4**
236	75,244	77,009	**152,253**	Srivilliputtúr	R.C.	75,244	77,009	**152,253**	2,304	2,145	**4,449**	15·1	14·1	**29·2**	107·4	9·4	...	15·2	14·2	**29·4**
237	104,061	105,152	**209,213**	Sankaranayinár Kóyil	R.C.	104,061	105,152	**209,213**	3,200	2,955	**6,155**	15·3	14·1	**29·4**	108·3	8·7	...	13·4	12·6	**26·0**
238	84,402	90,008	**174,410**	Nángunéri	R.C.	84,402	90,008	**174,410**	2,945	2,789	**5,734**	16·9	16·0	**32·9**	105·6	11·9	...	15·2	14·4	**29·6**

* The Particulars of births and deaths for the Tiruvannámalai municipality are not available for the full year. Hence it is treated as a rural town as hitherto.

No. I.—*Showing the Births registered in the districts of the Madras Presidency during the year* 1896—cont.

1	2			3		4			5			6			7	8	9	10		
Number.	Population (exclusive of Europeans and Eurasians) as per census of 1891.			Districts and Towns and Rural Circles.		Population (exclusive of Europeans and Eurasians) for which returns were received.			Number of births registered (exclusive of Europeans and Eurasians and still-births).			Ratio of births per 1,000 of population.			Number of males born to every 100 females born.	Excess of births over deaths per 1,000 of population.	Excess of deaths over births per 1,000 of population.	Mean ratio of births per 1,000 during previous five years.		
	Males.	Females.	Total.			Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.				Males.	Females.	Total.
				MADURA—*cont.*																
121	130,162	134,458	**264,620**	Tirumangalam	R.C.	130,162	134,458	**264,620**	3,709	3,683	**7,392**	14·0	13·4	**27·4**	100·7	10·9	...	15·2	14·5	**29·7**
122	120,373	126,472	**246,845**	Periyakulam	R.C.	120,373	126,472	**246,845**	4,128	3,757	**7,885**	16·6	15·2	**31·8**	109·9	13·3	...	15·1	14·5	**29·6**
123	181,508	189,349	**370,857**	Dindigul	R.C.	181,508	189,349	**370,857**	5,606	5,251	**10,857**	15·1	14·1	**29·2**	106·7	11·4	...	16·6	16·0	**32·6**
124	86,086	92,024	**178,110**	Palni	R.C.	86,086	92,024	**178,110**	3,268	3,089	**6,357**	18·4	17·3	**35·7**	105·8	7·6	...	18·1	17·7	**35·8**
125	587	696	**1,283**	Settinandal villages, &c.	R.C.	587	696	**1,283**	26	11	**37**	20·2	8·5	**28·7**	236·3	8·5	...	14·0	14·0	**28·0**
15	767,466	805,852	**1,573,318**	Total, District ...		767,466	805,852	**1,573,318**	24,341	23,036	**47,377**	15·5	14·6	**30·1**	105·6	10·0	...	15·2	14·6	**29·8**
				MALABAR.																
126	13,100	13,531	**26,631**	Tellicherry	M.T.C.	13,100	13,531	**26,631**	489	466	**955**	18·4	17·5	**35·9**	104·9	11·5	...	16·7	16·0	**32·7**
127	33,841	30,957	**64,798**	Calicut	M.T.C.	33,841	30,957	**64,798**	1,366	1,234	**2,600**	21·1	19·0	**40·1**	110·7	8·0	...	17·6	15·9	**33·5**
128	19,070	20,297	**39,367**	Palghat	M.T.C.	19,070	20,297	**39,367**	867	831	**1,698**	22·0	21·1	**43·1**	104·3	7·7	...	17·5	16·5	**34·0**
129	8,656	7,491	**16,147**	Cochin	M.T.C.	8,656	7,491	**16,147**	335	318	**653**	20·7	19·7	**40·4**	105·3	1·0	...	17·4	16·5	**33·9**
130	12,885	13,768	**26,653**	Cannanore	M.T.C.	12,885	13,768	**26,653**	568	528	**1,096**	21·3	19·8	**41·1**	107·6	15·4	...	18·8	17·4	**36·2**
131	138,433	145,038	**283,471**	Chirakkal	R.C.	138,433	145,038	**283,471**	3,342	3,148	**6,490**	11·7	11·1	**22·8**	106·1	10·4	...	11·3	10·7	**22·0**
132	82,593	85,667	**168,260**	Kóttayam	R.C.	82,593	85,667	**168,260**	1,927	1,853	**3,780**	11·4	11·0	**22·4**	103·9	8·6	...	11·9	11·7	**23·6**
133	151,160	152,851	**304,011**	Kurumbranát	R.C.	151,160	152,851	**304,011**	2,870	2,732	**5,602**	9·4	9·0	**18·4**	105·0	7·1	...	9·6	8·8	**18·4**
134	84,731	86,851	**171,582**	Calicut	R.C.	84,731	86,851	**171,582**	2,279	2,133	**4,412**	13·2	12·4	**25·6**	106·8	8·7	...	10·8	10·2	**21·0**
135	169,699	169,488	**339,187**	Ernad	R.C.	169,699	169,488	**339,187**	4,064	3,844	**7,908**	12·0	11·3	**23·3**	105·7	8·7	...	11·5	10·9	**22·4**
136	222,587	226,666	**449,253**	Ponnáni	R.C.	222,587	226,666	**449,253**	4,991	4,615	**9,606**	11·1	10·3	**21·6**	108·1	8·1	...	9·8	9·2	**19·0**
137	163,996	168,338	**332,334**	Walavanad	R.C.	163,996	168,338	**332,334**	3,370	3,159	**6,529**	10·1	9·5	**19·6**	106·6	3·9	...	11·2	10·3	**21·8**
138	160,645	171,982	**332,627**	Palghat	R.C.	160,645	171,982	**332,627**	3,484	3,171	**6,655**	10·5	9·5	**20·0**	109·8	3·2	...	10·2	9·5	**19·7**
139	42,514	33,851	**76,365**	Wynaad	R.C.	42,514	33,851	**76,365**	660	654	**1,314**	8·6	8·5	**17·1**	100·9	...	5·0	9·4	9·1	**18·5**
140	2,872	3,116	**5,988**	Cochin	R.C.	2,872	3,116	**5,988**	63	74	**137**	10·6	12·3	**22·9**	85·1	...	10·1	13·7	13·6	**27·3**
15	1,306,782	1,329,892	**2,636,674**	Total, District ...		1,306,782	1,329,892	**2,636,674**	30,675	28,760	**59,435**	11·6	10·9	**22·5**	106·4	6·8	...	11·1	10·4	**21·5**
				NELLORE.																
141	14,200	14,928	**29,128**	Nellore	M.T.C.	14,200	14,928	**29,128**	445	410	**855**	15·3	14·1	**29·4**	108·5	9·0	...	14·4	12·3	**26·7**
142	5,421	5,411	**10,832**	Ongole	M.T.C.	5,421	5,411	**10,832**	236	161	**397**	21·8	14·8	**36·6**	146·6	6·8	...	16·7	15·0	**31·7**
143	59,035	57,723	**116,758**	Gudur	R.C.	59,035	57,723	**116,758**	1,289	1,281	**2,570**	11·1	10·9	**22·0**	100·6	7·5	...	9·7	9·6	**19·3**
144	31,209	30,096	**61,305**	Rapur	R.C.	31,209	30,096	**61,305**	961	913	**1,874**	15·6	14·9	**30·5**	105·2	10·3	...	16·1	15·7	**31·8**
145	84,021	84,527	**168,548**	Nellore	R.C.	84,021	84,527	**168,548**	1,996	1,994	**3,990**	11·8	11·8	**23·6**	100·1	8·3	...	9·6	9·2	**18·8**
146	48,803	47,546	**96,349**	Atmakur	R.C.	48,803	47,546	**96,349**	1,500	1,465	**2,965**	15·5	15·2	**30·7**	102·3	10·0	...	15·4	14·9	**30·3**
147	34,179	34,697	**68,876**	Kávali	R.C.	34,179	34,697	**68,876**	943	919	**1,862**	13·7	13·3	**27·0**	102·6	9·8	...	13·0	12·1	**25·1**
148	28,166	27,216	**55,382**	Udayagiri	R.C.	28,166	27,216	**55,382**	872	864	**1,736**	15·7	15·6	**31·3**	100·9	13·0	...	15·2	14·9	**30·1**
149	56,478	56,879	**113,357**	Kandukur	R.C.	56,478	56,879	**113,357**	1,923	1,819	**3,742**	17·0	16·0	**33·0**	105·7	13·9	...	14·3	13·6	**27·9**
150	31,013	30,053	**61,066**	Kanigiri	R.C.	31,013	30,053	**61,066**	799	790	**1,589**	13·1	12·9	**26·0**	101·1	10·7	...	12·8	12·2	**25·0**
151	83,284	83,695	**166,979**	Ongole	R.C.	83,284	83,695	**166,979**	2,903	2,741	**5,644**	17·4	16·4	**33·8**	105·5	13·5	...	14·6	14·1	**28·7**
152	260,585	254,192	**514,777**	Zemíndaries	...	260,585	254,192	**514,777**	6,444	6,279	**12,723**	12·5	12·2	**24·7**	102·6	10·1	...	10·4	10·2	**20·6**
12	736,394	726,963	**1,463,357**	Total, District ...		736,394	726,963	**1,463,357**	20,311	19,636	**39,947**	13·9	13·4	**27·3**	103·4	10·4	...	12·1	11·7	**23·8**
				NILGIRIS.																
153	7,450	6,541	**13,991**	Ootacamund	M.T.C.	7,450	6,541	**13,991**	273	251	**524**	19·5	17·9	**37·4**	108·7	7·3	...	15·0	15·0	**30·0**
154	3,005	2,581	**5,586**	Coonoor	M.T.C.	3,005	2,581	**5,586**	145	99	**244**	25·9	17·7	**43·6**	146·4	0·6	...	18·4	17·0	**35·4**
155	28,027	24,141	**52,168**	Nilgiris	R.C.	28,027	24,141	**52,168**	832	713	**1,545**	15·9	13·7	**29·6**	116·7	3·7	...	15·9	14·7	**30·6**
156	16,003	9,017	**25,020**	South-East Wynaad ...	R.C.	16,003	9,017	**25,020**	190	167	**357**	7·6	6·6	**14·2**	113·7	...	9·9	7·5	7·4	**14·9**
4	54,485	42,280	**96,765**	Total, District ...		54,485	42,280	**96,765**	1,440	1,230	**2,670**	14·9	12·7	**27·6**	117·0	0·6	...	13·7	13·0	**26·7**
				NORTH ARCOT.																
157	21,188	23,536	**44,724**	Vellore	M.T.C.	21,188	23,536	**44,724**	767	721	**1,488**	17·1	16·1	**33·2**	106·3	7·7	...	18·4	17·5	**35·9**
158	4,943	5,542	**10,485**	Wállajápet	M.T.C.	4,943	5,542	**10,485**	197	196	**393**	18·8	18·7	**37·5**	100·5	11·0	...	19·2	17·6	**36·8**
159	9,224	9,521	**18,745**	Gudiyáttam	M.T.C.	9,224	9,521	**18,745**	412	407	**819**	22·0	21·7	**43·7**	101·2	19·1	...	17·3	14·9	**32·2**
160	6,872	7,366	**14,238**	Tirupati	M.T.C.	6,872	7,366	**14,238**	231	211	**442**	16·2	14·8	**31·0**	109·5	0·9	...	14·4	13·4	**27·8**
161	5,518	6,197	**11,715**	Kálahasti	T.C.	5,518	6,197	**11,715**	153	153	**306**	13·0	13·0	**26·0**	100·0	9·4	...	6·3	6·5	**12·8**
162	5,269	5,659	**10,928**	Arcot	T.C.	5,269	5,659	**10,928**	161	152	**313**	14·7	13·9	**28·6**	105·9	1·3	...	14·5	13·4	**27·9**
163	4,973	5,610	**10,583**	Ambúr	T.C.	4,973	5,610	**10,583**	64	82	**146**	6·0	7·8	**13·8**	78·1	...	20·6	4·7	3·5	**8·2**
164	101,938	98,248	**200,186**	Chittoor	R.C.	101,938	98,248	**200,186**	2,317	2,274	**4,591**	11·6	11·3	**22·9**	101·8	9·0	...	11·8	11·3	**23·1**
165	51,507	48,523	**100,030**	Chendragiri	R.C.	51,507	48,523	**100,030**	1,241	1,148	**2,389**	12·4	11·4	**23·8**	108·1	9·7	...	10·4	9·8	**10·2**
166	24,271	23,860	**48,131**	Palmanér	R.C.	24,271	23,860	**48,131**	490	520	**1,010**	10·1	10·8	**20·9**	94·2	6·5	...	8·8	8·5	**17·3**
167	78,547	79,316	**157,863**	Gudiyáttam	R.C.	78,547	79,316	**157,863**	2,175	2,204	**4,379**	13·8	13·9	**27·7**	98·6	8·3	...	13·1	12·2	**25·3**
168	68,729	68,638	**137,367**	Vellore	R.C.	68,729	68,638	**137,367**	1,920	1,835	**3,755**	14·0	13·3	**27·3**	104·6	7·4	...	14·2	13·5	**27·7**
169	69,371	70,326	**139,697**	Polur	R.C.	69,371	70,326	**139,697**	2,285	2,190	**4,475**	16·3	15·7	**32·0**	104·3	11·3	...	15·5	14·8	**30·3**
170	88,932	88,787	**177,719**	Wandiwash	R.C.	88,932	88,787	**177,719**	2,937	2,746	**5,683**	16·5	15·4	**31·9**	107·0	14·5	...	15·1	14·4	**29·5**
171	82,190	83,758	**165,948**	Arcot	R.C.	82,190	83,758	**165,948**	2,892	2,834	**5,726**	17·4	17·1	**34·5**	102·0	14·0	...	16·1	15·6	**31·7**
172	114,741	113,889	**228,630**	Wállajápet	R.C.	114,741	113,889	**228,630**	3,408	3,131	**6,539**	14·9	13·7	**28·6**	108·8	10·7	...	14·2	13·2	**27·4**
173	322,060	314,536	**636,596**	Zemíndaries	...	322,060	314,536	**636,596**	9,219	9,113	**18,332**	14·4	14·3	**28·7**	101·1	12·3	...	14·9	14·6	**29·5**
17	1,960,273	1,053,312	**2,113,585**	Total, District ...		1,060,273	1,053,312	**2,113,585**	30,869	29,917	**60,786**	14·6	14·1	**28·7**	103·2	10·8	...	14·2	13·6	**27·8**
				SALEM.																
174	32,828	34,812	**67,640**	Salem	M.T.C.	32,828	34,812	**67,640**	1,397	1,357	**2,754**	20·6	20·1	**40·7**	102·9	14·0	...	18·0	16·5	**34·5**
175	6,988	8,850	**15,838**	Vániyambádi ...	M.T.C.	6,988	8,850	**15,838**	450	452	**902**	28·4	28·5	**56·9**	99·5	3·1	...	24·8	22·9	**47·7**
176	7,721	8,742	**16,463**	Tiruppattúr ...	M.T.C.	7,721	8,742	**16,463**	344	332	**676**	20·9	20·2	**41·1**	103·6	...	0·7	20·7	19·1	**39·8**

No. II.—*Statement of births and deaths registered in each town and rural circle of the Madras Presidency and the receipts and expenditure in each circle from and on conservancy, together with the principal sanitary defects of each circle, and the measures taken to remedy them for the year* 1896.

1	2	3	4	5			6		7			8					9								10			11	12	13			14
Serial Number.	District and town or rural circle.	Area in square miles.	Average population per square mile.	Population (exclusive of Europeans and Eurasians) for which returns were received.			Births.		Number of deaths registered (exclusive of Europeans and Eurasians and born dead).			Number of deaths of males to every 100 deaths of females.	Deaths per 1,000				Injuries.	All other causes.	All causes.			Mean ratio of deaths per 1,000 during previous five years.			Net receipt of each circle under conservancy.	Net expenditure in each circle under conservancy.	Principal sanitary defects of circle.			Measures taken for sanitary improvement of circle.
				Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.		Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.			Males.	Females.	Total.	Males.	Females.	Total.			a In drainage.	b In water-supply.	c In domestic cleansing and conservancy.	
	ANANTAPUR.																										RS. A. P.	RS. A. P.				
1	Anantapur ... M.T.C.	...	...	3,473	3,500	6,973	269	38·6	95	90	185	105·5	7·4	0·6	4·8	1·6	0·1	12·7	27·3	25·7	27·2	23·8	22·2	23·0	600 11 8	...	No system. Rough drains built of stone exist in the main streets, while in others there are mere side cuttings. Cess-pools are cleaned only when full. In the bazaar streets platforms are constructed over side drains.	A large tank, which is one of the sources of water-supply, has run dry during the year.	Nearly all the existing latrines are mere open enclosures.	One of the mud-wall latrines was re-built of brick in mud during the year, and another roofed and provided with seats. The municipality have no power to order the removal of platforms over side drains, as they are all of over 12 years' standing.
2	Tadpatri ... T.C.	...	...	5,125	5,150	10,275	231	22·5	106	70	176	151·4	10·0	...	0·1	...	0·1	6·9	20·7	13·6	17·1	15·0	14·5	14·7	...	...	There is no system of drainage worth the name except in taluk cusbahs and some big villages, where side drains are provided. Drainage and dirty water either accumulates in sink pits or allowed to flow freely into streets. The pits are hardly cleaned. In some places waste water finds its way into manure pits dug in large numbers outside villages which stagnates and gives forth offensive smell.	In some places Malas and Madigas have no separate wells for their use. Where step wells exist the water is subject to contamination. Scarcity for drinking water is felt in some of the cusbah villages of Penukonda, Madaksiru and Hindupur taluks.	The practice of allowing cattle to remain inside the house and of storing rubbish in the vicinity of dwelling houses is still extant in many of the villages. Madigas who used to remove the rubbish now and then have ceased to do so having lost their *inams*. More latrines are required for the use of Muhammadans in Penukonda.	Arrangements are being made to meet the wants of low caste people in the matter of water-supply. Watchmen were employed to preserve drinking-water sources from pollution. An estimate is under preparation for the water-supply scheme of Penukonda town. Ten wells were repaired (Rs. 534) and eight latrines constructed (Rs. 201).
3	Anantapur ... R.C.	...	...	51,030	46,451	97,481	3,048	31·2	1,270	1,100	2,370	115·4	8·9	0·9	1·01	0·1	0·3	13·1	24·8	23·6	24·3	19·4	19·7	19·5								
4	Gooty ... R.C.	...	...	72,693	69,884	142,577	4,530	31·7	1,478	1,451	2,929	101·8	3·7	1·1	1·3	0·3	0·3	13·8	20·3	20·7	20·5	22·1	21·4	21·7								
5	Tadpatri ... R.C.	...	...	51,976	50,397	102,373	2,916	28·4	1,153	1,189	2,342	96·9	4·2	0·7	0·8	0·1	0·3	16·7	22·1	23·5	22·8	23·1	22·0	22·6								
6	Penukonda ... R.C.	...	...	41,447	39,653	81,100	2,391	29·4	733	615	1,348	119·1	...	0·3	0·5	0·5	0·3	9·01	17·6	15·5	16·0	20·4	21·4	20·9	...	...						
7	Dharmavaram ... R.C.	...	...	34,204	31,909	66,113	1,853	28·0	734	654	1,388	112·2	4·5	1·6	6·7	0·3	0·2	7·6	21·4	20·4	20·9	23·9	30·7	29·6								
8	Hindupur ... R.C.	...	...	40,903	39,940	80,843	2,139	26·4	635	631	1,266	100·6	...	0·2	2·4	0·7	0·2	12·1	15·5	15·8	15·6	17·3	17·2	17·2								
9	Madakasira ... R.C.	...	...	34,231	33,761	67,992	1,780	26·1	423	446	869	94·8	...	0·1	1·9	0·5	0·5	9·7	12·8	13·2	12·7	13·1	14·0	13·5								
10	Kalyandroog R.C.	...	...	36,952	34,640	71,592	2,007	28·0	647	581	1,228	111·3	3·2	0·9	5·2	0·1	0·2	7·5	17·5	16·7	17·1	...	...	...								
10	Total, District ...	5,275	134·2	372,034	355,285	727,319	21,164	29·1	7,274	6,827	14,101	106·5	3·5	0·7	2·9	0·3	0·3	11·7	19·5	19·2	19·4	18·9	18·9	18·9	...	...						
	BELLARY.																															
11	Bellary ... M.T.C.	...	...	29,130	28,650	57,780	1,915	33·1	813	755	1,568	107·7	1·3	...	8·9	2·1	0·2	14·6	27·9	26·3	27·1	25·6	29·3	27·4	3,923 10 3	27,085 6 11	No proper system of drainage. The drains that exist are intended only to carry off rain water. Drainage of houses empties into cess-pools which are cleaned only when full.	The feeding channel of the Mainwaring tank, the chief drinking-water source of Bruce-pettah, is not protected by fencing at the upper part of its course near Fan Rock. All the step wells should be converted into draw wells.	.....	A latrine and a slaughter-house were repaired. Two cinerators were repaired and are being used. Bamboo back boards were supplied to rubbish carts to prevent their contents being scattered. The defects pointed out under water-supply will receive attention.
12	Adóni ... M.T.C.	...	...	13,231	12,985	26,216	1,157	44·1	348	319	667	109·1	0·3	0·03	7·9	0·2	0·2	16·8	26·3	24·6	25·4	28·2	28·8	28·5	2,457 4 1	10,999 12 10	No proper system of drainage. Drainage of houses empties into cess-pools which are cleaned only when full.	Since December the water of the tank from which the new water-supply scheme derives its supply has decreased, and owing to defects in filter beds the supply of water has been very bad.	In the majority of cases the owners picket their cattle within or in front of their houses. The houses are excessively overcrowded.	A scheme for the drainage of the town is still under contemplation. Three public latrines were constructed and two repaired. Repairs to drains and two slaughter-houses were also made.
13	Hospet ... T.C.	...	...	6,263	6,606	12,869	351	27·2	119	105	224	113·1	6·0	...	10·7	0·3	0·1	0·3	19·0	15·9	17·4	20·9	15·1	18·0			The drainage is defective. Cess-pools exist which are not systematically emptied.	Scarcity of water is felt in some of the villages of Hospet, Rayadrug, Hadagalli and Aloor taluks. In some of the villages of Bellary and Adóni taluks, the drinking-water sources are used for bathing and washing purposes.	Refuse is not systematically carted away to selected spots in each village, but deposited in vacant spots near village sites. In most of the villages manure heaps are stored in and around villages. Prickly-pear are so overgrown that in some places paths are rendered narrow. In some villages latrines are wanted.	A well is being built in one of the villages where scarcity is felt. The practice of bathing in drinking-water sources is discouraged as much as possible by inspecting officers in some places while in others watchmen are employed. In Rayadrug taluk steps are taken for the removal of prickly-pear. Three latrines and ten dust-bins were constructed (Rs. 196).
14	Kampli ... T.C.	...	...	5,096	5,122	10,528	336	31·9	125	149	274	83·9	2·4	...	22·3	0·2	0·5	0·6	23·1	20·1	26·0	24·6	23·2	23·9								
15	Rayadrug ... T.C.	...	...	5,209	5,169	10,378	354	34·1	88	99	187	88·9	0·6	...	13·8	...	0·1	3·6	16·9	19·1	18·0	15·5	15·5	15·5								
16	Bellary ... R.C.	...	...	61,444	59,356	120,800	4,533	37·5	1,551	1,471	3,022	105·4	2·7	0·6	7·6	0·7	0·3	13·1	25·2	24·8	25·0	25·7	26·1	25·9								
17	Hospet ... R.C.	...	...	35,231	33,872	69,103	2,169	31·3	956	938	1,894	101·9	5·1	0·2	15·1	0·4	0·2	6·4	27·1	27·7	27·4	30·6	29·7	29·8								
18	Kudligi ... R.C.	...	...	47,281	47,014	94,295	2,724	28·8	1,018	875	1,893	116·3	4·5	0·3	9·6	0·2	0·3	5·2	21·5	18·6	20·1	23·2	21·6	22·4								
19	Hadagalli ... R.C.	...	...	54,811	49,224	104,035	3,019	29·0	1,063	972	2,035	109·3	4·4	0·68	4·8	1·4	0·2	8·7	19·3	19·7	19·5	19·8	20·0	24·4								
20	Harpanahalli ... R.C.	...	...	41,370	40,870	82,240	3,081	37·4	908	837	1,745	108·4	1·8	0·2	9·0	1·1	0·4	8·7	21·9	20·5	21·2	24·1	22·5	23·3								
21	Alur ... R.C.	...	...	44,685	43,391	88,076	3,324	37·7	1,461	1,367	2,828	106·8	9·7	0·8	4·7	0·5	0·3	16·1	32·7	31·5	32·1	22·4	22·1	22·2								
22	Adóni ... R.C.	...	...	68,982	65,569	1,344,551	5,028	37·3	1,889	1,612	3,501	117·1	6·6	0·4	4·9	0·2	0·2	13·5	27·4	24·6	26·0	24·1	24·2	25·1								
23	Rayadrug ... R.C.	...	...	34,782	33,461	68,243	2,172	31·8	853	838	1,691	101·7	7·5	0·1	11·9	0·4	0·2	4·7	24·5	25·0	24·7	25·5	25·2	25·3								
24	Zamindari ... R.C.	...	...	5,712	5,659	11,371	425	37·3	179	133	312	134·5	4·7	...	18·5	0·2	0·2	3·8	31·3	23·5	27·4	35·3	32·6	33·9	...	...	There are cess-pits in nearly 14 villages which are scarcely one cubic yard in capacity. They are cleaned once or twice every year.	Drainage of houses either runs into streets or empties into cess-pools.	Most of the wells in the village of Sundur have no parapet walls, and very few have stone platforms and drains.	There are no latrines in any of the villages except Sundur town.	.....
14	Total, District ...	6,136	148·2	453,537	436,948	890,485	30,588	34·3	11,371	10,470	21,841	108·6	4·7	0·3	8·3	0·7	0·3	10·2	25·1	24·0	24·5	24·4	22·0	23·2	...	...						

No. II.—*Statement of births and deaths registered in each town and rural circle of the Madras Presidency and the receipts and expenditure in each circle from and on conservancy, together with the principal sanitary defects of each circle, and the measures taken to remedy them for the year* 1896—cont.

1	2	3	4	5			6		7			8					9							10			11	12	13			14
Serial Number.	District and town or rural circle.	Area in square miles.	Average population per square mile.	Population (exclusive of Europeans and Eurasians) for which returns were received.			Births.		Number of deaths registered (exclusive of Europeans and Eurasians and born dead).			Number of deaths of males to every 100 deaths of females.	Deaths per 1,000				Deaths per 1,000 of population from							Mean ratio of deaths per 1,000 during previous five years.			Net receipt of each circle under conservancy.	Net expenditure in each circle under conservancy.	Principal sanitary defects of circle			Measures taken for sanitary improvement of circle.
				Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.		Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.	Injuries.	All other causes.	All causes. Males.	All causes. Females.	All causes. Total.	Males.	Females.	Total.						a In drainage.	b In water-supply.	c In domestic cleansing and conservancy.	
	CHINGLEPUT.																											RS. A. P.	RS. A. P.				
...	Chingleput * M.T.C.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				24 12 0	270 0 0	No proper system of drainage.	.....	.....	This town was constituted a municipality in October 1896.
25	Conjeeveram M.T.C.	...	...	20,611	21,932	42,543	1,710	40·2	720	698	1,418	103·1	3·2	0·02	7·9	3·5	9·4	18·3	34·9	31·8	33·3	33·6	31·4	32·5				5,204 2 0	6,173 1 7	Drainage of streets and houses bad.	The people in Big Conjeeveram do not get as good water as those in other parts of the town.	.....	A fresh water-supply scheme has been undertaken, and the work is pushed on rapidly. The conservancy staff and plant were strengthened. Existing sources of water-supply and private scavengering service have been improved.
26	St. Thomas' Mount T.C.	...	...	5,781	6,359	12,140	455	37·5	153	172	325	89·0	...	0·1	7·4	1·5	0·3	17·5	26·5	27·0	26·8	12·9	11·4	12·1						There are no public masonry drains in any of the towns or villages in the district. Drainage of houses also bad.	The tanks which form one of the sources of drinking-water in the district are fed by rain water which is soft and contains large quantity of organic impurities. A few wells and tanks are reserved for drinking purposes, but there is no guarantee that they are free from pollution, as watchmen are appointed during the day only and not during nights.	The people store their rubbish in back-yards to be eventually used as manure. Cattle sheds are situated near dwelling houses. Except in Union and other large villages there are no latrines anywhere in the district. Even in Unions the number of lights and dust-bins is short of actual requirements. In places where open ground close to village sites is used as latrines, pigs and other animals act as scavengers.	Village sites were improved by clearing prickly-pear. Eight wells were sunk in some villages, and a few tanks and wells repaired in others. Some dust-bins were provided in Tiruvallur Union. Four more tanks were set apart in the district for drinking purposes. A latrine was constructed (Rs. 100).
27	Saidapet ... R.C.	...	...	105,580	103,897	209,477	8,287	39·6	2,652	2,695	5,347	99·5	0·2	0·2	7·7	2·6	0·4	14·5	25·4	25·2	25·6	22·8	22·8	22·8									
28	Chingleput ... R.C.	...	...	69,175	68,001	137,176	5,840	42·5	1,635	1,591	3,226	102·7	0·02	0·2	6·1	2·9	0·6	13·7	23·6	23·4	23·5	23·2	22·8	23·0									
29	Madurantakam R.C.	...	...	132,734	130,396	263,130	10,647	40·4	2,846	2,745	5,591	103·6	0·1	0·1	4·7	1·5	0·4	14·4	21·4	21·0	21·2	22·9	21·7	22·3									
30	Conjeeveram... R.C.	...	...	87,931	88,190	176,121	7,240	41·1	2,101	2,122	4,223	99·0	0·1	0·2	6·4	2·9	0·3	14·0	23·9	24·0	23·9	21·2	23·7	23·9									
31	Tiruvallur ... R.C.	...	...	120,783	116,133	236,916	8,815	37·2	2,624	2,654	5,278	98·9	0·2	0·1	6·1	1·1	0·4	14·3	21·7	22·8	22·2	18·3	18·9	18·6									
32	Pounéri ... R.C.	...	...	62,221	60,177	122,398	4,354	35·5	1,583	1,556	3,139	101·7	0·4	0·07	8·0	2·1	0·3	14·8	25·4	25·8	25·6	22·2	22·2	22·2									
8	Total, District ...	2,842	399·0	634,816	595,085	1,199,901	47,348	39·5	14,344	14,233	28,577	100·8	0·3	0·1	6·4	2·1	0·4	14·5	23·7	23·9	23·8	22·4	22·4	22·4				...	...				
	COIMBATORE.																																
33	Coimbatore ... M.T.C.	...	...	22,079	23,928	46,007	1,851	40·2	872	914	1,786	95·4	5·4	0·1	8·5	5·3	0·4	19·1	39·5	38·2	38·8	29·8	26·3	28·0				1,010 13 0	11,655 3 3	No proper system of drainage. The existing drains are side ditches, and are very offensive with stagnant sewage; cess-pits still exist in some houses.	The majority of wells, which form the principal source of water-supply, are in backyards of houses near cess-pits and drains. Bathing and washing of clothes are allowed in Teppakolam, although a watchman is placed over it.	All the latrines in the town are in a dilapidated condition, and some of them are not resorted to owing to their ruined state. More latrines and dust-bins are required. The night-soil depôt is near the town and is in a most deplorable condition. The rubbish depôt is close to the slaughter-house.	No improvement has taken place under drainage, water-supply and conservancy. Rs. 231 were spent in the repair of some drains.
34	Erode ... M.T.C.	...	...	6,074	6,164	12,238	513	41·9	180	175	355	102·8	3·2	0·1	5·5	2·1	0·5	17·6	29·6	28·4	29·0	28·5	28·5	28·3				439 8 0	2,489 12 0	The drainage of the town is very defective.	.....	.....	The question of providing the town with a good drainage scheme is before the Sanitary Engineer; four latrines and a slaughter-house were repaired (Rs. 113.) Six wells were repaired (Rs. 98.) A culvert has been erected to divert the course of rain water into the jungle stream as suggested by the Sanitary Commissioner.
35	Karúr ... M.T.C.	...	...	5,157	5,583	10,740	400	37·2	225	217	442	103·7	8·6	0·3	16·5	4·1	0·7	10·9	43·6	38·9	41·1	30·[illegible]	28·1	29·0				443 8 0	3,940 0 0	There is only one pucka-built drain in the town. Most of the streets have side drains which are of primitive type, and as such are liable to be choked during rains. The sewage of private houses either runs into backyards or street drains. In the former it is used in irrigating trees and in the latter it stagnates.	.....	More latrines are required.	A drainage scheme has been prepared, but its adoption has been postponed pending the question of water-supply. A number of well latrines have been closed. Applications have been made for the acquisition of sites for constructing additional latrines. A drain and two markets were repaired (Rs. 50 and 17, respectively).
36	Coimbatore ... R.C.	...	...	127,828	132,593	260,421	7,760	29·8	4,518	4,168	8,686	108·4	13·9	0·04	10·3	1·1	0·4	7·6	35·3	31·4	33·3	21·0	18·3	19·6						There is no proper system of drainage anywhere in the district. The existing drains are side ditches into which house drains flow and stagnate, and they are generally in a filthy condition. Cess-pits do exist in some houses and they are seldom cleaned. In Pollachi Union drains in front of shops are covered which renders it difficult for scavengers to properly clean them.	People residing close to rivers use river water, but they are subject to pollution. Wells are also largely used, but the surroundings are generally unsatisfactory. Most of the wells in Pollachi taluk are step-wells. They are subject to pollution. Bhavani water is said to produce, especially cold, fever and head-ache.	Rubbish is allowed to accumulate in backyards of almost every house in the villages of the district and removed to fields when necessity arises. Backyards in Bavani and Darampur Unions not well kept. Except in some union villages there are no latrines in any other place in the district. The main streets are generally clean, the lanes, open spaces, and village sites being often used as latrines.	Two wells were sunk, (Rs. 147). A tank and 19 other wells were repaired (Rs. 666). Prickly-pear was removed in a few villages at a cost of Rs. 469. Repairs to a latrine and some markets were made (Rs. 668). A market was constructed (Rs. 300).
37	Erode ... R.C.	...	...	116,150	118,527	234,677	5,868	24·9	2,212	2,161	4,403	103·7	1·9	0·01	5·1	0·9	0·3	10·5	19·3	18·2	18·7	17·9	17·0	17·4									
38	Satyamangalam ... R.C.	...	...	90,279	93,809	184,088	5,418	29·4	2,225	2,063	4,288	107·8	5·2	0·03	10·9	0·3	0·3	6·5	24·6	21·9	23·2	19·1	16·6	17·8									
39	Pollachi ... R.C.	...	...	89,249	94,401	183,650	5,106	27·8	3,027	2,798	5,825	108·2	9·4	...	11·8	0·8	0·3	9·4	33·9	29·6	31·7	22·1	20·0	21·0									
40	Palladam ... R.C.	...	...	132,332	138,052	270,384	7,952	29·4	3,114	2,942	6,056	105·8	2·7	0·02	8·3	1·0	0·3	10·0	23·5	21·3	22·3	19·5	17·7	18·6									
41	Bhavani ... R.C.	...	...	59,032	60,835	119,867	3,185	26·5	1,166	1,028	2,194	113·4	2·7	...	9·6	0·2	0·4	5·4	19·7	16·9	18·3	17·4	15·4	16·4									
42	Kollegal ... R.C.	...	...	43,575	44,949	88,524	2,586	29·2	853	777	1,630	109·7	1·1	0·02	10·2	0·6	0·2	6·3	19·6	17·2	18·4	18·3	17·8	18·2									
43	Udumalpet ... R.C.	...	...	69,346	73,710	143,056	4,153	29·1	1,599	1,444	3,043	110·7	1·8	0·006	7·1	0·3	0·3	11·7	23·0	19·5	21·2	19·6	17·9	18·7									
44	Karur ... R.C.	...	...	97,405	103,638	201,043	4,480	22·2	2,260	2,034	4,394	116·0	5·3	...	3·7	0·1	0·1	12·6	24·2	19·6	21·8	18·6	17·4	16·3									
45	Dharapuram. R.C.	...	...	122,727	126,489	249,216	6,436	25·7	2,822	2,574	5,396	109·6	4·4	0·001	4·0	0·8	0·3	12·1	22·9	20·5	21·6	17·1	16·0	16·6									
13	Total, District ..	7,860	234·9	981,233	1,022,678	2,003,911	55,708	27·8	25,203	23,295	48,498	108·2	5·4	0·02	7·9	0·8	[illegible]	[illegible]	25·7	22·8	24·2	19·5	17·6	18·5				...	...				

* As Chingleput was constituted a municipality in the latter part of the year, the particulars of births and deaths of the area are not available for the full year; hence the statistics for the town are, for purposes of this statement, included in the Chingleput taluk as hitherto.

No. I.—*Showing the Births registered in the districts of the Madras Presidency during the year* 1896—cont.

1	2			3	4			5			6			7	8	9	10		
Number.	Population (exclusive of Europeans and Eurasians) as per census of 1891.			Districts and Towns and Rural Circles.	Population (exclusive of Europeans and Eurasians) for which returns were received.			Number of births registered (exclusive of Europeans and Eurasians and still-births).			Ratio of births per 1,000 of population.			Number of males born to every 100 females born.	Excess of births over deaths per 1,000 of population.	Excess of deaths over births per 1,000 of population.	Mean ratio of births per 1,000 during previous five years.		
	Males.	Females.	Total.		Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.				Males.	Females.	Total.
				TINNEVELLY—*cont.*															
239	75,776	82,776	**158,552**	Ambásamudram ... R.C.	75,776	82,776	**158,552**	2,438	2,480	**4,918**	15·4	15·6	**31·0**	98·3	7·4	...	15·4	14·9	**30·3**
240	77,688	80,358	**158,046**	Sáttúr ... ... R.C.	77,688	80,358	**158,046**	2,507	2,365	**4,872**	15·8	15·0	**30·8**	106·0	8·7	...	13·3	12·2	**25·5**
241	70,284	71,791	**142,075**	Tenkási ... ... R.C.	70,284	71,791	**142,075**	2,153	1,976	**4,129**	15·1	13·9	**29·0**	109·0	9·3	...	14·9	13·8	**28·7**
21	933,222	982,480	**1,915,702**	Total, District ...	933,222	982,480	**1,915,702**	29,863	28,156	**58,019**	15·6	14·7	**30·3**	106·0	8·6	...	14·5	13·5	**28·0**
				TRICHINOPOLY.															
242	43,576	46,090	**89,666**	Trichinopoly ... ... M.T.C.	43,576	46,090	**89,666**	1,445	1,314	**2,759**	16·1	14·6	**30·7**	109·9	...	...	11·5	10·8	**22·3**
243	10,238	11,394	**21,632**	Srírangam ... ... M.T.C.	10,238	11,394	**21,632**	318	361	**679**	14·7	16·7	**31·4**	88·0	...	3·5	15·9	14·9	**30·8**
244	119,143	129,418	**248,561**	Trichinopoly ... ... R.C.	119,143	129,418	**248,561**	3,462	3,291	**6,753**	13·9	13·2	**27·1**	105·1	...	...	15·3	14·3	**29·6**
245	133,852	148,763	**282,615**	Musiri ... ... R.C.	133,852	148,763	**282,615**	4,066	3,969	**8,035**	14·4	14·0	**28·4**	102·4	5·1	...	14·2	13·5	**27·7**
246	118,900	124,785	**243,685**	Kulittalai ... ... R.C.	118,900	124,785	**243,685**	2,940	2,704	**5,644**	12·1	11·1	**23·2**	108·7	4·6	...	9·7	9·2	**18·9**
247	94,627	100,377	**195,004**	Perambalúr ... ... R.C.	94,627	100,377	**195,004**	3,128	3,073	**6,201**	16·0	15·7	**31·7**	101·7	8·6	...	15·5	14·9	**30·4**
248	98,773	102,757	**201,530**	Udaiyárpálaiyam ... R.C.	98,773	102,757	**201,530**	3,048	3,143	**6,191**	15·1	15·6	**30·7**	96·9	3·4	...	16·2	16·0	**32·2**
249	43,926	45,107	**89,033**	Zamíndaries	43,926	45,107	**89,033**	974	963	**1,937**	10·9	10·8	**21·7**	101·1	3·5	...	20·0	19·7	**39·7**
8	663,035	708,691	**1,371,726**	Total, District ...	663,035	708,691	**1,371,726**	19,381	18,818	**38,199**	14·1	13·7	**27·8**	103·0	3·7	...	14·3	13·7	**28·0**
				VIZAGAPATAM.															
250	16,477	17,484	**33,961**	Vizagapatam ... ... M.T.C.	16,477	17,484	**33,961**	635	586	**1,221**	18·7	17·2	**35·9**	108·2	8·7	...	17·2	16·5	**33·7**
251	4,639	5,057	**9,696**	Bimlipatam ... ... M.T.C.	4,639	5,057	**9,696**	180	184	**364**	18·5	19·0	**37·5**	97·8	12·6	...	16·8	14·6	**31·4**
252	14,805	15,930	**30,735**	Vizianagram ... ... M.T.C.	14,805	15,930	**30,735**	468	457	**925**	15·2	14·9	**30·1**	102·4	2·2	...	13·5	13·1	**26·6**
253	8,482	8,519	**17,001**	Anakápalle ... ... M.T.C.	8,482	8,519	**17,001**	285	257	**542**	16·8	15·1	**31·9**	110·9	10·4	...	17·5	16·6	**34·1**
254	6,971	7,477	**14,448**	Bobbili ... ... T.C.	6,971	7,477	**14,448**	253	236	**489**	17·5	16·3	**33·8**	107·2	17·2	...	16·8	18·0	**34·8**
255	5,983	6,927	**12,910**	Sálúr ... ... T.C.	5,983	6,927	**12,910**	98	80	**178**	7·6	6·2	**13·8**	122·5	...	1·7	7·6	6·5	**14·1**
256	4,869	5,495	**10,364**	Pálkonda ... ... T.C.	4,869	5,495	**10,364**	115	113	**228**	11·1	10·9	**22·0**	101·8	...	1·2	13·3	13·0	**26·3**
257	4,711	5,342	**10,053**	Párvatipuram ... ... T.C.	4,711	5,342	**10,053**	139	155	**294**	13·8	15·4	**29·2**	89·7	9·9	...	16·9	15·0	**31·9**
258	76,740	78,210	**154,950**	Sarvasiddhi ... ... R.C.	73,800	75,046	**148,846**	2,677	2,656	**5,333**	18·0	17·8	**35·8**	100·7	18·9	...	13·7	13·4	**27·1**
259	59,459	59,053	**118,512**	Narasapatnam or Golgonda. R.C.	52,386	52,017	**104,456**	1,851	1,872	**3,723**	17·7	17·9	**35·6**	98·8	19·8	...	12·8	12·5	**25·3**
260	66,484	68,661	**135,145**	Anakápalle ... ... R.C.	63,582	65,527	**128,909**	1,952	1,973	**3,925**	15·1	15·3	**30·4**	98·9	17·1	...	12·6	12·7	**25·3**
261	31,481	31,325	**62,806**	Vizagapatam ... ... R.C.	26,718	26,793	**53,511**	892	790	**1,682**	16·6	14·8	**31·4**	112·9	14·8	...	11·5	12·3	**23·8**
262	98,604	99,261	**197,865**	Víravalli ... ... R.C.	86,087	86,281	**172,368**	2,486	2,388	**4,874**	14·4	13·8	**28·2**	104·1	14·1	...	10·5	10·2	**20·7**
263	52,506	52,950	**105,456**	Bimlipatam ... ... R.C.	46,348	46,941	**93,289**	1,424	1,463	**2,887**	15·2	15·7	**30·9**	97·2	14·2	...	10·9	10·4	**21·3**
264	64,401	64,918	**129,319**	Srungavarapukotah ... R.C.	56,874	57,966	**114,840**	1,898	1,846	**3,744**	16·5	16·1	**32·6**	102·8	14·5	...	12·1	11·9	**24·0**
265	67,688	68,030	**135,718**	Vizianagram .. ... R.C.	51,848	52,395	**104,243**	1,650	1,532	**3,182**	15·8	14·7	**30·5**	107·7	11·0	...	9·5	9·0	**18·5**
266	61,564	62,231	**123,795**	Gajapatinagaram ... R.C.	45,191	45,556	**90,747**	2,078	1,960	**4,038**	22·9	21·5	**44·4**	106·0	18·4	...	13·6	13·5	**27·1**
267	77,664	79,162	**156,826**	Chipurupalle ... ... R.C.	64,219	64,930	**129,149**	1,604	1,473	**3,077**	12·4	11·4	**23·8**	108·8	5·6	...	10·0	9·7	**19·7**
268	34,391	36,391	**70,782**	Sálúru ... ... R.C.	27,023	29,040	**56,063**	830	775	**1,605**	14·8	13·8	**28·6**	107·1	9·0	...	11·1	10·3	**21·4**
269	56,393	57,919	**114,312**	Bobbili ... ... R.C.	43,676	41,903	**85,579**	1,489	1,295	**2,784**	17·4	15·1	**32·5**	114·9	12·7	...	12·2	11·9	**24·1**
270	97,279	101,165	**198,444**	Palkonda ... ... R.C.	70,751	73,292	**144,043**	2,334	2,222	**4,556**	16·2	15·4	**31·6**	105·0	10·3	...	11·2	11·0	**22·2**
271	48,321	50,776	**99,097**	Párvatípuram ... ... R.C.	32,231	33,144	**65,375**	1,037	1,031	**2,068**	15·8	15·8	**31·6**	100·5	9·7	...	11·5	11·3	**22·8**
22	959,912	982,283	**1,942,195**	Total, District ...	807,471	823,115	**1,630,586**	26,375	25,344	**51,719**	16·2	15·5	**31·7**	104·0	13·2	...	11·8	11·6	**23·4**
92	1,235,693	1,291,082	**2,526,775**	Total of Town Circles in the Presidency.	1,235,693	1,291,082	**2,526,775**	44,525	42,372	**86,897**	17·6	16·8	**34·4**	105·0	5·4	...	16·0	15·2	**31·2**
179	15,437,516	15,728,888	**31,166,404**	Total of Rural Circles in the Presidency.	14,956,172	15,238,320	**30,194,492**	456,995	436,089	**893,084**	15·1	14·4	**29·5**	104·8	9·6	...	13·5	13·0	**26·5**
271	16,673,209	17,019,970	**33,693,179**	Grand Total for the Presidency.	16,191,865	16,529,402	**32,721,267**	501,520	478,461	**979,981**	15·3	14·6	**29·9**	104·8	9·3	...	13·9	13·3	**27·2**

M.T.C. indicates Municipal Town Circle.
T.C. ——— Non-Municipal Town Circle or Rural Town Circle.
R.C. ——— Rural Circle.

No. II.—*Statement of births and deaths registered in each town and rural circle of the Madras Presidency and the receipts and expenditure in each circle from and on conservancy, together with the principal sanitary defects of each circle, and the measures taken to remedy them for the year* 1896—cont.

1	2	3	4	5			6		7			8					9					10			11	12	13			14
Serial Number.	District and town or rural circle.	Area in square miles.	Average population per square mile.	Population (exclusive of Europeans and Eurasians) for which returns were received.			Births.		Number of deaths registered (exclusive of Europeans and Eurasians and born dead).			Number of deaths of males to every 100 deaths of females.	Deaths per 1,000 of population from									Mean ratio of deaths per 1,000 during previous five years.			Net receipt of each circle under conservancy.	Net expenditure in each circle under conservancy.	Principal sanitary defects of circle			Measures taken for sanitary improvement of circle.
																	All causes.										a	b	c	
				Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.		Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.	Males.	Females.	Total.	Injuries.	All other causes.	Males.	Females.	Total.	RS. A. P.	RS. A. P.	In drainage.	In water-supply.	In domestic cleansing and conservancy.	
	CUDDAPAH—*cont.*																													
54	Ráyachóti ... R.C.	...	...	57,770	55,464	113,234	3,182	28·1	999	948	1,947	105·4	...	0·05	14·0	0·5	0·8	1·8	17·3	17·0	17·1	22·2	22·1	22·1	34 8 6	620 7 3	Except in Ráyachóti town there are no drains constructed anywhere. Refuse water is generally allowed to soak in backyards and low grounds.	The sources of water-supply are not conserved anywhere except in Ráyachóti town.	Domestic cleansing is very backward generally in villages.	The duty of keeping the villages and hamlets clean devolves on the Village Munsifs; and this is enforced as far as possible. Rank vegetation removed. Manure heaps are now stored at a distance from villages.
55	Kadiri ... R.C.	...	...	69,718	65,174	134,892	4,323	32·0	1,367	1,304	2,671	104·8	...	0·1	14·7	0·5	0·6	3·9	19·6	20·0	19·8	21·4	21·7	21·5	109 3 0	996 8 5	Is defective only in a very few villages of the circle.	...	Houses and backyards, generally of lower classes, are not kept clean.	Instructions are given to inhabitants to keep their houses and backyards clean. Wells are constructed in places where water-supply is insufficient.
56	Váyalpád ... R.C.	...	...	64,247	62,788	127,035	3,589	28·2	1,014	1,007	2,021	100·7	...	0·05	13·0	0·4	0·5	2·0	15·8	16·0	15·9	21·7	21·5	21·6	19 6 0	940 14 11	In some villages drainage of houses is allowed to run into cess-pools which are emptied when full.	Scarcity was felt during the hot season when the old konaru of Vayalpad ran dry. The old and new konarus should be deepened and silt removed.	...	Prickly-pear was removed in some of the villages. Two wells were repaired at Garrumkonda and another at Kurapurthi.
57	Madanapalle R.C.	...	...	65,214	62,096	127,310	4,640	36·5	1,130	1,129	2,259	100·0	...	0·01	11·9	0·8	0·6	4·4	17·3	18·1	17·7	18·9	20·3	19·6	34 8 6	620 7 3	There is no regular drainage scheme anywhere in the circle. Refuse water is allowed to soak in earth or evaporate in backyards of houses generally.	Water in wells is generally found at a very great depth, hence well-sinking is very costly. This accounts for insufficiency of the number of wells in most of the villages.	In Madanapalli and some other villages the latrines are deep pits wherefrom the contents are never removed. In houses where the backyards are small the filthy pits generally contaminate drinking-water wells which are close to them.	Prickly-pear was, to some extent, removed in some of the villages.
12	Total, District ...	8,722	145·8	646,132	625,589	1,271,721	38,346	30·1	12,518	12,320	24,838	101·6	0·5	0·2	14·2	0·3	0·5	3·8	19·4	19·7	19·5	22·7	22·5	22·6	...	...				
	GANJÁM.																													
58	Chicacole ... M.T.C.	...	...	8,451	9,753	18,204	385	21·1	222	199	421	111·5	2·3	0·05	7·1	1·5	0·7	11·5	26·2	20·4	23·1	26·3	20·4	23·1	537 15 0	3,121 9 4	The whole drainage is very defective and out of level.	...	...	Two corrugated iron latrines and ten dust-bins were constructed (Rs. 93 and 31, respectively). A drain was made (Rs. 206) and a market repaired (Rs. 62). Prickly-pear and rank vegetation removed (Rs. 35).
59	Berhampur M.T.C.	...	...	12,292	13,201	25,493	467	18·3	443	421	864	105·2	8·9	0·4	10·1	4·7	0·3	9·5	36·0	31·9	33·9	24·4	19·0	21·6	520 9 0	5,109 8 4	Very defective; in some places the drains are channels dug in the ground. Several of the drains are choked with earth which has become as hard as stone from long deposit. House drainage in its true meaning does not exist; waste water escapes into backyards of houses or into the streets and lanes. Several of the existing cess-pools are mere holes dug in the earth, which are in many cases not large enough to contain the sewage water of the houses and thus permit an overflow.	Is subject to pollution by men and cattle. The principal tanks in the town were fed in December last by a reservoir, the water of which was conveyed through a channel which could be compared to an open latrine.	In many of the latrines pigs are found as scavengers. People prefer fields to latrines. Urinals and latrines are required in public and more frequented thoroughfares.	Some dust-bins and a market were constructed (Rs. 149 and 118, respectively). A public latrine and a slaughter-house were repaired. (Rs. 55 and 38, respectively).
60	Parlákimedi M.T.C.	...	...	7,717	8,662	16,379	598	36·5	179	149	328	120·1	...	...	8·8	2·9	...	8·3	23·2	17·2	20·0	25·0	19·5	22·1	77 4 6	1,755 10 9	System of house drainage is deficient. There are 14 cess-pools, 7 of which are mere holes dug in the ground and are objectionable.	Two tanks are conserved. A portion only of one of these two tanks (Seethasagram) which lies within municipal limits is conserved. The portion outside is used for all purposes which tend to pollute the water.	The latrines are not freely resorted to; people, as a rule, prefer open fields and hill sides. There is one sewage cart which is certainly not sufficient.	A drain has been constructed (Rs. 15), repairs to latrines and slaughter-house were made (Rs. 23), certain drains were repaired (Rs. 232). Improvement to water-supply effected Rs. 25.

No. II.—*Statement of births and deaths registered in each town and rural circle of the Madras Presidency and the receipts and expenditure in each circle from and on conservancy, together with the principal sanitary defects of each circle, and the measures taken to remedy them for the year* 1896—cont.

1	2	3	4	5			6		7			8					9					10			11	12	13			14
Serial Number.	District and town or rural circle.	Area in square miles.	Average population per square mile.	Population (exclusive of Europeans and Eurasians) for which returns were received.			Births.		Number of deaths registered (exclusive of Europeans and Eurasians and born dead).			Number of deaths of males to every 100 deaths of females.	Deaths per 1,000 of population from				Injuries.	All other causes.	All causes.			Mean ratio of deaths per 1,000 during previous five years.			Net receipt of each circle under conservancy.	Net expenditure in each circle under conservancy.	Principal sanitary defects of circle			Measures taken for sanitary improvement of circle.
				Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.		Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.			Males.	Females	Total.	Males.	Females.	Total.			a In drainage.	b In water-supply.	c In domestic cleansing and conservancy.	
	CUDDAPAH.																									Rs. A. P.	Rs. A. P.				
46	Cuddapah ... M.T.C.	...	...	8,597	8,614	17,211	424	24·6	196	181	377	108·3	0·1	1·2	10·2	0·8	0·5	9·1	22·8	21·0	21·9	37·2	35·9	36·5	873 2 0	6,154 13 3	No system of drainage. Cess-pools are cleaned only when full by the owners.	.....	.....	Some improvements to water-supply were effected (Rs. 3,606). Two latrines were constructed (Rs. 133), and two others repaired (Rs. 169). A market was also repaired (Rs. 85).
47	Badvel ... R.C.	...	...	46,792	46,358	93,150	2,937	31·5	905	818	1,723	110·6	...	0·05	15·1	0·2	0·5	2·6	19·3	17·6	18·4	25·3	23·8	24·5	31 9 0	1,372 15 9	In some villages the streets are very low and narrow. There is no proper drainage for the free flow of water.	Some wells require parapet walls and substantial pavements to prevent dirty water getting in. Some of the wells should be cleared of silt.	Ryots generally tie their cattle in their houses.	The villagers are advised by the inspecting officers during their tours to keep the villages clean.
48	Proddatur ... R.C.	...	...	49,572	48,845	98,417	2,824	28·7	1,006	993	1,999	101·3	...	0·3	14·5	0·2	0·4	4·9	20·3	20·3	20·3	24·9	24·3	24·6	200 0 0	2,269 13 4	Except in the main streets of Proddatur town where there are side drains of stone revetment, there is no system of drainage anywhere in the circle.	In the town of Proddatur most of the people use the water of an irrigation channel, which is fed by surface drainage during the rainy season and rendered impure by filthy water getting into it. Wells, reservoirs, rivers, and streams form the chief sources of supply in outlying villages, but in the case of wells the surroundings are unsatisfactory; the reservoirs are fed by the drainage of surrounding fields which are manured: the rivers and streams are polluted by the people.	The cess-pools in Proddatur town are an eye-sore; some of them are so deep that there is a chance of well water being rendered impure. The private latrines are also dirty and badly constructed. The dwelling houses in villages can be classed as so many cattle sheds and not human habitations. The urine and dung are not removed daily and when it is done it is done so imperfectly that the houses, are as stinking as manure pits. The filthy water of houses either runs into streets or evaporates in backyards.	People are warned to keep the surroundings of wells clean on pain of being prosecuted criminally. Under recent orders of the Revenue Department occupation by dung heaps, &c., in village sites is being charged with penal rates. The Village Magistrates are often instructed to conserve river and streams.
49	Siddhavattam R.C.	...	...	33,680	33,129	66,809	1,956	29·2	665	702	1,367	94·7	0·2	0·07	16·9	0·2	0·4	2·7	19·8	21·1	20·4	23·5	21·9	22·7	0 12 0	887 0 0	The drainage system generally requires great improvement.	.....	Ryots are generally in the habit of storing dung heaps within the compounds of their houses.	Steps are being taken to remove dung heaps to distant places. Much of the prickly-pear near Atloor village has been cleared.
50	Pullampet ... R.C.	...	...	75,597	73,496	149,093	3,974	26·6	1,416	1,445	2,861	98·0	1·7	0·1	12·5	0·2	0·5	4·1	18·7	19·6	19·1	22·2	21·8	22·0	50 6 0	1,703 15 3	There are no drains in any of the villages of the circle. Rain water finds its own way and drainage from houses is let into streets in some places and in others into cess-pools which are cleaned when necessary.	Many of the drinking-water wells in villages not included in Unions have no platforms. Water spilt near wells finds its way into them by leakage.	.....	Steps are being taken to construct platforms around wells.
51	Cuddapah ... R.C.	...	...	69,744	67,711	137,455	3,859	28·2	1,339	1,325	2,664	101·0	0·05	0·1	15·7	0·2	0·5	2·8	19·2	19·5	19·3	22·5	22·5	22·5	21 12 0	1,435 11 10	There are no drains in any of the villages. Rain water runs through streets and the drainage of houses empties into cess-pools which are not cleaned for many days. In some villages house drainage also finds its way into streets.	*Nil*	The dung heaps in many villages are kept very close to dwelling houses or in their midst.	Nothing could be done for constructing drains, and removal of dung heaps from near villages. Village officers are instructed to advise people, and where found necessary, notices are also issued to remove the heaps.
52	Jammalamadugu R.C.	...	...	51,393	49,880	101,273	3,581	35·4	1,167	1,198	2,365	97·4	0·8	0·9	13·9	0·2	0·5	7·6	22·7	24·0	23·3	24·8	23·4	23·9	19 5 0	1,205 2 4	In villages, except Jammalamadugu, there are no drains for the streets. The drainage of houses is generally let out into open, shallow pits which gradually get dry.	In some villages scarcity of water is felt during summer, when springs and channels (which are subject to pollution) are resorted to. Wells are not provided with platforms or drains in some places.	Ryots do not keep their houses generally clean, as cattle are tied in their houses and dung heaps stored in backyards. The streets in non-union villages are generally not cleaned.	Sanction was accorded for the sinking of two drinking-water wells and removal of prickly-pear.
53	Pulivendla ... R.C.	...	...	53,808	52,034	105,842	3,057	28·8	1,314	1,270	2,584	103·4	2·1	0·6	16·7	0·2	0·4	4·4	24·4	24·4	24·4	24·0	23·6	23·8	66 4 0	1,445 10 7	Except in the union villages there is no drainage anywhere beyond surface drains. The refuse water from houses is allowed to sink in the ground in some places, while in others it flows into sink pits which are periodically cleaned.	In some villages people get into wells for the purpose of getting water.	Cattle are tied inside dwelling houses. Though the urine and dung are daily removed and cleared, yet the smell from the houses is very offensive. There is no conservancy establishment beyond the village pigs. These creatures while they devour, leave an excreta deposit behind them their own. In the hot weather the dry winds, impregnated with dried ordure, contaminate the air, while in wet weather the sewage defiles the water.	Every endeavour is taken to impress on the minds of the people the consequence of inattention to these important points as to conservancy, and there has been a marked improvement noticeable.

No. II.—*Statement of births and deaths registered in each town and rural circle of the Madras Presidency and the receipts and expenditure in each circle from and on conservancy, together with the principal sanitary defects of each circle, and the measures taken to remedy them for the year* 1896—cont.

1	2	3	4	5			6		7			8					9							10			11	12	13.			14
Serial Number.	District and town or rural circle.	Area in square miles.	Average population per square mile.	Population (exclusive of Europeans and Eurasians) for which returns were received.			Births.		Number of deaths registered (exclusive of Europeans and Eurasians and born dead).			Number of deaths of males to every 100 deaths of females.	Deaths per 1,000				Deaths per 1,000 of population from							Mean ratio of deaths per 1,000 during previous five years.			Net receipt of each circle under conservancy.	Net expenditure in each circle under conservancy.	Principal sanitary defects of circle.			Measures taken for sanitary improvement of circle.
				Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.		Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.	Injuries.	All other causes.	All causes. Males.	All causes. Females.	All causes. Total.	Males.	Females.	Total.					a. In drainage.	b. In water-supply.	c. In domestic cleansing and conservancy.	
	GANJÁM—*cont.*																											RS. A. P.	RS. A. P.				
61	Chicacole ... R.C.	...	...	80,346	88,547	168,893	4,792	28·3	2,184	2,209	4,393	98·8	2·1	1·6	18·7	0·4	0·2	3·0	27·1	24·9	26·0	20·9	18·6	19·7				...	...	The condition of drains in majority of unions and smaller villages is not good. Sewage water of houses is often permitted to run into the drains and there stagnate. House drainage in its real sense does not exist. Sewage water is permitted to sink into the soil or run out into streets and lanes.	In smaller villages no precautions are taken to prevent pollution of water-supply. The quality of drinking water especially that of tanks is very bad. Nearly all small tanks are dry or very nearly so; the larger ones contain very little water; the level of well water is also very low from total failure of the north-east monsoon.	In the backyards of houses droppings of cattle and other rubbish are accumulated and removed to the fields once a year or so as manure. Cattle and human beings are often huddled together in the same houses or in sheds in the backyards of houses. Private scavenging is hardly ever done. The people shew a preference to the fields, also lanes, and outskirts of the village for purposes of nature. Latrines are an exception and very few exist. Pigs and donkeys act as scavengers and they in turn commit a deal of nuisance.	In union and some big villages there are scavengers paid for cleaning the streets and sites, and tanks reserved for drinking purposes are watched. Village heads are directed to keep the villages clean and prevent pollution in tanks; but they do not seem to stick up to this. Villagers are warned by the police in their beats or rounds not to commit nuisance and are instructed to keep their houses and compounds clean. Disobedience to orders is occasionally met by criminal prosecution. Pits, where dirty water accumulates, are filled up. Tanks and wells are repaired by the Taluk Board in some villages. Rank vegetation is also removed wherever it is found to be very large and obnoxious.
62	Berhampur ... R.C.	...	...	117,936	129,671	247,607	7,319	29·5	2,843	2,584	5,427	110·0	2·1	1·4	14·4	1·3	0·3	2·4	24·1	19·9	21·9	17·1	14·2	15·6				...	...				
63	Goomsur ... R.C.	...	...	79,943	85,895	165,838	4,212	25·3	1,494	1,348	2,842	110·8	0·1	0·8	11·9	0·7	0·4	3·2	18·6	15·6	17·1	17·4	14·9	16·1				...	...				
64	Zamindaries	...	...	270,067	289,542	559,609	14,807	26·4	5,700	5,114	10,814	111·4	0·8	1·3	13·9	0·5	0·3	2·6	21·1	17·6	19·3	13·3	11·8	12·3				...	...				
65	Agency Tracts	...	...	17,345	16,729	34,074	368	10·8	211	177	388	119·2	0·2	0·05	10·5	...	0·1	0·5	12·1	10·5	11·3	1·6	1·5	1·5				...	...				
8	Total, District ...	8,370	226·6	594,097	642,000	1,236,097	32,948	26·6	13,276	12,201	25,477	108·5	1·3	1·2	14·0	0·8	0·3	3·0	22·3	19·0	20·6	13·4	11·6	12·5				...	...				
	GÓDÁVARI.																																
66	Cocanada ... M.T.C	...	...	20,066	20,002	40,068	1,012	25·2	357	396	753	90·1	0·4	0·02	2·6	2·4	0·6	12·8	17·8	19·8	18·8	23·5	20·1	21·8				2,099 3 0	1,736 2 0	Drainage of streets is non-existent for the most part or represented by ditches at the sides of the roads. The only attempt at providing a pucka drain is an open channel leading from the market place and discharging into the creek. At its point of discharge it runs under ground from 78 to 100 yards, and as this portion cannot be cleaned and is choked up every day by the tide, it is a most insanitary nuisance.	The tanks which supply drinking water to the town are fed by canal water brought into the town by two channels which are open throughout the greater part of their course. It is liable to contamination first in the canal, second in the channel and third in the tanks. Water obtained from wells in the centre of the town is brackish.	There are seven pucka-built latrines of different sizes. None of these latrines are roofed, or have any shed for storing sand or sheltering the sweepers. More latrines are required.	Some wells were sunk (Rs. 316). A tank was repaired (Rs. 1,858). Three public latrines and two drains were repaired (Rs. 206 and Rs. 824 respectively).
67	Rajahmundry M.T.C.	...	...	13,869	14,410	28,279	991	35·0	402	433	925	113·6	1·9	0·1	10·0	3·8	1·5	15·4	35·5	30·0	32·7	33·2	28·4	30·8				2,940 12 0	9,339 6 1	Defective. No regular system. The roads have side cuttings or badly constructed masonry drains. There are 79 cesspools which are said to be cleaned out daily, but it is not certain that the work is done thoroughly.	The principle source of supply is the Gódávari river, but the water as obtained in the town is for various reasons impure and unwholesome.	The objectionable and most unpleasant custom of removing night-soil in 'Cavadies' is still pursued. The sanitary condition of Rajahmundry cannot be said to be satisfactory.	A tank and a few wells were repaired at a cost of Rs. 52, and other improvements to water-supply effected (Rs. 75). A market was constructed (Rs. 327). Repairs to a latrine drains, a market and a slaughter-house were effected, (Rs. 461). Two watchmen are employed to guard the river at the important drinking ghâts. Boats are allowed to land at a fixed place, and care is taken to see that the water is not polluted.
68	Ellore ... M.T.C.	...	...	14,242	15,054	29,296	597	20·4	267	218	485	122·5	0·2	...	4·4	1·9	0·3	9·7	18·7	14·5	16·5	26·1	23·6	24·8				531 1 0	5,959 2 1	Some roads have drains built with rough stone and chunam or mere cuttings. No regular system.	There are 31 wells, many of which are simply potering wells.	.....	The town was surveyed by the Sanitary Engineer for providing the town with a proper drainage, but for want of funds the scheme had to be postponed. Nine public latrines	
69	Pithápuram ... T.C.	...	...	6,807	6,924	13,731	155	11·3	90	83	173	108·4	0·8	...	1·7	0·2	0·7	9·2	13·2	12·0	12·6	11·0	8·3	9·7				...	...	A well sunk, Rs. 123. A tank and four wells were repaired, Rs. 46. and a market were constructed, Rs. 277 and Rs. 40 respectively. and four drains were repaired, Rs. 58. There is no regular system. Only a few side cuttings and badly constructed brick drains which discharge into the streets exist. Sewage sinks into the soil.	Quality fairly good and quantity sufficient. Conditions and surroundings of private wells are insanitary, having no regular platforms and parapets.	Backyards are filthy and neglected. Cattle are kept in them with heaps of manure. Latrines insufficient. No private scavenging.	Two public latrines The construction of two latrines to the west of the town.

No. II.—*Statement of births and deaths registered in each town and rural circle of the Madras Presidency and the receipts and expenditure in each circle from and on conservancy, together with the principal sanitary defects of each circle, and the measures taken to remedy them for the year* 1896—cont.

1	2	3	4	5			6		7			8					9					10			11	12	13			14
Serial Number.	District and town or rural circle.	Area in square miles.	Average population per square mile.	Population (exclusive of Europeans and Eurasians) for which returns were received.			Births.		Number of deaths registered (exclusive of Europeans and Eurasians and born dead).			Number of deaths of males to every 100 deaths of females.	Deaths per 1,000 of population from				Mean ratio of deaths per 1,000 during previous five years.			Net receipt of each circle under conservancy.	Net expenditure in each circle under conservancy.	Principal sanitary defects of circle			Measures taken for sanitary improvement of circle.
				Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.		Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.	Injuries.	All other causes.	All causes. Males.	All causes. Females.	All causes. Total.	Males.	Females.	Total.			a In drainage.	b In water-supply.	c In domestic cleansing and conservancy.	
	GÓDÁVARI—*cont.*																								RS. A. P.	RS. A. P.				
70	Peddápuram ... T.C.	...	...	6,619	7,033	13,652	428	31·3	180	176	356	102·2	...	...	5·7	0·1	0·4	19·8	27·2	25·0	26·0	26·2	22·8	24·5	...	...	No drains. There are a few surface channels leading either to streets or to cess-pools. The cess-pools are not licensed and not in good repair, filled with foul water and never cleaned thoroughly.	Quantity sufficient and quality indifferent. Wells have parapets and platforms. Tanks are polluted in spite of 'watchers.'	Backyards are, as a rule, in a most filthy and neglected condition and are invariably occupied by cattle. Soil saturated with sewage. There are no public latrines.	Better cleanliness of cess-pools. Construction of four latrines. Better cleaning of roads and streets.
71	Samalkot ... T.C.	...	...	6,407	7,002	13,409	133	9·9	41	47	88	87·2	...	...	6·0	...	...	0·6	6·4	6·7	6·6	13·1	11·5	12·3	...	...	No proper outlets. No cess-pools. Sewage is let out into the streets.	Quantity sufficient, but quality bad. Private wells bad. Graveyard in the vicinity of principal tank.	Backyards dirty and neglected. No private latrines. Public latrines are dirty and in disrepair.	Better surface cleanliness and some repairs to roads and drains.
72	Dowlaishweram T.C.	...	...	4,818	5,636	10,454	328	31·4	125	110	235	113·6	1·8	...	...	...	0·6	20·1	25·9	19·5	22·5	32·1	23·5	28·6	...	...	No regular system. There are some surface channels either leading into the river or to nowhere in particular.	Quantity sufficient, but open to pollution. Private wells bad.	Backyards are, as a rule, in a most insanitary condition with accumulations of cow-dung, &c. There are many private latrines which are not quite clean. The two public latrines are out of the way and are not freely resorted to by the people.	Repairs to roads and drains. Better surface cleanliness.
73	Ramachandrapuram R.C.	...	...	129,355	131,828	261,183	7,136	27·3	2,653	2,391	5,044	110·9	0·9	0·1	7·1	0·3	0·3	10·6	20·5	18·1	19·3	23·2	20·8	22·0	...	...	There is no system of drainage; the roads have side cuttings. There are no cess-pools. Surface cleanliness partly good.	Water is obtained from tanks and wells. Quantity sufficient and quality is fairly good during the rainy season. One tank is set apart for drinking, which is supplied by a channel from the canal.	Backyards dirty. There are no public latrines, but a few private ones conserved by toties exist.	Some new dust-bins and lamps were put up. Repairs to wells and roads. Cutting of side drains.
74	Narsapur ... R.C.	...	...	110,178	120,137	230,315	5,780	25·0	1,703	1,516	3,219	112·3	0·2	0·05	2·3	0·3	0·2	10·9	15·4	12·6	13·9	17·6	15·2	16·4	...	...	No drains. There are a few cess-pools which are filthy.	Water is obtained from canal and from about 15 wells. The canal water is polluted. The wells are good and properly protected.	Backyards are, as usual, dirty. Scavenging establishment sufficient. Dust-bins sufficient and freely used. Roads are clean.	Improvements to water-supply. One-walled latrine at a cost of Rs. 2,000 has been constructed.
75	Amalápuram ... R.C.	...	...	125,189	130,883	256,072	5,894	23·0	1,820	1,589	3,409	114·5	0·4	0·1	4·8	0·4	0·2	7·4	14·5	12·1	13·3	17·3	15·5	16·4	...	...	No proper system. Some few side cuttings exist along the roads leading into the drinking water tanks and others end in large filthy ponds. No cess-pools. Soil damp.	The water is obtained from the canal and a tank. The canal water is stored in the tank guarded by a watcher, but the bunds of the tank are polluted. Surroundings of wells are bad.	Backyards dirty. No latrines at present. Private scavenging inadequate. Cattle are housed in backyards for manure, &c.	.....
76	Tanuku ... R.C.	...	...	99,535	104,505	204,040	6,100	29·9	1,972	1,678	3,650	117·5	0·05	0·04	7·7	0·3	0·2	9·6	19·5	16·0	17·8	23·2	20·4	21·8	...	...	No drains except a few side cuttings. Sewage sinks into the soil.	Water is obtained from canal and a tank. There are a few private wells. The canal water is very impure and the tank water is not much better. A watcher is employed for one tank.	Backyards are not kept clean. No rubbish depot. Street sweepings are burnt. There are five public latrines and 30 private latrines. No system of private scavengering.	.....
77	Bhimavaram ... R.C.	...	...	59,624	62,366	121,990	2,960	24·2	906	807	1,713	112·2	0·1	0·1	3·3	0·3	0·1	10·1	15·1	12·9	14·0	21·1	18·8	19·9	...	...	No regular drains. No cess-pools. Sewage sinks into the soil.	Water is obtained from four tanks and a few wells. Quality especially of the tank water is not very good. None of the tanks are specially set apart for drinking purposes.	Backyards neglected and untidy, often used as latrines. Surface cleanliness and condition of roads, &c., fairly satisfactory. No public latrines. No private scavengering system is in force.	.....

No. II.—*Statement of births and deaths registered in each town and rural circle of the Madras Presidency and the receipts and expenditure in each circle from and on conservancy, together with the principal sanitary defects of each circle, and the measures taken to remedy them for the year* 1896—cont.

1	2	3	4	5			6		7			8					9					10			11	12	13			14
Serial Number.	District and town or rural circle.	Area in square miles.	Average population per square mile.	Population (exclusive of Europeans and Eurasians) for which returns were received.			Births.		Number of deaths registered (exclusive of Europeans and Eurasians and born dead).			Number of deaths of males to every 100 deaths of females.	Deaths per 1,000				Injuries.	All other causes.	All causes.			Mean ratio of deaths per 1,000 during previous five years.			Net receipt of each circle under conservancy.	Net expenditure in each circle under conservancy.	Principal sanitary defects of circle			Measures taken for sanitary improvement of circle.
																	of population from										a	b	c	
				Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.		Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.			Males.	Females.	Total.	Males.	Females.	Total.			In drainage.	In water-supply.	In domestic cleansing and conservancy.	
	GÓDÁVARI—*cont.*																													
78	Ellore ... R.C.	...	...	73,008	69,577	142,585	2,931	20·5	1,104	950	2,054	116·2	0·1	0·01	8·5	0·2	0·3	5·3	15·1	13·6	14·4	18·9	18·7	18·8	RS. A. P. ...	RS. A. P. ...	Drainage both of streets and houses bad. There are no cess-pools; soil damp.	Water is obtained from the canal, tanks and wells, open to pollution everywhere. None are set apart for drinking purposes. The surroundings of wells are quite insanitary.	No regular system of conservancy. Rubbish and filth stored in backyard, and cattle are housed in them. No public or private latrines.	Removing weeds from tanks, constructing steps to drinking-water tanks, &c.
79	Yernagúdem ... R.C.	...	...	68,355	67,849	136,204	3,448	25·3	1,133	1,069	2,202	105·9	0·1	0·1	11·1	0·4	0·3	4·1	16·5	15·7	16·1	21·0	20·4	20·7	...	...	No regular system. A few side cuttings exist. There are many filthy swamps into which rubbish is thrown.	Water is obtained from the river which is open to pollution. Almost all the wells are insanitary.	Backyards neglected and very filthy. No conservancy system. No public nor private latrines.	*Nil.*
80	Rajahmundry ... R.C.	...	...	53,693	53,173	106,866	2,532	23·6	1,069	954	2,023	112·0	0·6	0·2	13·3	0·5	0·2	4·1	19·9	17·9	18·9	22·4	21·6	22·0	...	...	No system at all, broken grounds and excavations in which rain water lodges. No private drains.	Water is obtained from the river, wells and tanks which are open to pollution. No water conservancy system.	Backyards are filthy and cattle are housed in them. No latrines. No method of conservancy.	*Nil.*
81	Peddápuram ... R.C.	...	...	61,654	62,374	1,241,028	4,366	35·2	1,593	1,483	3,076	107·4	0·3	0·05	18·1	0·3	0·4	5·7	25·8	23·8	24·8	26·4	24·9	25·7	...	...	No system. Side-cuttings and surface channels exist which are quite insufficient. No cess-pools and sewage sinks into the soil.	Water sources are polluted everywhere, there being no proper vigilence kept over them.	Far from satisfactory. Cattle dung and rubbish are stored in backyards for manure. No public or private latrines.	None.
82	Bhadráchalam ... R.C.	...	...	64,762	62,352	* 127,114	4,365	34·3	1,790	1,518	3,308	117·8	0·01	0·1	16·5	0·8	0·4	8·2	27·6	24·4	26·0	15·0	14·6	14·8	...	...	No proper system. Side cuttings with no proper outlets exist. No cess-pools.	Water is obtained from the river which is open to contamination everywhere.	The houses are very filthy. No latrines and no private scavangeting.	None.
83	Zemindaries	...	...	108,451	110,121	218,572	4,402	20·1	1,491	1,376	2,867	108·3	0·1	0·1	8·9	0·3	0·2	3·5	13·7	12·4	13·1	21·4	19·7	20·5	...	...	No proper drains. Side cuttings and a few badly constructed brick drains exist. There are about twenty private masonry cess-pools; some are very old and out of repair, never cleaned thoroughly.	Water is obtained from several very good and deep wells, also from a river. Quality good; quantity sufficient. Wells have parapets and platforms.	Backyards are, as a rule, in a very filthy and neglected condition and occupied by cattle. The streets are very dirty. Dust-bins are not properly used. Two latrines for females. No private scavengering.	.....
18	Total, District ...	7,857	264·4	1,026,632	1,051,226	2,077,858	53,558	25·8	18,786	16,794	35,580	111·8	0·3	0·1	8·1	0·4	0·3	7·9	18·3	16·0	17·1	20·8	19·0	19·9						
	KISTNA.																													
84	Masulipatam. M.T.C.	...	...	18,539	20,128	38,667	1,198	31·0	487	434	921	112·2	...	0·02	6·2	1·6	0·4	15·6	26·3	21·6	23·8	30·3	25·9	28·0	694 2 0	9,900 9 2	Drainage does not exist in any complete form. A good deal of money has been expended on side channel drains.	As usual subject to pollution.	The bullocks employed for dragging the conservancy carts are miserable-looking. The Silchar cinerator is close to the slaughter-house. The night-soil depots exist only in name. The conservancy staff is apparently a staff for many things, and is far too numerous in the matter of Inspectors. Two certificated men could easily replace these incapables.	A tank and 3 wells were repaired (Rs. 205), and other improvements to water-supply effected (Rs. 1,476). Prickly-pear and rank vegetation removed (Rs. 358). A public latrine, 8 drains, a market and a slaughter-house were repaired (Rs. 1,093).
85	Guntúr ... M.T.C.	...	...	11,705	11,562	23,267	969	41·6	450	394	844	114·2	...	...	9·5	4·3	1·7	21·4	38·4	34·9	36·3	30·6	28·4	29·5	2,646 15 10	12,147 6 1	No system. In houses where there are no cess-pools the waste water is either discharged into streets or forms under-ground cess-pools.	Most of the private wells are without parapets, platforms and drains. In some parts of the town during the hot season scarcity is felt.	.....	A tank was dug (Rs. 477), and a well sunk (Rs. 213). Five wells were repaired (Rs. 487). Prickly-pear removed (Rs. 256). A latrine and a market were constructed (Rs. 415), and a few others were repaired (Rs. 451). The Sanitary Inspectors have been ordered to report on the condition of backyards, and issue notices to keep them clean. The town will shortly be surveyed for adopting a systematic drainage scheme.
86	Bezwáda ... M.T.C.	...	...	11,330	9,281	20,611	625	30·3	316	291	607	108·6	0·04	...	4·9	4·6	0·7	19·2	27·9	31·3	29·4	31·4	35·1	33·0	1,913 12 0	10,285 15 7	There is no drainage. There are 50 cess-pools, but most of them are ill-constructed and insanitary.	As usual the canal is subject to pollution by boatmen. The market well should be closed. Many of the well platforms require repair badly.	The miserable and unsatisfactory arrangements for conservancy are the most striking defects, and the presence of an energetic Sanitary Inspector is urgently needed. The carts and bullocks used for the removal of refuse are still of the poorest description. The old tank bed is used as a rubbish depot, sometimes as a night-soil depot also. Some latrines on standard plan are required. The existing ones are not freely resorted to, being offensive and in need of repair.	Estimates for water-supply have been made and are not yet approved. Sites have been selected for night-soil and rubbish depot beyond the Forest Hill. Efforts are being made to have the collections in the old tank bed sold and removed. A slaughter-house was repaired (Rs. 210.) Some drains were constructed (Rs. 124).

* Including Agency Tracts.

No. II.—*Statement of births and deaths registered in each town and rural circle of the Madras Presidency and the receipts and expenditure in each circle from and on conservancy, together with the principal sanitary defects of each circle, and the measures taken to remedy them for the year* 1896—cont.

1	2		3	4	5			6		7			8					9							10			11	12	13			14
Serial Number.	District and town or rural circle.		Area in square miles.	Average population per square mile.	Population (exclusive of Europeans and Eurasians) for which returns were received.			Births.		Number of deaths registered (exclusive of Europeans and Eurasians and born dead).			Number of deaths of males to every 100 deaths of females.	Deaths per 1,000 of population from										Mean ratio of deaths per 1,000 during previous five years.			Net receipt of each circle under conservancy.	Net expenditure in each circle under conservancy.	Principal sanitary defects of circle			Measures taken for sanitary improvement of circle.
					Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.		Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.	Injuries.	All other causes.	All causes. Males.	All causes. Females.	All causes. Total.	Males.	Females.	Total.			a In drainage.	b In water-supply.	c In domestic cleansing and conservancy.	
	KISTNA—*cont.*																											RS. A. P.	RS. A. P.				
87	Chirála ...	T.C.	...	...	5,241	5,340	10,581	439	41·5	151	124	275	121·8	...	...	9·5	0·7	0·4	15·3	29·2	23·2	25·9	28·6	23·0	25·8			...	...	No system of drainage exists anywhere. In some of the low-lying and wet villages water accumulates and remains stagnant during the rainy season. Where the soil is clayey the streets become muddy in the rainy season.	The water-supply is, as usual, from the various sources: Rivers, canals, tanks and wells. In most cases no special arrangements are made for protecting the water-supply from pollution. In some villages wells are without parapet walls and in others step wells exist which require to be converted into draw wells. In the hot seasons scarcity is felt in many villages, when pits are dug in tank beds, &c.	The chief sanitary defects are much the same in the various registration circles: Want of toties, pollution of water channels and their banks and the neighbourhood of villages, the storage of cow-dung in backyards, inefficient disposal of rubbish and non-disposal—except by animals—of night-soil, and in some cases the pursuit of unpleasant occupation, such as dyeing in villages.	Rs. 1,002 was spent towards improvement of water-supply. The District Sanitary Officer writes: "I do not know of any attempt to protect the sources of water-supply, though the number of tanks and wells which require attention is large and the expenditure of Rs. 1,002 under this head is hardly worth considering." Some dust-bins were constructed, Rs. 138. In regard to defects under domestic cleansing and conservancy he states: "No steps I know of are taken to remedy these defects except in the case of the least important—the storage of cow-dung—and in this case prosecutions are carried out without any attempt being made to provide ryots with other places than their backyards."
88	Bápatla ...	R.C.	...	...	113,938	109,718	222,756	8,154	31·6	2,419	2,129	4,548	113·6	0·008	0·02	3·0	0·1	0·5	16·9	27·3	19·4	26·3	22·3	21·0	21·6								
89	Guntúr ...	R.C.	...	...	87,104	84,241	171,345	6,446	25·9	1,846	1,803	3,649	102·3	0·1	0·08	6·7	0·3	0·3	13·8	21·1	21·4	21·2	24·5	22·9	23·6								
90	Palnad ...	R.C.	...	...	73,383	69,984	143,367	5,277	26·7	1,525	1,525	3,050	100·0	0·02	0·03	7·0	0·5	0·4	13·3	20·7	21·8	21·2	22·1	22·1	22·1								
91	Narasaraopet	R.C.	...	...	70,191	71,814	142,005	5,258	37·0	1,450	1,398	2,848	103·7	...	...	12·4	0·1	0·3	7·2	20·6	19·4	20·0	26·8	26·4	26·2								
92	Gudiváda ...	R.C.	...	...	78,910	77,454	156,364	4,712	30·1	1,342	1,193	2,535	112·5	...	0·03	11·6	0·2	0·3	4·1	17·0	15·4	16·2	19·6	19·6	19·7								
93	Sattenapalle ...	R.C.	...	...	60,088	58,220	118,308	3,688	31·1	1,121	987	2,108	113·6	...	0·01	2·3	0·2	0·2	15·1	18·6	17·0	17·8	26·3	25·0	25·7								
94	Masulipatam ...	R.C.	...	...	70,034	68,577	138,611	5,105	36·8	1,382	1,295	2,677	106·7	0·007	0·01	11·2	0·3	0·3	7·5	19·7	18·9	19·3	22·4	21·4	21·9								
95	Nandigama ...	R.C.	...	...	80,254	79,313	159,567	4,484	27·9	1,413	1,321	2,734	106·9	...	0·06	2·3	0·4	0·3	14·1	17·6	18·6	17·1	18·9	17·4	18·2								
96	Bezwáda ...	R.C.	...	...	63,376	63,322	126,698	4,832	38·2	1,378	1,410	2,788	97·7	0·3	0·2	9·4	0·2	0·2	11·7	21·7	22·3	22·0	23·7	22·8	23·2								
98	Vinukonda ...	R.C.	...	...	43,318	42,413	85,731	3,052	35·6	911	840	1,751	108·4	...	0·3	10·2	0·2	0·4	9·3	21·0	19·8	20·4	23·3	22·9	23·1								
99	Zemindaries ...	R.C.	...	...	41,760	40,671	82,431	2,668	32·3	718	680	1,398	105·6	...	0·03	11·2	0·02	0·2	5·5	17·1	16·7	16·9	22·3	21·9	22·1								
			...	...	100,806	104,929	214,735	6,013	28·0	1,547	1,567	3,114	93·7	...	0·07	8·1	0·2	0·3	5·8	14·0	14·9	14·4	15·8	15·4	15·6								
16	Total, District ...		8,397	229·0	938,057	916,967	1,855,024	62,920	33·9	18,456	17,391	35,847	106·1	0·03	0·05	7·5	0·4	0·3	11·0	19·7	19·0	19·3	22·3	21·3	21·8								
	KURNOOL.																																
100	Kurnool ...	M.T.C.	...	...	11,631	12,675	24,306	744	30·6	387	355	742	109·0	1·2	0·6	13·5	1·1	0·2	15·9	33·3	28·0	30·5	34·7	35·3	35·0					Only the principal streets of the town have masonry drains. There is great room for improvement in this respect. There are 423 cess-pools which are mere pits covered with slabs. Water does not stand in them, being absorbed by the earth. During the rainy season swamps and pools are seen all over the town and there are no drains to remove the standing water. Masonry drains are only constructed in two of the principal streets. In the rest of the town the drainage is very defective, and the sewage finds its way into the Muddalaru, which is one of the sources of drinking water-supply.	.....	.....	The water-supply scheme is now nearing completion, and will be opened to the public in the course of two or three months.
101	Nandyal ...	T.C.	...	...	5,330	5,374	10,704	132	12·3	85	78	163	109·0	0·2	2·7	11·2	0·1	0·3	0·7	15·9	14·5	15·2	26·0	22·8	24·4					Natural	The quality of water is unwholesome owing to insanitary surroundings and defective drainage of this overcrowded town. Sewage water is allowed to flow in at the very spot where water is taken for drinking purposes. Some of the wells are without parapet walls and platforms.	In spite of the large number of latrines, open spaces, bushes, and irrigated fields situated in the heart of the town and near streets and houses are used as such. Cattle are tied within houses and rubbish stored in backyards, although dust-bins are provided for the purpose.	Want of funds precludes any improvement being effected under water-supply.
102	Ramallakot ...	R.C.	...	...	51,862	48,728	100,590	3,590	35·6	1,065	1,054	2,119	101·0	1·7	0·9	15·2	0·1	0·3	2·8	20·5	21·6	21·0	23·4	23·3	23·3						Many of the wells require parapet walls and platforms. In most of the villages Pariahs have no separate wells for their use. They depend upon the Hindus for their supply.	Conservancy is very defective. Recommendations were made for the construction of dust-bins and latrines. The sanitary staff was also recommended to be increased in unions where more than one village had to be attended to by the staff employed.	The habits of the people prevent much being done to improve the general sanitation of the villages. None of the recommendations under conservancy were carried out for want of funds. Silt was removed from some of the wells.
103	Pattikonda ...	R.C.	...	...	71,376	67,127	138,703	4,549	32·8	1,915	1,745	3,660	109·7	7·1	1·7	13·5	0·1	0·3	3·6	26·8	25·9	26·3	26·2	25·0	25·6					Natural	Owing to the failure of monsoon scarcity was felt. People consequently had to dig holes in the bed of the river Hindri. The wells and tanks in some of the large villages were very low and required deepening and cleaning.	Construction of latrines and dust-bins and removal of prickly-pear were recommended	Some only of the recommendations were carried out for want of funds.

No. II.—*Statement of births and deaths registered in each town and rural circle of the Madras Presidency and the receipts and expenditure in each circle from and on conservancy, together with the principal sanitary defects of each circle, and the measures taken to remedy them for the year* 1896—cont.

1	2	3	4	5			6		7			8				
Serial Number.	District and town or rural circle.	Area in square miles.	Average population per square mile.	Population (exclusive of Europeans and Eurasians) for which returns were received.			Births.		Number of deaths registered (exclusive of Europeans and Eurasians and born dead).			Number of deaths of males to every 100 deaths of females.	Deaths per 1,000			
				Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.		Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.
	KURNOOL—*cont.*															
104	Nandikotkur R.C.	...	...	44,786	43,773	88,559	3,147	35·5	1,239	1,137	2,376	109·0	0·5	2·3	18·9	0·2
105	Nandyal ... R.C.	...	...	43,307	42,235	85,542	2,589	30·1	1,258	1,142	2,400	110·1	1·5	4·1	17·8	0·3
106	Koilkuntla ... R.C.	...	...	43,710	42,833	86,543	2,445	28·3	1,092	1,058	2,150	103·2	0·03	2·8	16·7	0·1
107	Sirvel ... R.C.	...	...	32,915	32,249	65,164	1,957	30·0	936	850	1,786	110·1	0·04	3·2	17·2	0·2
108	Cumbum ... R.C.	...	...	58,632	58,946	117,578	3,002	25·5	890	832	1,722	106·9	...	0·4	12·1	0·1
109	Markapur ... R.C.	...	...	50,286	49,685	99,971	3,157	31·5	911	878	1,789	103·7	...	0·3	15·4	0·01
10	Total, District ...	7,514	109·0	414,035	403,625	817,660	25,312	30·9	9,778	9,129	18,907	107·1	1·7	1·8	15·4	0·2
	MADRAS.															
110	Madras ... M.T.C	29	15,078·8	217,690	218,685	436,375	13,094	41·5	8,266	8,419	16,685	98·1	0·2	0·1	13·6	5·3
	MADURA.															
111	Madura ... M.T.C.	...	...	43,707	43,414	87,121	2,791	32·0	1,057	962	2,019	109·8	0·1	0·1	5·2	2·5

9					10			11	12	13			14
Deaths per 1,000 of population from					Mean ratio of deaths per 1,000 during previous five years.			Net receipt of each circle under conservancy.	Net expenditure in each circle under conservancy.	Principal sanitary defects of circle			Measures taken for sanitary improvement of circle.
Injuries.	All other causes.	All causes.								a	b	c	
		Males.	Females.	Total.	Males.	Females.	Total.			In drainage.	In water-supply.	In domestic cleansing and conservancy.	
								RS. A. P.	RS. A. P.				
0·4	4·5	27·6	26·0	26·8	31·0	30·8	30·9	...	...	Natural	Many of the wells require platforms and parapet walls.	In some of the union villages improvements in the way of latrines, dust-bins, &c., are required.	Funds do not permit of the improvements being carried out, especially as the expenditure of the unions exceeds their receipts. .....
0·2	4·1	29·0	27·0	28·0	28·1	28·0	28·0	...	...	Natural. In rainy season the lowlying villages become very marshy and the mire is sometimes very deep. This condition renders them unhealthy.	In some villages wells are set apart for drinking, but bathing and washing take place in them. Except in Nandyal town the wells are not protected with strong basements elsewhere. Many of the wells are provided with steps.	Rubbish is stored in backyards. Houses are kept very dirty, as the practice of stabling bullocks in houses obtains here. In a few villages latrines are provided for females, but there are no scavengers to clean them. Cess-pools exist in Nandyal town, but they are not cleaned as often as is desirable.	
0·4	4·8	24·9	24·7	24·8	27·2	27·5	27·3	...	...	Natural except in Koilkuntla and Owk, where there are masonry drains which require repair.	There has been a scarcity of water this year on account of the failure of the monsoon. Some of the wells in the union villages require platforms and parapet walls. In Owk river water is used which is not considered good.	The conservancy establishment in the unions of Koilkuntla and Owk needs strengthening.	Rs. 694 were sanctioned to effect improvements under water-supply.
0·4	6·4	28·4	26·4	27·4	31·1	31·2	31·1	...	...	Natural	The water-supply is chiefly from private wells which are kept in an insanitary condition and, in many instances, have no parapet walls or platforms.	The conservancy arrangements are still unsatisfactory. Latrines are greatly wanted. Sanitary staff needs strengthening.	Funds are not available to carry out the improvements under conservancy. The owners of private wells cannot be prevailed upon to do the necessary repairs.
0·4	1·0	15·2	14·0	14·6	24·6	23·0	23·8	...	...	There are side-drains only at Cumbum, but they are not in good order and out of repair.	Cumbum itself receives its supply from a large tank, whose water was analysed by the Chemical Examiner and found to be suspicious. In other villages wells are depended upon, many of which are in bad repair and not protected from pollution.	The sanitary condition of the villages in this circle is very unsatisfactory. The conservancy establishment of Cumbum itself has been reduced for want of funds.	Want of funds precludes any of the recommendations being carried out. Silt was removed from a well (Rs. 60) and repairs were made to another (Rs. 30).
0·3	1·8	18·1	17·6	17·8	24·6	23·1	23·9	...	...	Natural. Cess-pools exist at Markapur which require cleaning out.	Chiefly from wells, which except at Markapur, are not protected from pollution.	Except in the union village of Markapur there is no conservancy establishment maintained in other villages. House sweepings are generally deposited along with dung in some corners of streets not far from the place of abode.	.....
0·3	3·7	23·6	22·6	23·1	26·8	26·2	26·5	...	...				
0·3	18·7	38·0	38·5	38·2	43·0	44·2	43·6	...	...	.....	.....	.....	.....
0·4	14·9	24·2	22·1	23·2	29·4	30·4	29·9	.....	.....	Some of the streets have rough masonry drains, and there are hollows by the sides of the streets generally full of foul sewage. The drainage of the town is as bad as can be. There is no system and no proper fall or outlet. House drains in many places empty themselves into street drains; in others they soak in the ground.	No tanks or wells are set apart for drinking.	The dry earth system is not properly carried out. None of the latrines have seats provided in them except one. The masonry latrines of which there are four need repair.	Slight improvements were effected to two slaughter-houses. A zinc sheet latrine was constructed.

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1	2	3	4	5			6		7			8					9					10			11	12	13			14
Serial Number.	District and town or rural circle.	Area in square miles.	Average population per square mile.	Population (exclusive of Europeans and Eurasians) for which returns were received.			Births.		Number of deaths registered (exclusive of Europeans and Eurasians and born dead).			Number of deaths of males to every 100 deaths of females.	Deaths per 1,000				Deaths per 1,000 of population from					Mean ratio of deaths per 1,000 during previous five years.			Net receipt of each circle under conservancy.	Net expenditure in each circle under conservancy.	Principal sanitary defects of circle.			Measures taken for sanitary improvement of circle.
																			All causes.									a	b	c	
				Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.		Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.	Injuries.	All other causes.	Males.	Females.	Total.	Males.	Females.	Total.			In drainage.	In water-supply.	In domestic cleansing and conservancy.	
	MADURA—*cont.*																								RS. A. P.	RS. A. P.				
112	Dindigul ... M.T.C.	...	...	9,984	10,131	20,115	833	41·4	265	201	466	131·8	2·1	0·2	5·9	2·6	1·0	11·3	26·5	19·8	23·1	25·3	21·7	23·5	372 0 9	4,524 2 7	The majority of the streets are only provided with rough drains or side cuttings. These are encroached upon by house owners and covered over with stone slabs in many places. Silt and sewage cannot be properly removed, and the odour emanating from these drains is very objectionable. In some of the smaller streets, especially those occupied by Muhammadans, the drains are almost filled with black, filthy, foul smelling sewage. Sometimes their contents are thrown on the sides and allowed to remain for a long time.	A portion of the supply is derived in pipes from the water works; but it is not nearly sufficient, so that tanks and wells have to be used as of old. The tanks store up surface water which is of bad quality. The surroundings of these tanks are generally filthy, so that the water is polluted as much as possible notwihstanding the fact that there are three tank watchmen.	There are 18 sweepers. The number of sweepers is perhaps hardly sufficient. All the 19 latrines are merely enclosures without seats. The number might be increased and cement floors and seats would be an advantage.	No permission is now given to allow drains to be covered over, and arrangements are being made to remove the existing coverings. Two drains were made, (Rs. 235). Two wells, a market and a slaughter-house were repaired (Rs. 203, Rs. 48 and Rs. 67, respectively). The Sanitary Inspectors were required to pay special attention to domestic cleansing and conservancy.
113	Periyakulam ... M.T.C.	...	...	7,718	8,645	16,363	752	45·9	290	252	542	115·0	0·4	...	9·7	5·9	0·2	16·9	37·6	29·1	33·1	35·3	30·8	33·0	501 13 10	3,844 10 1	There is no system of drainage. There are nearly 100 badly constructed cess-pools, which are merely sunk chatties and mud tubs. In many places house drains flow into lanes and soak in the soil.	The river, which is the chief source of supply, is polluted by all possible means. The surroundings of wells are very dirty. The burial-grounds of Muhammadans and Brahmins on the river bank are still in use.	Some of the mud wall latrines are in a bad state of repair. The Surroundings of latrines are insanitary.	Two public latrines were repaired. Some dust-bins were purchased. A public well was provided with parapet wall and platform.
114	Palni ... M.T.C.	...	...	8,080	8,860	16,94	476	28·1	229	191	420	119·9	5·7	...	2·4	0·2	0·3	16·2	28·3	21·5	24·8	32·1	23·4	27·7	370 13 0	2,337 0 11	There are no proper drains and sewage is not collected. There are some side cuttings and rough stone drains. These are generally covered over by stone slabs and allowed to accumulate silt and foul smelling fluids underneath. Where the drains are not blocked or where there is an overflow, the sewage of the southern half of the town finds its way into a tank which is used for drinking, as there is a natural fall in that direction.	The tank, which is fed chiefly by hill streams, gives a supply for about nine months in the year and is largely resorted to, but, as it receives a great deal of sewage from the town and is polluted in all conceivable ways by men and animals, it is not of good quality. There are about 20 wells. Some of the wells require platforms and parapet walls.	There are nine sweepers. The number is hardly sufficient. A majority of the latrines (9 in number) are in need of repairs. None of them have any seats nor an impermiable floor. The mud wall enclosures ought to be replaced by pucca structures with cement floors. The latrine accomodation is insufficient. Four more are required. A number of the latrines are situated on the bund of the tank from which the drinking-water is taken.	Some dust-bins and markets were repaired, Rs. 76.
115	Rammad ... T.C.	...	...	6,414	7,175	13,589	272	20·0	78	69	147	113·0	...	0·2	0·1	...	0·2	10·3	12·1	9·6	10·8	21·0	15·4	18·2	.....	.....	The drainage is very imperfect in all places and in many is left altogether to nature. In one or two unions there are a few pucka-built drains, generally incomplete. Side channels are dug by the union servants in some places, so that during the rainy season water stagnates. House drains flow into the streets where there are no drains or side channels, or soak into the ground in backyards. Cess-pools exist in only a very few places and are very badly kept—hardly ever cleaned.	In some of the unions, tanks and wells are nominally conserved by the appointment of a watchman. They are contaminated in all possible ways notwithstanding. Many wells have no proper platforms or parapet walls. Their surroundings are filthy and the drains, if any,—to carry off overflow—are generally blocked. The river water is perhaps the best, but the quality in nearly all cases is bad, owing to contamination by men and animals.	The work of removal of rubbish is generally very imperfectly carried out. Heaps of house sweepings are seen everywhere near human dwellings and are only removed to fields when required for cultivation. The number of latrines in the district is very insufficient. They are in bad repair.	A tank was dug (Rs. 1,824) and a well sunk, Rs. 50). Two tanks and some wells were repaired (Rs. 992). A public latrine and a drain were constructed (Rs. 196 and Rs. 206, respectively). Some markets were improved and others repaired (Rs. 1,213 and Rs. 604, respectively).
116	Aruppukóttai T.C.	...	...	6,131	6,542	12,673	422	33·3	58	77	135	75·3	0·1	...	2·7	1·2	0·9	5·7	9·4	11·8	10·6	21·5	17·5	19·5						
117	Kilakarai ... T.C.	...	...	5,880	6,516	12,396	211	17·0	437	460	897	95·0	60·6	...	3·5	...	0·2	8·1	74·3	70·6	72·4	20·9	19·9	20·4						
118	Paramagudi .. T.C.	...	...	4,966	5,035	10,001	90	9·0	46	35	81	131·4	3·0	0·1	2·6	...	...	2·4	9·3	6·9	8·1	15·3	11·7	13·5						
119	Madura ... R.C.	...	...	84,372	89,383	173,755	4,902	28·2	1,916	1,809	3,725	105·9	2·0	0·0	7·8	0·3	0·3	11·0	22·7	20·2	21·4	20·5	19·4	19·9						
120	Mélúr ... R.C.	...	...	71,498	77,152	148,650	4,100	27·5	1,291	1,292	2,583	99·9	0·4	0·006	1·9	0·1	0·3	14·6	18·0	16·7	17·3	20·4	18·2	19·3						
121	Tirumangalam R.C.	...	...	130,162	134,458	264,620	7,392	27·4	2,215	2,152	4,367	102·9	0·1	0·1	7·3	0·1	0·3	8·6	17·0	16·0	16·5	17·8	16·5	17·1						
122	Periyakulam R.C.	...	...	120,373	126,472	246,845	7,895	31·8	2,399	2,177	4,576	110·2	0·5	0·1	10·1	0·5	0·3	7·0	19·9	17·2	18·5	20·7	17·6	19·1						
123	Dindigul ... R.C.	...	...	181,508	189,349	370,857	10,857	29·2	3,438	3,168	6,606	108·5	2·0	0·01	6·4	0·2	0·5	8·7	18·9	16·7	17·8	20·3	18·2	19·2						
124	Palni ... R.C.	...	...	86,086	92,024	178,110	6,357	35·7	2,590	2,416	5,006	107·2	4·1	0·1	5·9	0·4	0·4	17·2	30·0	26·2	28·1	24·7	21·6	23·1						
125	Settinandal villages, &c. R.C.	...	...	587	696	1,283	37	28·7	10	16	26	62·5	...	...	1·6	...	1·5	17·1	17·0	23·0	20·2	20·4	20·1	20·2						
15	Total, District ...	5,024	313·1	767,466	805,852	1,573,318	47,377	30·1	16,319	15,277	31,596	106·8	1·9	0·06	6·6	0·5	0·4	10·7	21·2	18·9	20·1	21·3	19·2	20·2	.....	.....				

No. II.—*Statement of births and deaths registered in each town and rural circle of the Madras Presidency and the receipts and expenditure in each circle from and on conservancy, together with the principal sanitary defects of each circle, and the measures taken to remedy them for the year* 1896—cont.

1	2	3	4	5			6		7			8	9				10			11	12	13			14
Serial Number.	District and town or rural circle.	Area in square miles.	Average population per square mile.	Population (exclusive of Europeans and Eurasians) for which returns were received.			Births.		Number of deaths registered (exclusive of Europeans and Eurasians and born dead).			Number of deaths of males to every 100 deaths of females.	Deaths per 1,000 of population from				Mean ratio of deaths per 1,000 during previous five years.			Net receipt of each circle under conservancy.	Net expenditure in each circle under conservancy.	Principal sanitary defects of circle.			Measures taken for sanitary improvement of circle.
				Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.		Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.	All causes. Males.	All causes. Females.	All causes. Total.			a. In drainage.	b. In water-supply.	c. In domestic cleansing and conservancy.	
	MALABAR.																								
126	Tellicherry ... M.T.C.	...	...	13,100	13,531	26,631	955	35·9	321	329	650	97·6	0·6	...	5·5	3·0	0·2	15·1	24·5	24·4	24·4	25·5	23·6	24·5	Rs. A. P. 2,076 12 6	Rs. A. P. 5,413 0 0	Side drains exist which have a natural downward level to the sea. Not masonry or properly constructed and often downward level is not maintained. House drains in some cases find their way into ground in the neighbourhood of houses.	Obtained from wells. None of them are set apart for drinking.	.....	Two corrugated iron latrines and 6 dust-bins were constructed (Rs. 306 and Rs. 42, respectively). Some latrines were also repaired, (Rs. 27).
127	Calicut ... M.T.C.	...	...	33,841	30,957	64,798	2,600	40·1	1,076	1,007	2,083	106·8	1·3	0·01	5·3	6·5	0·1	18·9	31·8	32·5	32·1	31·7	34·1	32·8	1,851 15 6	10,273 2 10	No regular system of drainage.	Almost every house has a well in its compound, but most of them are not protected by parapet walls, and hence are liable to contamination. The quality of water in the Moplah parts of the town is exceedingly bad.	No cinerator has yet been constructed. The number of existing latrines is quite insufficient for a town of the size of Calicut. The mutton and beef slaughter-houses are not protected on any side.	Three metal latrines were put up during the year. There is considerable difficulty in procuring sites for putting up public latrines. The construction of a Silchar cinerator has been entrusted to the Public Works Department. Two drains were made and a market constructed (Rs. 98).
128	Palghat ... M.T.C.	...	...	19,070	20,297	39,367	1,698	43·1	713	683	1,396	104·4	5·2	0·1	6·6	4·2	0·5	18·8	37·4	33·6	35·4	28·7	27·6	28·1	1,157 7 0	7,699 3 2	Except in big bazaar and Sultanpet streets the drainage is very defective elsewhere. Temporary side channels are dug which become closed upafter one or two showers.	.....	.....	Provision is made in the budget for 1897-98 for remodelling the drains near the Mopilla street. Some wells were repaired (Rs. 38). A market was constructed (Rs. 4,958) and a few latrines were repaired (Rs. 112).
129	Cochin ... M.T.C.	...	...	8,656	7,491	16,147	653	40·4	329	308	637	106·8	10·8	0·1	4·9	2·3	0·1	21·2	38·0	41·1	39·4	35·8	40·4	37·9	999 12 0	3,789 9 7	There are masonry drains in the Fort, but in other parts there are shallow trenches. In some parts sewage matter is absorbed by the porous soil. Drainage in Kalvetty particularly is bad, as sewage matter does not escape freely owing to imperfect fall in the drains; ground absorbs foul water and gives forth offensive smell.	The water is of bad quality, very brackish and obtained from wells and surface tanks. The surroundings of tanks are in a very insanitary condition and consequently the water is liable to pollution. No wells or tanks are set apart for drinking.	.....	The whole question of improving the drainage is before the council. It is not possible to carry out any of the suggestions of the inspecting officers towards the improvement of water-supply, unless Government is prepared to help the municipality with the necessary funds in the way of loan or gift. Printed notices were issued to house owners to keep their premises clean, and sanitary maistries were specially directed to inspect the houses as often as possible. A market and two latrines were construsted (Rs. 529). Some latrines, drains and markets were repaired (Rs. 285).
130	Cannanore ... M.T.C.	...	...	12,885	13,768	26,653	1,096	41·1	373	311	684	119·9	...	...	6·7	3·2	0·1	15·7	28·9	22·6	25·7	30·8	25·7	28·2	548 6 4	3,744 8 11	There are no proper drains in the Old Town. There are also a few cesspools here which are rarely cleaned.	In the Old Town, Cannanore, the wells are shallow and many of them are unprotected or badly protected. Their surroundings are bad, mostly in close proximity to latrines and house drains, and the water is liable to contamination.	Abolition of the pit system of latrines and the extension of private scavengering would go a great way towards improving the sanitary condition of the Old Town. No one could go through certain parts of the town, especially after a slight shower of rain, without his sense of smell being affected. The conservancy staff should also be strengthened here. The wooden dust-bins need repair and a few more night soil carts should be provided.	The place (Old Town) is overcrowded, and many of the streets are so very narrow that it is difficult to lay out proper drains. Ten masonry dust-bins were constructed and 8 new sentry-box latrines provided.

No. II.—*Statement of births and deaths registered in each town and rural circle of the Madras Presidency and the receipts and expenditure in each circle from and on conservancy, together with the principal sanitary defects of each circle, and the measures taken to remedy them for the year* 1896—cont.

1	2	3	4	5			6		7			8					9					10			11	12	13			14
Serial Number.	District and town or rural circle.	Area in square miles.	Average population per square mile.	Population (exclusive of Europeans and Eurasians) for which returns were received.			Births.		Number of deaths registered (exclusive of Europeans and Eurasians and born dead).			Number of deaths of males to every 100 deaths of females.	Deaths per 1,000 of population from									Mean ratio of deaths per 1,000 during previous five years.			Net receipt of each circle under conservancy.	Net expenditure in each circle under conservancy.	Principal sanitary defects of circle			Measures taken for sanitary improvement of circle.
																	All causes.										a	b	c	
				Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.		Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.	Males.	Females.	Total.	Injuries.	All other causes.	Males.	Females.	Total.			In drainage.	In water-supply.	In domestic cleansing and conservancy.	
	MALABAR—*cont.*																								RS. A. P.	RS. A. P.				
131	Chirakkal ... R.C.	...	...	138,433	145,038	283,471	6,490	22·8	1,692	1,532	3,524	130·0	0·04	...	7·3	0·6	0·3	4·2	14·3	10·5	12·4	19·0	16·1	17·5	.....	.....	It is not practicable in rural parts to introduce a regular system of drainage, the houses being scattered.	Wells, tanks and rivers are the chief sources of water-supply. In most cases these are open to gross contamination, the wells being without parapets, walls, platforms and drains, and tanks without proper outlets for dirty and stagnant water to escape or walls to protect them from contamination. In some cases the wells are generally near the kitchen and the kitchen water generally soaks near the well. The 'Cherumas' on the coast generally take water from very shallow pits liable to contamination. The water of pattoms is as bad as that within the municipal limits of Cochin, and the people of those places suffer from elephantiasis and other diseases.	In non-conserved villages sweepings and other refuse are stored in backyards till they are removed to fields for purpose of manure. The Moplahs and Cherumas have their cattle shed very close to their houses.	Some wells were repaired, Rs. 84. Four markets were constructed and seven others repaired, Rs. 360 and Rs. 539, respectively. Nine public latrines repaired, Rs. 140. A site to sink a well in Sultan's Battery has been selected, and it is proposed to sink a well in Meppadi also.
132	Kottayam ... R.C.	...	...	82,593	85,667	168,260	3,780	22·4	1,277	1,059	2,336	120·6	...	...	9·9	0·5	0·2	3·2	15·4	12·3	13·8	17·2	15·2	16·2						
133	Kurumbaranát. R.C.	...	...	84,731	86,851	304,011	5,602	18·4	1,925	1,536	3,461	125·3	0·2	...	8·7	0·5	0·1	1·8	12·7	10·0	11·3	13·4	11·9	12·7						
134	Calicut ... R.C.	...	...	169,699	169,488	171,582	4,412	25·8	1,592	1,308	2,900	121·7	0·1	...	9·5	1·4	0·3	5·8	18·8	15·0	16·9	19·4	16·2	17·8						
135	Ernad ... R.C.	...	...	222,587	226,666	339,187	7,998	23·3	2,760	2,200	4,960	125·4	0·02	0·01	8·4	1·7	0·2	4·3	16·2	13·9	14·8	21·7	18·3	20·0						
136	Ponnáni ... R.C.	...	...	163,996	168,338	440,253	9,606	21·6	3,275	2,810	6,085	116·5	0·6	0·5	4·2	1·8	0·3	6·1	14·7	12·4	13·5	20·1	17·5	18·8						
137	Walavanad ... R.C.	...	...	160,645	171,982	332,627	6,529	19·6	2,884	2,350	5,234	122·7	0·5	0·05	8·7	1·6	0·3	4·6	17·5	13·9	15·7	19·8	16·4	18·1						
138	Palghat ... R.C.	...	...	42,514	33,851	76,365	6,655	20·0	3,001	2,605	5,606	115·2	1·2	0·03	8·2	1·2	0·3	5·9	18·6	15·1	16·8	20·4	14·6	18·5						
139	Wynaad ... R.C.	...	...	2,872	3,116	5,988	1,314	17·1	979	718	1,695	136·7	...	0·2	19·5	1·2	0·3	0·9	23·0	21·1	22·1	23·1	21·2	22·3						
140	Cochin ... R.C.	...	...				137	22·9	99	99	198	100·0	11·0	0·1	4·2	2·0	0·2	15·5	34·4	31·7	33·0	25·4	22·7	23·8						
15	Total, District ...	5,585	472·1	1,306,782	1,329,892	2,636,674	59,435	22·5	22,596	18,853	41,449	119·8	0·6	0·1	7·9	1·4	0·3	5·4	17·3	14·2	15·7	20·0	17·2	18·6	.....	.....				
	NELLORE.																													
141	Nellore ... M.T.C.	...	...	14,200	14,928	29,128	855	29·4	311	284	595	109·5	...	0·03	6·6	0·3	0·5	13·0	21·9	19·0	20·4	25·9	19·7	22·7	.....	.....	Very defective. A proper system of drainage is a pressing necessity.	People depend for their supply of water on the river Pennar and irrigation channels, but a good water-supply is an urgent sanitary need.	More latrines are required in view to prevent people resorting to undesirable places for purposes of nature. Some urinals in suitable parts of the town should also be built.	Two public latrines were erected and another was repaired. Parapets and platforms, &c., were provided to two drinking-water wells and repairs to five others made, Rs. 185. Twenty-five dust-bins were constructed, Rs. 190.
142	Ongole ... M.T.C.	...	...	5,421	5,411	10,832	397	36·6	180	143	323	125·9	...	...	8·4	3·3	0·5	17·6	33·2	26·4	29·8	25·4	22·3	23·9	467 13 0	2,238 7 4	Most of the streets are provided with mere side channels. Drainage of houses is bad. Here and there sewage from houses and refuse water run into the street drains through holes from houses. There are thirty so-called cess-pools which are the result of stagnant sewage that escapes from houses.	.....	The existing latrines are not freely used.	Two public latrines and six dust-bins were constructed at a cost of Rs. 386 and Rs. 40, respectively. A tank and a well were repaired, Rs. 43. Rs. 30 were spent in the removal of prickly-pear and rank vegetation.
143	Gudur ... ... R.C.	...	...	59,035	57,723	116,758	2,570	22·0	900	796	1,696	113·1	...	0·1	6·9	0·3	0·1	7·1	15·2	13·8	14·5	13·9	14·1	14·0	.....	.....	Side drains should be provided to some of the streets in Kota and Muthukur.	The well near the Old Chuttram in Gudur and the Local Fund well in Muthukur need repair. A well should be sunk and reserved for the people of the latter village.	.....	.....
144	Rapur ... ... R.C.	...	...	31,209	30,096	61,305	1,874	30·5	632	611	1,243	103·4	...	0·1	10·2	0·3	0·1	9·5	20·2	20·3	20·2	22·7	23·9	23·3	.....	.....	.....	.....	.....	.....
145	Nellore ... R.C.	...	...	84,021	84,527	168,548	3,990	23·6	1,290	1,289	2,579	100·1	...	...	7·4	0·2	0·1	7·6	15·3	15·3	15·3	14·3	13·6	13·9	4 0 0	298 0 0	.....	.....	Two latrines are required for the villages of Allúr.	The latrines will shortly be built.
146	Atmakúru ... R.C.	...	...	48,803	47,546	96,349	2,965	30·7	1,020	982	2,002	103·8	0·3	0·1	10·8	0·7	0·2	8·6	20·8	20·6	20·7	21·9	21·2	21·6	25 0 0	490 12 7	No proper side drains have been made in villages, but drainage water generally passes freely through the streets and falls into Vaikals.	There are fresh water wells and tanks in all the villages, but the water is neither pure nor free from contamination.	Dung and rubbish heaps are generally stored in backyards or in village sites out-side the villages and removed as occasion arises for manuring the fields.	Every year allotment is being made for repairing and digging wells, and also for removing prickly-pear in village sites. Village officers have been directed by the Tahsildars to instruct the inhabitants as often as possible not to store dung heaps in the backyards of their houses on pain of prosecution, which was resorted to in some cases.
147	Kávali ... R.C.	...	...	34,179	34,697	68,876	1,862	27·0	610	575	1,185	106·1	...	0·05	7·7	0·3	0·2	9·0	[illegible]	16·5	17·2	17·2	17·4	17·3	.....	.....	.....	.....	.....	.....

No. II.—*Statement of births and deaths registered in each town and rural circle of the Madras Presidency and the receipts and expenditure in each circle from and on conservancy, together with the principal sanitary defects of each circle, and the measures taken to remedy them for the year* 1896—cont.

1	2	3	4	5			6		7			8					9					10			11	12	13			14
Serial Number.	District and town or rural circle.	Area in square miles.	Average population per square mile.	Population (exclusive of Europeans and Eurasians) for which returns were received.			Births.		Number of deaths registered (exclusive of Europeans and Eurasians and born dead).			Number of deaths of males to every 100 deaths of females.	Deaths per 1,000				Injuries.	All other causes.	All causes.			Mean ratio of deaths per 1,000 during previous five years.			Net receipt of each circle under conservancy.	Net expenditure in each circle under conservancy.	Principal sanitary defects of circle			Measures taken for sanitary improvement of circle.
				Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.		Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.			Males.	Females.	Total.	Males.	Females.	Total.			a In drainage.	b In water-supply.	c In domestic cleansing and conservancy.	
	NELLORE—*cont.*																													
148	Udayagiri ... R.C.	...	...	28,166	27,216	55,382	1,736	31·3	527	491	1,018	107·3	0·01	0·05	8·1	0·7	0·3	9·2	18·7	18·0	18·3	20·4	21·5	20·9	Rs. A. P. 14 8 0	Rs. A. P. 203 15 11	*Vide* remarks against Atmakur.			.....
149	Kandukur ... R.C.	...	...	56,478	56,879	113,357	3,742	33·0	1,124	1,052	2,176	106·8	...	0·02	9·9	0·2	0·2	8·8	19·9	18·4	19·1	20·7	19·5	20·1	14 0 0	636 0 0	There is nothing like drainage in the villages. The water is allowed to sink in the ground. The houses of Mahomedans and lower orders are reeking with the dirty drainage water.	Drinking water-supply is insufficient in some of the villages. In the village of Ongole taluk pigs commit great nuisance in most of the fresh water ponds. Clothes, &c., are also washed in them.	Manure is stored in large quantities in backyards, and in pits adjoining houses, and on streets. Cattle are tied near houses.	Estimates for repairing certain wells in the villages have been submitted to the District Board. Six iron moveable latrines have been supplied to Kundukur union.
150	Kanigiri ... R.C.	...	...	31,013	30,053	61,066	1,589	26·0	486	454	940	107·0	...	0·01	9·0	0·04	0·2	6·1	15·8	15·1	15·3	17·2	17·9	17·5	19 0 0	426 0 0				The Taluk Board, Ongole, has resolved to dig a draw well at Hamertpett, Kanigiri town. Two iron dust-bins have been supplied to Kanigiri union.
151	Ongole ... R.C.	...	...	83,284	83,695	166,979	5,644	33·8	1,808	1,593	3,401	112·8	0·2	0·02	9·7	0·5	0·1	9·8	21·7	19·0	20·3	20·4	19·7	20·0	21 0 0	1,083 0 0				A well was sunk for the use of males in Addanki union. Four wells are being constructed in Kittapatam union. Some dust-bins supplied to Kollapatam and Addanki unions.
152	Zemindaries	...	...	260,585	254,192	514,777	12,723	24·7	3,737	3,817	7,554	97·9	...	0·08	8·0	0·2	0·2	6·2	14·3	15·0	14·6	14·2	15·1	14·6	.....	253 0 0				Two scavengers have been entertained in Darsi village.
12	Total, District ...	8,765	160·9	736,394	726,963	1,463,357	39,947	27·3	12,625	12,087	24,712	104·4	0·04	0·1	8·5	0·3	0·2	7·8	17·1	16·6	16·9	17·1	17·1	17·1	.....	.....	A dust cart and two iron moveable dust-bins were also supplied. The village of Podili was supplied with six iron moveable dust-bins.			
	NILGIRIS.																													
153	Ootacamund ... M.T.C.	...	...	7,450	6,541	13,991	524	37·4	215	206	421	104·4	0·3	...	9·9	3·1	0·5	16·3	28·8	31·5	30·1	22·1	23·3	22·7	6,160 8 8	21,620 0 0	Very unsatisfactory. The great source of evil is the defective condition of the main intercepting sewer. This renders sewage to discharge into the lower lake, which is an open cesa-pool.	The water from the Marlimund reservoir has been pronounced bad. Some of the wells contain water of an inferior quality.	.....	The question of the drainage of the main bazaar and Mathucherry, and the remodelling of the intercepting sewer are under the consideration of the Public Works Department. The question of improving the water-supplies is being investigated by Mr. G. T. Walch. House owners are being freely prosecuted for not keeping their premises clean.
154	Coonoor ... M.T.C.	...	...	3,005	2,581	5,586	244	43·6	137	103	240	133·0	1·3	0·2	9·8	7·[illegible]	0·5	23·3	45·6	39·9	43·0	33·3	29·8	31·6	4,704 14 1	7,052 11 0	.....	Is obtained from streams and several springs. It is brought into town by open channels, which are often polluted.	.....	The improvement of water-supply is under consideration.
155	Nilgiris ... R.C.	...	...	28,027	24,141	52,168	1,545	29·6	717	636	1,353	112·7	0·5	0·1	23·6	0·[illegible]	0·3	1·2	25·5	26·3	25·9	23·0	24·0	23·4	.....	.....	In Badaga villages dirty water flows into ditches in backyards, which, in some cases, produce bad smell as water stagnates in them.	The side channel which runs through Gudalur bazaar into Bandypet forms one of the sources of water-supply for a portion of the population. This water is polluted in places by dirty water from houses oozing into the channel. In a few villages drinking water is taken from pools which are filthy in the summer season.	Rubbish is thrown in some places adjacent to houses and not removed until the cultivation time. In Badaga, &c., villages there are no latrines; consequently the neighbourhood of houses is made use of as such.	Prickly-pear and rank vegetation removed, Rs. 360. The inhabitants of villages were made to take the necessary steps for improvement under the direction of the revenue officials. The side channel referred to is cleaned every day.
156	South-East Wynaad R.C.	...	...	16,003	9,017	25,020	357	14·2	329	275	604	119·6	0·1	0·2	18·5	2·[illegible]	0·2	3·1	20·5	30·4	24·1	20·8	26·9	23·0	.....	.....				
4	Total, District ...	957	101·1	54,485	42,280	96,765	2,670	27·6	1,398	1,220	2,618	114·6	0·4	0·1	19·5	1·[illegible]	0·3	5·2	25·6	28·8	27·0	22·9	24·3	23·6	.....	.....				

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1	2	3	4	5			6		7			8					9							10			11	12	13			14
Serial Number.	District and town or rural circle.	Area in square miles.	Average population per square mile.	Population (exclusive of Europeans and Eurasians) for which returns were received.			Births.		Number of deaths registered (exclusive of Europeans and Eurasians and born dead).			Number of deaths of males to every 100 deaths of females.	Deaths per 1,000				Injuries.	All other causes.	All causes.			Mean ratio of deaths per 1,000 during previous five years.			Net receipt of each circle under conservancy.	Net expenditure in each circle under conservancy.	Principal sanitary defects of circle			Measures taken for sanitary improvement of circle.
				Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.		Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.	of population from		Males.	Females.	Total.	Males.	Females.	Total.			a In drainage.	b In water-supply.	c In domestic cleansing and conservancy.	
	NORTH ARCOT.																									Rs. A. P.	Rs. A. P.				
157	Vellore ... M.T.C.	...	...	21,188	23,536	44,724	1,488	33·2	588	552	1,140	106·5	1·0	5·3	6·4	3·1	0·5	9·2	27·7	23·4	25·5	27·1	23·9	25·5		14,252 4 2	14,992 8 11	Most of the existing drains are imperfectly constructed and the fall is very often insufficient, so that water and sewage stagnate in places. The drains are often dirty and foul smelling. The sewage from houses flows into the streets in some cases and forms filthy stagnant pools.	The Sureagunta tank, which supplies a large portion of the town with drinking water, is fed by a channel which is open to contamination.	.....	A drainage scheme was prepared by Mr. Oldham at a total cost of Rs. 1,87,212, out of which Rs. 10,890 have been spent. A water-supply scheme was prepared, but it had to be abandoned for want of funds. A well was sunk (Rs. 90). Two tanks and five wells were repaired (Rs. 36 and Rs. 125), respectively. A drain was made (Rs. 77). Three latrines, a drain, and a slaughter-house were repaired (Rs. 1,220).
158	Wállajápet ... M.T.C.	...	...	4,943	5,542	10,485	393	37·5	136	142	278	95·8	0·5	...	7·4	3·5	0·4	14·7	27·5	25·6	26·5	29·1	25·8	27·4		407 6 0	1,980 10 9	No proper system. The existing drains have no free-fall and flushing. House drains fall into side-cutting sometimes and form dirty gutters.	Wells and ponds supply drinking water to the inhabitants, but many of the wells are not provided with platforms or drains. The ponds are fed by surface drainage.	Cattle are kept in houses or back-yards. Ordure and urine are removed when required for manure.	Three drains were made (Rs. 90), eight public latrines were repaired (Rs. 102). A market and a slaughter-house were repaired (Rs. 35 and Rs. 60), respectively. The Sanitary Inspectors were instructed to see that the premises are kept clean. The division councillors and chairman inspect the town streets and draw the attention of the subordinates concerned to the defects in sanitation.
159	Gudiyáttam ... M.T.C.	...	...	9,224	9,521	18,745	819	43·7	242	220	462	110·0	0·3	2·1	10·5	2·9	0·2	8·6	26·2	23·1	24·6	27·3	25·7	26·5		192 6 0	3,524 1 7	The drainage of the town is not on any approved system.	.....	.....	Two corrugated iron latrines were put up and a latrine was repaired (Rs. 269). One night-soil cart was purchased and another repaired (Rs. 70). Two pot wells were sunk (Rs. 18). A scheme for supplying the town with water is under preparation.
160	Tirupati ... M.T.C.	...	...	6,872	7,366	14,238	442	31·0	214	215	429	99·5	1·5	0·1	13·8	1·7	0·3	12·7	31·1	29·3	30·1	31·4	28·7	30·0		815 3 0	4,933 7 5	There is no organized system of drainage in the town. Some of the streets have a few old rough drains built of granite which terminate blindly. Some of the existing cess-pools are mere pits covered with stone slabs.	.....	.....	The drainage, which was proposed and sanctioned by Government, has been postponed in favour of the introduction of a water-supply scheme. A tank and a drain were repaired (Rs. 23 and Rs. 16), respectively.
161	Kálahasti ... T.C.	...	...	5,518	6,197	11,715	396	26·0	94	101	195	93·0	...	...	1·3	0·1	0·6	14·6	17·0	16·3	16·6	14·1	12·4	13·2				There is no proper system of drainage anywhere; many towns have rough masonry drains, but they generally have some defects, such as imperfect construction, want of proper fall, or there is no proper main drain to carry their contents outside the town. Many house drains end in side-cuttings or run along the backs of houses and sometimes form dirty gutters which meander through the town. Many drains end in nullahs or end blindly and eventually soak into the ground. There are cess-pools in great numbers. Hardly any of them are properly constructed. Some are open and some closed. They are seldom or never cleaned.	The water is taken from wells, tanks and rivers. The quality is, as a rule, not good and in almost all cases is contaminated more or less by men and animals. In many cases deadbodies are burned in the beds of rivers or buried on their banks. Tanks are fouled by the people committing nuisances near, by bathing and by washing their clothes in them and also by allowing animals to pollute them; many of the tanks are fed by surface water and the supply channels are more or less open to much contamination. Tanks and step wells are generally set apart for drinking purposes and are in nearly all cases guarded by watchmen. Their surroundings are clean, as a rule, with a few exceptions where animals are allowed to gather and even houses are located too near them. Well water is generally brackish on account of soakage of the sewage.	Backyards are in a very uncleanly state. People wash and bathe in them and very often keep cattle dung, heaps of rubbish, &c., in them. The house drains soak into the ground, so that if there is a well it is polluted. Cattle are sometimes kept in inner courts inside the house and these courts are very often not clean or tidy. Hardly any of the people have proper private latrines, though private scavengering is in force in some few houses in most of these towns. The existing number of public latrines is not sufficient for the requirements of the population.	Whenever villages are found to be in an insanitary condition by the Tahsildar and his subordinates and the Deputy Inspector of Vaccination in their tours, stringent orders are issued to village officers to rectify it. In some cases they are criminally prosecuted under sections 268 and 290 of the Indian Penal Code. The President of the Ranipett Taluk Board has been asked to make the necessary improvements in each rural circle, &c., in consultation with the District Sanitary Officer. A dozen wells were sunk (Rs. 219 and 26) others repaired (Rs. 662). Prickly pear and rank vegetation removed (Rs. 177). Two public latrines and five markets were constructed (Rs. 43 and Rs. 460), respectively. Four public latrines and a drain were repaired (Rs. 40).
162	Arcot ... T.C.	...	...	5,269	5,638	10,928	313	28·6	123	161	284	76·3	2·1	4·3	1·5	1·0	0·3	18·1	23·3	30·9	27·8	28·2	27·3	27·7								
163	Ambúr ... T.C.	...	...	4,973	5,610	10,583	146	13·8	208	176	364	126·1	23·4	0·4	8·8	0·5	0·3	1·0	40·8	28·7	34·4	11·2	8·7	9·9								
164	Chittoor ... R.C.	...	...	101,958	98,248	200,136	4,591	22·9	1,419	1,376	2,795	108·1	0·04	0·6	7·4	0·3	0·2	5·1	13·8	14·0	13·9	16·5	16·5	16·5								
165	Chendragiri ... R.C.	...	...	51,507	48,523	100,030	2,389	23·8	736	677	1,413	108·7	...	0·1	6·4	0·3	0·2	6·8	14·2	13·9	14·1	15·3	15·4	15·3								
166	Palmanér ... R.C.	...	...	24,271	23,860	48,131	1,010	20·9	331	364	695	90·9	0·1	0·04	6·9	0·2	0·7	4·5	13·7	15·0	14·4	14·6	15·3	14·9								
167	Gudiyáttam ... R.C.	...	...	78,547	79,316	157,863	4,379	27·7	1,561	1,509	3,070	103·4	2·3	2·1	10·6	0·5	0·2	3·6	19·8	19·0	19·4	17·1	15·3	16·2								
168	Vellore ... R.C.	...	...	68,729	68,638	137,367	3,755	27·3	1,426	1,320	2,746	108·0	1·8	3·0	9·3	0·6	0·9	4·9	20·7	19·2	19·9	17·9	16·7	17·3								
169	Polur ... R.C.	...	...	69,371	70,326	139,697	4,475	32·0	1,453	1,452	2,904	100·0	1·1	1·7	6·9	0·7	0·6	16·1	20·9	20·6	20·7	19·5	18·2	18·8								
170	Wandiwash ... R.C.	...	...	88,932	88,787	177,719	5,683	31·9	1,573	1,522	3,095	103·4	0·1	0·6	2·1	0·4	0·6	12·7	17·6	17·1	17·4	19·7	19·1	19·4								
171	Arcot ... R.C.	...	...	82,190	83,758	165,948	5,726	34·5	1,764	1,650	3,414	106·9	0·8	1·3	3·9	0·7	0·6	18·6	21·4	19·6	20·5	20·9	19·4	15·3								
172	Wálajápet ... R.C.	...	...	114,741	113,889	228,630	6,539	28·6	2,125	1,974	4,099	107·6	0·7	0·6	4·1	0·6	0·4	11·8	18·5	17·3	17·9	19·1	18·1	18·6								
173	Zemindaries	...	...	322,060	314,536	636,596	18,332	28·7	5,260	5,206	10,466	101·0	0·4	0·8	9·1	0·5	0·6	5·3	16·3	16·5	16·4	18·4	18·7	18·5								
17	Total, District ...	7,616	286·2	1,060,273	1,053,312	2,113,585	60,786	28·7	19,247	18,616	37,863	103·4	0·8	1·2	7·1	0·4	7·8	18·1	17·7	17·9	18·7	18·2	18·4									

No. II.—*Statement of births and deaths registered in each town and rural circle of the Madras Presidency and the receipts and expenditure in each circle from and on conservancy, together with the principal sanitary defects of each circle and the measures taken to remedy them for the year* 1896—cont.

1	2	3	4	5			6		7			8					9							10			11	12	13			14
Serial Number.	District and town or rural circle.	Area in square miles.	Average population per square mile.	Population (exclusive of Europeans and Eurasians) for which returns were received.			Births.		Number of deaths registered (exclusive of Europeans and Eurasians and born dead).			Number of deaths of males to every 100 deaths of females.	Deaths per 1,000				Deaths per 1,000 of population from							Mean ratio of deaths per 1,000 during previous five years.			Net receipt of each circle under conservancy.	Net expenditure in each circle under conservancy.	Principal sanitary defects of circle			Measures taken for sanitary improvement of circle.
				Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.		Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.	Injuries.	All other causes.	All causes. Males.	All causes. Females.	All causes. Total.	Males.	Females.	Total.						a In drainage.	b In water-supply.	c In domestic cleansing and conservancy.	
	SALEM.																											RS. A. P.	RS. A. P.				
174	Salem ... M.T.C.	...	...	32,828	34,812	67,640	2,754	40·7	915	889	1,804	102·9	2·6	0·01	7·9	2·0	0·06	14·2	27·8	25·5	26·7	24·3	22·4	23·3				713 12 2	18,361 1 4	Excepting part of Salem proper, first agraharam and part of Shevapet where masonry drains exist, the drainage is very bad. No system exists and where there are masonry drains the sewerage in most parts escapes into the river. Only surface earth drains exist in the streets and where the house drains join these the sewage stagnates forming foul mud pools. There are numerous cess-pools, but no system of cleaning them exists.	The river which is one of the chief sources of supply is polluted with sewerage and washing. The tanks are as much as possible protected against pollution by watchmen.	More public latrines are required. There is much room for improvement in the constitution of the inspecting staff and the condition of latrines, slaughter-houses, &c.	The water-supply scheme is under the investigation of the Public Works Department. A tank and nine wells were repaired (Rs. 558). A public latrine and a market were constructed (Rs. 155 and Rs. 79), respectively. Fifteen public latrines were repaired Rs. 1,899. Four markets were also repaired Rs. 800.
175	Vániyambádi M.T.C.	...	...	6,988	8,850	15,838	902	56·9	444	409	853	108·5	18·2	...	12·7	2·1	0·1	20·7	63·5	46·2	53·8	33·0	26·2	29·6				606 3 0	4,634 15 2	The streets are provided mostly with mere earth drains, but here and there there are short pieces of masonry drains. In many places these are neglected and allowed to become choked with silt and rubbish, particularly in the bazaar streets. Cess-pits are very numerous. They are seldom cleaned out until nearly filled up.	Is derived from the river and numerous wells, but is exposed to contamination, in the case of house wells from the proximity of cess-pits, in the case of the river from the sandy bed being used as a latrine.	The number of existing public latrines is not sufficient for the population.	Two wells were repaired (Rs. 30). Twelve dust-bins were constructed (Rs. 58). Three public latrines were repaired (Rs. 101). A slaughter-house was repaired (Rs. 195).
176	Tiruppattúr M.T.C.	...	...	7,721	8,742	16,463	676	41·1	360	328	688	109·7	16·2	0·1	12·7	1·1	0·2	11·5	46·6	37·5	41·8	28·4	23·9	26·1				818 9 0	4,718 15 11	The drainage is very indifferent and most of the sewerage soaks into the soil; the street surface earth drains are neglected and allowed to become obstructed with silt; and where the house drains join these, stagnant pools of sewerage and mud are formed. There are numerous cess-pits but no system of cleaning them is in force.	The water of the Chetty tank is used by a majority of the people for drinking purposes and washing and bathing are prevented. Nevertheless there was a strong suspicion that its contamination led to a severe outbreak of cholera.	.....	Levels have been taken under the supervision of the Sanitary Engineer to Government in 1893 for the introduction of water-supply and drainage schemes and the estimates are awaited. A public latrine and twenty dust-bins were constructed (Rs. 194 and Rs. 100), respectively. Prickly-pear and rank vegetation removed (Rs. 106).
177	Sendamangalam T.C.	...	...	6,416	6,938	13,354	299	22·4	90	66	156	136·4	0·7	...	0·8	0·1	0·6	9·5	14·0	9·5	11·7	9·3	9·1	9·2						Nothing but surface earth drains to the main roads and streets exist anywhere; the houses of the poorer classes have no drains and sewage generally soaks into the soil. There are numerous cess-pits in towns and villages which are seldom cleaned.	In Rasipur Union drinking water is obtained from step wells of which there are many; they are subject to pollution. In Atur union the sides and the bed of the river are used as latrines. Cattle are also washed in the river. Pigs are allowed to roam about the river freely.	There are forty-four latrines in the district. These are mere mud wall enclosures which are not looked after properly. The pigs are too much relied upon to remove the human ordure. The latrines are used particularly by females. In Atur union cattle are housed by the majority along with men. Rubbish is deposited in backyards of houses both in Rasipur and Atur unions.	Eight wells were sunk (Rs. 414) and forty-five others repaired (Rs. 2,133). Prickly-pear and rank vegetation removed. (Rs. 2,149). Three public latrines were constructed (Rs. 404) and six others repaired (Rs. 38). Some dust-bins were constructed (Rs. 50). A drain was made (Rs. 237). Rs. 680 were spent in the repair and construction of markets.
178	Rásipuram ... T.C.	...	...	5,119	5,420	10,539	296	28·1	94	97	191	96·9	0·5	...	2·8	0·4	0·4	14·0	18·3	17·9	18·1	14·2	13·8	14·0									
179	Salem ... R.C.	...	...	166,338	172,421	338,759	11,096	32·4	3,179	2,885	6,064	110·2	1·4	0·01	7·7	0·4	0·4	8·0	19·1	16·7	17·9	17·8	16·3	17·0									
180	Atur ... R.C.	...	...	89,211	93,991	183,202	6,160	33·6	2,103	2,074	4,177	101·4	3·2	0·1	11·0	0·4	0·3	7·7	23·5	22·0	22·7	20·2	18·7	19·4									
181	Námakkal ... R.C.	...	...	138,698	147,988	286,686	8,301	28·8	3,108	3,117	6,225	99·7	2·8	0·01	7·7	0·2	0·5	10·3	22·4	21·0	21·7	19·0	17·7	18·3									
182	Tiruchengódu R.C.	...	...	123,072	125,595	248,667	8,305	33·3	2,501	2,295	4,796	109·0	0·6	0·04	10·4	0·9	0·4	7·6	20·3	18·2	19·2	19·1	17·8	18·4									
183	Hosúr ... R.C.	...	...	76,954	78,739	155,693	4,071	26·1	1,548	1,466	3,014	105·6	0·1	0·7	7·8	0·3	0·3	9·5	20·1	13·6	19·3	18·3	18·1	18·2									
184	Krishnagiri R.C.	...	...	75,399	76,717	152,116	4,995	32·8	1,266	1,202	2,468	105·3	0·6	1·0	6·0	0·3	0·2	8·1	16·8	15·6	16·2	15·9	15·2	15·3									
185	Dharmapuri R.C.	...	...	87,559	90,861	178,420	5,774	32·3	1,536	1,412	2,948	108·8	1·1	0·5	4·9	0·5	0·2	9·3	17·5	15·5	16·5	17·5	15·5	16·5									
186	Tiruppattúr R.C.	...	...	77,067	79,228	156,295	4,910	31·4	1,960	1,915	3,875	102·3	4·6	0·8	10·9	0·5	0·3	7·6	25·4	24·1	24·7	20·2	19·6	19·9									
187	Uttangarai R.C.	...	...	67,829	70,283	138,112	4,622	33·4	1,433	1,390	2,873	106·7	0·8	0·2	10·6	0·4	0·3	8·5	21·8	19·8	20·8	23·2	20·7	21·9									
14	Total, District ...		7,529	260·6	961,199	1,000,585	1,961,784	63,071	32·1	20,587	19,545	40,132	105·3	2·0	0·3	8·4	0·5	0·3	8·9	21·4	19·5	20·4	19·1	17·8	18·4	...	...							
	SOUTH ARCOT.																																
188	Cuddalore ... M.T.C.	...	...	23,026	23,999	47,025	2,003	42·6	665	646	1,311	102·9	2·7	0·8	5·6	3·0	0·3	15·4	28·9	26·9	27·8	22·0	20·8	21·4	2,050 0 0	7,630 0 0		There is no regular system of drainage. Some streets have side channels which are often choked. In Old Town there are rectangular brick drains with no proper fall, nor outlet. These are cleaned imperfectly by scavengers.	The people of Old Town, Cuddalore, use water brought into the town by an open channel from the Copper Hill Lake. The water is subject to pollution during its course.	There are twenty-five public latrines which are not well kept partly owing to defective construction. Many of them are out of repair.	Seven wells were repaired (Rs. 47). Two public latrines were constructed (Rs. 600) and ten others repaired (Rs. 290).

No. II.—*Statement of births and deaths registered in each town and rural circle of the Madras Presidency and the receipts and expenditure in each circle from and on conservancy, together with the principal sanitary defects of each circle, and the measures taken to remedy them for the year* 1896—cont.

1	2	3	4	5			6		7			8					9								10			11	12	13			14
Serial Number.	District and town or rural circle.	Area in square miles.	Average population per square mile.	Population (exclusive of Europeans and Eurasians) for which returns were received.			Births.		Number of deaths registered (exclusive of Europeans and Eurasians and born dead).			Number of deaths of males to every 100 deaths of females.	Deaths per 1,000				Deaths of population from								Mean ratio of deaths per 1,000 during previous five years.			Net receipt of each circle under conservancy.	Net expenditure in each circle under conservancy.	Principal sanitary defects of circle			Measures taken for sanitary improvement of circle.
				Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.		Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.	Injuries.	All other causes.	All causes. Males.	All causes. Females.	All causes. Total.				Males.	Females.	Total.			a In drainage.	b In water-supply.	c In domestic cleansing and conservancy.	
	SOUTH ARCOT—*cont.*																											RS. A. P.	RS. A. P.				
189	Chidambaram M.T.C.	...	...	9,077	9,557	18,634	544	29·2	307	256	563	119·9	4·6	0·05	7·0	3·8	2·9	11·9	33·8	26·8	30·2	33·3	30·6	31·9				255 4 0	5,303 9 0	No regular system ...	Two tanks are reserved for drinking, but the inlets to these tanks are liable to contamination.	.....	Twenty-five moveable iron dust-bins were purchased to replace the ruined masonry ones. Two large tanks were pumped out and silt removed to some extent.
...	Tiruvannámalai M.T.C.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				58 8 1	1,262 2 6	.....	.....	.....	A well was sunk (Rs. 59), a well was repaired (Rs. 128), sixteen dust-bins were first up (Rs. 76). Steps were taken to build latrines, to provide tank watchers, and to enforce domestic cleanliness.
190	Porto Novo ... T.C.	...	...	6,179	7,866	14,045	223	15·9	86	96	182	89·6	2·0	0·1	1·2	0·1	...	9·5	13·9	12·2	12·9	14·7	15·1	14·9				.....	.....	Surface drainage bad. No regular system. A few cess-pools, covered with planks or slabs, emptied fortnightly, and contents thrown on ground. Dirty house water generally runs into backyards and sinks into soil.	Quality indifferent. All private wells contaminated. Many near burial places. Some tanks very filthy.	Backyards dirty. No private scavengering. No latrines. Staff insufficient.	Owners of dirty backyards prosecuted. Orders were issued to Revenue subordinates to see to removal of rubbish heaps. Construction of new latrines provided for in budget. Orders were given to prosecute owners of cess-pools who bale out dirty water into streets. Additional rubbish cart with bullocks entertained.
191	Tiruvannámalai* T.C.	...	...	5,970	6,178	12,148	203	16·7	90	73	163	123·3	0·2	0·5	3·0	0·6	0·1	9·0	15·1	11·8	13·4	14·9	11·6	13·2				...	...	Natural drainage good, but liable to be flooded. No regular system. No sewage. A few filthy cess-pools, hardly ever cleaned.	Many tanks unprotected and very dirty. Liable to contamination, both in collection and storage. Many wells out of repair.	Backyards dirty. Private scavengering insufficient. Toties and general conservancy staff also insufficient. No permanent latrines.	.....
192	Cuddalore ... R.C.	...	...	145,706	144,202	289,908	7,867	27·1	3,680	3,326	7,006	110·6	5·1	0·4	4·6	0·5	0·2	13·3	25·2	23·0	24·1	22·8	21·2	22·0				...	...	Natural drainage bad. No regular system. A few masonry drains with no proper outlet. Cess-pools badly constructed and not cleaned properly. Waste house water mostly absorbed by soil.	Quality indifferent. Wells out of repair. River contaminated by all methods. Bodies buried on banks. Tanks dirty.	Backyards filthy. Conservancy staff insufficient. Many latrines out of repair.	Arrangements were made for purchasing two iron latrines and repairing old latrines. Increase to sanitary staff, repairs to wells and ponds were effected. Provision of new wells. One well closed in and provided with a force pump.
193	Villupuram ... R.C.	...	...	151,872	149,818	301,690	10,728	35·5	3,665	3,506	7,171	104·5	3·3	0·4	4·1	0·5	0·3	15·1	24·1	23·4	23·7	25·5	24·0	24·8				...	...	Obstruction to outlet of storm water by Railway embankments. No system. House drains discharge into backyards and sewage soaks into the soil.	Tanks not sufficiently protected and bathing allowed on festival occasions. More watchers required. Many private wells receive surface drainage. Public wells require repair.	Backyards dirty. Conservancy staff insufficient. Private scavengering backward. No public latrines.	Prohibition of burning on the banks of a drinking-water tank. Village servants directed to watch tanks. Repairs to ponds and wells.
194	Chidambaram ... R.C.	...	...	123,014	126,555	249,569	8,419	33·7	3,510	3,225	6,735	108·8	3·8	0·03	5·1	0·3	0·4	17·3	28·5	25·4	26·9	29·4	27·2	28·2				...	...	Surface drainage bad. No system. Waste house water soaks into soil.	River water polluted in every possible way. People prefer impure river water to good well water. More tank watchers and wells required. Irrigation channels and private wells very much contaminated. Some tanks protected only for six months and left unprotected the rest of the year.	Backyards dirty. Dung heaps abound. No latrines. Conservancy staff insufficient. Night-soil deposited on river banks.	Increased conservancy establishment and rubbish carts provided for, also dust-bins and latrines. Additional drinking-water wells sunk and tanks repaired. Additional watchers appointed.
195	Tindivanam ... R.C	...	...	159,076	156,918	315,994	10,848	34·3	3,015	2,704	5,719	111·5	0·9	0·04	3·9	0·7	0·4	12·2	18·9	17·2	18·1	22·0	20·6	21·3				...	...	No artificial drainage. Sewage from houses soaks into soil.	Wells out of repair. Collecting area for drinking-water tank liable to pollution. Tank watchers insufficient.	Backyards dirty. Conservancy staff not sufficient. Streets used freely for calls of nature. No public latrines.	Additional toties appointed. Some village sweepers replaced by toties. Improvements to village sites; repairs to tanks.
196	Kallakurchi ... R.C.	...	...	119,209	120,970	240,179	6,893	28·7	2,137	2,062	4,199	103·6	1·3	0·07	11·1	0·1	0·3	4·6	17·9	17·0	17·4	18·4	17·4	17·9				...	...	No system of drainage. House sewage soaks into soil.	Burial grounds too close to chief drinking-water tank. Rivers and channels polluted; some public wells require repair. Private wells in backyards all open to pollution.	Backyards dirty. Conservancy staff insufficient. No latrines. No night-soil collection. No bullocks for rubbish cart.	New union formed with a view to improve sanitation. Village sites improved. Steps taken to improve sources of water-supply.

* The particulars of births and deaths for the Tiruvannámalai Municipality were not available for the full year. Hence it is treated for vital statistical purposes as a rural town as hitherto.

No. II.—*Statement of births and deaths registered in each town and rural circle of the [illegible] Presidency and the receipts and expenditure in each circle from and on conservancy, together with the principal sanitary defects of each circle, [illegible] measures taken to remedy them for the year* 1896—cont.

1	2	3	4	5			6		7			8				
Serial Number.	District and town or rural circle.	Area in square miles.	Average population per square mile.	Population (exclusive of Europeans and Eurasians) for which returns were received.			Births.		Number of deaths registered (exclusive of Europeans and Eurasians and born dead).			Number of deaths of males to every 100 deaths of females.	Deaths per 1,000 of population from			
				Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.		Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.
	SOUTH ARCOT—*cont.*															
197	Tirukkóyilur ... R.C.	...	...	128,831	128,284	257,115	9,971	38·7	3,617	3,328	6,945	108·7	2·5	0·3	7·2	0·3
198	Tiruvannámalai R.C.	...	...	97,284	95,954	193,238	6,673	34·5	1,787	1,762	3,549	101·4	0·5	0·1	11·1	0·5
199	Vriddhachalam R.C.	...	...	109,611	113,180	222,791	6,620	29·7	2,623	2,537	5,160	103·4	2·1	0·08	9·3	0·3
12	Total, District ...	5,217	414·5	1,078,855	1,083,481	2,162,336	70,992	32·8	25,182	23,521	48,703	107·0	2·5	0·2	6·6	0·8
	SOUTH CANARA.															
200	Mangalore ... M.T.C.	...	...	21,168	19,452	40,620	1,341	33·0	422	361	783	116·9	...	...	6·4	1·6
201	Mangalore ... R.C.	...	...	115,802	122,172	237,974	7,516	5	1,871	1,844	3,715	101·5	0·004	0·03	5·3	0·9
202	Kasaragod ... R.C.	...	...	137,596	143,059	280,655	8,209	29·2	2,115	1,843	3,958	114·7	...	0·02	5·3	1·1
203	Uppinangadi R.C.	...	...	60,612	58,192	118,804	4,621	38·8	1,529	1,377	2,906	111·0	0·02	0·08	13·4	1·1
204	Udipi ... R.C.	...	...	118,714	134,985	253,699	9,238	36·3	2,385	2,206	4,591	108·1	...	0·05	6·4	1·0
205	Kundapur ... R.C.	...	...	55,078	65,172	120,250	4,636	38·5	1,273	1,215	2,488	104·8	0·07	0·008	11·6	1·9
6	Total, District ...	3,902	269·6	508,970	543,032	1,052,002	35,556	33·7	9,595	8,846	18,441	108·4	0·01	0·04	7·2	1·2
	TANJORE.															
206	Tanjore ... M.T.C.	...	...	25,870	28,388	54,258	1,753	32·3	751	717	1,468	104·7	1·0	0·5	6·4	6·9

9				10			11	12	13			14
				Mean ratio of deaths per 1,000 during previous five years.					Principal sanitary defects of circle.			
		All causes.							*a*	*b*	*c*	Measures taken for sanitary improvement of circle.
Injuries.	All other causes.	Males.	Females.	Total.	Males.	Females.	Total.	Net receipt of each circle under conservancy.	Net expenditure in each circle under conservancy.	In drainage.	In water-supply.	In domestic cleansing and conservancy.	
								RS. A. P.	RS. A. P.				
0·3	16·4	28·1	25·9	27·0	26·0	25·0	25·5	...	...	No regular system of drainage or sewage. Only side ditches dug in rainy season. Some low-lying localities swampy. House-sewage simply soaks into soil.	River freely polluted by all possible methods. Repairs to public wells needed. Private wells much contaminated by dung heaps in vicinity. Outlet of main tank out of repair. The Nullah leading to 1 tank is used as a latrine and near its banks are 2 burial grounds (Ulundurpett).	Backyards specially dirty and full of dung heaps. Much night-soil thrown out in the open. Only 3 ruined tatty latrines, unfit for use. Night-soil depot badly situated. No bullocks for rubbish carts. Staff of toties insufficient.	Formation of new union and appointment of necessary conservancy establishment at Ulundurpett. Removal of prickly-pear. New tank dug. Repairs to existing wells and tanks. Steps for prosecution of offenders who pollute drinking-water tanks.
0·5	5·6	18·3	18·3	18·3	19·3	18·0	18·7	...	...	No system of drainage. Sewage runs into backyards and soaks into soil.	Water from streams and wells liable to pollution. Tanks better looked after.	Backyards dirty. No latrines, no night-soil conservancy. Backyards of 1 village (Chengam) full of cesspits.	Small conservancy establishment and watchers appointed in principal villages. Tanks repaired. Nothing specially done.
0·3	11·1	23·9	22·4	23·1	22·8	21·7	22·2	...	...	Natural drainage bad. No system of artificial drainage. House sewage discharges into backyards.	Both rivers and those ponds which are fed by irrigation channels are contaminated. Private wells brackish. Many village ponds polluted.	Dung heaps in backyards, which are dirty as usual. Latrine accommodation insufficient. Conservancy generally defective.	Endeavours made by touring officers to put down nuisances. Prosecutions instituted. Additional sweepers appointed. Steps taken to prevent pollution of drinking water.
0·4	12·3	23·3	21·7	22·5	23·3	21·9	22·6	...	...				
0·6	10·7	19·9	18·5	19·3	24·7	26·1	25·4	2,541 11 9	8,307 13 4	...	The quality of drinking water is suspicious in some wells as their surroundings are bad.	...	Three wells were sunk and four others repaired, Rs. 2,052 and Rs. 74, respectively. A public latrine was constructed, Rs. 192.
0·5	8·9	16·1	15·1	15·6	19·1	16·8	17·9	...	...	...	Some drains were made, Rs. 550. Seven public latrines, two markets, a slaughter-house and some drains were repaired, Rs. 1,092. In some places water derived from wells and tanks is of doubtful quality on account of the filthy surroundings. In Puttur scarcity of water is greatly felt during the hot weather.	...	Nine wells were sunk, Rs. 503. Five public latrines, two dust-bins and a market were constructed, Rs. 824. Five public latrines and some markets were repaired, Rs. 165.
0·3	7·4	15·3	12·9	14·1	17·4	15·7	16·5						
0·6	9·2	25·2	23·6	24·4	26·6	25·4	26·0						
0·5	10·1	20·0	16·3	18·0	23·1	18·7	20·8						
0·4	6·7	23·1	18·6	20·6	28·3	22·1	25·0						
0·5	8·6	18·8	16·3	17·5	21·7	18·9	20·2	.....	.....				
0·2	12·0	20·0	25·2	27·0	30·4	28·2	29·3	2,125 0 0	10,665 0 0	The newly constructed masonry drains in Karathatangudy Division have masonry drains, some of them with bad gradients. A great many streets are still without drains. The drains in the eastern and southern main streets receive offensive house sullage and not being apparently impervious or formed on correct levels, these matters stagnate in them and permeate the surrounding soil. The drains are covered for a great length. Consequently a most evil stench pervades the locality and pollutes the atmosphere. Many of the streets are still without drains, and the houses there have cess-pools, the contents of which in some cases are emptied into streets.	...	The contract system of conservancy is in farce, but it is disadvantageous as the contractors remove only serviceable materials. The carts and bullocks used are also inefficient. The night-soil instead of being trenched is left heaped on the open ground in the depot for several days. The private scavengering is not freely resorted to by the people. Most of the public latrines are not easy of access: consequently streets, open and secluded spaces are made use of as such.	Government has ordered the Sanitary Engineer to prepare an estimate for the extension of the water works and to submit it for sanction. Two tanks and four wells were repaired, Rs. 410 and 310, respectively. A public latrine was constructed, Rs. 300, and some drains made, Rs. 190. Repairs were executed to five public latrines, Rs. 170, seven drains, Rs. 850, and two markets, Rs. 260.

No. II.—*Statement of births and deaths registered in each town and rural circle of the [illegible] Presidency and the receipts and expenditure in each circle from and on conservancy, together with the principal sanitary defects of each circle, and the measures taken to remedy them for the year* 1896—cont.

1	2	3	4	5			6		7			8					9					10			11	12	13			14
Serial Number.	District and town or rural circle.	Area in square miles.	Average population per square mile.	Population (exclusive of Europeans and Eurasians) for which returns were received.			Births.		Number of deaths registered (exclusive of Europeans and Eurasians and born dead).			Number of deaths of males to every 100 deaths of females.	Deaths per 1,000				Deaths per 1,000 of population from					Mean ratio of deaths per 1,000 during previous five years.			Net receipt of each circle under conservancy.	Net expenditure in each circle under conservancy.	Principal sanitary defects of circle.			Measures taken for sanitary improvements of circle.
				Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.		Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.	Injuries.	All other causes.	All causes. Males.	All causes. Females.	All causes. Total.	Males.	Females.	Total.			a In drainage.	b In water-supply.	c In domestic cleansing and conservancy.	
	TANJORE—*cont.*																													
207	Kumbakónam M.T.C.	...	...	26,440	27,814	54,254	1,865	34·4	917	938	1,855	97·7	3·2	...	6·8	3·9	0·2	20·0	34·6	33·7	34·1	33·6	32·2	32·9	RS. A. P. 2,765 12 9	RS. A. P. 19,102 5 4	The street drains have not all of them been connected with the main and branch channels, and the result is that there are large accumulations of stagnant water without an outlet. The drainage of some of the houses is allowed to sink in the backyards or to run on to the roads. The backyards are consequently in a filthy and dangerous condition. The condition of cess-pools is very unsatisfactory.	The quality of water-supply is anything but satisfactory. The surroundings of drinking-water wells (private) in many instances are insanitary.	Most of the public latrines are rather small and their number is insufficient. The majority of the iron dust-bins require repair.	A scheme for the drainage of the Solayappa Mudali Street was prepared by the Sanitary Board and sanctioned by Government. A well was sunk (Rs. 70) and a tank repaired (Rs. 948).
208	Máyavaram M.T.C.	...	...	11,523	12,228	23,754	910	38·3	370	352	722	105·1	1·7	0·04	5·5	3·3	0·2	19·7	32·1	28·8	30·4	31·3	28·2	29·7	891 15 2	6,822 4 4	Drainage is very defective. The surplus rain in most of the streets drains into the Cauvery and adjoining channels. The house drains in most of the houses are allowed to sink into their backyards. In the rainy season water stagnates in most of the backyards.	Quality of water is not so good as desirable. Three tanks are set apart for drinking purposes, but they are not properly conserved. All the wells are shallow ones, and likely to be spoiled by sub-soil drainage.	.....	Three wells were sunk (Rs. 220), seven dust-bins were constructed (Rs. 48). A drain, market, and a slaughter-house were repaired (Rs. 163).
209	Negapatam ... M.T.C.	...	...	26,668	31,905	58,573	1,760	30·0	931	985	1,916	94·5	2·7	0·1	7·1	3·6	0·4	18·8	34·9	30·9	32·7	33·1	29·1	30·9	2,707 12 0	22,619 2 9	There is no regular system of drainage in the town. Cess-pools are not emptied regularly, the number of sewage carts being insufficient for the purpose.	Wells which are one of the sources of water-supply are subject to pollution. Tank water is suspicious.	Many of the masonry latrines are in a dilapidated condition. The rubbish of certain portions of the town is either deposited close to habitations or near one of the main drinking-water sources.	The Sanitary Engineer to Government is drawing up a scheme for the water supply of this town. Two wells were sunk and some tanks and wells repaired (Rs. 1,208). Two public latrines, five dust-bins and a market were constructed (Rs. 562). A public latrine, some dust-bins and slaughter-house were repaired.
210	Mannárgudi M.T.C.	...	...	9,704	10,688	20,392	701	34·4	275	283	558	97·2	1·6	0·1	6·1	3·8	0·6	15·2	28·3	26·5	27·4	31·4	26·7	28·9	183 8 9	2,969 2 9	There is no system of drainage. Cess-pools are almost always full and dirty.	The existing sources are subject to pollution.	The existing public latrines are not freely used by the people.	It is proposed to sink a tube well with professional advice. Some dust-bins were purchased (Rs. 79).
211	Tiruválár ... T.C.	...	...	6,063	6,871	12,934	307	23·7	212	220	432	96·4	2·5	2·3	3·0	1·3	0·2	24·1	35·0	32·0	33·4	24·0	21·1	22·4	...	...	There is no regular system of drainage in any of the towns or villages in this district. In non-union villages rain water and house sullage are allowed to run into backyards where they soak in the ground or dry up in the sun. Cess-pools exist in some places which are seldom cleaned.	The tanks, which form one of the sources of drinking water of the district are generally fed by channels leading from the nearest river. The river as well as the channels are subject to pollution. In the former case the drainage of the country, through which the river passes, discharges into it. Scarcity of water is much felt in Pattukkóttai taluk. The people of this place mainly depend for their supply of water upon tanks which are fed by surface drainage.	In non-conserved villages the sweepings of streets are stored in backyards or close to dwellings till they are required for fields. In some unions the latrines are situated in out of the way places, and are in consequence not used. There is no demand for night-soil as manure, and recommendations made for the selection of sites to trench night-soil are not attended to.	Three wells were sunk (Rs. 220) four tanks and twelve wells were repaired (Rs. 440). A public latrine and fifteen dust-bins were constructed (Rs. 25) and (Rs. 155), respectively.
212	Tanjore ... R.C.	...	...	172,425	183,596	356,021	9,568	26·8	4,058	4,073	8,131	99·6	1·4	0·2	3·4	0·7	0·2	16·9	28·5	22·1	22·8	26·1	24·5	25·3						
213	Kumbakónam R.C.	...	...	156,320	167,030	323,350	9,820	30·3	4,266	4,383	8,649	97·3	2·3	0·1	1·9	0·3	0·3	21·8	27·2	26·2	26·7	31·2	29·3	30·2						
214	Máyavaram R.C.	...	...	105,172	115,805	220,977	7,056	31·9	2,562	2,661	5,223	96·3	1·6	0·3	2·2	0·4	0·4	19·0	24·3	22·9	23·6	28·4	26·2	27·3						
215	Shiyali ... R.C.	...	...	57,586	62,215	119,801	4,012	33·4	1,311	1,311	2,622	100·0	1·2	0·04	1·6	0·2	0·3	18·5	22·7	21·0	21·8	27·5	25·3	26·4						
216	Nannilam ... R.C.	...	...	100,250	115,655	215,905	6,404	29·6	2,997	3,174	6,171	94·4	1·7	0·3	3·3	0·5	0·3	22·4	29·8	27·4	28·5	30·3	27·2	28·7						
217	Negapatam ... R.C.	...	...	68,944	79,233	148,177	4,111	27·7	1,848	2,035	3,883	98·1	1·6	0·2	1·5	0·2	0·4	22·7	26·8	25·6	26·2	28·0	25·3	26·6						
218	Mannárgudi R.C.	...	...	80,143	86,890	167,033	4,800	28·7	1,846	1,991	3,837	92·2	1·1	0·04	1·3	0·2	0·2	20·1	23·0	22·9	22·9	24·7	24·2	24·5						
219	Tirutturaippúndi R.C.	...	...	87,800	92,493	180,293	5,630	31·2	2,130	2,339	4,469	91·1	1·9	0·06	1·1	0·1	0·3	21·3	24·2	23·2	24·7	23·1	22·5	22·8						
220	Pattukkóttai R.C.	...	...	130,539	140,820	271,359	7,527	27·7	2,584	2,561	5,145	100·9	1·1	0·06	1·2	0·4	0·1	16·1	19·7	18·1	18·9	16·6	15·1	15·9						
15	Total, District ...	3,709	600·4	1,065,450	1,161,631	2,227,081	66,224	29·7	27,058	28,023	55,081	96·5	1·6	0·2	2·5	0·8	0·3	19·3	25·4	24·1	24·7	23·7	24·8	25·7						
	TINNEVELLY.																													
221	Tinnevelly ... M.T.C.	...	...	11,752	13,004	24,756	837	33·8	470	472	942	97·4	6·5	...	4·8	5·6	0·3	20·8	40·0	36·3	38·0	35·3	32·8	34·0	1,076 1 6	8,329 9 8	The drainage of the town is defective. Some of the existing drains are badly constructed, hence sewage remains stagnant and effluvia of foul gas is the result. Some of the cess-pools are mere excavations, while others are in bad repair.	The channels and tanks which form the chief drinking-water sources are subject to pollution. The tank within the temple which supplies drinking water to a major portion of this townspeople is also defiled being used for bathing and washing purposes. There is no watchman appointed to guard this tank.	The latrines constructed of brick in chunam are badly in want of repair. The refuse water and the excreta from latrines are allowed to run into a drinking-water source. This should be prevented by providing a receptacle. Night-soil is still removed in open baskets and kept near latrines before being taken in carts. The number of houses brought under the private scavengering system is comparatively small.	Thirty-two wells were repaired (Rs. 167). A drain was made (Rs. 52). Three public latrines, two drains and a market were repaired (Rs. 87, 44 and 132), respectively.

No. II.—*Statement of births and deaths registered in each town and rural circle of the Madras Presidency and the receipts and expenditure in each circle from and on conservancy, together with the principal sanitary defects of each circle, and the measures taken to remedy them for the year* 1896—cont.

1	2	3	4	5			6		7			8					9					10			11	12	13			14
Serial Number.	District and town or rural circle.	Area in square miles.	Average population per square mile.	Population (exclusive of Europeans and Eurasians) for which returns were received.			Births.		Number of deaths registered (exclusive of Europeans and Eurasians and born dead).			Number of deaths of males to every 100 deaths of females.	Deaths per 1,000				Injuries.	All other causes.	All causes.			Mean ratio of deaths per 1,000 during previous five years.			Net receipt of each circle under conservancy.	Net expenditure in each circle under conservancy.	Principal sanitary defects of circle			Measures taken for sanitary improvement of circle.
				Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.		Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.	of population from		Males.	Females.	Total.	Males.	Females.	Total.			a In drainage.	b In water-supply.	c In domestic cleansing and conservancy.	
	TINNEVELLY—*cont.*																													
222	Palamcottah M.T.C.	...	...	8,808	9,804	18,612	611	32·8	317	301	618	105·3	9·8	...	4·0	3·4	0·3	15·7	36·0	30·7	33·2	29·7	25·3	27·5	RS. A. P. 2,065 12 0	RS. A. P. 4,658 14 9	No system. House drains open in some cases into the streets. The cess-pools in the poorer and more thickly-populated portions of the town are not attended to, but are allowed to fill and overflow on to the street.	Paliam channel, the chief source of water-supply, is subject to much pollution throughout its course; cattle and clothes being washed in it.	.....	Twenty-five dust-bins were constructed (Rs. 206), and fifty drains were repaired. Temporary coolies were employed for cleaning the drains during the monsoon at a cost of Rs. 115.
223	Tuticorin ... M.T.C.	...	...	13,624	11,340	24,964	855	34·2	422	383	805	110·2	4·6	0·1	6·8	6·1	0·2	14·4	31·0	33·8	32·2	29·2	32·1	30·5	...	...	The three existing masonry drains are quite insufficient. The streets and houses have no drains. Cess-pools are too small to receive the amount of sewage discharged into them as they overflow with their contents.	Drinking water is brought through an open channel to a reservoir. The channel is subject to pollution.	The existing latrines are not equal to the wants of the town. The surroundings of latrines are very insanitary.	A well was sunk (Rs. 84) and six others repaired (Rs. 179). A latrine and a few dust-bins were constructed (Rs. 397), some latrines and drains were repaired (Rs. 93).
224	Srivilliputtúr. M.T.C.	...	...	14,367	15,174	29,541	932	31·5	309	335	644	92·2	...	0·8	8·8	2·3	0·5	9·4	21·5	22·1	21·8	...	...	...	253 6 0	2,771 13 11	Side-cuttings exist which are cleared when necessary.	At present people are allowed to bathe in the Thiroomakulam, which is the only source of drinking-water-supply on account of its sacred character. Notwithstanding the presence of a watchman, clothes are sometimes washed in the tank.	The people are unwilling to have their latrines cleaned by the private scavenging agency, in view to avoid the necessity of paying a small fee in addition to other taxes.	Two latrines were constructed (Rs. 217). Three public larines and two drains were repaired (Rs. 23).
225	Kulasékarapatnam T.C.	...	...	7,012	8,898	15,910	488	30·7	172	192	364	89·6	0·2	...	6·0	0·8	0·1	15·8	24·5	21·6	22·9	32·9	24·6	28·2	.....	.....	No artificial system of drainage exists; the soil is sandy.	Nearly half the number of wells are without platforms and drains.	.....	All the wells referred to will be provided with platforms and drains as soon as funds permit.
226	Virudupatti ... T.C.	...	...	6,547	7,528	14,075	246	17·5	66	76	142	86·8	...	...	4·5	0·8	0·2	4·6	10·1	10·1	10·1	14·0	11·2	12·5	.....	.....	The contents of cess-pools require frequent removal.	Some of the private drinking water wells are without parapet walls and platforms.	Rubbish from backyards is not removed daily. A slaughter-house is needed. Removal of tobacco godown outside the town is necessary.	Provision will be made next year for construction of a slaughter-house. Other defects have been communicated to the chairman, and will be attended to in the course of next year.
227	Viravanallúr ... T.C.	...	...	6,504	7,447	13,951	282	20·2	156	139	295	112·2	4·8	0·1	0·3	0·4	0·1	15·4	23·9	18·6	21·1	22·4	20·0	21·2	.....	.....	Drains are not constructed in all the streets. The contents of house drains find their way into the streets.	Some of the private drinking water wells are without parapet walls and platforms. Scarcity is felt during the hot weather.	Pits in the backyards are used as privies. Manure is also deposited here. Muhammadan burial ground is within the town. Potters' kiln is also situated in the heart of the town.	.....
228	Rajapálaiyam ... T.C.	...	...	6,607	6,694	13,301	578	43·4	128	86	214	148·8	...	...	0·2	...	...	15·9	19·4	12·8	16·1	14·1	11·3	12·7	.....	.....	Streets and lanes in the hamlets require side-cuttings. Cess-pools are also wanted.	Platforms provided to some wells require repair. All wells are without drains to carry off spilt water. Some more wells should be sunk.	The conservancy of Pudupalayam requires attention. The latrine there is in an insanitary state. The flooring should be raised and the walls tarred. Tight iron buckets should be provided for removal of night-soil.	Steps will be taken to remedy the defects pointed out next year, if funds permit. The floor of the latrine is being raised. Tight iron buckets will be brought into use next year. Special attention well be paid to the sanitation of Pudupalayam.
229	Tenkási ... ... T.C.	...	...	6,151	6,710	12,861	650	50·5	196	145	341	135·1	0·3	...	6·8	3·0	0·2	16·2	31·9	21·4	26·5	40·1	34·4	37·2	.....	.....	Only the main streets have been provided with drains. Many houses have drains emptying into streets. Some of the drains are blocked up with rubbish.	The river which is the chief source of drinking-water supply receives dirty matter and the drainage of the town. Private wells have no platforms and drains. Burial and burning grounds are on the bank of the river. Some wells are near the grave yards in the compounds of Muhammadan mosques.	Backyards are dirty. No private scavengering system is introduced. Neither slaughter-houses nor urinals specially constructed. Limestone kilns are in the bazaar street near habitations.	.....
230	Sivakási ... ... T.C.	...	...	5,788	6,396	12,184	537	44·0	212	178	390	119·1	0·1	...	13·0	0·2	[illegible]	[illegible]	36·6	27·8	32·0	37·8	33·9	36·6	.....	.....	The drainage sytem needs improvement.	Some wells require platforms with drains.	The backyards of houses are not clean.	Proposals are being made to divert the sewage water to drains in the neighbouring fields.
231	Káyalpatnam ... T.C.	...	...	4,404	7,060	11,464	313	27·3	118	152	270	77·6	0·3	...	1·7	...	0·1	21·4	26·8	21·5	23·5	43·3	34·1	39·6	.....	.....	Natural	.....	.....	.....

No. II.—*Statement of births and deaths registered in each town and rural circle of the Madras Presidency and the receipts and expenditure in each circle from and on conservancy, together with the principal sanitary defects of each circle, and the measures taken to remedy them for the year* 1896—cont.

1	2	3	4	5			6		7			8					9					10			11	12	13			14
Serial Number.	District and town or rural circle.	Area in square miles.	Average population per square mile.	Population (exclusive of Europeans and Eurasians) for which returns were received.			Births.		Number of deaths registered (exclusive of Europeans and Eurasians and born dead).			Number of deaths of males to every 100 deaths of females.	Deaths per 1,000				Injuries.	All other causes.	All causes.			Mean ratio of deaths per 1,000 during previous five years.			Net receipt of each circle under conservancy.	Net expenditure in each circle under conservancy.	Principal sanitary defects of circle			Measures taken for sanitary improvement of circle.
				Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.		Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.			Males.	Females.	Total.	Males.	Females.	Total.			a In drainage.	b In water-supply.	c In domestic cleansing and conservancy.	
	VIZAGAPATAM.																									RS. A. P.	RS. A. P.				
250	Vizagapatam. M.T.C.	...	...	16,477	17,484	33,961	1,221	35·9	521	403	924	129·2	1·2	...	6·4	6·6	0·3	12·7	31·6	23·0	27·2	30·8	26·5	28·5	1,372 1 7	11,647 11 10	.....	Generally considered indifferent. Wells are not watched; bathing goes on around them.	.....	Two wells were sunk (Rs. 91) and twenty others repaired (Rs. 349). Twenty-five public latrines were constructed (Rs. 1,390) and two drains were made (Rs. 239). A slaughter-house was constructed and another repaired (Rs. 224). Repairs to some latrines and drains were made (Rs. 162 and Rs. 218), respectively.
251	Bimlipatam ... M.T.C.	...	...	4,639	5,057	9,696	364	37·5	119	123	242	96·7	1·1	...	4·8	5·3	...	13·7	25·6	24·3	24·9	28·0	28·4	28·2	363 4 0	2,212 11 8	.....	.....	.....	Three public latrines were constructed (Rs. 35).
252	Vizianagram. M.T.C.	...	...	14,805	15,930	30,735	925	30·1	474	385	859	123·1	1·2	0·2	10·4	4·4	0·4	11·3	32·0	24·2	27·9	26·5	22·0	24·2	1,675 2 6	9,841 0 0	No proper system ...	The quality of the water is generally bad, and the quantity insufficient. Owing to the total failure of monsoon in the year great difficulty has been felt by the public for want of water.	.....	Four wells sunk (Rs. 310) and seven others repaired (Rs. 23). Two public latrines were constructed (Rs 164) and six repaired (Rs. 212). Twelve drains were made (Rs. 553) and twenty-five repaired (Rs. 338). A scheme for water-supply is under investigation by the Sanitary Engineer.
253	Anakápalle. M.T.C.	...	...	8,482	8,519	17,001	542	31·9	226	139	365	162·6	0·07	...	7·7	3·4	1·1	9·3	26·6	16·3	21·5	30·4	24·2	27·3	276 12 0	3,392 11 7	The existing pucca drains are only a nuisance, not being properly sloped, and no proper outlet having been arranged for the final disposal of sewage.	.....	.....	Advice of the sanitary authorities regarding drainage will be taken when next the town is visited by them. Conservancy and streetcleaning have improved since the appointment of a Sanitary Inspector. Two wells were sunk (Rs. 73) and four repaired (Rs. 203). Six public latrines and 35 dust-bins were constructed (Rs. 219 and Rs. 158), respectively. Ten public latrines, a drain and two markets were repaired (Rs. 157).
254	Bobbili ... T.C.	...	...	6,971	7,477	14,448	489	33·8	117	123	240	95·1	0·6	...	11·4	0·1	0·1	4·4	16·8	16·4	16·6	18·3	17·0	17·6	.....	.....	.....	.....	Private conservancy is not satisfactory.	Inhabitants have been warned not to commit nuisance on the street and to keep their surroundings clean.
255	Súlúr ... T.C.	...	...	5,983	6,927	12,910	178	13·8	114	86	200	132·5	3·6	1·2	0·2	4·4	...	0·1	19·0	12·4	15·5	20·0	12·4	16·0	.....	.....	There is no regular or properly-constructed drains to carry off the filthy contents of the side drains.	.....	.....	Do.
256	Palkonda ... T.C.	...	...	4,869	5,495	10,364	228	22·0	124	117	241	106·0	3·1	...	15·0	0·3	0·1	4·7	25·5	21·3	23·2	24·6	20·0	22·2	.....	.....	.....	The water of Venkataraju koneru, which is much used by the people, is bad owing to accumulation of silt. The supply of drinking water in the town is at present insufficient.	.....	A well in the market was repaired at a cost of Rs. 18-9-4. The market has been repaired (Rs. 125). Weeds in the Venkatagiri koneru were removed (Rs. 4) and (Rs. 36) were spent in cleaning its feeder channel and in constructing a sluice.
257	Párvatipuram. T.C.	...	...	4,711	5,342	10,053	294	29·2	111	83	194	133·7	...	...	14·9	1·8	0·3	2·3	23·5	15·5	19·3	25·4	20·0	22·5	.....	.....	There are square drains without stone bottoms on the main street. The sewage consequently percolates in the soil underneath.	Private wells have neither platforms nor drains for carrying off waste water.	Some of the private latrines are not properly cleaned every day, and sweepings are allowed to accumulate in compounds for days together.	.....
258	Sarvasiddhi ... R.C.	...	...	73,800	75,046	148,846	5,333	35·8	1,292	1,230	2,522	105·0	0·05	0·1	14·8	0·3	0·3	1·4	17·5	16·3	16·9	19·1	17·2	19·2	.....	.....	No system	In most of the villages in rural circles tank watchers are not entertained to protect water from pollution.	No separate establishments are employed for cleaning latrines.	The itenerating conservancy establishment was employed in digging side channels, filling up hollows and in removing prickly-pear, rank vegetation and sweepings.
259	Narasapatnam or Golgonda ... R.C.	...	...	52,386	52,070	104,456	3,723	35·6	837	814	1,651	102·8	...	0·1	13·8	0·4	0·3	1·2	16·0	15·6	15·8	18·7	16·5	17·6	.....	.....	Do.	Do.	Do.	Do.
260	Anakápalle ... R.C.	...	...	63,382	65,527	128,909	3,925	30·4	916	805	1,721	113·7	0·1	0·1	11·8	0·3	0·3	0·7	14·4	12·2	13·3	17·2	15·1	16·1	.....	.....	Do.	Do.	Do.	Do.

No. II.—*Statement of births and deaths registered in each town and rural circle of the Madras Presidency and the receipts and expenditure in each circle from and on conservancy, together with the principal sanitary defects of each circle, and the measures taken to remedy them for the year* 1896—cont.

1	2	3	4	5			6		7			8				
Serial Number.	District and town or rural circle.	Area in square miles.	Average population per square mile.	Population (exclusive of Europeans and Eurasians) for which returns were received.			Births.		Number of deaths registered (exclusive of Europeans and Eurasians and born dead).			Number of deaths of males to every 100 deaths of females.	Deaths per 1,000			
				Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.		Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.
	TINNEVELLY—*cont.*															
232	Kalladakurchi ... T.C.	...	...	5,230	5,866	11,096	315	28·4	149	120	269	124·2	0·2	...	2·6	...
233	Ottappidáram ... R.C.	...	...	155,341	161,649	316,990	7,887	24·8	2,702	2,602	5,304	103·8	0·1	0·01	4·2	0·3
234	Srivaikundam ... R.C.	...	...	125,196	135,000	260,196	8,353	32·1	3,060	3,050	6,110	100·3	2·5	0·02	3·0	0·3
235	Tinnevelly ... R.C.	...	...	68,436	72,816	141,252	4,878	34·5	1,912	1,861	3,773	102·7	3·7	0·04	3·0	0·6
236	Srivilliputtúr ... R.C.	...	...	75,244	77,009	152,253	4,449	29·2	1,497	1,521	3,018	98·4	...	0·006	1·4	0·3
237	Sankaranayinárkóyil ... R.C.	...	...	104,061	105,152	209,213	6,155	29·4	2,219	2,130	4,349	104·2	0·1	0·02	2·8	0·2
238	Nánguméri ... R.C.	...	...	84,402	90,008	174,410	5,734	32·9	1,886	1,792	3,678	105·2	0·7	...	2·7	...
239	Ambásamudram R.C.	...	...	75,776	82,776	158,552	4,918	31·0	1,874	1,882	3,756	99·6	1·8	...	4·8	1·4
240	Sáttúr ... ... R.C.	...	...	77,688	80,358	158,046	4,872	30·8	1,757	1,747	3,504	100·6	0·03	0·02	5·6	0·4
241	Tenkási ... ... R.C.	...	...	70,284	71,791	142,075	4,129	29·0	1,495	1,316	2,811	113·6	0·4	0·007	3·7	0·4
21	Total, District ...	5,387	355·1	933,222	982,480	1,915,702	58,019	30·3	21,117	20,450	41,597	103·1	1·2	0·03	3·7	0·6
	TRICHINOPOLY.															
242	Trichinopoly ... M.T.C.	...	...	43,576	46,090	89,666	2,759	30·7	1,341	1,410	2,751	95·1	5·9	0·2	6·9	3·7
243	Srirangam ... M.T.C.	...	...	10,238	11,394	21,632	679	31·4	342	415	757	82·4	2·5	0·04	6·1	3·4
244	Trichinopoly ... R.C.	...	...	119,143	129,418	248,561	6,753	27·1	3,315	3,430	6,745	96·6	5·7	0·04	2·8	0·2
245	Musiri ... ... R.C.	...	...	133,852	148,763	282,615	8,035	28·4	3,233	3,373	6,606	95·9	1·8	0·007	4·5	0·3
246	Kulittalai ... R.C.	...	...	118,900	124,785	243,685	5,644	23·2	2,338	2,195	4,533	106·5	2·1	0·008	3·9	0·2
247	Perambalúr ... R.C.	...	...	94,627	100,377	195,004	6,201	31·7	2,268	2,248	4,516	100·8	0·1	0·01	4·6	0·2
248	Udaiyárpálaiyam R.C.	...	...	98,773	102,757	201,530	6,191	30·7	2,715	2,797	5,512	97·1	0·1	0·009	5·5	0·1
249	Zamindaries	...	...	45,926	45,107	89,033	1,937	21·7	819	809	1,628	101·2	0·1	..	8·6	0·1
8	Total, District ...	3,631	377·8	663,035	708,691	1,371,726	38,199	27·8	16,371	16,677	33,048	98·1	2·5	0·03	4·7	0·5

9					10			11	12	13			14
Deaths per 1,000 of population from					Mean ratio of deaths per 1,000 during previous five years.			Net receipt of each circle under conservancy.	Net expenditure in each circle under conservancy.	Principal sanitary defects of circle			Measures taken for sanitary improvement of circle.
Injuries.	All other causes.	All causes.								a	b	c	
		Males.	Females.	Total.	Males.	Females.	Total.			In drainage.	In water-supply.	In domestic cleansing and conservancy.	
								RS. A. P.	RS. A. A.				
0·4	21·0	28·5	20·4	24·2	37·4	26·9	31·0	.....	.....	Only a few streets have drains. Kain water drains into the channel used for drinking purposes.	Burial and burning grounds are situated on the banks of the river.	Backyards are not clean. Heaps of cow-dung and ashes &c., are stored up for manure, and are removed once or twice a year. No private scavenging system is in force. A slaughter-house is required.	.....
0·3	11·8	17·4	16·0	16·7	22·9	20·9	21·4	.....	.....	There is no regular system of drainage. There are side-cuttings in large towns and villages chiefly confined to main streets for removal of storm water. Houses have generally no drains, the refuse water being allowed to soak inside house, and mix up with rubbish and dung heaps or run out in streets and lanes or received into cess-pools, which are in many cases mere pits dug out in earth.	During the hot weather scarcity is felt in the taluks chiefly dependent upon wells and tanks. In some places wells and tanks are indiscriminately used for drinking as well as for washing purposes. Wells in some instances require proper drains and platforms. Rivers, channels and tanks are freely polluted by the people not only by bathing and washing their clothes and cattle in or near them, but also by committing nuisance in their immediate vicinity.	The sweepings of houses in non-conserved villages are usually heaped up in backyards or private grounds with cattle dung, ashes and in many cases with fæcal matter and allowed to rot there for months for being used as manure for fields. The dung and rubbish heaps so stored up contaminate the atmosphere. In the rainy season their oozings affect wells that lie close by most prejudicially. Very few of the existing latrines have seats. The number of latrines is insufficient, and consequently the sides of streets, open spaces, corners, private grounds, &c., are used as such even in large union towns.	Three wells were sunk (Rs. 405) and sixty others repaired (Rs. 1,955). Six tanks were repaired (Rs. 600). Fifteen public latrines and fifty-three dust-bins were constructed (Rs. 1,020 and Rs. 386), respectively. Five public latrines, twenty dust-bins, and a market repaired (Rs. 36, 124 and 60), respectively. Efforts are being made to induce villagers to store up rubbish in enclosures far away from habitations.
0·4	17·2	21·3	20·2	20·7	20·0	18·9	19·4						
0·4	17·2	22·3	19·9	21·0	25·7	22·3	23·9						
0·3	15·3	24·7	22·7	23·6	29·6	25·6	27·5						
0·4	15·7	22·6	21·7	22·1	22·8	21·9	22·3						
0·4	14·7	21·2	18·3	19·7	26·2	23·4	24·8						
0·3	15·9	22·6	20·8	21·7	25·0	22·5	23·7	.....	.....				
0·3	13·7	30·7	30·6	30·7	29·4	26·4	27·9	10,229 12 2	40,360 4 4	There is no system of drainage.	Some of the drinking-water sources are subject to pollution.	Latrine accommodation is deficient. Supervision of conservancy arrangements inefficient. The staff employed for the removal of night-soil and rubbish is inadequate. The supervising agency is poor and ill-paid.	The question of draining the town properly will have to be postponed until funds are available. Two latrines and ten dust-bins were constructed (Rs. 851 and Rs. 91), respectively. Fifty-five public latrines, nine dust-bins, a drain, five markets, and three slaughter-houses were repaired (Rs. 1,978).
0·2	22·7	33·4	36·4	34·9	34·2	30·1	32·1	2,146 3 7	9,121 9	No artificial drainage in this municipality; surface drains are cut in the main streets to drain the rain water. There are still several cess-pools in front of back houses, most of which are uncovered and their contents not removed for years.	No tank or well is reserved for drinking purposes.	.....	A public latrine and some dust-bins were constructed (Rs. 302). Sixteen public latrines were repaired.
0·2	16·1	27·8	20·5	27·1	25·4	23·4	24·4	.....	.....	No system. Main streets are provided with side drains for removal of storm water. House drains lead into cess-pools under the road way or falling into the open side drains empty themselves into the streets and form stagnant puddles.	Drinking water is derived mainly from the Cauvery and Coleroon rivers and their channels. Water from tanks and wells is also used. The quality of the water is fair; but all open channels are liable to pollution from the habits of the people. The tanks which are rain-fed suffer likewise from surface contamination. Tanks are set apart for drinking purposes, and watchmen are appointed to guard them from pollution. Bathing and washing are tolerated even in the tanks which are said to be conserved for drinking purposes. The open channels are liable to great pollution in every place. Wells are usually without platforms or parapet walls.	Domestic cleansing is very defective. No proper means exist. Ventilation very defective. Backyards in most houses are stored with manure and other rubbish, cattle herd in the verandahs and backyards of houses. The house drain runs into a pit outside and there stagnates into a cess-pool. Recommendations have been made for the increase of scavengers at the expense of sweepers.	Revenue officers are paying attention to the sanitation of villages during their tours. Owners of insanitary houses and premises are prosecuted when necessary. Prickly-pear is being gradually removed. Drinking water tanks are ordered to be conserved by the village menials during the hot weather. The Taluk Boards and Unions are devoting their attention to the subject as far as their funds permit.
0·5	16·2	24·2	22·7	23·3	21·6	19·8	20·6						
0·4	12·0	19·7	17·6	18·6	13·4	12·9	13·2						
0·3	17·0	23·9	22·9	23·1	23·7	22·4	23·0						
0·8	20·4	27·4	27·2	27·3	28·4	26·9	27·6						
0·3	9·1	18·6	18·0	18·2	31·9	29·4	30·6						
0·4	16·0	24·7	23·5	24·1	23·5	21·8	22·7	.....	.....				

No. III.—*Deaths registered in the districts of the Madras Presidency during each month of the year* 1896.

1	2	3												4
Number.	Districts.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total death registered during the year.
1	Anantapur ...	1,086	963	1,331	916	968	978	1,617	1,404	1,363	1,345	1,103	1,027	14,101
2	Bellary ...	1,312	1,620	1,715	1,514	2,081	2,852	2,727	2,041	1,597	1,559	1,352	1,471	21,841
3	Chingleput ...	2,656	2,059	2,105	1,747	2,160	2,118	2,493	2,442	2,346	2,737	2,752	2,962	28,577
4	Coimbatore ...	2,970	3,088	2,685	2,735	2,545	2,476	3,915	4,677	6,071	5,779	5,420	6,137	48,498
5	Cuddapah ...	2,180	1,825	2,611	2,737	2,190	1,581	1,701	1,866	1,968	1,920	1,834	2,425	24,838
6	Ganjám ...	2,216	1,306	1,722	1,890	1,965	1,721	2,076	2,897	2,904	2,204	1,826	2,750	25,477
7	Gódávari ...	3,138	2,517	2,417	2,206	2,709	2,639	2,941	3,408	3,971	3,875	2,975	2,784	35,580
8	Kistna ...	2,683	2,240	2,221	2,089	3,556	2,932	3,186	4,014	4,031	3,374	2,763	2,808	35,847
9	Kurnool ...	1,559	1,513	1,867	1,856	1,728	1,581	1,713	1,826	1,511	1,451	1,109	1,193	18,907
10	Madras ...	1,345	1,181	1,190	1,257	1,462	1,233	1,258	1,541	1,756	1,567	1,407	1,488	16,685
11	Madura ...	2,729	1,919	2,283	2,116	2,156	1,893	2,465	2,255	2,689	2,369	3,207	5,515	31,596
12	Malabar ...	3,466	3,473	3,236	3,087	3,097	3,428	4,261	4,335	3,432	3,091	2,934	3,669	41,449
13	Nellore ...	1,923	1,798	1,666	1,601	2,022	1,970	1,997	2,235	2,310	2,307	2,334	2,549	24,712
14	Nilgiris ...	135	153	165	181	289	294	285	247	171	229	246	223	2,618
15	North Arcot ...	3,254	2,671	2,795	2,557	3,280	3,060	3,465	3,146	2,947	3,288	3,467	3,953	37,863
16	Salem ...	3,255	2,681	3,243	3,056	2,953	2,872	3,066	3,267	3,123	4,073	3,764	4,839	40,132
17	South Arcot ...	4,523	3,403	3,475	2,958	3,539	3,015	4,048	3,898	3,457	3,640	4,657	7,490	48,703
18	South Canara ...	2,039	1,914	1,585	1,174	1,222	1,506	1,657	1,453	1,277	1,368	1,363	1,883	18,441
19	Tanjore ...	4,698	3,968	3,749	3,483	3,884	3,553	4,307	4,385	4,428	4,747	6,065	7,809	55,081
20	Tinnevelly ...	4,575	3,092	2,748	2,372	2,576	2,389	2,765	2,913	2,835	3,347	4,407	7,578	41,597
21	Trichinopoly ...	3,060	2,588	2,347	2,237	2,400	2,009	2,160	2,251	2,230	2,449	3,331	5,986	33,048
22	Vizagapatam ...	3,156	2,385	2,438	1,953	2,354	2,006	2,338	2,611	3,277	2,883	2,101	2,694	30,196
	Total, Madras Presidency ...	57,898	48,357	49,594	45,677	51,136	48,706	56,441	59,052	59,694	59,609	60,417	79,213	675,787
	Ratio of deaths per 1,000 in each month ...	1·8	1·5	1·5	1·4	1·6	1·5	1·7	1·8	1·8	1·8	1·8	2·4	20·6

No. IV.—*Deaths* registered according to age in the districts of the Madras Presidency during the year* 1896.

1	2	3		4		5		6		7		8		9		10		11		12	
Number.	Districts.	Under 1 year.		1 to 4.		5 to 9.		10 to 14.		15 to 19.		20 to 29.		30 to 39.		40 to 49.		50 to 59.		60 and upwards.	
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1	Anantapur ...	1,395	1,146	898	879	465	422	279	193	230	346	696	1,014	784	772	825	605	761	584	941	866
2	Bellary ...	2,436	2,072	1,730	1,648	868	705	427	292	336	449	1,216	1,478	1,294	1,107	1,135	794	882	843	1,047	1,082
3	Chingleput ...	5,105	4,459	2,328	2,405	623	597	336	312	288	550	695	1,160	858	893	985	771	1,167	994	1,959	2,022
4	Coimbatore ...	5,129	4,324	3,440	3,172	1,994	1,712	1,161	916	1,003	951	2,301	2,636	2,605	2,368	2,318	1,915	2,188	2,023	3,064	3,278
5	Cuddapah ...	3,091	2,581	992	1,037	510	511	317	359	324	563	1,093	1,671	1,456	1,368	1,705	1,382	1,591	1,388	1,439	1,455
6	Ganjám ...	2,871	2,620	1,844	1,775	801	774	482	427	506	622	1,173	1,213	1,206	979	1,296	871	1,345	1,064	1,692	1,986
7	Gódávari ...	3,647	3,123	2,451	2,192	1,105	939	752	551	845	1,032	1,922	1,991	1,999	1,433	1,855	1,237	1,831	1,387	2,576	2,949
8	Kistna ...	5,487	4,654	2,730	2,457	885	746	460	484	569	959	1,360	1,707	1,185	1,186	1,234	872	1,277	930	3,269	3,326
9	Kurnool ...	2,191	1,922	1,587	1,602	786	664	285	250	273	403	925	1,120	1,012	851	1,065	646	816	715	838	166
10	Madras ...	2,920	2,547	1,280	1,417	314	384	180	181	124	240	561	657	488	574	540	418	514	439	1,326	1,542
11	Madura ...	3,728	3,299	2,212	2,136	906	832	543	496	583	636	1,496	1,449	1,582	1,425	1,665	1,317	1,619	1,530	2,077	2,167
12	Malabar ...	3,040	2,511	2,873	2,371	1,301	1,030	837	706	965	988	2,509	2,350	2,887	2,142	2,552	1,537	2,100	1,410	3,530	3,303
13	Nellore ...	3,000	2,516	1,909	1,780	1,026	1,016	769	765	568	565	570	560	641	622	881	752	1,242	1,090	2,094	2,462
14	Nilgiris ...	351	310	267	236	60	56	41	33	48	47	174	132	152	134	118	79	82	75	105	119
15	North Arcot ...	4,771	4,275	3,331	3,291	1,143	1,036	592	551	589	807	1,093	1,709	1,392	1,502	1,827	1,393	1,849	1,446	2,610	2,046
16	Salem ...	5,741	4,931	2,912	2,840	1,171	1,054	693	579	578	734	1,468	1,929	1,885	1,803	2,021	1,531	1,809	1,652	2,509	2,488
17	South Arcot ...	7,101	6,243	4,422	4,213	1,373	1,218	808	612	689	997	1,575	2,092	1,850	1,690	2,100	1,527	2,142	1,762	3,142	3,177
18	South Canara ...	2,736	2,318	1,016	989	377	374	217	206	302	377	799	1,039	921	747	964	649	865	630	1,398	1,517
19	Tanjore ...	7,583	6,479	3,290	3,156	1,212	1,207	748	680	702	1,413	1,820	2,988	2,164	2,267	2,508	1,971	2,493	2,281	4,518	5,971
20	Tinnevelly ...	5,719	5,061	3,346	3,464	1,007	918	626	520	606	713	1,338	1,682	1,693	1,413	1,913	1,437	1,964	1,688	2,905	3,586
21	Trichinopoly ...	3,990	3,588	2,547	2,381	930	819	482	467	451	740	1,184	1,618	1,299	1,329	1,369	1,159	1,518	1,487	2,631	3,989
22	Vizagapatam ...	3,596	3,181	2,071	1,904	818	682	618	479	549	712	1,428	1,526	1,573	1,334	1,674	1,209	1,584	1,531	1,902	1,829
	Total, Madras Presidency ...	85,626	74,160	49,516	47,545	19,675	17,696	11,653	10,039	11,186	14,288	27,309	33,721	30,916	27,939	32,558	24,072	31,439	26,959	47,302	51,146
	† Ratio per mille of population ...	150·9	124·7	24·9	22·8	8·2	7·5	6·3	6·2	7·8	10·8	9·7	10·4	12·7	11·4	18·3	14·1	30·1	24·7	52·5	47·1

* Exclusive of Europeans, and Eurasians, and born dead.
† Worked on the total population as per census of 1891 including Europeans and Eurasians.

No. V.—*Deaths registered according to Classes in the districts of the Madras Presidency during the year* 1896.

1	2	3					4					5				
	Districts.	Population for which returns were received.					Number of deaths registered.					Ratio of deaths per 1,000 of population.				
		Native Christians.	Muhammadans.	Hindus.	Other classes.	Total.	Native Christians.	Muhammadans.	Hindus	Other classes.	Total.	Native Christians.	Muhammadans.	Hindus	Other classes.	Total.
	Anantapur ...	1,378	51,946	673,667	328	727,319	13	807	13,275	6	14,101	9·4	15·5	19·7	18·3	19·4
	Bellary ...	3,468	87,025	798,516	1,476	890,485	68	2,072	19,700	1	21,841	19·6	23·8	24·6	0·7	24·5
	Chingleput ...	15,944	27,235	1,156,365	357	1,199,901	217	372	27,988	...	28,577	13·6	13·6	24·2	...	23·8
	Coimbatore ...	14,638	43,947	1,945,010	316	2,003,911	283	846	47,349	20	48,498	19·3	19·2	24·3	63·3	24·2
	Cuddapah ...	9,374	119,564	1,142,727	56	1,271,721	114	1,761	22,961	2	24,838	12·2	14·7	20·0	35·7	19·5
	Ganjám ...	1,513	4,750	1,229,782	52	1,236,097	25	137	25,315	...	25,477	16·5	28·8	20·6	...	20·6
	Gódávari ...	8,140	41,042	2,028,605	71	2,077,858	119	694	34,767	...	35,580	14·6	16·9	17·0	...	17·1
	Kistna ...	67,966	108,567	1,678,333	158	1,855,024	594	1,563	33,690	...	35,847	8·7	14·4	20·0	...	19·3
	Kurnool ...	22,584	97,416	697,616	44	817,660	298	2,018	16,591	...	18,907	13·2	20·7	23·8	...	23·1
	Madras ...	23,599	53,184	358,997	595	436,375	794	2,252	13,631	8	16,685	33·6	42·3	37·9	13·4	38·2
	Madura ...	42,298	73,465	1,457,460	95	1,573,318	591	1,902	29,103	...	31,596	14·0	25·9	20·0	...	20·1
	Malabar ...	42,372	759,242	1,834,284	776	2,636,674	1,071	12,064	28,294	20	41,449	25·3	15·9	15·4	25·8	15·7
	Nellore ...	46,797	78,185	1,337,979	396	1,463,357	148	557	24,007	...	24,712	3·2	7·1	17·9	...	16·9
	Nilgiris ...	8,594	4,600	83,531	40	96,765	206	130	2,282	...	2,618	24·0	28·3	27·3	...	27·0
	North Arcot ...	14,101	95,239	1,996,116	8,129	2,113,585	87	1,545	36,225	6	37,863	6·2	16·2	18·1	6·7	17·9
	Salem ...	17,661	61,505	1,982,409	209	1,961,784	282	1,541	38,309	...	40,132	16·0	25·0	20·3	...	20·4
	South Arcot ...	54,326	58,661	2,043,679	5,670	2,162,336	415	706	47,567	15	48,703	7·6	12·0	23·3	2·6	22·5
	South Canara ...	70,902	108,261	862,573	10,268	1,052,002	1,704	1,641	15,501	195	18,441	15·5	15·1	18·0	19·0	17·5
	Tanjore ...	84,338	119,864	2,022,300	579	2,227,081	1,658	3,028	50,395	...	55,081	19·6	25·3	24·9	...	24·7
	Tinnevelly ...	145,569	95,951	1,674,150	32	1,915,702	2,298	2,202	37,097	...	41,597	15·8	22·9	22·1	...	21·7
	Trichinopoly ...	69,410	38,271	1,264,037	8	1,371,726	1,156	844	31,048	...	33,048	16·6	22·0	24·7	...	24·1
	Vizagapatam ...	2,015	19,308	1,609,194	69	1,630,586	31	157	30,003	5	30,196	15·4	8·1	18·6	72·5	18·5
	Total, Madras Presidency.	766,987	2,147,228	29,777,330	29,722	32,721,267	11,572	38,839	625,098	273	675,787	15·1	18·1	21·0	9·3	20·6

No. VI.—*Deaths registered from different causes in the districts and towns of the Madras Presidency during the year* 1896.

1	2	3	4	5	6	7	8					9	10	11							
	Districts and towns.	Population for which returns were received.	Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.	Injuries. Suicides.		Wounds and accidents.	Snake-bite and killed by wild beasts.	Total.	All other causes.	Total deaths from all causes.	Ratio of deaths per 1,000 of population.						From all causes.	
							Males.	Females.						Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.	Injuries.	All other causes.	For the year.	Mean of previous 5 years.
	*A.—Districts.**																				
	Anantapur ...	710,071	2,366	535	2,090	220	18	23	145	30	216	8,373	13,740	3·3	0·7	2·9	0·3	0·3	11·8	19·3	19·5
	Bellary ...	772,714	4,012	283	6,196	482	24	22	129	37	212	7,736	18,921	5·2	0·4	8·0	0·6	0·3	10·0	24·5	23·7
	Chingleput ...	1,145,218	201	156	7,271	2,365	25	37	295	101	458	16,383	26,834	0·2	0·1	6·3	2·1	0·4	14·3	23·4	21·9
	Coimbatore ...	1,984,926	10,351	34	15,105	1,355	48	60	328	140	576	18,494	45,915	5·3	0·02	7·8	0·7	0·3	9·6	23·7	18·2
	Cuddapah ...	1,254,510	581	262	17,886	425	41	91	453	108	673	4,634	24,461	0·5	0·2	14·3	0·3	0·5	3·7	19·5	22·5
	Ganjám ...	1,176,021	1,342	1,461	16,848	781	34	27	195	106	362	3,080	23,864	1·2	1·2	14·3	0·7	0·3	2·6	20·5	12·2
	Gódávari ...	1,028,969	670	160	16,019	654	63	77	223	137	500	14,062	32,565	0·3	0·1	8·3	0·3	0·3	7·6	16·9	19·7
	Kistna ...	1,761,898	64	106	13,317	410	62	102	285	87	536	18,767	33,200	0·04	0·1	7·5	0·3	0·3	10·6	18·8	21·5
	Kurnool ...	782,650	1,355	1,410	12,129	116	28	49	132	55	264	2,728	18,002	1·7	1·8	15·6	0·1	0·3	3·5	23·0	23·3
	Madras ...	1,384,120	2,035	73	9,498	368	50	47	317	113	527	14,383	26,889	1·5	0·05	6·8	0·3	0·4	10·4	19·4	19·6
	Madura ...	2,463,078	1,013	260	19,902	3,058	73	58	427	118	656	11,110	35,999	0·4	0·1	8·1	1·2	0·3	4·5	14·6	17·8
	Malabar ...	1,423,397	70	92	12,107	432	3	11	222	13	249	10,844	23,794	0·05	0·1	8·5	0·3	0·2	7·6	16·7	16·9
	Nellore ...	77,188	26	12	1,695	62	2	1	14	5	22	140	1,957	0·3	0·1	22·0	0·8	0·3	1·8	25·3	23·9
	Nilgiris ...	1,997,167	1,391	2,127	14,178	990	30	34	561	141	766	13,245	34,697	0·7	1·1	7·1	0·5	0·4	7·6	17·4	18·2
	North Arcot ...	1,837,950	3,127	542	15,592	807	40	77	382	173	672	15,700	36,440	1·7	0·3	8·5	0·4	0·4	8·5	19·8	18·2
	Salem ...	2,070,464	5,262	409	13,830	819	33	38	352	318	741	25,423	46,484	2·5	0·2	6·7	0·4	0·3	12·3	22·4	22·7
	South Arcot ...	1,011,362	13	42	7,345	1,146	40	30	337	71	468	8,644	17,658	0·01	0·04	7·3	1·1	0·5	8·5	17·4	20·0
	South Canara ...	2,002,916	3,197	286	4,165	760	33	22	292	184	531	39,189	48,130	1·6	0·1	2·1	0·4	0·3	19·5	24·0	25·3
	Tanjore ...	1,712,987	1,722	28	6,005	698	44	88	350	77	559	27,291	36,303	1·0	0·01	3·5	0·4	0·3	15·9	21·1	23·3
	Tinnevelly ...	1,260,428	2,837	18	5,706	236	39	40	258	149	486	20,255	29,340	2·2	0·01	4·5	0·2	0·4	16·1	23·4	22·1
	Trichinopoly ...	1,491,418	399	435	23,866	460	39	34	248	105	426	1,545	26,931	0·3	0·3	15·8	0·3	0·3	1·0	18·0	16·5
	Vizagapatam ...																				
	Total, Rural districts ...	30,194,492	41,984	8,728	240,512	16,644	769	948	5,915	2,368	9,900	284,606	602,324	1·4	0·3	8·0	0·5	0·3	9·4	19·9	9·7

* Exclusive of B.—Towns.

No. II.—*Statement of births and deaths registered in each town and rural circle of the Madras Presidency and the receipts and expenditure in each circle from and on conservancy, together with the principal sanitary defects of each circle, and the measures taken to remedy them for the year* 1896—cont.

1	2		3	4	5			6		7			8					9						10			11	12	13			14
Serial number.	District and town or rural circle.		Area in square miles.	Average population per square mile.	Population (exclusive of Europeans and Eurasians) for which returns were received.			Births.		Number of deaths registered (exclusive of Europeans and Eurasians and born dead).			Number of deaths of males to every 100 deaths of females.	Deaths per 1,000 of population from												Net receipt of each circle under conservancy.	Net expenditure in each circle under conservancy.	Principal sanitary defects of circle			Measures taken for sanitary improvement of circle.
					Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.		Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.	Injuries.	All other causes.	All causes. Males.	All causes. Females.	All causes. Total.	Mean ratio of deaths per 1,000 during previous five years. Males.	Females.	Total.			a In drainage.	b In water-supply.	c In domestic cleansing and conservancy.	
	VIZAGAPATAM—*cont.*																										RS. A. P.	RS. A. P.				
261	Vizagapatam ...	R.C.	...	...	26,718	26,793	53,511	1,682	31·4	501	389	890	128·7	0·1	0·1	14·1	0·2	0·6	1·5	18·7	14·5	16·6	17·3	17·3	17·3	.....	.....	.....	.....	.....	.....
262	Viravalli ...	R.C.	...	...	86,087	86,281	172,368	4,874	28·2	1,310	1,132	2,442	115·7	...	0·1	13·4	0·1	0·2	0·3	15·3	13·1	14·1	18·8	14·9	16·8	.....	.....	No system	No steps are taken to protect water from pollution.	.....	.....
263	Bimlipatam ...	R.C.	...	...	46,348	46,941	93,289	2,887	30·9	818	742	1,560	110·2	0·3	0·04	15·2	0·2	0·5	0·7	17·6	15·8	16·7	15·8	14·2	15·0	.....	.....	Natural in some of the villages.	.....	.....	Prickly-pear was cleared from village-sites to a large extent.
264	Srungavarapukotah ...	R.C.	...	...	56,874	57,966	114,840	3,744	32·6	1,092	988	2,080	110·5	0·5	0·1	16·6	0·2	0·3	0·4	19·2	17·0	18·1	17·0	15·8	16·4	.....	.....	No system	In some villages wells have no platforms and parapet walls, while in others there are no watchmen to guard drinking-water sources.	The sweepings of cattle yard are generally stored near houses, and removed to fields after some time.	.....
265	Vizianagram ...	R.C.	...	...	51,848	52,395	104,243	3,182	39·5	1,052	987	2,039	106·5	0·7	0·2	16·1	0·3	0·2	1·0	20·2	18·3	19·5	14·1	13·5	13·8	.....	.....	Ordinary side channels exist in some of the villages.	.....	.....	The itinerating conservancy establishment worked in many villages of this circle.
266	Gajapatinagaram.	R.C.	...	...	45,191	45,556	90,747	4,038	44·4	1,247	1,118	2,365	111·5	0·3	1·1	22·1	0·3	0·4	1·8	27·5	24·5	26·0	18·3	17·7	18·0	.....	.....	Do.	.....	Rubbish in some cases is deposited in backyards of houses and removed to fields when required.	Two pot wells were dug in the Gajapatinagaram river and also a large pond. Two drinking-water tanks have been repaired.
267	Chipurupalle ...	R.C.	...	...	64,219	64,930	129,149	3,077	23·8	1,253	1,100	2,353	113·9	1·0	0·7	13·6	0·7	0·5	1·9	19·5	16·9	18·2	15·0	13·9	14·4	.....	.....	Do.	Owing to the failure of north-east monsoon the supply of water is insufficient.	.....	.....
268	Súlúru ...	R.C.	...	...	27,023	29,040	56,063	1,605	28·6	560	539	1,099	103·8	0·1	0·4	17·9	0·2	0·2	0·8	20·7	18·5	19·6	17·7	15·3	16·5	.....	.....	There are no regular or properly constructed drains anywhere in the circle.	.....	.....	The inhabitants have been very often insisted upon to keep their surroundings clean.
269	Bobbili ...	R.C.	...	...	43,676	41,903	85,579	2,784	32·5	861	837	1,698	102·8	0·2	0·4	18·0	0·2	0·2	0·8	19·7	19·9	19·8	16·4	15·3	15·9	.....	.....	There are no cut stone drains.	.....	Private conservancy is not satisfactory.	Do.
270	Palkonda ...	R.C.	...	...	70,751	73,292	144,043	4,556	31·6	1,538	1,538	3,076	100·0	...	0·4	19·0	0·4	0·2	1·3	21·7	20·9	21·3	18·2	17·0	17·6	.....	.....	Side channels exist in some of the villages.	Watchmen were employed in some villages to protect drinking-water sources only for the first three months of the year and then discontinued for want of funds.	In some of the villages rubbish is allowed to accumulate in backyards of houses till required for fields for purposes of manure.	The itinerating conservancy establishment improved the sanitation of many of the villages.
271	Pârvatipuram ...	R.C.	...	...	32,231	33,144	65,375	2,068	31·6	730	705	1,435	103·5	0·4	0·2	20·0	0·3	0·2	0·8	22·6	21·2	21·9	20·0	17·1	18·5	.....	.....	There are side drains in some of the villages without stone bottoms. The sewage consequently percolates in the soil underneath.	Private wells have neither platforms nor drains for the removal of waste water.	Some of the private latrines are not properly cleaned. Sweepings are allowed to accumulate in compounds of houses for days together.	.....
22	Total, District ...		4,619	420·5	807,471	823,115	1,630,586	51,719	31·7	15,813	14,383	30,196	109·9	0·3	0·3	15·3	0·6	0·5	1·7	19·6	17·5	18·5	17·9	16·1	17·0	.....	.....				
92	Total of Town Circles in the Presidency.		...	...	1,235,693	1,291,082	2,526,775	86,897	34·4	37,426	36,037	73,463	103·8	2·3	0·3	8·0	3·2	0·4	14·8	30·3	27·9	29·0	29·9	28·1	29·0	.....	.....				
179	Total of Rural Circles in the Presidency.		...	...	14,956,172	15,238,320	30,194,492	893,084	29·5	309,754	292,570	602,324	105·9	1·4	0·3	8·0	0·5	0·3	9·4	20·7	19·2	19·1	20·4	19·0	19·7	.....	.....				
271	Grand Total for the Presidency.		124,943	269·7	16,191,865	16,529,402	32,721,267	979,981	29·9	347,180	328,607	675,787	105·6	1·5	0·3	8·0	0·7	0·3	9·8	21·4	19·9	20·6	21·4	20·0	20·7	.....	.....				

M.T.C. indicates Municipal Town Circle. T.C. indicates Non-Municipal Town Circle or Rural Town Circle.
R.C. indicates Rural Circle.

No. VI.—*Deaths registered from different causes in the districts and towns of the Madras Presidency during the year* 1896—cont.

1	2		3	4	5	6	7	8					9	10	11							
								Injuries.							Ratio of deaths per 1,000 of population.							
								Suicides.												From all causes.		
Number.	Districts and towns.		Population for which returns were received.	Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.	Males.	Females.	Wounds and accidents.	Snake-bite and killed by wild beasts.	Total.	All other causes.	Total deaths from all causes.	Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.	Injuries.	All other causes.	For the year.	Mean of
	B.—Towns.																					
1	Anantapur.	M.T.C. Anantapur.	6,973	50	4	33	11	...	...	1	...	1	86	185	7·4	0·6	4·8	1·6	0·1	12·7	27·2	2
2	Anantapur.	T.C. Tadpatri ...	10,275	103	...	1	...	1	...	...	...	1	71	176	10·0	...	0·1	...	0·1	6·9	17·1	1
3	Bellary.	M.T.C. Bellary ...	57,780	78	...	512	119	1	...	12	2	15	844	1,558	1·3	...	8·9	2·1	0·2	14·6	27·1	2
4	Bellary.	M.T.C. Adoni ...	28,216	7	1	208	6	...	1	3	...	4	441	667	0·3	0·3	7·9	0·2	0·2	16·8	25·4	2
5	Bellary.	T.C. Hospet ...	12,869	77	...	138	4	...	...	1	...	1	4	224	6·0	...	10·7	0·3	0·1	0·3	17·4	1
6	Bellary.	T.C. Kampli ...	10,528	25	...	235	2	...	...	5	...	5	7	274	2·4	...	22·3	0·2	0·5	0·6	26·0	2
7	Bellary.	T.C. Rayadrug ...	10,378	6	...	143	...	...	...	...	1	1	37	187	0·6	...	13·8	...	0·1	3·5	18·0	1
8	Chingleput.	M.T.C. Conjeeveram.	42,543	136	1	337	151	1	4	11	...	16	777	1,418	3·2	0·02	7·9	3·5	0·4	18·3	33·3	3
9	Chingleput.	T.C. St. Thomas' Mount.	12,140	...	1	90	18	...	1	3	...	4	212	325	...	0·1	7·4	1·5	0·3	17·5	26·8	1
10	Coimbatore.	M.T.C. Coimbatore.	46,007	248	5	389	245	2	4	10	3	19	880	1,786	5·4	0·1	8·5	5·3	0·4	19·1	38·8	2
11	Coimbatore.	M.T.C. Erode ...	12,238	39	1	68	26	...	1	2	3	6	215	355	3·2	0·1	5·5	2·1	0·5	17·6	29·0	2
12	Coimbatore.	M.T.C. Karur ...	10,740	98	3	177	44	...	...	7	...	7	118	442	8·6	0·3	16·5	4·1	0·7	10·9	41·1	2
13	Cuddapah.	M.T.C. Cuddapah.	17,211	2	21	175	14	1	1	6	1	9	156	377	0·1	1·2	10·2	0·8	0·5	9·1	21·9	3
14	Ganjám.	M.T.C. Chicacole ...	18,204	42	1	129	27	4	...	7	1	12	210	421	2·3	0·05	7·1	1·5	0·7	11·5	23·1	2
15	Ganjám.	M.T.C. Berhampur.	25,493	226	9	258	119	...	1	8	...	9	243	864	8·9	0·4	10·1	4·7	0·3	9·5	33·9	2
16	Ganjám.	M.T.C. Parlakimedi.	16,379	...	...	144	48	...	...	...	...	...	136	328	...	...	8·8	2·9	...	8·3	20·0	2
17	Godavari.	M.T.C. Cocanada ...	40,068	16	1	105	96	10	8	2	3	23	512	753	0·4	0·02	2·6	2·4	0·6	12·8	18·8	2
18	Godavari.	M.T.C. Rajahmundry.	28,279	55	2	284	108	...	1	33	7	41	435	925	1·9	0·1	10·0	3·8	1·5	15·4	32·7	3
19	Godavari.	M.T.C. Ellore ...	29,296	5	...	131	57	...	1	7	...	8	284	485	0·2	...	4·4	1·9	0·3	9·7	16·5	2
20	Godavari.	T.C. Pithápuram ...	13,731	11	...	23	3	1	1	7	1	10	126	173	0·8	...	1·7	0·2	0·7	9·2	12·6	3
21	Godavari.	T.C. Peddápuram ...	13,652	...	...	78	1	2	1	1	2	6	271	356	...	...	5·7	0·1	0·4	19·8	26·0	2
22	Godavari.	T.C. Samalkot ...	15,409	...	...	80	...	...	...	...	...	...	8	88	...	...	6·0	...	...	0·6	6·6	1
23	Godavari.	T.C. Dowlaishweram.	10,454	19	...	...	...	...	...	5	1	6	210	235	1·8	...	...	...	0·6	20·1	22·5	2
24	Kistna.	M.T.C. Masulipatam.	38,667	...	1	239	64	...	2	13	...	15	602	921	...	0·02	6·2	1·6	0·4	15·6	23·8	2
25	Kistna.	M.T.C. Guntúr ...	23,267	...	...	220	101	7	1	17	...	25	498	844	...	...	9·5	4·3	1·1	21·4	36·3	2
26	Kistna.	M.T.C. Bezwada ...	26,611	1	...	100	95	...	3	10	2	15	396	607	0·04	...	4·9	4·6	0·7	19·2	29·4	3
27	Kistna.	T.C. Chirala ...	10,581	...	...	101	8	2	...	2	...	4	162	275	...	...	9·5	0·7	0·4	15·3	25·9	2
28	Kurnool.	M.T.C. Kurnool ...	94,306	30	14	327	27	1	...	4	...	5	339	742	1·2	0·6	13·5	1·1	0·2	13·9	30·5	3
29	Kurnool.	T.C. Nandyal ...	10,704	2	29	120	1	...	1	2	...	3	8	163	0·2	2·7	11·2	0·1	0·3	0·7	15·2	2
30	M.T.C. Madras		436,375	90	41	5,956	2,298	8	3	122	3	136	8,164	16,685	0·2	0·1	13·6	5·3	0·3	18·7	38·2	4
31	Madura.	M.T.C. Madura ...	87,121	8	13	449	215	5	2	24	1	32	1,302	2,019	0·1	0·1	5·2	2·5	0·4	14·9	23·2	2
32	Madura.	M.T.C. Dindigul ...	29,115	42	5	118	52	1	...	19	1	21	228	468	2·1	0·2	5·9	2·6	1·0	11·3	23·1	2
33	Madura.	M.T.C. Periyakulam.	16,363	6	...	159	97	...	...	4	...	4	276	542	0·4	...	9·7	5·9	0·2	16·9	33·1	3
34	Madura.	M.T.C. Palni ...	16,940	97	...	40	3	...	...	5	1	6	274	420	5·7	...	2·4	0·2	0·3	16·2	24·8	2
35	Madura.	T.C. Ramnad ...	13,489	...	3	2	...	...	...	2	...	2	140	147	...	0·2	0·1	...	0·2	10·3	10·8	1
36	Madura.	T.C. Aruppukóttai.	12,673	1	...	35	15	1	3	7	1	12	72	135	0·1	...	2·7	1·2	0·9	5·7	10·6	1
37	Madura.	T.C. Kilakarai ...	12,386	751	...	44	...	...	...	2	...	2	100	897	60·6	...	3·5	...	0·2	8·1	72·4	2
38	Madura.	T.C. Paramagudi ...	10,001	30	1	26	...	...	...	...	...	...	24	81	3·0	0·1	2·6	...	...	2·4	8·1	1
39	Malabar.	M.T.C. Tellicherry.	26,631	15	...	145	82	1	...	4	...	5	403	650	0·6	...	5·5	3·0	0·2	15·1	24·4	2
40	Malabar.	M.T.C. Calicut ...	64,798	85	1	316	421	3	3	1	...	7	1,223	2,083	1·3	0·01	5·3	6·5	0·1	18·9	32·1	3
41	Malabar.	M.T.C. Palghat ...	35,367	206	4	290	166	6	3	9	2	20	740	1,396	5·2	0·1	6·6	4·2	0·5	18·8	35·4	2
42	Malabar.	M.T.C. Cochin ...	16,147	174	2	90	38	...	...	1	...	1	342	637	10·8	0·1	4·9	2·3	0·1	21·2	39·4	3
43	Malabar.	M.T.C. Cannanore.	26,653	...	...	178	85	...	...	3	...	3	418	684	...	...	6·7	3·2	0·1	15·7	25·7	2
44	Nellore.	M.T.C. Nellore ...	29,128	...	1	193	8	2	3	8	1	14	379	595	...	0·03	6·6	0·3	0·5	13·0	20·4	2
45	Nellore.	M.T.C. Ongole ...	10,832	...	...	91	36	...	...	6	...	6	190	323	...	...	8·4	3·3	0·5	17·6	29·8	2
46	Nilgiris.	M.T.C. Ootacamund.	13,991	4	...	139	43	...	...	7	...	7	228	421	0·3	...	9·9	3·1	0·5	16·3	30·1	2
47	Nilgiris.	M.T.C. Coonoor ...	5,586	7	1	55	44	...	...	3	...	3	130	240	1·3	0·2	9·8	7·9	0·5	23·3	43·0	3
48	North Arcot.	M.T.C. Vellore ...	44,724	46	236	288	198	1	5	12	3	21	411	1,140	1·0	5·3	6·4	3·1	0·5	9·2	25·5	2
49	North Arcot.	M.T.C. Walajapet ...	10,485	5	...	78	37	1	...	3	...	4	154	278	0·2	...	7·4	3·5	0·4	14·7	26·5	2
50	North Arcot.	M.T.C. Gudiyáttam.	18,745	6	40	197	55	...	1	3	...	4	160	462	0·3	2·1	10·5	2·9	0·2	8·6	24·6	2
51	North Arcot.	M.T.C. Tirupati ...	14,238	22	1	106	25	...	...	4	...	4	181	429	1·5	0·1	13·8	1·7	0·3	12·7	30·1	3
52	North Arcot.	T.C. Kálahasti ...	11,715	...	...	15	1	1	1	5	...	7	172	195	...	...	1·3	0·1	0·6	14·6	16·6	1
53	North Arcot.	T.C. Arcot ...	10,928	23	47	16	11	...	...	3	...	3	198	298	2·1	4·3	1·5	1·0	0·3	18·1	27·3	2
54	North Arcot.	T.C. Ambur ...	10,383	248	4	93	5	...	...	3	...	3	11	364	23·4	0·4	8·8	0·5		1·0	34·4	9
55	Salem.	M.T.C. Salem ...	67,640	172	1	536	134	...	...	2	2	4	957	1,804	2·6	0·01	7·9	2·0	0·05	14·2	26·7	2
56	Salem.	M.T.C. Vániyambadi.	15,838	289	...	201	33	1	...	1	...	2	328	853	18·2	...	12·7	2·1	0·1	20·7	53·8	2
57	Salem.	M.T.C. Tirumpattúr.	16,463	267	1	209	18	1	...	3	...	4	189	688	16·2	0·1	12·7	1·1	0·2	11·5	41·8	[illegible]
58	Salem.	T.C. Sherdamangalam.	13,354	10	...	10	1	...	1	7	...	8	127	166	0·7	...	0·8	0·1	0·6	9·5	[illegible]	[illegible]
59	Salem.	T.C. Rásipuram ...	10,539	5	...	30	4	...	2	2	...	4	148	191	0·5	...	2·8	0·4	0·4	[illegible]	[illegible]	[illegible]
60	South Arcot.	M.T.C. Cuddalore.	47,025	129	37	264	143	...	...	10	5	15	723	1,311	2·7	0·8	5·6	3·0	0·3	15·4	[illegible]	[illegible]
61	South Arcot.	M.T.C. Chidambaram.	18,634	86	1	130	70	...	...	52	2	54	222	563	4·6	0·05	7·0	3·6	2·9	11·9	[illegible]	[illegible]
62	South Arcot.	T.C. Porto Novo ...	14,045	28	2	17	1	...	...	...	...	...	134	182	2·0	0·1	1·2	0·1	...	9·5	12·9	14
63	South Arcot.	T.C. Tiruvannámalai.	12,148	3	6	36	3	...	...	1	...	1	109	163	0·2	0·5	3·0	0·6	0·1	9·0	13·4	13

No. VI.—*Deaths registered from different causes in the districts and towns of the Madras Presidency during the year* 1896—cont.

2	3	4	5	6	7	8					9	10	11							
						Injuries.							Ratio of deaths per 1,000 of population.							
						Suicides.												From all causes.		
Districts and towns.	Population for which returns were received.	Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.	Males.	Females.	Wounds and accidents.	Snake-bite and killed by wild beasts.	Total.	All other causes.	Total deaths from all causes.	Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.	Injuries.	All other causes.	For the year.	Mean of previous 5 years.
B.—Towns—cont.																				
South Canara. M.T.C. Mangalore.	40,620	...	...	260	64	2	1	20	...	23	436	783	...	...	6·4	1·6	0·6	10·7	19·3	25·4
Tanjore. M.T.C. Tanjore ...	54,258	54	30	346	372	...	...	12	1	13	653	1,468	1·0	0·5	6·4	6·9	0·2	12·0	27·0	29·3
Tanjore. M.T.C. Kumbakónam.	54,254	173	...	371	214	...	...	12	...	12	1,085	1,855	3·2	...	6·8	3·9	0·2	20·0	34·1	32·9
Tanjore. M.T.C. Máyavaram.	23,754	41	1	130	79	...	...	3	1	4	467	722	1·7	0·04	5·5	3·3	0·2	19·7	30·4	29·7
Tanjore. M.T.C. Negapatam.	58,573	158	9	417	209	...	...	16	7	23	1,190	1,916	2·7	0·1	7·1	3·6	0·4	18·8	32·7	30·9
Tanjore. M.T.C. Mannárgudi.	20,392	32	2	124	77	...	4	7	2	13	310	558	1·6	0·1	6·1	3·8	0·6	15·2	27·4	28·9
Tanjore. T.C. Tiruválúr ...	12,934	32	29	32	17	1	...	1	1	3	312	432	2·5	2·3	3·0	1·3	0·2	24·1	33·4	22·4
Tinnevelly. M.T.C. Tinnevelly.	24,756	161	...	118	140	1	1	5	...	7	516	912	6·5	...	4·8	5·6	0·3	20·8	38·0	34·0
Tinnevelly. M.T.C. Palamcottah.	18,612	182	...	75	64	...	1	4	...	5	292	618	9·8	...	4·0	3·4	0·3	15·7	33·2	27·5
Tinnevelly. M.T.C. Tuticorin ...	24,964	115	2	169	153	...	1	5	...	6	360	805	4·6	0·1	6·8	6·1	0·2	14·4	32·2	30·5
Tinnevelly. M.T.C. Srivilliputtúr.	29,541	...	22	261	67	...	2	13	...	15	279	644	...	0·8	8·8	2·3	0·5	9·4	21·8	...
Tinnevelly. T.C. Kulasékarapatnam.	15,910	3	...	95	13	...	...	2	...	2	251	364	0·2	...	6·0	0·8	0·1	15·8	22·9	28·2
Tinnevelly. T.C. Virudupatti ...	14,075	...	...	63	11	...	1	2	...	3	65	142	...	...	4·5	0·8	0·2	4·6	10·1	12·5
Tinnevelly. T.C. Virava nallur ..	13,951	67	2	4	5	1	...	...	...	1	216	295	4·8	0·1	0·3	0·4	0·1	15·4	21·1	21·2
Tinnevelly. T.C. Rajahpalaiyam	13,301	...	...	3	...	...	...	...	...	...	211	214	...	...	0·2	...	...	15·9	16·1	12·7
Tinnevelly. T.C. Tenkási ...	12,861	4	...	88	38	...	1	2	...	3	208	341	0·3	...	6·8	3·0	0·2	16·2	26·5	37·2
Tinnevelly. T.C. Sivakási ...	12,184	1	...	158	2	...	2	7	...	9	220	390	0·1	...	13·0	0·2	0·7	18·0	32·0	36·6
Tinnevelly. T.C. Kayalpatnam.	11,464	3	...	20	...	...	...	1	...	1	246	270	0·3	...	1·7	...	0·1	21·4	23·5	39·6
Tinnevelly. T.C. Kalladakurchi.	11,096	2	...	29	...	1	...	4	...	5	233	269	0·2	...	2·6	...	0·4	21·0	24·2	31·9
Trichinopoly. M.T.C. Trichinopoly.	89,666	529	21	615	329	...	..	25	5	30	1,227	2,751	5·9	0·2	6·9	3·7	0·3	13·7	30·7	27·9
Trichinopoly. M.T.C. Srirangam.	21,632	55	1	132	73	...	1	2	2	5	491	757	2·5	0·04	6·1	3·4	0·2	22·7	34·9	32·1
Vizagapatam. M.T.C. Vizagapatam.	33,961	39	...	217	225	...	...	11	...	11	432	924	1·2	...	6·4	6·6	0·3	12·7	27·2	28·5
Vizagapatam. M.T.C. Bimlipatam.	9,696	11	...	47	51	...	...	...	...	...	133	242	1·1	...	4·8	5·3	...	13·7	24·9	28·2
Vizagapatam. M.T.C. Vizianagram.	30,735	36	6	319	135	1	1	11	1	14	349	859	1·2	0·2	10·4	4·4	0·4	11·3	27·9	24·2
Vizagapatam. M.T.C. Anakápalle.	17,091	1	...	130	58	...	...	13	5	18	156	365	0·05	...	7·7	3·4	1·1	9·3	21·5	27·3
Vizagapatam. T.C. Bobbili ...	14,418	9	...	164	2	...	1	...	1	2	63	240	0·6	...	11·4	0·1	0·1	4·4	16·8	17·6
Vizagapatam. T.C. Salúru ...	12,910	47	15	80	57	...	...	...	...	...	1	200	3·6	1·2	6·2	4·4	...	0·1	15·5	16·0
Vizagapatam. T.C. Palkonda ...	10,364	32	...	156	3	...	1	...	...	1	49	241	3·1	...	15·0	0·3	0·1	4·7	23·2	22·2
Vizagapatam. T.C. Párvatipuram.	10,053	...	...	150	18	1	...	2	...	3	23	194	...	...	14·9	1·8	0·3	2·3	19·3	22·5
Total, Towns ..	2,526,775	5,913	682	20,257	8,158	73	77	697	75	922	37,531	73,463	2·3	0·3	8·0	3·2	0·4	14·8	29·0	29·0
Total, Rural districts ...	30,194,492	41,934	8,728	240,512	16,644	769	948	5,915	2,268	9,900	284,606	602,324	1·4	0·3	8·0	0·5	0·3	9·4	19·9	19·7
Total, Madras Presidency.	32,721,267	47,847	9,410	260,769	24,802	842	1,025	6,612	2,343	10,822	322,137	675,787	1·5	0·3	8·0	0·7	0·3	9·8	20·6	20·7

Return showing the Births and Deaths registered in Municipalities of the Madras Presidency during the year 1896.

Districts.	Municipal towns.	Population according to Census of 1891.	Births. Class. Europeans.	Eurasians.	Native Christians.	Hindus.	Muhammadans.	Other Classes.	Total births. M.	F.	Total.	Deaths. Class. Europeans.	Eurasians.	Native Christians.	Hindus.	Muhammadans.	Other Classes.	Total deaths. M.	F.	Total.
Ganjám	Chicacole	18,241	...	1	3	371	11	...	198	188	386	...	...	1	381	39	...	222	199	42
	Berhampur	25,653	...	3	26	403	31	7	243	227	470	3	2	16	786	53	9	447	422	86
	Parlákimedi	16,390	...	...	1	586	11	...	304	294	598	...	...	...	321	7	...	179	149	33
Vizagapatam.	Vizagapatam	34,487	11	15	14	1,127	80	...	650	597	1,247	7	18	14	848	62	...	536	413	94
	Bimlipatam	9,827	...	1	2	356	6	...	180	185	365	1	1	...	235	7	...	121	123	24
	Viziananram	30,881	...	...	...	878	47	...	468	457	925	...	1	...	821	38	...	475	385	86
	Anakápalle	17,010	2	...	...	537	5	...	285	259	544	...	...	...	361	4	...	226	130	36
Gódávari	Cocanada	40,553	5	15	8	956	46	2	497	585	1,082	2	7	9	710	34	...	360	402	76
	Rajahmundry	28,397	...	1	11	917	63	...	548	444	992	...	1	12	868	45	...	402	434	92
	Ellore	29,382	...	3	8	506	83	...	313	287	600	...	...	8	387	96	...	267	218	48
Kistna	Masulipatam	38,809	1	4	7	1,048	143	...	634	569	1,203	1	1	5	817	99	...	488	435	93
	Guntúr	23,359	...	2	21	655	293	...	501	470	971	...	1	14	646	184	...	470	395	86
	Bezwada	20,741	2	2	11	517	97	...	291	338	629	9	...	11	530	66	...	319	297	61
Nellore	Nellore	29,336	1	5	17	663	175	...	447	414	861	1	...	9	498	88	...	312	284	59
	Ongole	10,860	...	3	33	307	57	...	237	163	400	...	5	24	259	40	...	182	146	32
Madras	Madras	452,518	116	473	965	14,637	2,492	...	9,555	9,128	18,683	91	355	794	13,631	2,252	8	8,489	8,642	17,15
Chingleput	Conjeeveram	42,548	...	...	1	1,659	50	...	863	847	1,710	...	...	...	1,370	48	...	720	698	1,41
South Arcot.	Cuddalore	47,355	2	10	27	1,921	55	...	1,020	995	2,015	...	5	13	1,268	28	4	669	647	1,31
	Chidambaram	18,640	...	...	...	513	31	...	286	258	544	...	...	2	557	24	...	307	256	56
Trichinopoly	Trichinopoly	90,609	5	23	445	1,928	385	1	1,464	1,323	2,787	3	5	318	2,061	372	...	1,347	1,412	2,75
	Srirangam	21,632	...	...	3	674	2	...	318	361	679	...	...	3	753	1	...	342	415	76
Tanjore	Tanjore	54,390	...	2	175	1,494	84	...	897	858	1,755	1	3	117	1,256	95	...	754	718	1,47
	Kumbakónam	54,307	...	...	35	1,753	77	...	965	900	1,865	...	2	34	1,735	86	...	919	938	1,85
	Máyavaram	23,765	...	...	16	869	25	...	449	461	910	...	...	14	760	8	...	370	352	72
	Negapatam	59,221	1	29	191	1,117	452	...	903	887	1,790	...	15	149	1,198	569	...	936	995	1,93
	Mannárgudi	20,395	...	...	18	661	22	...	357	344	701	...	...	14	536	8	...	275	283	55
Madura	Madura	87,428	3	10	83	2,583	125	...	1,432	1,372	2,804	1	3	23	1,870	126	...	1,059	964	2,02
	Periyakulam	16,363	1	...	39	643	70	...	386	367	753	...	...	22	467	53	...	290	252	54
	Dindigul	20,293	1	4	131	590	112	...	438	400	838	1	1	51	340	75	...	206	202	40
	Palni	16,940	...	...	12	420	44	...	257	219	476	...	...	6	383	31	...	229	191	42
Tinnevelly	Tinnevelly	24,768	...	...	6	789	42	...	409	428	837	...	...	8	884	50	...	470	472	94
	Palamcottah	18,696	2	1	81	510	20	...	293	321	614	1	1	55	537	26	...	318	302	63
	Tuticorin	25,107	...	3	291	521	43	...	453	405	858	1	...	242	528	35	...	423	383	86
	Srivilliputtúr	29,541	...	...	3	911	18	...	469	463	932	1	...	2	636	6	...	310	335	64
Kurnool	Kurnool	24,376	...	1	8	318	418	...	375	370	745	...	...	3	355	379	5	387	355	74
Cuddapah	Cuddapah	17,379	1	...	7	192	225	...	216	209	425	...	1	4	196	175	2	196	182	37
Bellary	Bellary	50,467	7	11	81	1,069	765	...	976	957	1,933	9	8	53	340	575	...	821	764	1,58
	Ádóni	26,243	...	...	1	685	471	...	585	572	1,157	...	...	2	424	241	...	348	319	66
Anantapur	Anantapur	6,994	...	2	2	171	89	7	137	134	271	...	1	...	136	48	1	95	91	18
North Arcot.	Vellore	44,925	2	5	34	1,066	388	...	771	724	1,495	...	3	29	788	323	...	590	553	1,14
	Gudiyáttam	18,747	...	...	...	676	143	...	412	407	819	...	...	...	377	85	...	242	220	46
	Walajapet	10,485	...	...	...	358	35	...	197	196	393	...	...	...	252	26	...	136	142	27
	Tirupati	14,242	1	...	2	412	28	...	232	211	443	1	1	2	412	15	...	216	215	43
Salem	Salem	67,710	...	2	249	2,508	197	...	1,399	1,357	2,756	1	1	32	1,668	104	...	916	890	1,80
	Vaniyambádi	15,838	...	...	2	379	521	...	450	452	902	...	1	...	407	446	...	445	409	85
	Tiruppattur	16,409	...	...	5	389	282	...	344	332	676	...	...	2	407	279	...	360	328	68
Coimbatore.	Coimbatore	46,383	...	4	86	1,648	115	2	959	896	1,855	4	1	101	1,564	120	1	873	918	1,79
	Erode	12,330	...	...	13	431	69	...	276	237	513	...	...	10	291	54	...	180	175	35
	Karúr	10,750	...	1	19	344	36	1	214	187	401	...	...	9	395	37	1	225	217	44
Nilgiris	Ootacamund	15,053	18	11	142	301	54	27	287	266	553	23	9	94	268	47	12	232	221	45
	Coonoor	6,049	6	6	70	144	30	...	150	106	256	7	3	52	155	33	...	140	110	25
South Canara.	Mangalore	40,922	3	5	373	780	188	...	668	681	1,349	...	...	203	443	137	...	422	361	78
Malabar	Tellicherry	27,196	...	10	69	478	408	...	496	469	965	1	7	22	354	274	...	326	332	65
	Calicut	66,078	4	31	77	1,387	1,136	...	1,388	1,250	2,635	7	17	89	948	1,044	...	1,091	1,014	2,10
	Palghat	39,481	...	3	48	1,411	259	...	866	832	1,701	...	4	57	1,142	197	...	714	686	1,40
	Cochin	17,601	5	45	407	426	120	...	356	345	701	2	28	326	176	186	...	341	326	66
	Cannanore	27,418	2	14	117	426	553	...	576	536	1,112	5	6	68	276	340	...	380	315	69
	Total	2,130,508	202	759	4,296	59,719	11,807	47	39,340	37,490	76,830	184	518	3,148	51,480	9,913	43	33,245	32,041	65,29

Districts.	Municipal towns.	Deaths. Causes of death. Cholera. M.	F.	Small-pox. M.	F.	Fevers. M.	F.	Dysentery and diarrhœa. M.	F.	Injuries. Suicides M.	F.	Wounds or accidents. M.	F.	Snake-bite. M.	F.	Killed by wild beasts. M.	F.	All other causes. M.	F.	Still-birth or born dead. M.	F.
Ganjám	Chicacole	20	22	1	...	68	61	10	17	4	...	6	1	1	...	...	...	112	98	...	...
	Berhampur	109	117	4	5	131	128	67	54	...	1	1	7	...	...	...	...	135	110	...	...
	Parlákimedi	...	...	...	...	75	69	25	20	...	...	...	...	...	...	...	...	76	60	...	...
Vizagapatam.	Vizagapatam	17	22	...	...	112	110	123	107	...	...	8	3	...	...	...	...	276	171	...	...
	Bimlipatam	6	5	...	...	21	26	27	24	...	...	...	...	...	...	...	...	67	68	8	6
	Viziananram	17	19	3	3	174	145	74	61	1	1	7	4	1	...	...	...	198	152	...	...
	Anakápalle	1	...	...	...	91	39	34	24	...	...	7	6	4	1	...	...	89	69	9	4
Gódávari	Cocanada	10	6	...	1	53	53	44	56	10	8	1	1	2	...	1	...	239	277	9	15
	Rajahmundry	20	35	1	1	148	137	66	42	..	1	19	14	2	...	2	3	234	201	10	9
	Ellore	2	3	...	...	69	62	35	22	...	1	3	4	...	...	...	...	158	126	1	2
Kistna	Masulipatam	...	...	...	1	127	112	30	34	...	2	7	6	...	...	...	...	324	280	42	37
	Guntúr	...	...	...	...	115	105	47	54	7	1	11	6	...	...	...	...	270	229	20	18
	Bezwada	...	1	...	...	51	51	59	39	...	3	5	5	1	1	...	...	203	197	22	22
Nellore	Nellore	...	...	1	...	110	83	3	5	2	3	4	4	...	1	...	...	192	188	18	20
	Ongole	...	...	...	...	53	38	22	14	...	...	1	5	...	...	...	...	106	89	9	5
Madras	Madras	46	51	23	19	2,818	3,221	1,136	1,217	8	3	74	55	2	1	...	...	4,382	4,075	270	234
Chingleput	Conjeeveram	89	77	1	...	178	159	77	74	1	4	7	4	...	...	...	...	397	380	45	36
South Arcot.	Cuddalore	72	57	24	13	131	134	67	77	...	...	7	3	1	4	...	...	367	359	45	50
	Chidambaram	50	36	1	...	68	62	38	32	...	...	28	24	2	...	...	...	120	102	7	11
Trichinopoly	Trichinopoly	207	202	15	6	291	327	175	155	...	...	13	12	2	3	...	...	584	647	32	21
	Srirangam	27	25	...	1	53	79	29	44	...	1	2	...	1	1	...	...	230	261	17	12
Tanjore	Tanjore	26	28	15	15	178	169	194	179	...	...	8	4	...	1	...	...	333	322	33	36
	Kumbakónam	36	37	...	...	185	187	109	106	...	...	7	5	...	...	...	...	532	553	75	61
	Máyavaram	24	16	...	1	63	67	46	33	...	...	2	1	1	...	...	...	233	234	21	18
	Negapatam	98	65	7	2	181	243	111	98	...	...	13	3	4	3	...	1	527	580	43	28
	Mannárgudi	16	16	1	1	58	66	38	39	...	4	5	2	2	...	...	...	155	155	23	15
Madura	Madura	5	3	11	2	246	205	105	110	5	2	18	6	...	1	...	...	669	635	27	26
	Periyakulam	4	2	...	...	88	71	57	40	...	...	3	1	...	...	...	...	138	138	8	7
	Dindigul	20	22	...	5	71	48	29	24	1	...	9	10	1	...	...	...	135	93	...	...
	Palni	46	49	...	...	24	16	2	1	...	...	...	5	...	1	...	...	155	119	...	...
Tinnevelly	Tinnevelly	86	78	...	...	62	56	60	71	1	1	...	5	...	...	...	...	255	261	1	2
	Palamcottah	82	100	...	...	37	38	34	30	...	1	2	2	...	...	...	...	163	131	1	1
	Tuticorin	66	46	2	...	77	92	73	80	...	1	4	1	...	...	...	...	199	161	1	...
	Srivilliputtúr	...	...	8	24	122	139	32	35	...	2	6	7	...	...	...	...	142	138	1	2
Kurnool	Kurnool	15	15	4	10	160	167	15	12	1	...	3	1	...	...	...	...	189	150	12	8
Cuddapah	Cuddapah	1	1	6	15	87	89	12	2	1	1	6	...	1	...	...	...	82	74	19	11
Bellary	Bellary	46	35	...	...	256	261	59	60	1	...	11	1	1	1	...	...	447	406	...	...
	Ádóni	5	2	1	...	116	92	3	3	...	1	2	1	...	...	...	...	221	220	...	...
Anantapur	Anantapur	24	26	2	2	14	19	7	4	...	...	1	...	...	...	...	...	47	40	1	2
North Arcot.	Vellore	20	26	122	115	151	139	72	66	1	5	10	2	...	1	2	...	212	199	50	26
	Gudiyáttam	...	6	27	13	97	100	25	30	...	1	3	...	...	...	...	...	90	70	13	6
	Walajapet	4	1	...	...	33	45	20	17	1	...	1	2	...	...	...	...	77	77	6	7
	Tirupati	13	9	...	1	89	107	15	10	...	...	4	1	...	...	...	...	95	87	8	3
Salem	Salem	32	90	1	...	276	261	67	67	...	...	...	2	1	1	...	...	489	469	13	17
	Vaniyambádi	164	126	...	...	98	103	16	17	1	...	...	1	...	...	...	...	166	162	7	4
	Tiruppattur	144	123	1	...	101	108	7	11	1	...	2	1	...	...	...	...	104	85	6	4
Coimbatore.	Coimbatore	145	106	4	1	167	222	128	117	2	4	5	6	2	1	...	...	420	461	4	2
	Erode	21	18	1	...	34	34	15	11	...	1	1	1	2	1	...	...	106	109	1	3
	Karúr	44	49	1	2	90	87	21	23	...	...	5	2	...	...	...	...	64	54	5	13
Nilgiris	Ootacamund	4	1	...	...	70	71	24	19	...	...	3	5	...	...	...	...	131	125	...	...
	Coonoor	5	2	...	1	29	27	25	19	...	...	1	2	...	...	...	...	80	59	...	...
South Canara.	Mangalore	...	...	...	...	139	121	34	30	2	1	16	4	...	...	...	...	231	205	16	21
Malabar	Tellicherry	0	9	...	...	63	85	47	35	1	...	4	...	...	...	...	...	205	203	42	21
	Calicut	39	54	1	...	188	164	222	209	3	8	1	...	...	...	...	...	647	587	65	47
	Palghat	149	96	3	1	134	126	73	94	6	3	5	4	1	...	...	21	383	359	...	...
	Cochin	166	75	1	1	46	39	16	23	...	...	1	...	...	...	...	...	171	188	27	24
	Cannanore	...	...	...	...	101	83	44	42	...	...	2	1	...	...	...	...	233	189	...	...
	Total	2,366	2,127	293	252	8,868	9,148	4,067	3,936	61	60	375	253	35	23	5	5	17,285	16,237	1,093	917

Districts.	Municipal towns.	Ratio per mille of population. Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.	Injuries.	All other causes.	Births.	Deaths.	Average ratio per mille of population for previous five years ending 1895. Births.	Deaths.
Ganjám	Chicacole	2·3	·05	7·1	1·5	·7	11·5	21·2	23·1	24·2	23·2
	Berhampur	8·8	·4	10·1	4·7	·4	9·5	18·3	33·9	23·2	21·7
	Parlákimedi	...	...	8·9	2·9	...	8·3	36·5	20·1	34·7	22·1
Vizagapatam.	Vizagapatam	1·1	...	6·4	6·7	·3	13·0	36·1	27·5	33·8	28·8
	Bimlipatam	1·1	...	4·8	5·2	...	13·7	37·1	24·8	31·6	28·3
	Viziananram	1·2	·2	10·3	4·4	·4	11·3	29·9	27·8	26·6	24·1
	Anakápalle	·05	...	7·6	3·4	1·1	9·3	32·0	21·4	34·1	27·4
Gódávari	Cocanada	·4	·02	2·6	2·5	·6	12·7	25·4	18·8	23·1	21·3
	Rajahmundry	1·9	·07	10·1	3·8	1·4	15·3	34·9	32·6	32·1	30·7
	Ellore	·2	...	4·4	1·9	·3	9·7	20·4	16·5	25·6	24·9
Kistna	Masulipatam	...	0·2	6·2	1·6	·4	15·6	31·0	23·8	28·6	28·0
	Guntúr	...	...	9·4	4·3	1·1	21·4	41·5	36·2	33·5	29·5
	Bezwada	·05	...	4·9	4·7	·7	19·3	30·3	29·7	30·7	33·2
Nellore	Nellore	...	·03	6·6	·3	·5	12·9	29·3	20·3	26·6	22·7
	Ongole	...	...	8·4	3·3	·5	18·0	36·8	30·2	31·8	24·0
Madras	Madras	·2	·1	13·3	5·2	·3	18·7	41·3	37·8	39·4	42·8
Chingleput	Conjeeveram	3·2	·02	7·9	3·5	·4	18·3	40·2	33·3	37·0	32·5
South Arcot.	Cuddalore	2·7	·8	5·6	3·0	·3	15·3	42·5	27·7	31·5	21·4
	Chidambaram	4·6	·05	7·0	3·8	2·9	11·9	29·2	30·2	27·1	32·0
Trichinopoly	Trichinopoly	5·8	·2	6·8	3·7	·3	13·6	30·8	30·4	22·3	27·9
	Srirangam	2·5	·04	6·1	3·4	·2	22·7	31·4	34·9	30·6	32·1
Tanjore	Tanjore	1·0	·5	6·4	6·9	·2	12·0	32·3	27·0	28·9	29·3
	Kumbakónam	3·2	...	6·9	3·9	·2	20·0	34·3	34·2	28·7	32·9
	Máyavaram	1·7	·04	5·5	3·3	·2	19·7	38·3	30·4	33·1	29·8
	Negapatam	2·7	·1	7·2	3·5	·4	18·7	30·2	32·6	28·3	30·9
	Mannárgudi	1·5	·1	6·1	3·8	·6	15·2	34·4	27·3	31·6	29·0
Madura	Madura	·1	·1	5·2	2·5	·4	14·9	32·1	23·2	32·4	29·6
	Periyakulam	·4	...	9·7	5·9	·2	16·9	46·0	33·1	38·0	33·0
	Dindigul	2·1	·2	5·9	2·6	1·0	11·3	41·5	23·1	43·2	23·6
	Palni	5·7	...	2·4	·2	·3	16·2	28·1	24·8	35·9	27·7
Tinnevelly	Tinnevelly	6·5	...	4·7	5·7	·3	20·8	33·8	38·0	35·5	34·0
	Palamcottah	9·8	...	4·0	3·4	·3	15·7	32·8	33·2	33·1	27·5
	Tuticorin	4·6	·1	6·7	6·1	·2	14·4	34·2	32·1	28·7	30·5
	Srivilliputtúr	...	·7	8·8	2·3	·5	9·5	31·6	21·8	*	*
Kurnool	Kurnool	1·2	·6	13·4	1·1	·2	13·9	30·5	30·4	31·1	34·9
Cuddapah	Cuddapah	·1	1·2	10·1	·8	·5	9·0	24·4	21·7	21·5	36·3
Bellary	Bellary	1·4	...	8·7	2·0	·3	14·3	32·5	26·7	31·6	25·1
	Ádóni	·3	·04	7·9	·2	·1	16·8	44·1	25·4	35·1	28·6
Anantapur	Anantapur	7·2	·6	4·7	1·6	·1	12·4	38·7	26·6	31·0	23·2
North Arcot.	Vellore	1·0	5·3	6·4	3·1	·5	9·1	33·3	25·4	36·0	25·5
	Gudiyáttam	·3	2·1	10·5	2·9	·2	8·5	43·2	24·6	32·4	26·5
	Walajapet	·5	...	7·4	3·5	·4	14·7	37·5	26·5	37·0	27·4
	Tirupati	1·5	·1	13·7	1·7	·4	12·8	31·1	30·2	27·9	31·5
Salem	Salem	2·5	·01	7·9	2·0	·06	14·1	40·7	26·7	34·5	23·4
	Vaniyambádi	18·3	...	12·7	2·1	·1	20·7	56·9	53·9	47·7	29·2
	Tiruppattur	16·2	·06	12·7	1·1	·2	11·4	40·9	41·7	39·9	25·9
Coimbatore.	Coimbatore	5·4	·1	8·4	5·3	·4	19·0	40·0	38·6	37·0	27·9
	Erode	3·2	·1	5·5	2·1	·5	17·4	41·6	28·8	31·4	28·3
	Karúr	5·3	·3	16·5	4·1	·7	10·9	37·3	41·1	57·4	29·1
Nilgiris	Ootacamund	·3	...	9·4	2·9	·5	17·0	36·7	30·1	31·1	22·6
	Coonoor	1·1	·2	9·2	7·3	·5	23·0	42·3	41·3	36·3	31·6
South Canara.	Mangalore	...	...	6·3	1·6	·5	10·7	33·0	19·1	30·7	25·3
Malabar	Tellicherry	·5	...	5·4	3·0	·2	15·0	35·4	24·1	32·6	24·5
	Calicut	1·2	·01	5·3	6·5	·1	18·7	39·9	31·8	33·5	32·7
	Palghat	·5	·1	6·5	4·2	·5	18·7	43·1	35·2	34·0	28·1
	Cochin	4·8	·2	·05	20·4	39·8	37·9	33·7	36·5	35·9	27·8
	Cannanore	10·3	·1	6·7	3·1	·1	15·4	40·5	25·3	35·9	27·8
	Total	2·1	·2	8·5	3·7	·4	15·7	36·1	30·6	33·2	31·2

* Being a new municipality, the requisite information is not available.

No. VII.—*Deaths registered from Cholera in the districts of the Madras Presidency during each month of the year 1896.*

1	2	3		4		5												6			7		
Number.	Districts.	Circles of registration.		Villages.														Total.			Ratio of deaths per 1,000 of population.		
		Number in each district.	Number from which deaths from cholera were reported.	Number in each district.	Number from which deaths from cholera were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Males.	Females.	Total.	Males.	Females.	Total.
1	Anantapur ...	10	7	965	144	...	...	...	...	1	39	596	471	468	454	286	204	1,376	1,143	2,519	3·7	3·2	3·5
2	Bellary ...	14	14	795	332	26	5	9	157	694	1,354	1,110	474	170	165	28	13	2,541	1,864	4,205	5·1	4·3	4·7
3	Chingleput ...	8	7	2,134	43	2	...	...	...	...	6	1	...	8	42	59	219	107	170	357	0·3	0·3	0·3
4	Coimbatore ...	13	13	1,478	465	...	...	...	...	...	...	143	1,068	2,730	1,904	1,996	2,890	5,752	4,979	10,731	5·8	4·8	5·4
5	Cuddapah ...	12	6	1,276	51	...	...	...	2	...	...	6	70	146	61	50	249	301	282	583	0·5	0·4	0·5
6	Ganjám ...	8	7	6,037	160	104	16	8	3	...	2	23	367	481	263	136	209	845	765	1,610	1·4	1·2	1·3
7	Gódávari ...	18	16	2,603	137	...	...	...	...	...	1	...	150	350	179	16	...	368	308	676	0·3	0·3	0·3
8	Kistna ...	16	6	1,448	18	10	3	...	47	72	238	395	4	32	3	10	12	35	30	65	0·03	0·03	0·03
9	Kurnool ...	10	8	802	93	...	...	...	...	...	3	4	379	181	60	2	...	762	625	1,387	1·8	1·5	1·7
10	Madras ...	1	1	1	1	2	100	55	18	32	...	...	7	43	14	8	11	43	47	90	0·2	0·2	0·2
11	Madura ...	15	13	1,078	177	...	...	...	...	...	67	49	165	66	66	429	2,471	1,566	1,464	2,970	2·0	1·8	1·9
12	Malabar ...	15	12	2,245	112	2	...	...	...	...	23	...	...	201	141	167	460	743	750	1,493	0·6	0·6	0·6
13	Nellore ...	12	3	1,753	13	8	...	...	29	325	307	418	6	21	13	...	13	34	36	70	0·04	0·05	0·04
14	Nilgiris ...	4	4	52	13	...	...	...	...	51	297	230	207	123	64	38	230	25	12	37	0·4	0·3	0·4
15	North Arcot ...	17	15	4,328	214	...	...	...	...	148	350	597	232	295	836	552	1,327	960	781	1,741	0·9	0·7	0·8
16	Salem ...	14	14	3,811	410	...	...	...	...	...	...	...	326	251	160	469	2,671	2,066	1,864	3,870	2·1	1·9	2·0
17	South Arcot ...	12	12	2,897	489	150	168	164	29	5	12	23	2	1	...	...	...	2,910	2,598	5,508	2·7	2·4	2·5
18	South Canara.	6	3	1,277	7	9	...	1	34	148	...	...	35	17	199	980	2,368	9	4	13	0·02	0·007	0·01
19	Tanjore ...	15	15	3,550	740	10	3	4	32	5	1	1	...	1	...	68	1,958	1,871	1,816	3,687	1·7	1·5	1·6
20	Tinnevelly ...	21	17	1,538	258	124	74	3·	1	1	12	9	...	1	61	644	2,660	1,165	1,095	2,260	1·2	1·1	1·2
21	Trichinopoly.	8	8	1,502	424	4	11	1	...	...	...	...	18	5	97	19	18	1,728	1,693	3,421	2·6	2·4	2·5
22	Vizagapatam.	22	18	2,668	78	...	...	...	...	...	...	...	8	369	...	...	...	316	258	574	0·4	0·3	0·3
	Total, Madras Presidency.	271	219	44,678	4,390	449	381	274	322	1,368	2,694	3,618	4,063	5,896	4,813	5,961	17,899	25,263	22,584	47,847	1·8	1·4	1·5

No. VIII.—*Deaths registered from small-pox in the districts of the Madras Presidency during each month of the year 1896.*

1	2	3		4		5												6			7		8
Number.	Districts.	Circles of Registration.		Villages.														Total.			Number of deaths among children.		Ratio of deaths per 1,000 of population.		
		Number in each district.	Number from which deaths from small-pox were reported.	Number in each district.	Number from which deaths from small-pox were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Males.	Females.	Total.	Under 1 year.	Under 12 years.	Males.	Females.	Total.	Mean ratio per 1,000 for previous 5 years.
1	Anantapur ...	10	9	965	114	78	76	102	56	27	36	31	43	29	21	20	20	267	272	539	231	306	0·7	0·7	0·7	0·1
2	Bellary ...	14	9	795	96	24	51	42	41	27	18	35	12	7	4	5	9	129	155	284	210	74	0·3	0·3	0·3	0·2
3	Chingleput ...	8	8	2,134	84	14	10	15	9	36	5	4	3	14	6	18	20	17	26	43	6	10	0·01	0·1	0·1	0·1
4	Coimbatore ...	13	10	1,478	17	3	3	7	5	1	23	5	16	14	3	5	71	40	147	283	18	14	0·2	0·2	0·2	0·3
5	Cuddapah ...	12	12	1,276	360	77	40	82	93	5	9	18	20	28	17	26	68	136	721	1,461	330	545	1·2	1·1	1·2	0·8
6	Ganjám ...	8	7	6,037	73	20	22	19	18	10	6	9	12	12	8	7	5	76	63	139	10	2	0·08	0·07	0·1	1·2
7	Gódávari ...	18	13	2,603	52	2	14	12	12	22	1	8	8	6	12	44	87	715	738	1,453	228	487	1·7	1·8	1·8	0·9
8	Kistna ...	16	12	1,448	271	196	281	307	179	146	91	57	38	51	34	46	27	23	18	41	13	14	0·1	0·1	0·1	0·1
9	Kurnool ...	10	10	802	271	1	4	2	8	5	7	2	4	2	9	19	7	57	43	100	36	54	0·07	0·05	0·06	0·1
10	Madras ...	1	1	1	1	5	94	84	28	13	4	2	1	1	3	3	...	138	129	267	1	9	0·1	0·1	0·06	0·1
11	Madura ...	15	10	1,078	36	7	9	7	7	13	4	2	1	1	17	3	...	49	49	98	28	32	0·06	0·07	0·1	0·12
12	Malabar ...	15	9	2,245	51	20	7	8	5	4	16	7	1	17	3	6	49	8	15	...	1	1	0·1	0·1	0·1	0·15
13	Nellore ...	12	10	1,753	49	3	9	4	2	2	4	2	9	19	7	3	...	1,209	1,246	2,455	678	1,311	1·2	1·1	1·2	0·16
14	Nilgiris ...	4	3	52	4	...	...	2	1	1	1	1	2	1	3	8	6	5	15	20	4	4	0·3	0·2	0·2	0·2
15	North Arcot ...	17	15	4,328	634	85	121	262	240	273	214	228	201	150	138	49	49	248	544	792	123	232	0·3	0·2	0·2	0·2
16	Salem ...	14	11	3,811	140	33	25	67	74	49	29	30	47	27	60	93	28	215	455	670	64	109	0·2	0·2	0·2	0·2
17	South Arcot ...	12	12	2,897	114	28	21	15	17	18	66	49	33	27	41	32	48	13	42	55	6	3	0·05	0·02	0·03	0·2
18	South Canara.	6	5	1,277	27	2	5	9	9	18	29	30	47	27	60	88	75	169	369	67	149	0·2	0·1	0·1	0·1	0·2
19	Tanjore ...	15	14	3,550	128	39	40	57	27	28	30	36	25	18	14	22	21	32	54	5	29	0·02	0·02	0·02	0·2	0·2
20	Tinnevelly ...	21	16	1,538	21	2	1	2	4	6	3	3	3	2	8	10	22	17	40	12	12	0·02	0·02	0·02	0·2	0·2
21	Trichinopoly.	8	7	1,502	18	3	2	5	4	3	3	3	4	2	5	4	23	235	456	99	139	0·2	0·1	0·1	0·1	0·2
22	Vizagapatam.	22	16	2,668	139	22	10	50	39	32	40	37	34	23	15	37	117	221	2,410	2,245	3,632	0·2	0·2	0·2	0·3	0·
	Total, Madras Presidency...	271	213	44,678	2,533	675	847	1,192	910	794	662	662	596	583	536	780	1,191	4,748	4,667	9,410	2,245	3,632	0·2	0·2	0·3	0·

No. IX.—*Deaths registered from fevers in the Districts of the Madras Presidency during each month of the year 1896.*

1	2	3		4		5												6			7			8
Number.	Districts.	Circles of registration.		Villages.														Total.			Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 for previous 5 years.
		Number in each district.	Number from which deaths from fevers were reported.	Number in each district.	Number from which deaths from fevers were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Males.	Females.	Total.	Males.	Females.	Total.	
1	Anantapur ...	10	10	965	475	169	179	351	177	168	185	141	150	150	140	138	116	1,106	968	2,064	3·0	2·7	2·9	3·5
2	Bellary ...	14	14	795	658	591	799	922	564	522	547	558	618	541	534	556	610	3,801	3,631	7,432	8·4	8·3	8·3	9·6
3	Chingleput ...	8	8	2,134	1,421	691	546	599	506	658	630	746	650	636	740	677	619	3,788	3,910	7,698	6·2	6·6	6·4	6·0
4	Coimbatore ...	13	13	1,478	738	1,252	1,527	1,340	1,314	1,032	985	1,494	1,372	1,327	1,497	1,383	1,236	8,102	7,637	15,739	8·2	7·5	7·9	7·0
5	Cuddapah ...	12	12	1,276	1,214	1,590	1,416	2,117	2,193	1,663	1,180	1,290	1,251	1,298	1,347	1,284	1,522	9,072	8,989	18,061	14·0	14·4	14·2	16·7
6	Ganjám ...	8	8	6,037	2,790	1,622	988	1,363	1,385	1,437	1,213	1,487	1,879	1,797	1,459	1,203	1,606	8,981	8,398	17,379	15·1	13·1	14·0	9·5
7	Gódávari ...	18	17	2,603	919	1,609	1,272	1,156	1,097	1,283	1,254	1,237	1,417	1,483	1,848	1,580	1,374	8,816	7,904	16,720	8·6	7·5	8·1	8·6
8	Kistna ...	16	16	1,448	5,818	1,695	870	877	712	1,345	1,205	1,299	1,501	1,552	1,384	1,082	1,055	7,094	6,883	13,977	7·5	7·5	7·5	7·8
9	Kurnool ...	10	10	802	730	1,047	996	1,310	1,364	1,210	939	915	1,052	972	1,048	814	899	6,485	6,091	12,576	15·6	15·1	15·4	18·8
10	Madras ...	1	1	1	1	465	425	435	452	568	457	462	535	624	572	476	485	2,737	3,169	5,954	12·8	14·5	13·6	14·8
11	Madura ...	15	15	1,078	729	1,010	639	886	816	812	607	971	825	1,033	751	1,008	1,013	5,440	4,931	10,371	7·1	6·1	6·6	5·7
12	Malabar ...	15	15	2,245	437	1,758	1,724	1,800	1,689	1,607	1,797	2,199	2,108	1,627	1,550	1,416	1,636	11,729	9,182	20,911	9·0	6·9	7·9	7·2
13	Nellore ...	12	12	1,753	805	1,022	1,000	858	774	1,023	981	946	1,067	1,136	1,144	1,146	1,294	6,429	5,962	12,391	8·7	8·2	8·5	8·3
14	Nilgiris ...	4	4	52	51	91	121	116	127	238	231	222	166	116	154	166	141	981	908	1,889	18·0	21·5	19·5	16·8
15	North Arcot ...	17	17	4,328	1,98	1,352	1,155	1,220	1,132	1,264	1,151	1,233	1,202	1,209	1,296	1,337	1,510	7,523	7,538	15,061	7·1	7·1	7·1	7·3
16	Salem ...	14	14	3,811	2,15	1,403	1,232	1,710	1,575	1,360	1,177	1,279	1,336	1,236	1,306	1,400	1,474	8,429	8,149	16 578	8·8	8·1	8·4	7·7
17	South Arcot ...	12	12	2,897	1,848	1,527	1,242	1,223	973	1,164	1,032	1,083	1,129	990	1,033	1,353	1,528	7,319	6,958	14,277	6·8	6·4	6·6	6·6
18	South Canara.	6	6	1,277	1,105	775	780	711	490	479	625	769	586	543	549	564	734	3,970	3,635	7,605	7·8	6·7	7·2	8·0
19	Tanjore ...	15	15	3,550	1,286	595	432	453	396	462	383	466	387	445	510	539	544	2,721	2,891	5,612	2·5	2·5	2·5	2·2
20	Tinnevelly ...	21	21	1,538	849	841	533	540	422	457	439	476	509	499	555	826	1,001	3,677	3,411	7,088	3·9	3·5	3·7	3·7
21	Trichinopoly.	8	8	1,502	867	738	605	572	557	549	420	425	473	504	453	534	624	3,176	3,279	6,455	4·8	4·6	4·7	4·5
22	Vizagapatam.	22	22	2,668	1,200	2,853	2,100	2,058	1,617	1,894	1,619	1,928	2,132	2,397	2,405	1,727	2,199	12,905	12,024	24,929	16·0	14·6	15·3	14·1
	Total, Madras Presidency.	271	270	44,678	28,012	24,067	20,581	22,557	20,242	21,265	19,057	21,566	22,325	22,315	22,365	21,209	23,220	134,321	126,448	260,769	8·3	7·6	8·0	7·9

No. X.—*Deaths registered from Dysentery and Diarrhœa in the Districts of the Madras Presidency during each month of the year 1896.*

1	2	3		4		5												6			7			8
Number.	Districts.	Circles of registration.		Villages.														Total.			Ratio of deaths per 1,000 of population.			Mean ratio per 1,000 for previous 5 years.
		Number in each district.	Number from which deaths from dysentery and diarrhœa were reported.	Number in each district.	Number from which deaths from dysentery and diarrhœa were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Males.	Females.	Total.	Males.	Females.	Total.	
1	Anantapur ...	10	9	965	104	17	23	12	7	22	14	33	31	30	14	18	10	119	112	231	0·3	0·3	0·3	0·3
2	Bellary ...	14	13	795	195	26	40	21	44	50	58	85	79	51	52	52	55	332	281	613	0·7	0·6	0·7	2·5
3	Chingleput ...	8	8	2,134	807	191	139	176	123	152	171	239	245	242	327	270	259	1,324	1,210	2,534	2·2	2·0	2·1	0·6
4	Coimbatore ...	13	13	1,478	163	38	50	47	52	67	78	165	250	284	281	170	188	867	803	1,670	0·9	0·8	0·8	0·4
5	Cuddapah ...	12	12	1,276	236	38	31	27	28	30	29	28	28	38	49	38	78	235	204	439	0·4	0·3	0·3	0·4
6	Ganjám ...	8	7	6,037	349	64	32	57	71	92	76	113	131	111	63	67	103	536	379	915	1·0	0·6	0·8	0·5
7	Gódávari ...	18	16	2,603	314	67	65	70	51	66	75	111	99	154	81	47	43	509	410	919	0·5	0·4	0·4	0·4
8	Kistna ...	16	16	1,848	250	21	35	69	53	66	28	77	121	104	40	37	27	379	299	678	0·4	0·3	0·4	0·4
9	Kurnool ...	10	10	802	75	8	10	8	7	9	13	21	37	9	8	7	7	87	57	144	0·3	0·1	0·2	7·1
10	Madras ...	1	1	1	1	149	109	125	168	299	157	158	249	339	243	174	227	1,111	1,187	2,298	5·1	5·4	5·3	0·6
11	Madura ...	15	11	1,078	116	59	49	39	38	48	47	67	69	73	71	84	112	381	756	1,137	0·5	0·4	0·5	0·5
12	Malabar ...	15	15	2,245	328	239	255	233	246	242	303	466	503	371	270	307	414	2,006	369	2,375	1·5	1·4	1·4	1·7
13	Nellore ...	12	12	1,753	191	26	21	12	25	25	26	33	55	70	60	63	60	256	1,844	2,100	0·3	0·3	0·3	0·5
14	Nilgiris ...	4	4	52	15	6	3	6	19	18	10	19	20	9	7	20	14	92	220	312	1·7	1·3	1·5	0·7
15	North Arcot ...	17	17	4,328	463	75	46	60	52	110	126	139	103	118	139	150	144	669	57	726	0·6	0·5	0·6	0·5
16	Salem ...	14	14	3,811	315	75	57	37	28	48	63	74	93	116	120	148	140	528	593	1,262	0·5	0·4	0·5	0·6
17	South Arcot ...	12	12	2,897	435	104	60	51	40	42	56	77	65	62	77	140	207	573	469	997	0·5	0·9	1·2	1·3
18	South Canara.	6	6	1,277	363	197	164	100	57	51	57	78	99	91	78	83	155	687	468	1,041	1·3	0·7	0·8	0·7
19	Tanjore ...	15	15	3,550	182	105	108	94	98	93	101	117	126	167	154	228	342	898	523	1,210	0·8	0·3	0·6	0·8
20	Tinnevelly ...	21	18	1,538	108	141	83	56	58	57	58	52	65	71	79	155	316	596	830	1,426	0·6	0·6	0·6	0·5
21	Trichinopoly.	8	8	1,502	151	45	31	35	27	26	32	46	42	47	49	100	158	327	505	832	0·5	0·4	0·5	0·5
22	Vizagapatam.	22	22	2,668		61	62	75	49	101	83	69	104	198	68	75	64	563	446	1,009	0·7	0·5	0·6	
	Total, Madras Presidency.	271	259	44,678	5,365	1,752	1,444	1,410	1,341	1,620	1,661	2,267	2,614	2,755	2,330	2,428	3,180	13,135	11,667	24,802	0·8	0·7	0·7	0·8

PART II.

SANITARY ENGINEERING.

SANITARY ENGINEERING DEPARTMENT.

J. A. JONES, MEM. INST. C.E., F.R.S.E.,
Sanitary Engineer to Government.

THE SEVENTH ANNUAL REPORT

OF THE

SANITARY ENGINEER TO THE GOVERNMENT OF MADRAS,

1896.

THERE were no changes during the year in the *personnel* of the in-door staff of this department except the resignation of Mr. Minchin, Assistant Engineer on construction, who, having obtained an appointment under the Travancore State, severed his connection with this department on 21st September 1896.

2. The following table shows the works completed and in progress during the year:—

Towns.	Nature of work.	Officers in charge.	Estimated cost.	When commenced.	Amount of work done during the year.	Remarks.
			RS.		RS.	
Trichinopoly ...	Water supply.	Mr. Minchin, Assistant Engineer, up to September 1896, and Mr. Sivasubramania Iyer, Supervisor, till completion.	5,31,642	26th Sept. 92	55,062	Completed in December 1896, but water supplied from April 1896.
Kurnool ...	Do. ...	Mr. Lockyer, Assistant Engineer.	2,63,667	15th Oct. 94	1,41,012	In progress.
Dindigul ...	Do. ...	Mr. Sivasubramania Iyer, Supervisor.	80,000	26th July 95	26,373	Completed in August 1896.
Conjeeveram ...	Do. ...	Mr. Davey, Supervisor ...	2,57,000	28th Nov. 95	1,64,714	In progress.

3. The following statement shows the surveys in regard to the water-supply and drainage of municipal towns undertaken during 1896:—

No.	Towns.	For what purpose.	Completed or in progress.	Remarks.
1	Kumbakónam	Water-supply	Completed ...	Small survey.
2	Tinnevelly	Joint water-supply ...	Do.	
3	Palamcottah			
4	Cuddapah	Drainage	Do. ...	Complete survey and levels.
5	Bellary	Water-supply	Do. ...	Additional levels.
6	Negapatam	Do.	Do. ...	Survey and levels over 14 miles of country.
7	Srírangam	Do.	Do. ...	Levels for water-supply.
8	Gudiyáttam	Do.	Do. ...	Additional levels.
9	Coonoor	Do.	Do. ...	Surveys and levels in respect to a new source of water-supply.
10	Tanjore	Sewage farm ...	Do. ...	Additional levels.
11	Vizianagram	Water-supply	In progress ...	Levels for water-supply.

4. The following schemes prepared by the Sanitary Engineer were submitted to the Sanitary Board during the year :—

No.	Towns.	Water-supply or drainage.	Date of submission to Sanitary Board.	Estimated cost.
				RS.
1	Srírangam *	Water-supply	10th Feb. 1896 ...	1,75,000
2	Kumbakónam *	Do.	8th July 1896 ...	4,88,800
3	Tuticorin	Do.	28th July 1896 ...	2,73,140 } Alternative 3,30,000 } schemes.
4	Bellary *	Do.	29th July 1896 ...	7,15,000 for 10 gallons. 9,06,642 for 15 gallons.
5	Cuddapah	Filter bed and service reservoir	7th Oct. 1896 ...	33,600
6	Gadiyáttam	Water-supply	4th Dec. 1896 ...	51,500

* Preliminary reports and estimates.

5. In addition to the above schemes the following schemes were also under preparation during the year, viz., Negapatam and Coonoor water-supply and Cuddapah drainage. The scheme for the water-supply of Negapatam estimated to cost about Rs. 9,89,680 was almost complete at the end of the year and considerable progress had been made with the scheme for the drainage of Cuddapah.

6. Revised estimates were prepared for the following schemes :—

Towns.	Water-supply or drainage.	Estimate.	
		Original.	Revised.
		RS.	RS.
Tirupati	Water-supply ...	1,89,000	2,31,000
Trichinopoly	Do. ...	5,02,050	5,31,642
Bezwada	Do. ...	2,62,000	2,89,260
Vizagapattam	Do. ...	4,00,000	4,21,000
Kurnool	Do. ...	2,39,380	2,63,667

7. Some of these were due to alterations required by the Sanitary Board and required not only revision of estimate, but also of design; this entailed considerable work with very little to show for it. It will be noticed that none of the revisions tended to reduce the cost of the works in question.

8. The following table shows concisely the amount of work done and to be done with reference to water-supply and drainage schemes in the municipal towns in the Presidency at the end of 1896 :—

	Water-supply.		Drainage.	
Number of municipalities		58		58
Deduct—				
Surveys in progress	1		...	
Towns not surveyed	23		34	
		24		34
Towns surveyed up to 1895	29		23	
Towns surveyed in 1896	5		1	
		34		24
Schemes abandoned or still in abeyance ...		5		4
Schemes under consideration or revision ...		12		2
Surveys made, but schemes not prepared.		8		15
		25		21
Balance—				
Schemes sanctioned, works for which have been completed		7		3
Schemes sanctioned, works for which are in progress		2		...
		9		3

9. The following pages have reference to the preparation of schemes and the progress or maintenance of works in the towns mentioned :—

Town.	District.	Population, 1891.
ÁDÓNI.	BELLARY.	26,243.

10. As stated in the report for 1895 the water-works were completed in that year.

11. The syphon for drawing water from the tank got out of order in March 1896. At the request of the Chairman it was inspected by the Assistant Sanitary Engineer to Government and set right. To avoid any interruption in the continuous supply of water, it was suggested that an additional syphon, estimated to cost Rs. 3,000, should be provided from the savings in the estimate for the new water-works. The council, to whom the suggestion was referred by Government for report, resolved that the question be considered after the necessary extensions in connection with the water-works have been carried out.

12. During the year the council provided Rs. 3,000 for improving the sanitary condition of the surroundings of the fountains.

13. Owing to the failure of the monsoon at Ádóni, the Nullacheruvu tank received a very small supply. The maximum depth of the tank is 26·87 feet. Just before the commencement of the monsoon the water in tank stood at 7 feet 8 inches. During the monsoon it rose to 11 feet 6 inches. The previous year 1895 after the rains the tank attained a height of 16·35 feet. At the end of the year the depth of water had fallen to 7 feet 5 inches. There are serious apprehensions as to this supply being sufficient to last until next monsoon in May or June. It is proposed to inspect the works early in January 1897, with the view of economising the water in the tank and concerting such other measures as will prevent a failure of the water-supply.

14. The council provided in its budget for 1896–97 Rs. 1,200 for a complete survey of the town in view to having a drainage scheme prepared. The survey of the town will, however, be done in due course by the Revenue Survey department, and until its completion the preparation of the drainage scheme will be delayed.

Town.	District.	Population, 1891.
BELLARY.	BELLARY.	59,467.

15. The experiments in connection with the Copper Hills scheme, referred to in the report for 1895, were begun in February 1896 and completed in June at a cost of Rs. 2,562–8–11. The experimental works consisted of a trench at right angles to the Bellagullu Vunka at a point about a mile and-a-half from the municipal boundary of Bellary. The trench excavated was 150 feet long with an average depth of 17 feet. The water from the trench pumped by a steam-engine was gauged over a weir and amounted to 65 gallons per minute. With these results as a guide it was considered that it would be possible to obtain 300,000 gallons per day, or 5 gallons per head of population from the whole valley; for this purpose the construction of a gallery about 3,000 feet long by 30 feet deep was proposed. The proposals also included the construction of a bund across the valley above the gallery so as to form a tank with a view to storing up such of the rainfall as now flows off the valley. The water thus stored in the tank would go to replenish the gallery when the sub-soil water diminished during the hot weather. The scheme was estimated to cost Rs. 3,70,000 complete including distribution in the town. The annual charges on the assumption that Government would pay half the cost of the scheme were computed at Rs. 17,000. The supply of 5 gallons per head being insufficient, the Sanitary Commissioner suggested the combination of this supply with that of Alipore tank—a proposal which would successfully solve the question of water-supply to Bellary. The combined scheme would give a supply of 15 gallons per head to the cantonment and 10 gallons per head to the town. The combined scheme is roughly estimated to cost Rs. 7,96,000, of which Rs. 6,26,000 would be chargeable to the municipality and Rs. 1,70,000 to the Military department. Assuming that Government would contribute half the cost

of the scheme, the annual charges to the municipality will be Rs. 29,500. The annual working charges falling on the Military department would be Rs. 3,500.

16. The undersigned, in forwarding the above report to the Sanitary Board on 29th July 1896, remarked that, of the three schemes available, No. 1 scheme, viz., the Hagri scheme, was expensive in its initial and annual working charges. The Hagri water was far from being chemically pure and was unsuitable for drinking purposes. As for the second scheme, viz., Copper Hills scheme it did not seem to promise a sufficiency of water, and it is therefore not safe to depend upon it solely. But the scheme might, however, be considered as a supplemental scheme, should scheme No. 3 (the Alipore scheme) fail to furnish the required supply. Particulars of all these schemes have been given in previous administration reports. It would be a needless repetition to describe them here again. The following comparative statement shows how the schemes compare as regards cost:—

Schemes.	Probable supply per head of population.	Initial cost.	Annual cost of working charges exclusive of interest.
		RS.	RS.
1. Hagri scheme	10 gallons.	8,00,000	56,000
	15 do.	8,50,000	88,000
2. Copper Hills scheme	5 do.	3,70,000	5,900
3. Alipore Tank scheme	10 do.	7,15,000	17,203
Combined Copper Hills and Alipore Tank scheme ...	15 do.	9,35,000	19,825

17. The undersigned favours the Alipore scheme combined with the Copper Hills scheme. It is cheaper than the Hagri scheme. The water is purer by a long way than that of the Hagri river, and the quantity of water in the combined scheme will be perfectly sufficient. The views of the Sanitary Board and of Government are not yet known.

Town.	District.	Population, 1891.
BEZWADA.	KISTNA.	20,741.

18. The scheme for the water-supply of this town estimated to cost Rs. 2,62,350 and referred to in the report for 1895 was, after some modifications by the Sanitary Board, forwarded to Government. The cost of the scheme as revised amounts to Rs. 2,89,260.

19. The site proposed for the location of the infiltration wells was the triangular portion of the bed of the Kistna formed by the training wall of the railway bridge over the river. The Sanitary Commissioner objected to this site on the theory that the sub-soil drainage of the town would find its way to the infiltration wells when being pumped. The Chief Engineer, Public Works Department, being unable to accept the Sanitary Commissioner's theory, recommended adherence to the site selected by the Sanitary Engineer. Under G.O., No. 1326-M., Mis., dated 10th August 1896, the plans and estimates were forwarded to the municipal council for the submission of the proposals for financing the scheme if approved. Government also ordered that, while the scheme was being financed by the municipal council, certain experimental works should be carried out to test the correctness or otherwise of the Sanitary Commissioner's theory. Since the issue of that order the question of the removal of the training wall, for reasons connected with the water way of the bridge, has been brought forward. It has also now been discovered that there once existed a burial ground near the site proposed for the wells. The undersigned, on a reference being made on the matter, stated that under the circumstances stated it would not be desirable to have the wells at the site originally selected, and that, if it was decided to remove the training wall, the site would have to be abandoned as a matter of course. The suggested site above the anicut presents many engineering difficulties that would certainly tend to enhance the cost of the scheme.

Town.	District.	Population, 1891.
CALICUT.	MALABAR.	66,078.

20. The letter, dated 3rd October 1895, No. 915, from the Chairman of the municipal council, quoted in the report for 1895, was referred to the Sanitary Board for opinion.

21. The Sanitary Board required definite information as to the yield of the Mananchira tank and as to whether there is, as supposed, a water bearing stratum under a superincumbent impervious stratum. With the latter object in view it was suggested that a well should be sunk on the margin of the tank. The council attempted to sink a pot well, which collapsed before attaining the required depth. The council is now endeavouring to borrow a boring apparatus. In the event of a boring apparatus not being available, the council was advised to sink a pucca well built on a curb.

Town.	District.	Population, 1891.
COCHIN.	MALABAR.	17,601.

22. The Sanitary Engineer's letter No. 2956, dated 8th October 1895, quoted in last year's report, was disposed of in G.O., No. 65-M., dated 11th January 1896. The council was informed that, as the experimental boring had not so far resulted in procuring a water-supply to the town and as the expenditure had exceeded Rs. 13,000, Government was not prepared to continue the experiment, and, that if the council was desirous of carrying on the boring, it could do so at its own cost, for which purpose the existing apparatus would be placed at the disposal of the council. With regard to the other schemes proposed by the Sanitary Engineer, Government decided that, on account of the prohibitive cost, they were impracticable and that the question of water-supply to the town should, for the present, be postponed. The resources of the council did not permit the work of the boring being carried any further without aid from Government, and it was proposed that the well should be abandoned. The Sanitary Engineer suggested that the tube should not be withdrawn, as by building a masonry well around it and by cutting off the iron pipe at the level of the bottom of the masonry well a fairly pure and constant supply of water would be available. This suggestion the council has promised to adopt when funds are available.

23. The boring apparatus except certain perishable articles which were sold at Cochin has been transferred to the Public Works Stores by order of Government.

Town.	District.	Population, 1891.
COCANADA.	GÓDÁVARI.	40,553.

24. During the year the Chairman of the municipal council wrote to the Sanitary Engineer desiring him to include the water-supply scheme for Cocanada in the Sanitary Engineer's programme of works to be executed in 1897. As this department no longer undertakes construction, the Chairman's application was forwarded to Government for necessary orders to the Public Works Department.

Town.	District.	Population, 1891.
CONJEEVERAM.	CHINGLEPUT.	42,548.

25. The water works are still under construction. The drivers' quarters, the construction of which was started in December 1895, were completed in July 1896 at a cost of Rs. 4,098-6-10.

26. Tenders for the construction of infiltration works, collecting chamber, suction well and valve house were called for on 7th December 1895 and on 15th January 1896; the tender of N. Moonoosawmy Moodelly amounting to Rs. 13,889 was accepted. But work was not commenced until February 1896, as until then water in the bed of the Vagavathi, which is the source of supply, had not fallen to a satisfactory level. The suction well was sunk to a level of 46·63. The water level in the bed of the river at the time of sinking was 66·14. After the well was sunk to the required depth, the gallery and chamber were taken in hand. The infiltration gallery was commenced as soon as the chamber walls were raised and the pipe between it and the suction well fixed. The trench for the gallery was in

open excavation to water-level; below water-level it was timbered. As the gallery advanced it was found difficult to keep down the water to the level of the bottom of the chamber or level of the infiltration pipes by three pumping engines capable of discharging in the aggregate 1,300,000 gallons per day. The work was completed by the first week in August. The expeditious manner in which the work was executed is due to the energetic exertions of the contractor and to the abundance of local labour available.

27. The Sanitary Engineer, in consequence of over-estimation of subterranean supplies which are always difficult to estimate, thought it advisable to have an opinion from the Chief Engineer as to the sufficiency of the length of the gallery, and addressed Government on the subject with a view to learn whether any alteration in proposals already made was desirable. This reference was followed by an order from Government stating that the work was to be carried out as sanctioned and that, if it was subsequently found necessary, the gallery might be extended with the previous sanction of Government. The pumping done, while the infiltration gallery was in progress, has demonstrated that the gallery is likely to be sufficient and to yield rather more than is required. The maximum quantity pumped during construction, viz., 1,300,000 gallons daily is more than three times the requirements of the town. With a depression of 5 feet in the water-level in the suction well the yield was over 400,000 gallons daily, which is the maximum supply to be provided for the town.

28. *Engine and boiler-house.*—Tenders were invited by advertisement for the construction of this work and that of N. Moonoosawmy Moodelly amounting to Rs. 9,427-14-8 was accepted on 17th June 1896. But the work was not commenced until 4th July following. The delay was due to the delay in the receipt of the plan of the machinery from the manufacturers, and also due to the necessary location of the temporary engines and pumps required for the infiltration works on the site determined for the engine-house. Fair progress was made after the work was started, and the walls reached the roof level before the end of the year.

29. *Engines and boilers.*—The supply of these was given on contract to Messrs. James Simpson and Company, London, for £1,330. These were being erected at the close of the year.

30. *Pipes, valves, &c.*—Tenders for the supply of pipes, &c., were invited on 23rd January 1896 and for laying and jointing on 17th June 1896. Manufacturers both in England and in India tendered for the supply of pipes. The contracts were allotted as under, viz :—

The supply of pipes to Messrs. Macfarlane Strang and Company	£7,288-19-1
The laying and jointing to N. Moonoosawmy Moodelly	Rs. 22,189-15-11

The pipes were being delivered at the end of the year and would have been delivered earlier had there not been a strike amongst the workmen of the manufacturers at home.

31. Preliminaries in connection with the laying of pipes, &c., were all completed before the year closed, and the work will be started when all the pipes and the necessary fittings are to hand.

32. Appendix, table No. 2 gives the cost of the work done during the year, which amounted to Rs.1,64,714. There is likely to be a considerable saving on the estimate for this work due principally to the favourable exchange. It is proposed to utilize the saving in the extension of pipe lines with additional fountains and the construction of a service reservoir which will obviate night-pumping and effect a saving in pumping charges. The reservoir has been designed and estimated for. The extra pipe lines will be estimated for this year 1897 when proposals will be laid before Government.

Town.	District.	Population, 1891.
COONOOR.	NILGIRIS.	6,049.

33. Pursuant to a recommendation of the Sanitary Board made in September 1895 and at the desire of Government, the council allotted Rs. 1,000 for making a preliminary investigation and survey with reference to a new water-supply scheme for this town. A supervisor was deputed on the 3rd August 1896 for the work. The source of supply was surveyed and the necessary levels have been taken. The preparation of the design was undertaken just before the close of the year and will be completed early in 1897.

Town.	District.	Population, 1891.
CUDDAPAH.	CUDDAPAH.	17,379.

34. The surveys and levels in connection with the drainage project of this town, which were commenced in 1895, were completed during the year under report at a cost of Rs. 4,759. A large number of borings was also made to ascertain the nature of the strata and the level of the sub-soil water. Some progress was made with the project during the year, and certain questions raised by the Sanitary Engineer in connection with general design were discussed by the Sanitary Board. Much still remains to be done. The scheme is one that demands a good deal of labour and thought, but it is expected to be complete sometime in 1897.

35. The plans and estimates for the improvement of the water-supply of Cuddapah, called for in G.O., No. 1311 M., dated 12th August 1895, were prepared and submitted during the year. The improvements proposed comprise the construction of filter beds and the completion of the second reservoir which is partially constructed. The cost of the works is estimated at Rs. 33,600. The plans and estimates were submitted to Government on 7th October 1896 with the approval of the Sanitary Board. The Government in its Proceedings No. 1919 M., Mis., dated 11th November 1896, observed that it has not been shown that the water-supply which comes from a distant source is infected with malarial germs, and that until evidence was produced on this point Government declined to sanction the construction of the filter beds and service reservoir. Government considered the drainage scheme as one of more urgent importance.

Town.	District.	Population, 1891.
DINDIGUL.	MADURA.	20,203.

36. The water-works for this town were completed during the year, and the town received its first supply on 24th August 1896 since when the works have been continually in operation. The works as completed consist of a gallery with lateral adits with an aggregate length of 541 feet. The gallery is 8 feet wide and 44 feet below ground tunnelled through soft rock; an engine-house 39 feet 3 inches × 20 feet 9 inches with two engines and two boilers, each set being capable of pumping 112 gallons per minute on a total lift of 59 feet; a service reservoir 66·5 feet × 38·5 feet and capable of holding 91,437 gallons; about 4 miles of piping varying from 8 inches to 3 inches and 24 fountains.

37. The following is a statement of the length of pipes laid and the number of fountains erected :—

Description.	Diameter of pipes in inches.							Number of pillar fountains.	Number of single wall tap fountains.	Number of double wall-tap fountains.
	8″	6″	5″	4″	3″	2½″	2″			
	FT.	FT.	FT.	FT.	FT.	FT.	FT.	NO.	NO.	NO.
Length of pipes laid and number of fountains erected during 1895 ...	3,888	...	1,772	2,038	2,290	...	...	3	...	...
Length of pipes laid and number of fountains erected during 1896 ...	1,658	1,290	73	...	8,505	118	13	3	12	6
Total ...	5,546	1,290	1,845	2,038	10,795	118	13	6	12	6

38. The cost of work executed during the year was Rs. 26,373. Particulars of this and of work done previously will be found in appendix table No. 3.

39. Prolonged trials made in 1894 showed the yield for the gallery as 84,000 gallons per diem. The gallery at present yields only 64,000 gallons. It is questionable whether this diminution of yield is due to the exhaustion of the springs or to variation in the rainfall.

40. During the year the council, with a view to obtain an increased quantity of water, addressed Government regarding the extension of the gallery. The matter was referred to the Sanitary Engineer through the Sanitary Board. The Sanitary Engineer suggested that it would be advisable to sink the existing main shaft or one-half of it some 10 or 20 feet deeper, and then drive another tunnel at a lower level instead of extending the existing tunnel, the extension being made on the opposite direction to the old one. The probable cost of the proposed extension was estimated at Rs. 22,500. This proposal was forwarded by the Sanitary Board to Government with the remark that, if Government was disposed to make a further grant, the Sanitary Engineer would be asked to work out his proposals in detail. After a consultation with the Chief Engineer it was decided to modify the proposal originally made, but the cost of the work will be about the same. The orders of the Government were not received before the year closed.

Town.	District.	Population, 1891.
ELLORE.	GÓDÁVARI.	29,382.

41. The Sanitary Board, in its proceedings, dated 4th December 1896, No. 203-S, requested the Sanitary Engineer to prepare a rough estimate for the water-supply of Ellore.

42. Certain information has been called for to enable the estimate to be prepared.

Town.	District.	Population, 1891.
ERODE.	COIMBATORE.	12,330.

43. In answer to an enquiry from Government whether it would be possible for a water-supply scheme for the town to be undertaken it was stated that only promise could be made to take it up as soon as more urgent calls allowed.

Town.	District.	Population, 1891.
GUDIYÁTTAM.	NORTH ARCOT.	18,747.

44. A preliminary report on the water-supply of Gudiyáttam alluded to in last year's report was forwarded by the Sanitary Board to the Municipal Council of the town with a request for the allotment of Rs. 100 for the preparation of complete plans and estimates. The council declined to sanction this sum on the plea that its finances would not permit the acceptance of the scheme. Thereupon the Sanitary Board addressed Government inviting its attention to the vital statistics of the town which indicated the urgent necessity for an improved water-supply and requested Government to take early action in the matter. The council was moved by Government to make the necessary allotment which it did on 25th June 1896. Detailed plans and estimates were completed and submitted to the Sanitary Board on 4th December 1896. The water has been analysed and pronounced "good". The scheme as worked out in detail is described in last year's report; there is no deviation from the original design except the addition of one or two pipe lines. The estimated cost is Rs. 51,500 and the annual cost on the assumption that Government will give half the cost of the scheme is calculated at Rs. 4,000. It is understood that the question of financing the scheme is engaging the attention of the municipal council.

Town.	District.	Population, 1891.
GUNTUR.	KISTNA.	23,359.

45. The council having expressed a desire to have a water-supply scheme prepared as early as possible a promise has been made to undertake the investigation during 1897 and the council has accordingly been requested to make an allotment of Rs. 1,000 for the purpose in the budget for 1897–98.

Town.	District.	Population, 1891.
KUMBAKÓNAM.	TANJORE.	54,307.

46. In view of the Mahamagham Festival which takes place at Kumbakónam in February 1897 when a vast multitude of people visit the town, the Sanitary Commissioner was anxious that some improvements should be effected in the water-supply. With this object a meeting was held at Kumbakónam at which the Collector of Tanjore, the Sanitary Commissioner, the Sanitary Engineer and the Chairman of the Municipal Council were present. A scheme was devised for the supply of the whole town and was approximately estimated by the Sanitary Engineer to cost Rs. 4,88,800. This scheme was submitted to Government by the then Sanitary Board in its Proceedings No. 16, dated 8th July 1896. Government declined to sanction the proposal on the approximate estimate furnished, and, as there was not sufficient time to make complete plans and estimates, the idea was abandoned, and the Sanitary Board suggested to the council the following means of procuring a partial supply of water—

(i) The provision of tube wells 500 in number costing Rs. 75,000.
(ii) A supply direct to the Mahamari and Pothamara tanks with an infiltration well in the river and stoneware pipes to the tanks costing about Rs. 24,200.
(iii) A supply to these tanks and a partial supply to other portion of the town similar to the second proposal but providing for double taps at every 150 yards costing Rs. 39,800.

47. Apparently none of the above proposals have been adopted by the Council.

48. The plans and estimates for draining Solayappa Moodally street (submitted to the Sanitary Board in 1895 were, with certain alterations, submitted to Government in May 1896. The revised estimate amounted to Rs. 6,280. In June following the work was sanctioned by Government, and the Public Works Department was requested to arrange for its execution. The council was directed to apply for allotment of funds. This department is not aware of the further progress made in the matter.

Town.	District.	Population, 1891.
KURNOOL.	KURNOOL.	24,376.

49. The revised estimate for the water-supply of this town amounting to Rs. 2,39,380 submitted to Government some time in 1895 was sanctioned by Government in G.O., No. 846 M., Mis., dated 15th May 1896. A portion of the works was begun about the end of 1895, but the contractor could not be induced to proceed with the work with the rapidity desired, as his tender was accepted provisionally pending the sanction of Government to whom a reference as stated in last year's report had to be made owing to the tender rates being largely in excess of those in the estimates. Government deputed the Superintending Engineer to report, and certain minor economies were suggested. In addition to the delay thus caused the contractor had other difficulties to contend with, namely paucity of labour, &c. Notwithstanding this the quantity of work turned out during the year was extremely satisfactory.

50. Government in sanctioning the estimate trusted that other economies might be effected as the work proceeded, and this was found possible so that, though the tenders would have caused the estimate to be exceeded by Rs. 29,605, it was found possible before the end of the year to submit a revised estimate showing an excess over that sanctioned of only Rs. 1,175. This revised estimate was not sanctioned until 1897, but it may be quoted as the estimate for the works, viz., Rs. 2,40,555.

51. The following works started during the 4th quarter of 1895 were all but completed during 1896—

	RS.
Settling tank	36,000
Filter beds	23,550
Service reservoir	18,650
Fencing and forming road, &c.	1,950

52. The following works were all commenced and completed during 1896 :—

	Rs.
Off take at canal	4,120
Engine and boiler-house	4,220
Engines and boilers	13,500
Pumping main including laying	14,975
Outlet from settling tank	5,390
Supply of pipes	93,612

53. The total amount of expenditure incurred during the year was Rs. 1,41,012, details of which will be found in appendix.

54. The only work remaining to be done is the laying of pipes for the distribution of water within the town.

55. The following is a statement of length of pipes laid and number of pillar and single wall tap fountains erected at Kurnool up to the end of 1896 :—

Description.	Diameter of pipes in inches.										Pillar fountains.	Single wall-tap fountains.
	12″	10″	9″	8″	7″	6″	5″	4″	3″	2½″		
Cast-iron pipes.	FT.	FT.	FT.	FT.	FT.	FT.	FT.	FT.	FT.	FT.	NO.	NO.
Length of C.I. pipes laid and number of fountains erected during 1896	3,411	3,179	...	...	...	...	...	...	...	...	...	...
Total ...	3,411	3,179	...	...	...	...	...	...	...	...	...	...
Stoneware pipes.												
Length of Stoneware pipes laid during 1896	...	...	2,295	279	...	693	...	...	...	...	...	...
Total ...	...	...	2,295	279	...	693	...	...	...	...	...	...

56. An estimate, amounting to Rs. 23,112 for the extension of pipe lines to certain parts of the town not provided for in the original scheme, was under the consideration of Government at the end of the year (since sanctioned).

57. The works continued to be in charge of Mr. J. E. Lockyer.

Town.	District.	Population, 1891.
MANGALORE.	SOUTH CANARA.	40,922.

58. This town was inspected by the Sanitary Engineer in September 1896, and a report was made to the municipal council. The portion of the town, most in need of improvement as regards drainage, is that inhabited by the Moplahs. The report indicated the lines on which the drainage could be improved, and the council was requested to make an allotment of Rs. 2,500 in the budget for 1897–98 for the necessary levels and surveys. The council has resolved to provide this amount in the budget for 1897–98.

Town.	District.	Population, 1891.
NEGAPATAM.	TANJORE.	59,221.

59. The surveys and levels in connection with the water-supply for Negapatam were commenced on 11th January and completed on 30th June 1896 at a cost of Rs. 1,582–8–7. The source of supply selected is some 11 miles from the town, and the preparation of the scheme involved extensive surveys and levels. The preparation of the plans was begun on the 8th June 1896, and the major portion of the office staff has been engaged on it since. The scheme will cost about Rs. 9,89,680, or Rs. 7,22,720 according to whether Nagore is included or omitted.

60. Owing to the area covered by the proposed works a large number of plans have had to be prepared. The scheme was well advanced towards completion at the end of the year. It will be submitted to the Sanitary Board early in 1897.

Town.	District.	Population, 1891.
PALAMCOTTAH.	TINNEVELLY.	18,686.

61. The survey of the town for a joint water-supply scheme with the District Board and Municipality of Tinnevelly was begun on the 15th January 1896 and completed on the 8th of April following at a cost of Rs. 670–9–9.

62. Pressure of other work has prevented further progress with this scheme.

Town.	District.	Population, 1891.
PERIYAKULAM.	MADURA.	16,363.

63. In answer to an enquiry from Government made on receipt of a reference from the Superintending Engineer, VI Circle, Government was informed that the construction of a reservoir at Berijam would not in any way affect the cost of a scheme for the water-supply of Periyakulam, as there is sufficient flow in the Varahanadi to supply the town, but it was impossible to say when the project could be undertaken ; Government was further advised that a very cheap scheme for an improvement to the water-supply was suggested to the municipality in 1891, and that even this the council was unable to take up for want of funds ; for that reason it did not seem desirable to waste time in preparing a larger scheme.

Town.	District.	Population, 1891.
SALEM.	SALEM.	67,710.

64. It is understood that Public Works Department is investigating this scheme, but with what results is not known.

Town.	District.	Population, 1891.
SRÍRANGAM.	TRICHINOPOLY.	21,632.

65. Pursuant to an order of Government issued in November 1895, enquiring whether the wells for the supply of water to Trichinopoly could be utilised for Srírangam also and at what cost a report was submitted to Government in February 1896, of which the following is a brief summary :—

That there were two means by which water-supply could be arranged for Srírangam (1) by carrying pipes across the river from the present Trichinopoly pumping station, (2) by carrying pipes over the Cauvery bridge branching from the Trichinopoly main and passing through Theruvánakával. The cost of No. 1 scheme, including extension to the village just mentioned, was estimated at Rs. 1,16,896, and that of the second at Rs. 1,19,246; that, if Srírangam proper alone was to be supplied with water without reference to Thiruvanakaval, the two estimates would stand at Rs. 1,05,340 and Rs. 1,07,690 respectively. That of these two the Cauvery bridge route is preferable, because no special work is required for laying the mains. That, until the Trichinopoly works were in full operation, it was not possible to speak as to the sufficiency of the present number of wells in the Cauvery to meet the increased demand, and that the cost of an additional well and steel-piping had therefore, been entered in the estimate in case they should be required; that, in addition to the amounts mentioned above, the Srírangam Municipality would have to contribute towards the initial cost of the Trichinopoly head-works and pay for the quantity of water taken in the same manner as other participators in the scheme do; that, inclusive of such contribution, No. 1 scheme would cost Rs. 1,70,744, and No. 2 scheme Rs. 1,75,009.

66. The schemes estimated were for an immediate supply of 5 gallons per head for 10,000 people (capable of extension to 10 gallons for 25,000 people) with a lift of 60 feet. On the assumption that one-half of the initial cost would be contributed by Government the annual working charges were estimated at Rs. 5,938.

67. The council approved of scheme No. 2 and requested the preparation of detailed plans and estimates. The Chairman was informed that he should address

Government on the subject, as no detailed estimate could be framed unless this department is authorised by Government to do so.

Town.	District.	Population, 1891.
TANJORE.	TANJORE.	54,390.

68. At the commencement of the year under report, the only work remaining to be done was the drivers' quarters. The supervisor in charge of the works having been transferred to other works, the construction of the drivers' quarters was undertaken by the municipality and completed at the end of the year. The value of work done during the year is Rs. 6,486 as detailed in appendix table No. 5.

69. The sanctioned estimate for the works is Rs. 4,47,420. After the completion of the works, there therefore remains a saving of Rs. 27,833. This, the Sanitary Engineer proposed, should be utilised by (1) the construction of a service reservoir which would effect a saving in the pumping charges, and (2) extension of pipe lines. Latterly in March, when a diminution of water in the river was observed, it was suggested that certain measures should be taken for augmenting the supply. Municipal council was, however, in favour of spending the whole of the saving in extending pipe lines to such portions of the town as do not at present derive any benefit from the new supply though water-tax is levied.

70. The following statement shows the quantity of water supplied to the town during the year:—

Month.	Gallons supplied.
January	9,053,735
February	8,647,394
March	9,914,889
April	7,812,131
May	9,552,245
June	11,613,594
July	13,266,884
August	11,991,971
September	13,426,710
October	12,177,358
November	10,449,033
December	10,960,683
Average per day	352,095

71. On the 30th March 1896 the supply fell to 193,365 gallons. Endeavours were made to send water down from the Vennár head-sluice, but there was next to no water to send down. It was then suggested that channels should be cut in the bed of the river and conducted to the filter bed. The channels had the effect of increasing the supply. A report was made suggesting the following permanent alternative proposals for the improvement of the supply:—

(1) Sinking infiltration wells in the bed of the river above the filter bed and connecting them with the collecting conduit of the filter bed.

(2) Erecting a set of sluices to be raised during floods and closed when the river was falling, so that 2 to 3 feet of water would be maintained over the filter bed during the dry weather.

72. Of these two proposals the undersigned preferred the second.

73. Latterly a third proposal was made, namely, to cut a trench about 1,200 feet up the river with lateral trenches 100 feet apart, and to lay open-jointed pipes at the bottom of these trenches and to fill the trench with gravel, thus leading additional water to the filter bed.

74. These proposals were submitted to the Chief Engineer, who deferred expressing his opinion until the lowest water level in the Vennár during the year had been ascertained. This was ascertained and reported to Government on 14th July 1896. The Chief Engineer favoured the latter proposal, but the council considered that open temporary trenches were sufficient when required and preferred to spend the surplus funds on pipe extension. For this extension the council has been requested to submit proposals.

75. *Drainage.*—The scheme for the disposal of the sewage of the fort alluded to in last year's report was not approved by the Sanitary Board and a revised

design was ordered which was prepared and submitted during the year. The Sanitary Board considered all these designs to be too expensive and requested the preparation of, if possible, a gravitation scheme. Want of time has prevented this as yet being done.

Town.	District.	Population, 1891.
TINNEVELLY.	TINNEVELLY.	24,768.

76. *Vide* paragraph 61.

Town.	District.	Population, 1891.
TIRUPATI.	NORTH ARCOT.	14,242.

77. The scheme for the water-supply of this town which was submitted to the Sanitary Board sometime in 1895, was, after certain modifications by the Sanitary Board, which increased the cost of the scheme from Rs. 1,89,000 to Rs. 2,31,000, submitted to Government on 1st April 1896.

78. Government in its order No. 845 M., Mis., dated 15th May 1896, sanctioned a sum Rs. 10,000 for the construction of a filter well and trench at the head work site with the view of testing the yield.

79. Tenders for the work were invited and that of Messrs. K. Abooloo Naidu and Company for Rs. 8,603 was accepted on 21st July 1896. An unexpected difficulty, however, arose in getting permission to sink the well on land which is private and is owned by about 13 partners jointly. When the Tahsildar of Chandragri obtained permission for entering the land the rains had set in. The proper time to make the experiments is the dry season. The work was about to be begun at the end of the year, and tests of the yield will be made, it is hoped, in the driest season.

Town.	District.	Population, 1891.
TRICHINOPOLY.	TRICHINOPOLY.	90,609.

80. Mr. Minchin continued to be in charge of the Trichinopoly water works until the 21st September 1896, on which date he resigned in order to take up an appointment in the Travancore State.

81. Water was urgently needed in the town and at the request of the municipality, though the works were incomplete, was pumped into the main on the 27th April 1896, and the supply has been continuous since.

82. The following works were executed during the year:—

Sinking of two infiltration wells.
Superstructure of the engines and boiler-house.
Erection of engines and boilers.
Construction of the Drivers' Quarters.

83. The following is a statement of length of pipes laid, and number of pillar, single and double wall-tap fountains erected up to the end of 1896 at Trichinopoly:—

Description.	Diameter of pipes in inches.													Number of pillar fountains.	Number of single wall-tap fountains.	Number of double wall-tap fountains.
	18″	16″	15″	14″	12″	10″	9″	8″	7″	6″	5″	4″	3″			
	FT.	FT.	FT.	FT.	FT.	FT.	FT.	FT.	FT.	FT.	FT.	FT.	FT.	NO.	NO.	NO.
Length of pipes laid and number of fountains erected up to the end of 1895	18,196	2,329	1,567	2,358	1,020	1,200	5,421	3,929	402	3,882	4,923	17,487	32,269	18	37	17
Length of pipes laid and number of fountains erected during 1896 ...	234	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Total ...	18,430	2,329	1,567	2,358	1,020	1,200	5,421	3,929	402	3,882	4,923	17,487	32,269	18	37	18

84. Shortly after the opening of the works, blows occurred in the floor of the suction well and screening chamber. The process of stopping these blows has been a very tedious one and has occupied a considerable time, because the work had to be so conducted as not to interfere with the supply to the town. The blows have now been stopped and the works are being completed. The original estimate for these works amounted to Rs. 5,02,050. A revised estimate was forwarded by the Sanitary Engineer to Government on 19th May 1896 and was sanctioned by Government in G.O., No. 1731 M., dated 10th October 1896. The revised estimate amounts to Rs. 5,31,642, and is only about 6 per cent. above the original estimate.

85. The arrangements for the distribution of water to the 4th Pioneer, and the 23rd Regimental Lines being considered insufficient, plans and an estimate amounting to Rs. 4,900 for extra pipe lines and fountains, were prepared. This work was sanctioned by Government in G.O., No. 3192 W., dated 13th December 1895, and its execution was entrusted to this department. The work has been completed at a cost of Rs. 4,073-10-3.

86. The Municipal Council of Trichinopoly is anxious to have the water-supply extended to Worraiyur and Puttur. The plans and estimates for this work may be prepared during the present year.

Town.	District	Population, 1891.
VIZAGAPATAM.	VIZAGAPATAM.	34,487.

87. The water-supply scheme for this town which was prepared in 1894 was revised during the year under report in accordance with certain suggestions made by the Sanitary Board, the effect of which was to raise the estimate from Rs. 4,00,000 to Rs. 4,21,000. The scheme as revised was sanctioned by Government in G.O., No. 1578 M., Mis., dated 16th September 1896, and the municipal council was requested to submit proposals for financing the scheme on the assumption that Government will make a grant of half the cost and a loan of the other half with interest at 4¼ per cent. repayable in thirty years.

Town.	District.	Population, 1891.
VIZIANAGRAM.	VIZAGAPATAM.	30,881.

88. The Sanitary Board decided that a water-supply scheme should precede a drainage scheme in this town. The town was inspected in view to a source of supply being decided upon. Levels were being taken at the end of the year.

Bellary District Jail.

89. At the request of the Inspector-General of Prisons the Sanitary Engineer furnished a plan on the principles laid down by Professor Koch showing how the open well in the Bellary District Jail could be altered so as to prevent contamination of water in it.

Penukonda Water-supply.

90. During the year the investigation of a water-supply scheme for the town of Penukonda from a source suggested by Mr. Forbes, I.C.S., was undertaken.

91. The plans and estimates for this work were prepared and submitted to the Sanitary Board on 10th November 1896. The scheme is a gravitation one, the source of supply being a tank close to the town.

92. The proposed works comprise the alteration of a sluice at the tank, the provision of filters and a service reservoir of a very simple description and the distribution through the town by pipes and taps in the ordinary way. The scheme was estimated to cost Rs. 26,000. The annual cost was estimated at Rs. 1,475 on the assumption that Government would contribute half the cost of the scheme.

Coimbatore Jail Well.

93. The well lately constructed at the Central Jail main gate was, as suggested last year, regularly drawn on daily for four months, and the water was analysed. The Sanitary Commissioner stated that the analysis shows that the water was free

from contamination by organic matter, but that it contained certain salts derived from the soil which it was desirable to eliminate, but that no harm need be anticipated from the use by natives of a water of such composition. On this Government ordered that the well should not be deepened any further, but that all money spent in future should be devoted to steining and providing proper means of drawing and distributing the water.

94. The following statement shows the papers received for advice from the Sanitary Board since the reconstitution of that Board :—

I.—MINOR DRAINAGE WORKS—
The Municipality of—
Dindigul.
Karur.
Ootacamund.

II.—MINOR WATER-SUPPLY WORKS—
The Municipality of—
Anakapalle.
Cuddapah.
Dindigul.
Guntúr.
Kumbakónam.
The District Board of—
Anantapur.
Kistna.
The Taluk Board of—
Bezwada.
Chidambaram.
Cocanada.
Masulipatam.

III.—HOSPITALS—
The Municipality of—
Bezwada.
Conjeeveram.
Cuddapah.
Guntúr.
Máyavaram.
Negapatam.
Tanjore.
Trichinopoly.
The District Board of—
Salem.

IV.—MARKETS—
The Municipality of—
Bezwada.
Máyavaram.
Ootacamund.
Vellore.
The District Board of—
Madura.
The Taluk Board of—
Calicut.
Dindigul.
Hosur.
Namakkal.

V.—SLAUGHTER-HOUSE—
The Municipality of—
Ootacamund.

VI.—LATRINES—
The Municipality of—
Bezwada.
The Taluk Board of—
Máyavaram.
Tirumangalam.

VII.—CHOULTRY—
The District Board of—
Kistna.

VIII.—DHOBIEKHANA—
The Municipality of—
Coonoor.

IX.—BURIAL-GROUND—
The Municipality of—
Calicut.

X.—EXTENSION OF VILLAGE SITE—
The Taluk Board of—
Ellore.

95. The following type plans were prepared during the year :—

22. Type design for urinals.
23. Do. for cesspools.
24. Do. for vaccine depôt.
25. Do. for subsidiary vaccine depôt.
26. Do. for dispensary for women and children with apothecary's quarters.
27. Do. for sewage filters.
28. Do. for sewage filters.
29. Do. for stoneware pipe well (class A, sunk well).
30. Do. for stoneware pipe well (class B, sunk well).
31. Do. for stoneware pipe dip well (class C, sunk well).
32. Do. for cholera hospital.
33. Do for bullock sheds.
34. Do. for dhobiekhana.

PERSONAL PROCEEDINGS.

96. Table No. 1 of the appendix shows the towns visited during 1896. It wi he observed that the Sanitary Engineer visited the following towns in addition t Penukonda :—

(1) Calicut,
(2) Conjeeveram (twice),
(3) Coonoor,
(4) Cuddapah,
(5) Dindigul (four times),
(6) Kumbakónam,
(7) Kurnool (twice),
(8) Mangalore,
(9) Negapatam,
(10) Tanjore (four times),
(11) Trichinopoly (ten times),
(12) Vizianagram;

TABLE No. 1.

Statement showing progress made in respect of Water-supply and Drainage of District Municipalities during 1896.

District.	Serial number of Municipalities.	Town.	Date of inspection of town.	Date of preliminary report—(1) Water-supply. (2) Drainage.	Whether Council has sanctioned funds for surveys and levels.	Water-supply. Under survey or not.	Water-supply. Estimate under preparation or not.	Drainage. Date on which scheme was forwarded.	Drainage. Amount of estimate sent in or anticipated cost.	Drainage. Under survey or not.	Drainage. Estimate under preparation or not.	Drainage. Date on which scheme was forwarded.	Drainage. Amount of estimate sent in or anticipated cost.	Remarks.
									RS.				RS.	
1. Anantapur ...	1	Anantapur	S.E.—21/22-9-92 ...	(1) 26-9-92 ...	...	...	...	...	...	...	...	...	...	Preparation of a water-supply scheme ordered to be dropped in G.O., No. 2108 M., Mis., dated 22nd December 1892.
2. Bellary ...	2	Ádóni	A.S.E.—19 to 21-3-96; 24/25-3-96; 8/9-4-96; 11/13-4-96, and 17/18-5-96.	.....	...	Completed	Water works completed in 1895.	...	...	...	...	...	...	
	3	Bellary	A.S.E.—24 to 29-2-96; 22/23-3-96; 10/11-4-96; 11/16-5-96, and 1 to 20-6-96.	(1) 15-10-90 ...	Yes ...	Completed	Prepared.	29-7-96	9,35,000	...	...	...	...	The combined scheme—Copper Mountain and Alipur tank—recommended is under consideration of the Sanitary Board.
3. Chingleput ...	4	Chingleput ...	.....	.....	...	...	...	...	...	...	...	...	...	A new municipality organised in October 1896.
	5	Conjeeveram ...	S.E.—3-6-96; 19-11-96. A.S.E.—6-3-96; 16/17-3-96; 7/8-5-96; 24/25-7-96; 4-8-96; 11/13-9-96; 27-9-96, and 28/29-10-96.	(1) 19-12-90 ...	Yes ...	Completed	Prepared.	6-11-93	2,57,000	...	...	...	...	Water-works are in progress.
4. Coimbatore ...	6	Coimbatore ...	A.S.E.—17 to 20-3-93...	(1) & (2) 21-11-90.	Yes ...	Completed	Prepared.	1-10-92	(1) 4,01,000 (2) 3,72,000	Completed.	...	...	...	Scheme ordered to lie over, pending the amendment of the District Municipalities Act IV of 1884 to enable the council to undertake the work.
	7	Erode	A.S.E.—16 to 19-12-91.	.....	Yes ...	...	...	...	...	Completed.	...	...	...	Temporary measure to improve the water-supply of the town suggested by the Sanitary Commissioner is under consideration. The council is anxious to go on for a complete scheme. Scheme for drainage not yet drawn up.
	8	Karúr	A.S.E.—11 to 13-6-93 ...	.....	Yes ...	...	...	...	...	Completed.	Prepared ...	28-11-93	95,853	The drainage scheme is in abeyance as water-supply is to precede it, and a scheme for the latter is ordered to be prepared.
5. Cuddapah ...	9	Cuddapah	S.E.—5 to 7-2-96 ... A.S.E.—10 to 15-8-96.	(1) 3-9-90; (2) 17-9-94.	Yes ...	Water works completed.	...	...	...	Completed.	...	...	...	Proposed construction of filter beds and a second service reservoir postponed until evidence is obtained as to the water-supply source being infected with malarial germs (G.O., No. 1919 M., Mis., dated 11th November 1896). Plans and estimates for a drainage scheme are under preparation.
6. Ganjám ...	10	Berhampur ...	S.E.—17/18-1-91 ...	(1) & (2) 20-2-91...	...	Completed	Prepared by the Executive Engineer	...	* 33,480	...	...	...	...	* Inclusive of Rs. 23,430 for stoneware pipes for distribution purposes.
	11	Chicacole	S.E.—26-2-92	.....	...	...	...	...	...	...	...	...	...	Council has not taken any steps to improve its drainage.
	12	Parlákimedi ...	.....	.....	...	...	...	...	...	...	...	...	...	No major scheme proposed.
7. Gódávari ...	13	Cocanada	S.E.—5 to 7-3-92.	(1) & (2) 31-1-91. (1) 2-2-91.	Yes ...	Completed	Prepared.	7-11-92	(1) 4,36,930 (2) 3,89,000	...	...	...	...	Scheme abandoned, cost being prohibitive; council anxious to execute the works nevertheless omitting establishment and supervision charges, the revised estimates stand at Rs. 3,98,550; 3,55,080.
	14	Ellore	A.S.E.—27/28-6-92 ...	(1) & (2) 7-2-91...	Yes ...	...	...	...	...	Completed.	...	...	...	The council is anxious to carry out a water-supply scheme. Drainage scheme not yet drawn up as the council not yet shown its financial ability to take it up.
	15	Rajahmundry ...	A.S.E.—26/27-7-94 ...	(1) 9-2-91 ...	Yes ...	Completed	...	...	...	...	...	...	...	Estimate not yet framed.
8. Kistna ...	16	Bezwada	A.S.E.—7 to 10-7-94 ...	.....	Yes ...	Completed	Prepared.	4-9-95	2,89,260	Completed.	...	...	...	The scheme has been referred to the council for financing, G.O., No. 1326 M., Mis., dated 10th August 1896; but the site of head works of the scheme has to be abandoned on sanitary grounds. Another one will be selected and the estimate revised.
	17	Guntúr	A.S.E.—23 to 25-6-94...	(1) & (2) 15-2-91.	Yes ...	Completed by Local Fund Engineer	...	...	...	Completed by Local Fund Engineer.	...	...	...	Investigation of water-supply scheme will be undertaken in 1897.
	18	Masulipatam ...	S.E.—18/19-2-91 ...	(1) 25-2-91 ...	...	...	...	...	...	...	...	...	...	Both water-supply and drainage schemes are under discussion.
9. Kurnool ..	19	Kurnool	S.E.—1 to 6-8-96, and 2 to 4-12-96.	(1) 10-4-91 ...	...	Completed	Prepared.	6-12-92	2,39,380	...	...	...	...	Water works are in progress.
10. Madura ...	20	Dindigul	S.E.—12-3-96; 21-5-96; 3-7-96, and 22-8-96. A.S.E.—26-1-96.	(1) 15-9-90 ...	...	Completed	Prepared.	12-12-90	80,000	...	...	...	...	Water-works completed. Extension of tunnelling under consideration.
	21	Madura	S.E.—27/28-2-95 and 12-7-95.	(1) 8-4-90 ...	Yes ...	Completed	Water works completed.	...	...	Completed.	...	...	...	Scheme for drainage not yet drawn up.
	22	Palni	S.E.—23/24-10-91 ...	(1) & (2) 27-10-91.	Yes ...	Completed	...	...	...	Completed.	...	...	...	Scheme for water-supply not yet drawn up.

and the Assistant Sanitary Engineer visited the following towns :—

(1) Ádóni (five times),
(2) Bellary (five times),
(3) Conjeeveram (eight times),
(4) Cuddapah,
(5) Dindigul,
(6) Gudiyáttam (thrice),
(7) Negapatam,
(8) Palamcottah,
(9) Tanjore (twice),
(10) Tirupati,
(11) Trichinopoly (five times).

97. The following is a record of the travelling done during the year :—

—	By the Sanitary Engineer.	By the Assistant Sanitary Engineer.
Number of visits to towns	29	33
Number of miles by sea	315	..
Do. by rail	8,558	6,988¼
Do. by canal	..	..
Do. by road	313	304
Total miles ..	9,186	7,292¼
Number of days on tour ..	70	92

MAINTENANCE OF WATER WORKS.

98. The works in operation at Ádóni, Cuddapah, Madura and Tanjore were maintained in charge of the council throughout the year. Those at Dindigul were handed over to the council in September 1896, and those at Trichinopoly in October 1896.

99. The following were visited during the year by the Sanitary Engineer, viz., Cuddapah, Dindigul, Tanjore and Trichinopoly, and Ádóni by the Assistant Sanitary Engineer.

100. It cannot be said that the result of the maintenance by the council is altogether satisfactory. In the first place there is no professional knowledge on the part of the chairmen, and they naturally look with suspicion on requests, the necessity for which they do not understand, feeling themselves more or less at the mercy of the engine-drivers and overseers in charge. Fuel stock in some places has been allowed to go much too low, and there is, in certain towns, a tendency to unduly reduce fuel consumption to save money. The proper class of oil has not always been supplied when required. Leave has not always been obtainable by the engine-drivers, except under conditions which did not allow of them availing themselves of it. At Ádóni the overseer was removed to other duty, and the water delivered to the town was almost undrinkable in consequence of the wrong working of the filters.

101. There was no detailed inspection of engine and boilers, as the Boiler Inspector was not appointed during the year.

CONCLUDING REMARKS.

102. Inventories of valuable stock have been maintained in this office and in those offices subordinate to it.

103. The staff has in general given satisfaction.

J. A. JONES, MEM. INST. C.E., F.R.S.E.,
Sanitary Engineer to Government.

OFFICE OF THE SANITARY ENGINEER TO GOVT.,
Fort St. George, 23rd March 1897.

APPENDIX.

TABLES NOS. 1 TO 6.

TABLE No. 1—*cont.*

Statement showing progress made in respect of Water-supply and Drainage of District Municipalities during 1896—cont.

District.	Serial number of Municipalities.	Town.	Date of inspection of town.	Date of preliminary report—(1) Water-supply. (2) Drainage.	Whether Council has sanctioned funds for surveys and levels.	Water-supply. Under survey or not.	Water-supply. Estimate under preparation or not.	Drainage. Date on which scheme was forwarded.	Drainage. Amount of estimate sent in or anticipated cost.	Drainage. Under survey or not.	Drainage. Estimate under preparation or not.	Drainage. Date on which scheme was forwarded.	Drainage. Amount of estimate sent in or anticipated cost.	Remarks.
									RS.				RS.	
10. Madura—*cont.* ...	23	Periyakulam ...	S.E.—20/21-10-91 ...	(1) & (2) 23-10-91.	...	...	...	...	...	...	...	...	...	Pumping scheme from the Varahanadhi did not meet with support. Construction of a reservoir at Berijam will not affect the cost of the scheme.
11. Malabar ...	24	Calicut	S.E.—29-9-96 to 1-10-96.	(1) & (2) 12-10-96.	Yes ...	Completed	...	...	...	Completed.	...	...	...	Arrangements are being made by the council to test the yield of Mananchera tank as requested by the Sanitary Board.
	25	Cannanore	S.E.—26 to 28-7-91 ...	(1) & (2) 30-7-91...	...	...	...	...	...	...	...	...	...	Council has not taken steps to improve its water-supply which is urgently needed principally to the Moplah quarters.
	26	Cochin	S.E.—6 to 14-9-95 ...	(1) & (2) 3-9-91.	...	...	Prepared.	...	...	...	...	...	...	Experimental boring abandoned (G.O., No. 68 M., Mis., dated 11th January 1896). Three other schemes suggested by Sanitary Engineer were pronounced by Government impracticable on account of their prohibitive cost.
	27	Palghat	S.E.—4-8-91	(1) & (2) 6-8-91 ...	Yes ...	...	...	...	...	Completed.	...	...	...	Drainage scheme not yet drawn up.
	28	Tellicherry ...	S.E.—29 to 31-7-91 ...	.....	...	...	...	...	...	...	...	...	...	Works of water-supply or drainage not urgent in this town.
12. Nellore ...	29	Nellore	A.S.E.—21 to 23-10-92.	.....	Yes ...	Completed	...	...	...	Completed.	...	...	...	Council must wait till the District Municipalities Act is amended to take up any scheme.
	30	Ongole	S.E.—17 to 20-3-91 ...	(1) 7-4-91 ...	...	Completed	Prepared.	22-4-93	(1) 1,20,000 (2) 49,700	...	...	...	...	Scheme abandoned, cost being prohibitive.
13. Nilgiris ...	31	Coonoor	S.E.—23 to 28-8-96 ...	.....	Yes ...	Completed	...	...	...	Completed.	Drainage works completed.			Water-supply scheme with a better sanitary source of supply is under preparation.
	32	Ootacamund ...	S.E.—3 to 8-4-95 and 8 to 30-6-95.	(1) 3-9-90 ...	...	Completed	Prepared.	17-8-93	(1) 53,500 (2) 54,647	Completed.	Kandal completed.			Improvement of water-supply is under the consideration of Mr. G. T. Walch, late Chief Engineer for Irrigation, Public Works Department.
14. North Arcot ...	33	Gudiyáttam ...	A.S.E.—14 to 16-7-96; 27 to 29-7-96, and 27-10-96.	(1) 18-12-95 ...	Yes ...	Completed	Prepared.	4-12-96	51,500	...	...	...	...	Water-supply scheme is under the consideration of the Sanitary Board. It is understood that the question of financing is under the consideration of the council.
	34	Tirupati	A.S.E.—9/10-9-96 ...	(2) 1-7-90 ...	Yes ...	Completed	Prepared.	1-4-96	2,31,000	Completed.	Prepared ...	7-9-91	96,000	Drainage scheme sanctioned, but execution deferred. Water-supply scheme is under the consideration of Government. Government allotted funds to test yield of water (G.O., No. 843 M., Mis., dated 15th May 1896). The scheme has since been sanctioned.
	35	Vellore	A.S.E.—6 to 8-12-95 ...	(1) & (2) 12-5-90.	...	Completed	Prepared.	9-12-91	3,13,000	Completed.	...	...	...	Scheme abandoned, cost being prohibitive. Drainage works executed piecemeal were ordered to be stopped (G.O., No. 1362 M., Mis., dated 5th August 1896).
	36	Wálájapet	.....	.....	...	...	...	...	...	...	...	...	...	No major scheme proposed.
15. Salem	37	Salem	Ag. S.E.—14 to 19-5-94. A.S.E.—14 to 23-5-94.	(1) 30-9-91 ...	Yes ...	Completed	...	...	...	Completed.	...	...	...	Public Works Department is investigating a water-supply scheme.
	38	Tiruppattúr ...	A.S.E.—20 to 22-7-93 ...	(1) & (2) 26-12-91.	Yes ...	...	...	...	...	Completed.	...	...	...	Scheme for drainage not yet drawn up.
	39	Vániyambádi ...	A.S.E.—21/22-12-91 ...	(1) & (2) 26-12-91.	Yes ...	...	...	...	...	...	...	...	...	Nothing has been done with regard to the drainage scheme though council allotted funds for taking levels.
16. South Arcot ...	40	Chidambaram ...	S.E.—30/11 to 2-12-90...	.....	Yes ...	Completed	...	...	...	...	...	...	...	This is only a partial survey and levels by Public Works Department. The council is anxious to proceed with the water-supply scheme.
	41	Cuddalore	A.S.E.—6 to 8-12-94, and 21 to 25-12-94.	(1) & (2) 17-11-91.	Yes ...	Completed	Prepared.	8-1-95	3,71,200	Completed.	...	...	...	The scheme is approved by the Chief Engineer and is referred by Government to the Municipal Council for remarks (G.O., No. 1486 M., Mis., dated 12th September 1895).
	42	Tiruvannámalai ...	.....	.....	...	...	...	...	...	...	...	...	...	A new municipality organised in April 1896.
17. South Canara ...	43	Mangalore ...	S.E.—20 to 28-9-96 ...	(1) & (2) 9-10-96 ...	...	...	...	...	...	...	...	...	...	The council has been asked to allot funds for taking levels and surveys for a drainage scheme.
18. Tanjore ...	44	Kumbakónam ...	S.E.—1/2-7-96 ...	.....	Yes ...	Completed	Prepared.	8-7-96	4,88,800	Completed.	Prepared ...	19-12-95	6,280	Water-supply scheme not sanctioned (G.O., No. 1312 M., Mis., dated 2nd August 1896). Drainage scheme sanctioned (G.O., No. 1015 M., Mis., dated 17th June 1896) and Public Works Department is to execute it.
	45	Mannárgudi ...	.....	.....	...	...	...	...	...	...	...	...	...	No major scheme proposed in regard to these towns.
	46	Máyavaram ...	.....	.....	...	...	...	...	...	...	...	...	...	
	47	Negapatam ...	S.E.—17/18-2-96 A.S.E.—2 to 4-2-96. ...	(2) 16-12-90 ...	Yes ...	Completed	Under preparation.	...	...	Completed.	Prepared ...	8-2-92	4,13,000	Drainage scheme has been sanctioned, but execution is in abeyance pending the preparation of water-supply scheme which is approaching completion.

TABLE No. 1—*cont.*

Statement showing progress made in respect of Water-supply and Drainage of District Municipalities during 1896—concluded.

District.	Serial number of Municipalities.	Town.	Date of inspection of town.	Date of preliminary report— (1) Water-supply. (2) Drainage.	Whether Council has sanctioned funds for surveys and levels.	Water-supply. Under survey or not.	Water-supply. Estimate under preparation or not.	Water-supply. Date on which scheme was forwarded.	Water-supply. Amount of estimate sent in or anticipated cost.	Drainage. Under survey or not.	Drainage. Estimate under preparation or not.	Drainage. Date on which scheme was forwarded.	Drainage. Amount of estimate sent in or anticipated cost.	Remarks.
18. Tanjore—*cont.*	48	Tanjore	S.E.—15/16-2-96; 18/19-2-96; 13-3-96 & 11-11-96. A.S.E.—8-2-96 & 13-12-96.	(1) 2-6-90 ...	Yes ...	Water works completed in 1895.			Rs. ...	Completed.	Prepared ...	17-1-96 11-5-96	Rs. 45,050 61,000	
19. Tinnevelly ...	49	Palamcottah ...	A.S.E.—27 to 29-1-96 ...	(1) 25-11-91 ...	Yes ...	Completed.	...	...	...	...	...	...	...	Surveys and levels for a joint water-supply scheme with the Municipality and District Board of Tinnevelly have been completed.
	50	Srivilliputtúr ..	.....	.....	...	...	...	...	...	...	...	...	...	A new municipality organized in October 1894.
	51	Tinnevelly	A.S.E.—24-8-95 ...	(1) 25-11-91 ...	Yes ...	Completed.	...	...	...	Completed.	...	...	...	Surveys and levels for a joint water-supply scheme with the Municipality of Palamcottah and the District Board of Tinnevelly have been completed.
	52	Tuticorin	S.E.—8 to 12-8-92 ...	(1) 30-11-91 ...	Yes ...	Completed.	Prepared.	28-7-96	(1) 2,73,140 (2) 3,30,800	...	...	...	...	.....
20. Trichinopoly ...	53	Srirangam ...	S.E.—16/17-9-90 ...	.....	...	Completed.	Prepared.	10-2-96	1,75,000	...	...	...	...	This is a preliminary estimate for supplying from the head works of Trichinopoly.
	54	Trichinopoly ...	S.E.—13 to 15-2-96; 10/11-3-96; 12/13-3-96; 19/20-5-96; 21 to 23-5-96; 30-6 to 1-7-96; 4-7-96; 20/21-8-96; 12 to 16-9-96 and 10/11-11-96. A.S.E.—18 to 25-1-96; 30/31-1 and 1-2-96; 5 to 7-2-96; 8 to 11-2-96, and 12-12-96.	(1) 21-4-90 ...	...	Completed.	Prepared.	8-4-91	5,31,642	...	...	...	...	Water works practically completed.
21. Vizagapatam ...	55	Anakápalle ...	.....	.....	...	...	...	...	...	...	...	...	...	No major scheme proposed.
	56	Bimlipatam ...	.....	.....	...	...	...	...	...	...	...	...	...	
	57	Vizagapatam ...	A.S.E.—28-6 to 2-7-94 and 5/6-7-94.	(1) & (2) 31-1-91...	Yes ...	Completed.	Prepared.	23-7-96	4,21,000	Completed.	...	...	...	Water-supply scheme sanctioned by Government and referred to council for financing (G.O., No. 1578 M., Mis., dated 16th September 1896).
	58	Vizianagram ...	S.E.—5 to 10-12-96 ...	.....	Yes ...	In progress.	...	...	...	...	...	...	...	Levels are being taken for a water-supply scheme.

TABLE No. 4.

WATER WORKS, KURNOOL.

Statement of work done during the year 1896.

1	2	3		4		5		6		7
No.	Main head.	Work done previously.		Work done during 1896.		Work to be done.		Total estimated cost.		Remarks.
		Percentage.	Value.	Percentage.	Value.	Percentage.	Value.	Percentage.	Value.	
			RS.		RS.		RS.		RS.	
1	Off-take at canal ...	...	...	66·28	2,731	33·72	1,389	100	4,120	
2	Engine and boiler house.	...	...	96·00	4,051	4·00	169	100	4,220	
3	Fencing, levelling the site, forming road and compensation for land.	7·70	150	42·30	825	50·00	975	100	1,950	
4	Engines, pumps and boilers including erection.	...	...	97·04	13,100	2·96	400	100	13,500	
5	Pumping main ...	...	...	100	13,330	...	...	100	13,330	
6	Laying and jointing pumping main.	...	...	100	1,645	...	...	100	1,645	
7	Settling reservoir ...	12·65	4,555	82·35	29,645	5·00	1,800	100	36,000	
8	Staff quarters and watchmen huts.	...	...	...	...	100	3,000	100	3,000	
9	Masonry conduit ...	...	...	95·5	5,147	4·5	243	100	5,390	
10	Filter beds	3·98	937	86·02	20,258	10·0	2,355	100	23,550	
11	Service reservoir ...	0·2	35	94·8	17,682	5·0	933	100	18,650	
12	Pipes, bends, &c. ...	...	...	22·59	21,150	77·41	72,462	100	93,612	
13	Laying and jointing pipes, &c.	...	...	20·70	3,000	79·30	11,500	100	14,500	
14	Establishment, office rent, &c.	43·95	* 9,670	35·10	* 7,718	20·95	4,612	100	22,000	
15	Tools and plant ...	6·06	194	15·63	500	78·31	2,506	100	3,200	
16	Contingencies ...	4·46	223	4·60	230	90·94	4,547	100	5,000	
	Total ...	5·97	15,764	53·48	1,41,012	40·55	1,06,891	100	2,63,667	

	Materials at site.	RS.
1	Departmentally collected and paid for ...	...
2	Departmentally collected and unpaid for	...
3	Supplied by contractors and paid for ...	20,500
4	Supplied by contractors and unpaid for	20,810
	Total value of materials collected for the works (items 1, 2, 3 and 4) and remaining unused on 31st December 1896.	41,310
	Total value of work done up to 31st December 1896 (as per table above columns 3 and 4 'work done').	1,56,776
(a)	Grand Total ...	1,98,086
(b)	Total estimated cost ...	2,63,667
	† Percentage of work done (inclusive of materials at site, viz., items, 1, 2, 3 and 4) ...	75 per cent.

* These include Rs. 13,678, pay, &c., of the Assistant Engineer met from Provincial Revenues.
† As (a) to (b), *i.e.*, percentage (a) bears to (b).

TABLE No. 5

WATER WORKS, TANJORE.

Statement of work done during the year 1896.

1	2	3		4		5		6		7
No.	Main head.	Work done previously.		Work done during 1896.		Work to be done.		Total estimated cost.		Remarks.
		Percentage.	Value.	Percentage.	Value.	Percentage.	Value.	Percentage.	Value.	
			RS.		RS.		RS.		RS.	
1	Filter bed	100	48,938	...	...	...	...	100	49,000	
2	Catchpit and valve house.	100	15,101	...	...	...	...	100	15,450	
3	Engine and boiler house including store shed and land.	100	26,037	...	...	...	...	100	33,100	
4	Engine, pumps, &c ...	100	62,111	...	...	...	...	100	70,000	
5	Engine Drivers' quarters.	...	47	100	6,303	...	...	100	6,000	
6	Supply and delivery of pipes, &c.	100	1,67,247	...	...	...	...	100	1,70,000	
7	Laying and jointing pipes, &c.	100	21,790	...	...	...	...	100	28,200	
8	Contingencies ...	100	* 55,606	...	* 183	...	...	100	57,250	
9	Improvements of Pudukolam road.	100	16,224	...	...	...	...	100	18,420	
	Total ...	98·4	4,13,101	1·6	6,486	...	...	100	4,47,420	

	Materials at site.	RS.
1	Departmentally collected and paid for ...	...
2	Departmentally collected and unpaid for ...	...
3	Supplied by contractors and paid for ...	...
4	Supplied by contractors and unpaid for ...	...
	Total value of materials collected for the works (items 1, 2, 3 and 4) and remaining unused on 31st December 1896.	4,19,587
	Total value of work done up to 31st December 1896 (as per table above columns 3 and 4 'work done').	4,19,587
(a)	Grand Total ...	4,47,420
(b)	Total estimated cost ...	100 per cent.
	† Percentage of work done (inclusive of materials at site, viz., items 1, 2, 3 and 4) ...	

* These include Rs. 14,897, pay, &c., of the Assistant Engineer and Supervisor met from Provincial Revenues.
† As (a) to (b), *i.e.*, percentage (a) bears to (b).

TABLE No. 2.

WATER WORKS, CONJEEVERAM.

Statement of work done during the year 1896.

1	2	3		4		5		6
No.	Main head.	Work done during 1896.		Work to be done.		Total estimated cost.		Remarks.
		Percentage.	Value.	Percentage.	Value.	Percentage.	Value.	
			RS.		RS.		RS.	
1	Infiltration works	95·66	13,690	4·34	620	100	13,793	
2	Manhole	98·99	1,370	1·01	14	100	474	
3	Pump well	98·41	2,602	1·59	42	100	2,435	
4	Engine and boiler house	37·37	4,100	62·63	6,870	100	10,970	
5	Store shed	...	...	100	2,000	100	2,000	
6	Engine Drivers' quarters	100	4,098	...	...	100	5,000	
7	Compensation, fencing, &c.	62·90	663	37·10	391	100	1,054	
8	Engines, pumps and boilers	65·88	14,758	34·12	7,642	100	22,400	
9	Supply and delivery of pipes, &c. ...	84·80	1,18,860	15·20	21,305	100	1,40,165	
10	Laying and jointing pipes, &c.	...	...	100	25,171	100	25,171	
11	Establishment and other contingencies ...	25·94	* 4,350	74·06	12,419	100	16,769	
12	Tools and plant	3·98	223	96·02	5,367	100	5,590	
13	Contingencies	...	...	100	11,179	100	11,179	
	Total ...	64·1	1,64,714	35·9	93,020	100	2,57,000	

	Materials at site.	RS.
1	Departmentally collected and paid for	...
2	Departmentally collected and unpaid for	240
3	Supplied by contractors and paid for	...
4	Supplied by contractors and unpaid for	1,560
	Total value of materials collected for the works (items 1, 2, 3 and 4) and remaining unused on 31st December 1896.	1,800
	Total value of work done up to 31st December 1896 (as per table above column 3 'work done').	1,64,714
(a)	Grand Total	1,66,514
(b)	Total estimated cost	2,57,000
	† Percentage of work done (inclusive of materials at site, viz., items 1, 2, 3 and 4)	64·80 per cent.

* This includes Rs. 2,046 met from Provincial Revenues on account of pay, &c., of the Supervisor in charge of the works.

† As (a) to (b), *i.e.*, percentage (a) bears to (b).

TABLE No. 3.

WATER WORKS, DINDIGUL.

Statement of work done during the year 1896.

1	2	3		4		5		6		7
No.	Main head.	Work done previously.		Work done during 1896.		Work to be done.		Total estimated cost.		Remarks.
		Percentage.	Value.	Percentage.	Value.	Percentage.	Value.	Percentage.	Value.	
			RS.		RS.		RS.		RS.	
1	Pumping well	100	2,117	...	...	...	...	100	2,507	
2	Tunnel as already executed.	100	12,470	...	...	...	...	100	11,000	
3	Tunnel, extra 25 feet ...	...	...	100	1,560	...	...	100	500	
4	Service reservoir ...	17·22	1,350	82·78	3,273	...	...	100	7,839	
5	Engine and boiler house.	...	...	100	3,490	...	...	100	4,509	
6	Engines, pumps and boilers including erection.	...	...	100	9,226	...	...	100	9,500	
7	Pipes and fittings ...	90·51	26,847	9·49	2,786	...	...	100	29,662	
8	Laying and jointing pipes, &c.	50·00	2,979	50·00	3,401	...	...	100	5,959	
9	Tools and plant ...	...	...	100	172	...	...	100	750	
10	Establishment, office rent and other contingencies.	100	* 4,500	...	* 2,166	...	...	100	4,000	
11	Contingencies	...	...	8·0	299	3·0	† 100	100	3,774	
	Total ...	65·5	50,263	34·3	26,373	·2	100	100	80,000	

	Materials at site.	RS.
1	Departmentally collected and paid for	...
2	Departmentally collected and unpaid for	...
3	Supplied by contractors and paid for	...
4	Supplied by contractors and unpaid for	...
	Total value of materials collected for the works (items 1, 2, 3, and 4) and remaining unused on 31st December 1896.	...
	Total expenditure incurred up to 31st December 1896 (as per table above columns 3 and 4 'work done').	76,636
(a)	Grand Total	76,636
(b)	Total estimated cost	80,000
	‡ Percentage of work done (inclusive of materials at site, viz., items 1, 2, 3 and 4)	100 per cent.

* These include Rs. 4,877 met from Provincial Revenues on account of pay, &c., of the Assistant Engineer and the Supervisor in charge of the works.

† Land compensation not yet paid.

‡ As (a) to (b) *i.e.*, percentage (a) bears to (b).

TABLE No. 6.

WATER WORKS, TRICHINOPOLY.

Statement of work done during the year 1896.

1	2	3		4		5		6		7
No.	Main head.	Work done previously.		Work done during 1896.		Work to be done.		Total estimated cost.		Remarks.
		Percentage.	Value.	Percentage.	Value.	Percentage.	Value.	Percentage.	Value.	
			Rs.		Rs.		Rs.		Rs.	
1	Infiltration wells ...	42·57	4,415	57·43	5,956	...	...	100	10,650	
2	Steel pipes to collecting wells.	100	24,035	...	...	...	...	100	23,750	
3	Raising site for pumping station and retaining wall.	92·62	13,975	7·38	1,104	...	...	100	15,340	
4	Diversion of flood banks and new road over flood banks.	90·15	988	9·85	108	...	...	100	2,000	
5	Screening chamber ...	73·10	12,304	26·90	4,526	...	...	100	17,500	
6	Main engine and boiler house and engines, pumps and boilers.	75·00	71,625	25·00	23,793	...	...	100	95,400	
7	Store and wood shed ...	100	2,711	...	...	...	...	100	2,800	
8	Engine Driver's quarters	...	...	100	6,413	...	...	100	6,200	
9	Subsidiary engine and boiler house and engines, pumps and boilers.	100	28,177	...	...	...	...	100	28,311	
10	Supply and delivery of pipes.	100	2,03,823	...	...	...	...	100	2,13,724	
11	Laying and jointing pipes.	100	29,198	...	...	...	...	100	29,000	
12	Losses by floods ...	100	24,800	...	...	...	...	100	24,800	
13	Contingencies, tools and plant, &c.	75·00	* 40,166	25·00	* 13,162	...	...	100	62,167	
14	Pipes, &c., for jail ...	100	7,034	...	...	...	...	100	7,034	
15	Laying and jointing pipes for jail.	100	982	...	...	...	...	100	982	
16	Contingencies for jail.	100	1,002	...	...	...	...	100	1,002	
	Total ...	90·00	4,65,235	10·00	55,062	...	...	100	5,40,660	

	Materials at site.	Rs.
1	Departmentally collected and paid for	...
2	Departmentally collected and unpaid for	...
3	Supplied by contractors and paid for	...
4	Supplied by contractors and unpaid for	...
	Total value of materials collected for the works (items 1, 2, 3 and 4) and remaining unused on 31st December 1896.	...
	Total expenditure incurred up to 31st December 1896 (as per table above columns 3 and 4 'work done').	5,20,297
(a)	Grand Total	5,20,297
(b)	Total estimated cost	5,40,660
	† Percentage of work done (inclusive of materials at site, viz., items 1, 2, 3 and 4)	100 per cent.

* These include Rs. 20,309, pay, &c., of the officers in charge of works met from Provincial Revenues.
† As (a) to (b), *i.e.*, percentage (a) bears to (b).

No. 1705 L., 6TH SEPTEMBER 1897.

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	0·3	0·1	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	0·1	0·7
Injuries	0·4	0·3	0·3	0·4	0·3	0·3
Other causes	9·4	9·1	8·8	9·3	9·6	9·8
Total ..	22·2	22·3	19·3	20·0	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. 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.

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

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 Srívilliputtúr 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 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 5,5,000 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 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 Cotacamund 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. 2,75,331 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.)

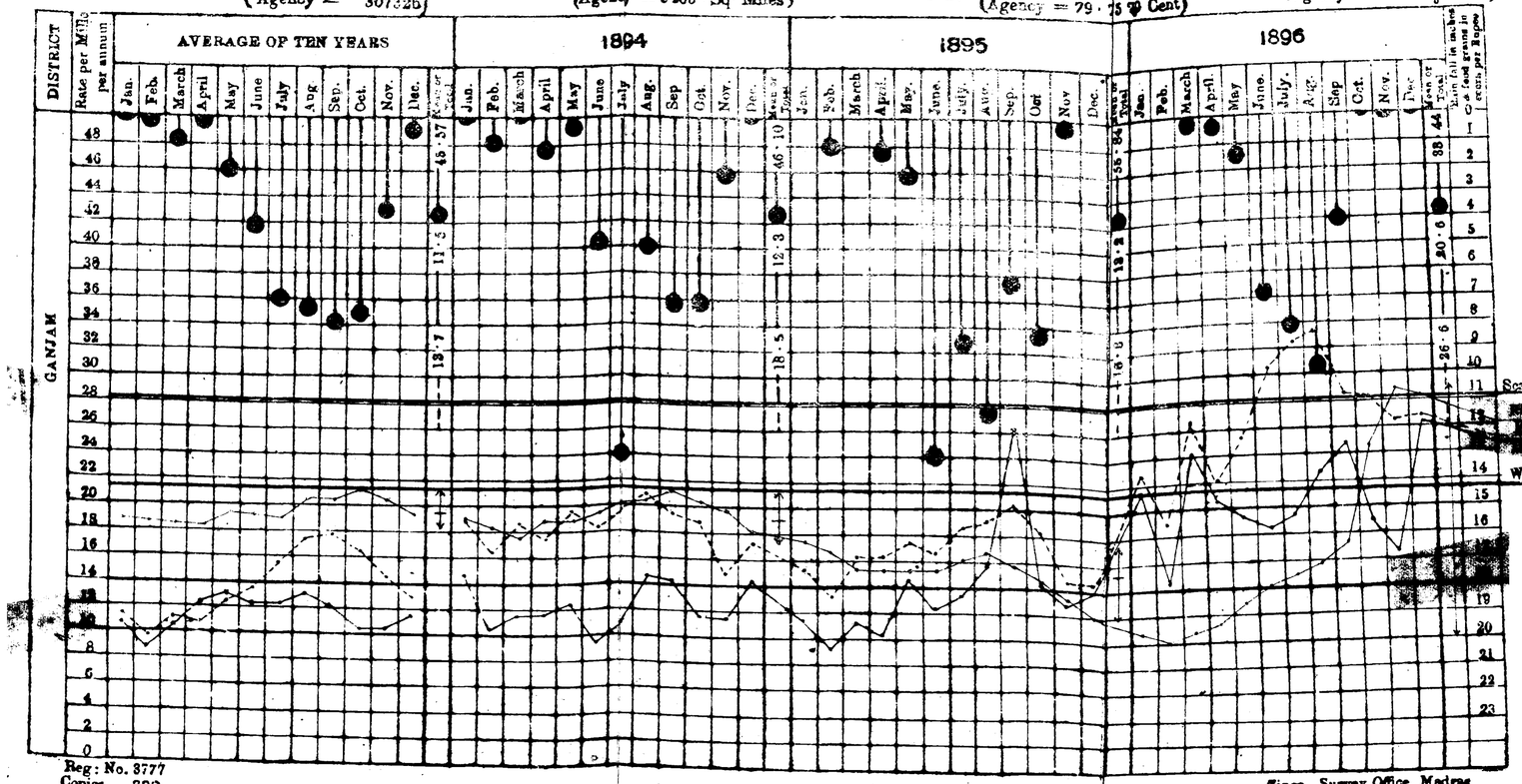
G. S. FORBES,
Secretary to Government.

22A

No. I

Diagram showing the Birth and Death Rates per Mille per annum in the District of Ganjam with Rainfall and prices of food (RICE) during the year 1896 Compared with 1894 and 1895 and the average of the ten years ending 1893

Census population 1891 {District = 15894477, Agency = 307326} Area {District = 4887 · Sq. Miles, Agency = 3483 · Sq. Miles} Class B. {District = 53 · 78 ⅌ Cent, Agency = 79 · 75 ⅌ Cent} Class G {District = 16 · 74 ⅌ Cent, Agency = 4 · 91 ⅌ Cent}



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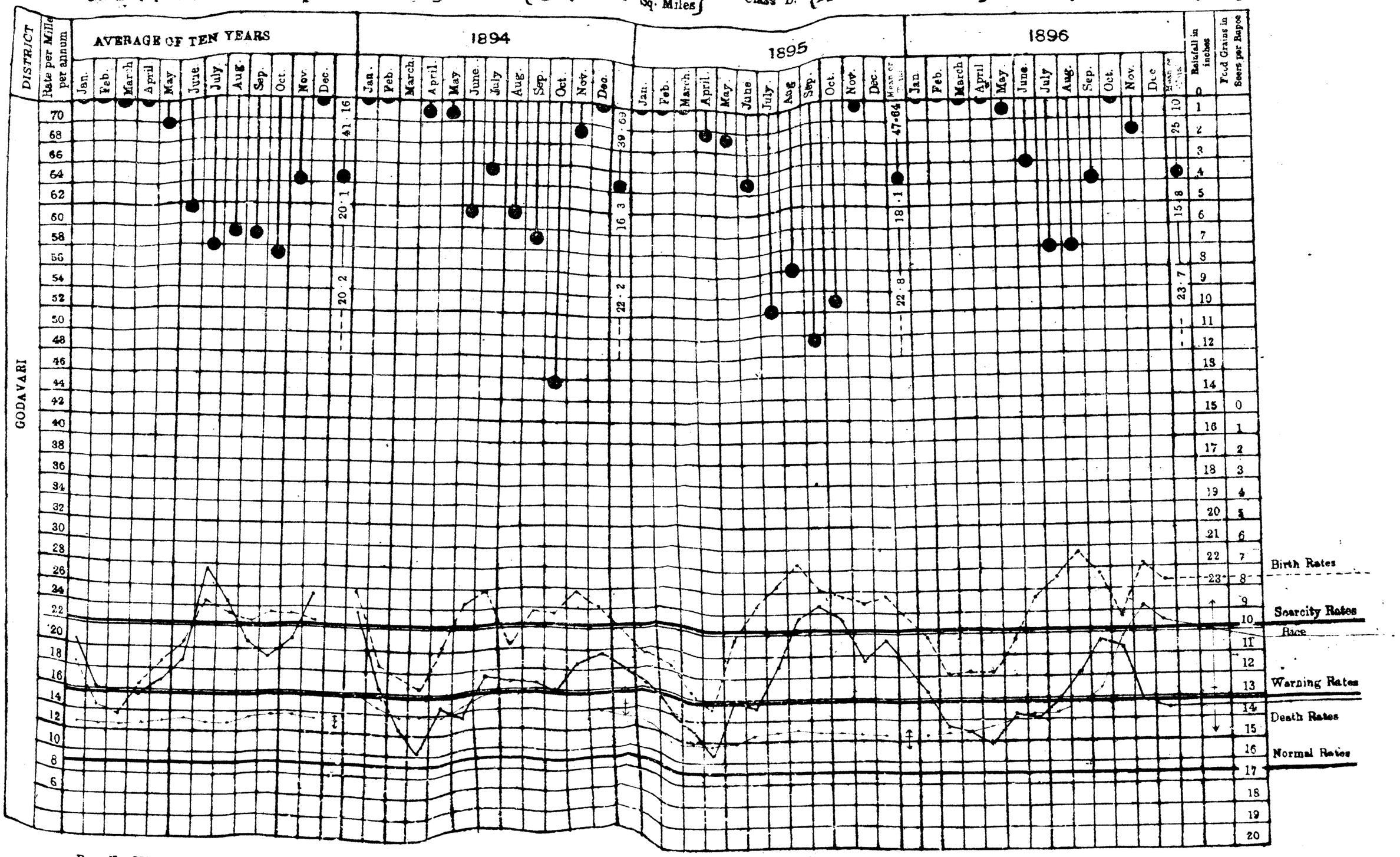
No 3

Diagram showing the Birth and Death Rates per Mille per annum in the District of Godavari with Rainfall and prices of food (RICE) during the year 1896 Compared with 1894 and 1895 and the average of the ten years ending 1892

Census population of 1891 {District = 1951645, Agency = 127137} Area {District = 4796 Sq. Miles, Agency = 3061 Sq. Miles} Class B. {District = 59 · 07 ⅌ Cent, Agency = 75 · 56 ⅌ Cent} Class G. {District = 11 · 90 ⅌ Cent, Agency = 7 · 24 ⅌ Cent}



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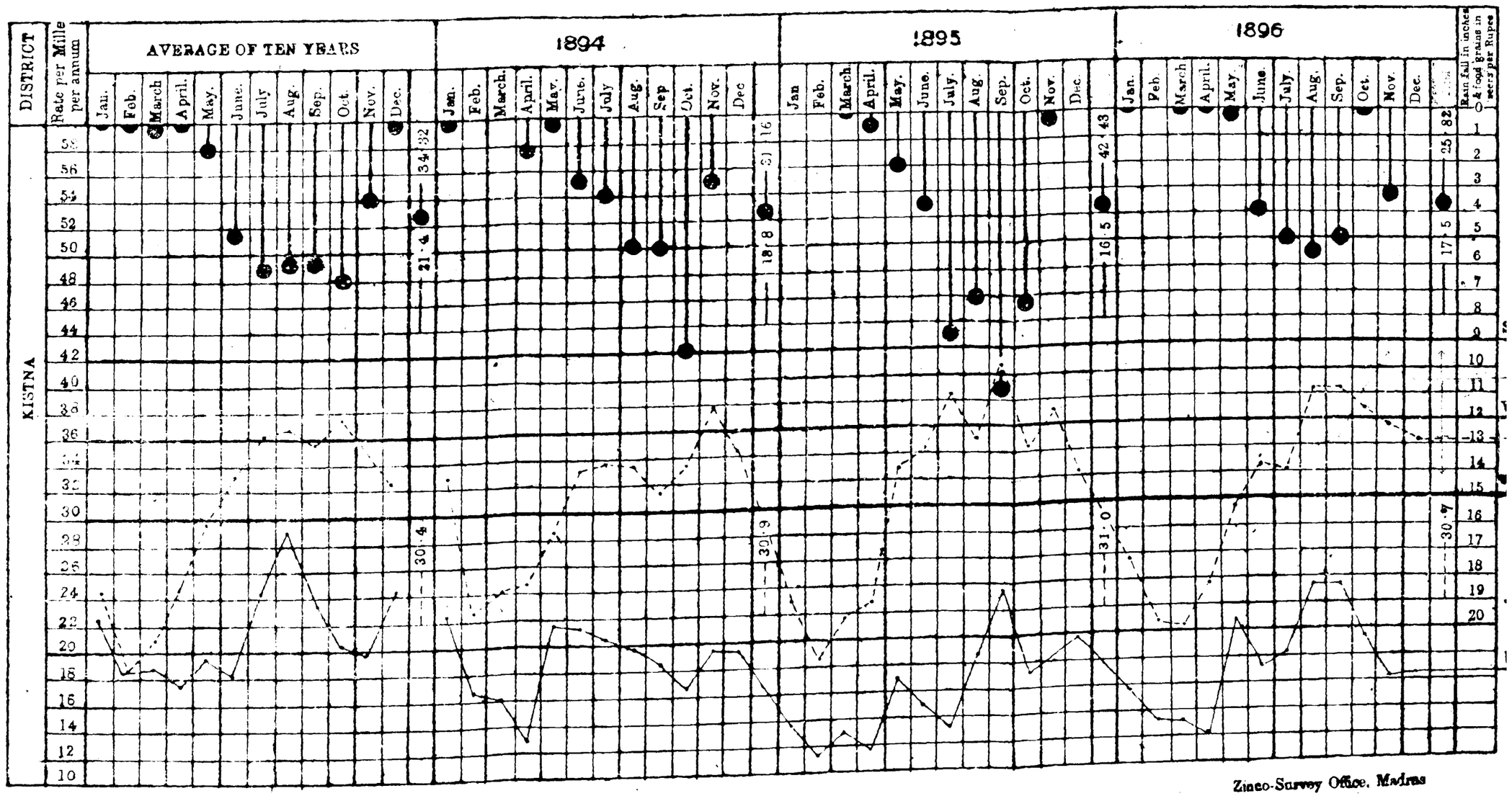
1897

No. 4

Diagram showing the Birth and Death Rates per Mille per annum in the District of Kistna with Rainfall and prices of food (RICE) during the year 1896 Compared with 1894 and 1895 and the average of the ten years ending 1893.

Census population of 1891 = 1855582. ✻ Area = 6397 Sqr Miles ✻ Class B = 60 · 24 ⅌ Cent ✻ Class G = 9 37 ⅌ Cent



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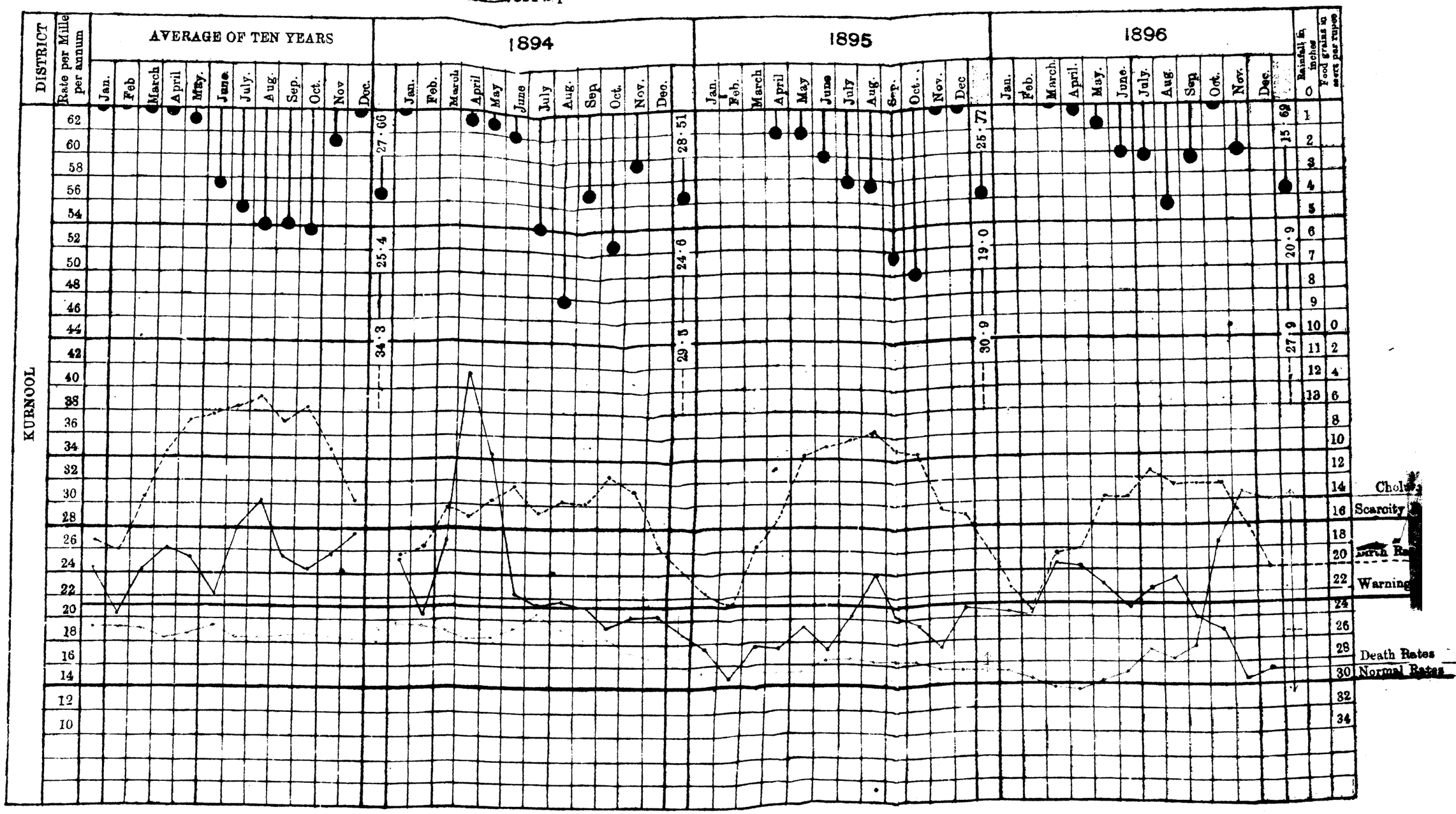
No. 5

Diagram showing the Birth and Death Rates per Mille per annum in the District of Kurnool with Rainfall and prices of food (CHOLUM) during the year 1896 Compared with 1894 and 1895 and the average of the ten years ending 1892

Census population of 1891 = 817811 ✻ Area = 7514 Sqr. Miles ✻ Class B = 5952 ⅌ Cent ✻ Class G = 11·65 ⅌ Cent



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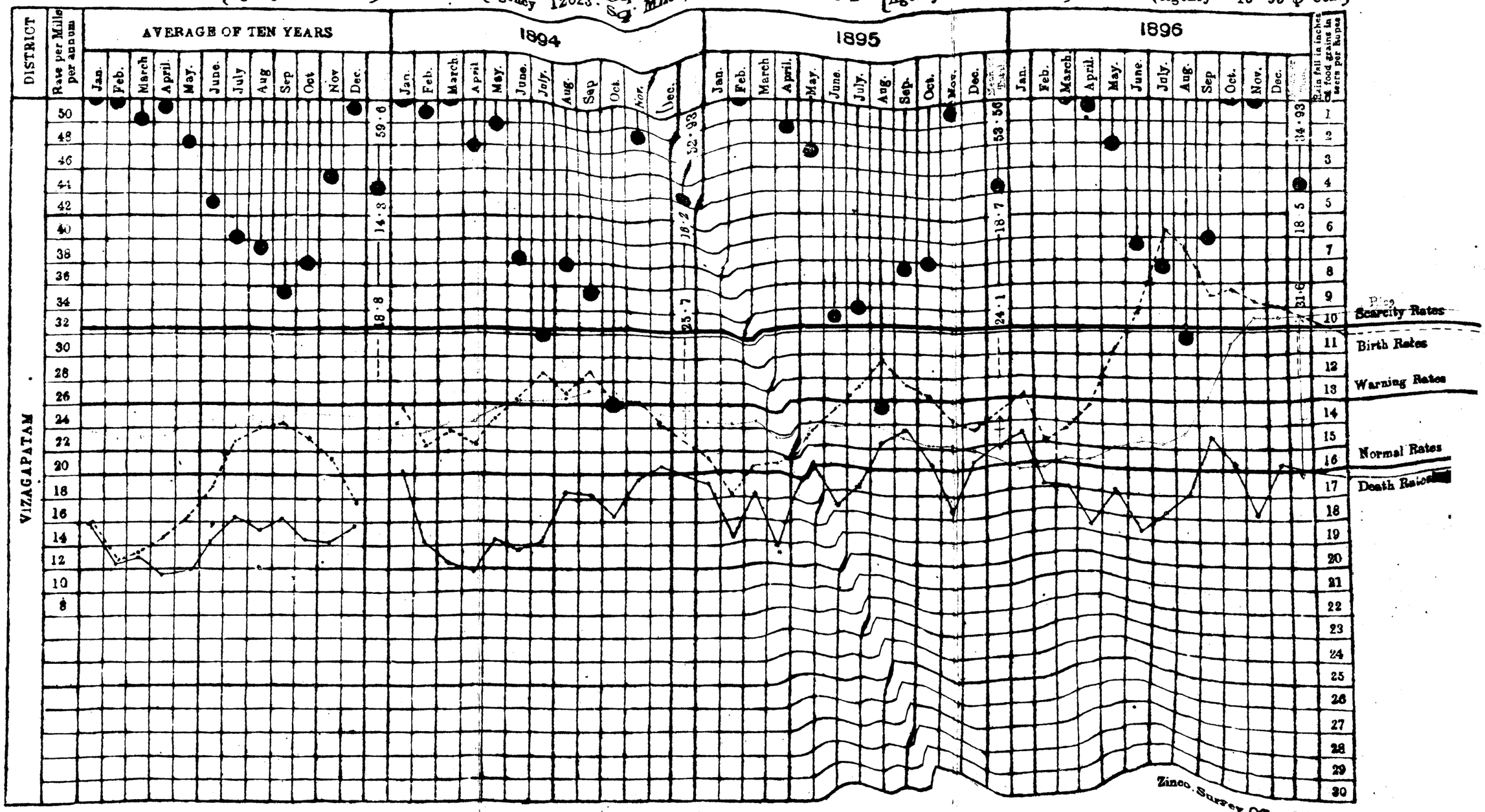
22B

No. 2

Diagram showing the Birth and Death Rates per Mille per annum in the District of Vizagapatam with Rainfall and prices of food (RICE) during the year 1896 Compared with 1894 and 1895 and the average of the ten years ending 1893

Census population of 1891 {District 1943211, Agency 859761} Area {District 4619 Sq. Miles, Agency 12623 Sq. Miles} Class B {District 67·56 ⅌ Cent, Agency 70·04 ⅌ Cent} Class G {District 13·52 ⅌ Cent, Agency 15·95 ⅌ Cent}



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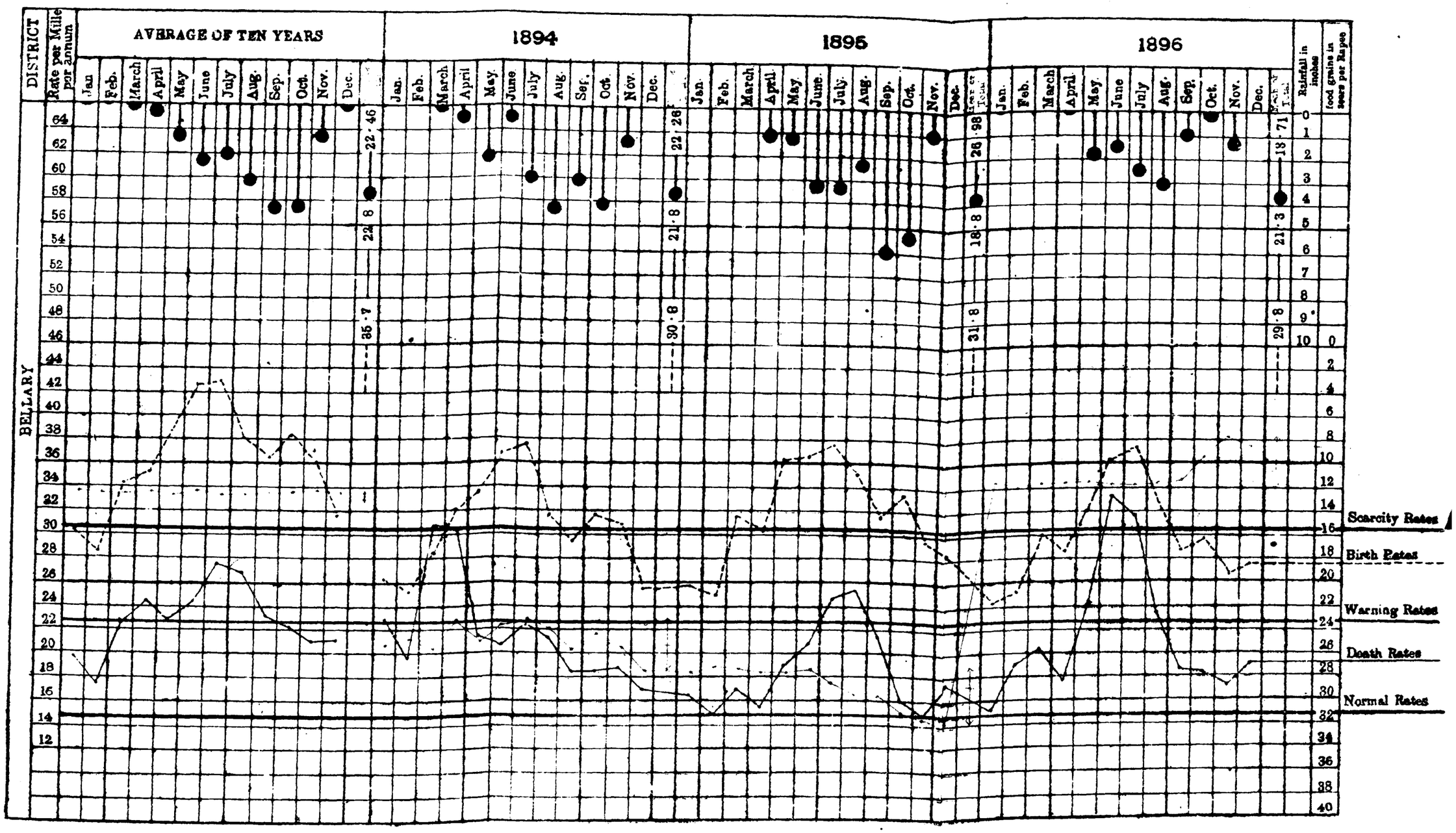
No. 6

Diagram showing the Birth and Death Rates per Mille per annum in the District of Bellary with Rainfall and prices of food (RICE) during the year 1896 Compared with 1894 and 1895 and the average of the ten years ending 1893

Census population of 1891 = 900126 ✻ Area = 5975 Sqr Miles ✻ Class B = 66·08 ⅌ Cent ✻ Class G = 7·90 ⅌ Cent



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22 G

No. 7

Diagram showing the Birth and Death Rates per Mille per annum in the District of Anantapur with Rainfall and prices of food (CHOLUM) during the year 1896 Compared with 1894 and 1895 and the average of the ten years ending 1893

Census population of 1891 = 708549 ✻ Area = 5275 Sqr. Miles ✻ Class B = 61·55 ℘ Cent ✻ Class G = 7·96 ℘ Cent

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No. 9

Diagram showing the Birth and Death Rates per Mille per annum in the District of Nellore with Rainfall and prices of food (RAGI) during the year 1896 Compared with 1894 and 1895 and the average of the ten years ending 1893

Census population of 1891 = 1463736 ✕ Area = 8765 Sqr. Miles ✕ Class B = 53·78 % Cent ✕ Class G = 12·00 % Cent

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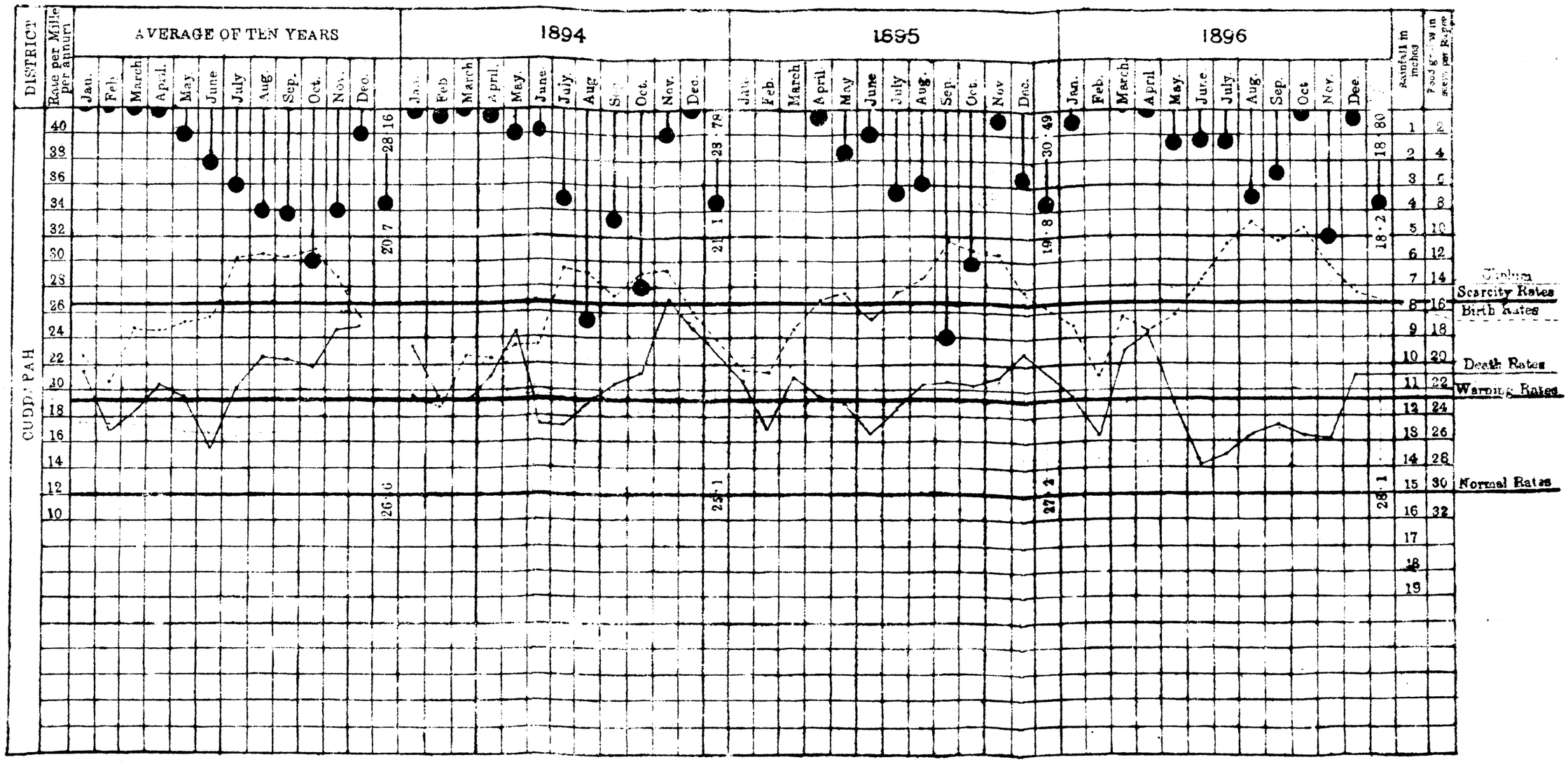
No. 8

Diagram showing the Birth and Death Rates per Mille per annum in the District of Cuddapah with Rainfall and prices of food (CHOLUM) during the year 1896 Compared with 1894 and 1895 and the average of the ten years ending 1893

Census population of 1891 = 1272072 ✻ Area = 8722 Sqr. Miles ✻ Class B = 64 · 19 ℘ Cent ✻ Class G = 8 · 12 ℘ Cent



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1897

No. 10

Diagram showing the Birth and Death Rates per Mille per annum in the District of Chingleput with Rainfall and prices of food (RICE) during the year 1896 Compared with 1894 and 1895 and the average of the ten years ending 1893

Census population of 1891 = 1136928 ✻ Area = 2842 Sqr. Miles ✻ Class B = 60 · 42 ⅌ Cent ✻ Class G = 13 . 22 ⅌ Cent.

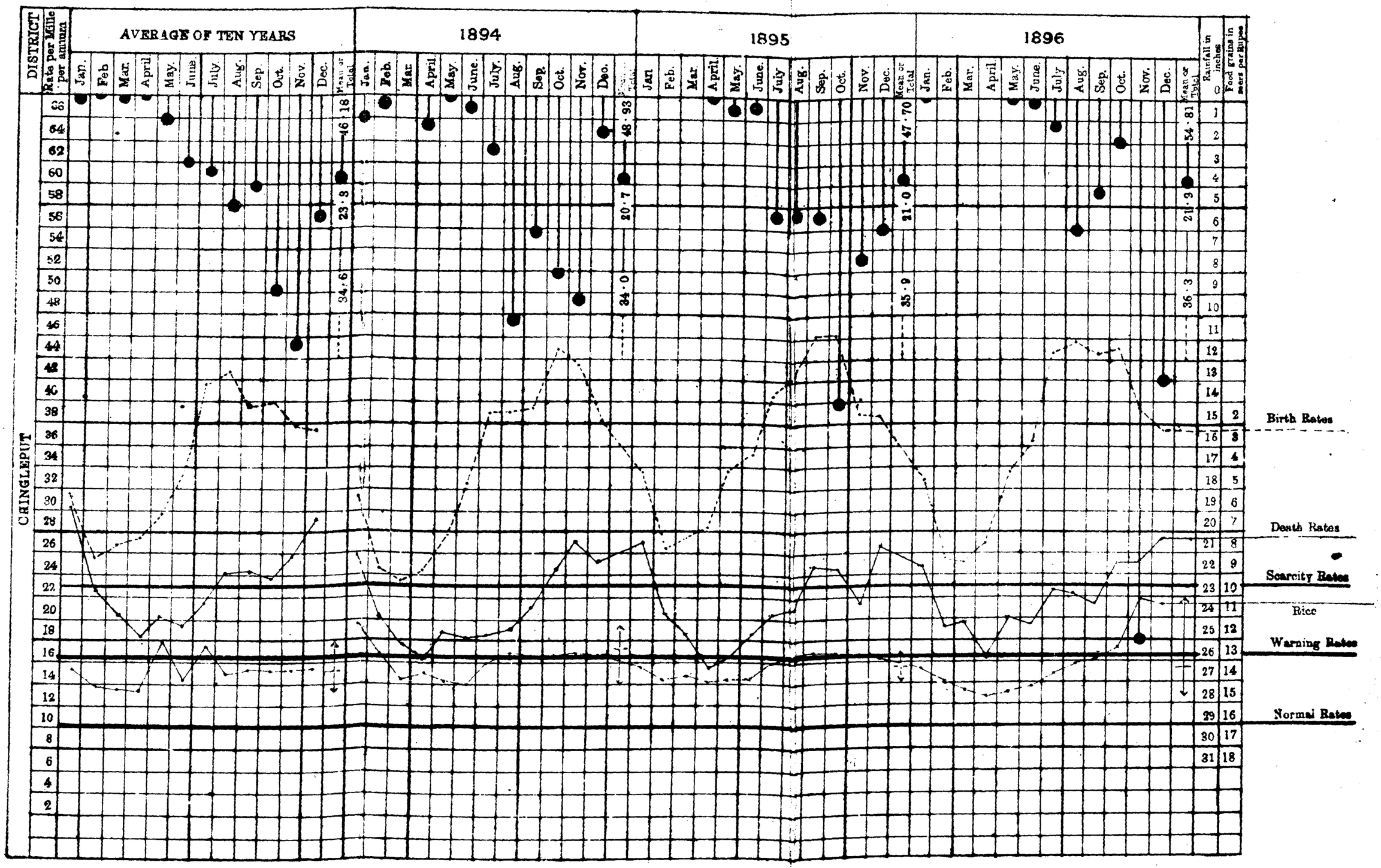

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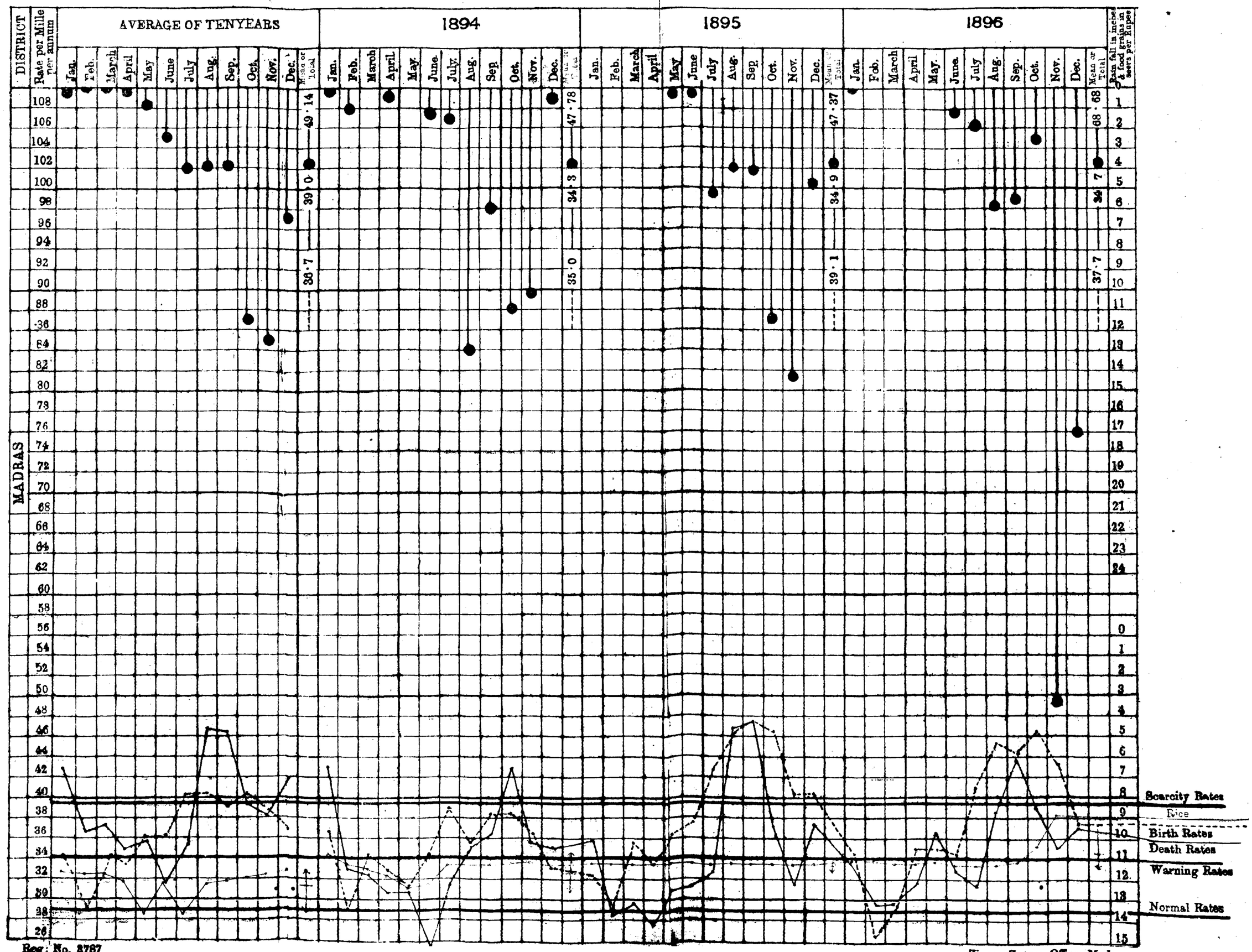
Diagram showing the Birth and death Rates per Mille per annum in the District of Madras with Rainfall and prices of food (RICE) during the year 1896 Compared with 1894 and 1895 and the average of the ten years ending 1893

Census population of 1891 = 452518 ※ Area = 29 Sqr. Miles ※ Class G = 24 · 42 ⅌ Cent ※ Class B = 3 · 94 ⅌ Cent



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No. 13

Diagram showing the Birth and Death Rates per Mille per annum in the District of North Arcot with Rainfall and prices of food (RAGI) during the year 1896 Compared with 1894 and the average of the ten years ending 1895

Census population of 1891 = 2130487 ✻ Area = 7616 Sqr. Miles ✻ Class B = 69 · 84 ⅌ Cent ✻ Class C = 7 · 51 ⅌ Cent

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No 14

Diagram showing the Birth and death Rates per Mille per annum in the District of Salem with Rainfall and prices of food (RAGI) during the year 1896 Compared with 1894 and 1895 and the average of the ten years ending 1893

Census population of 1891 = 1962591 Area = 7529 Sqr Miles Class B = 67 40 ⅌ Cent Class G = 5 · 75 ⅌ Cent

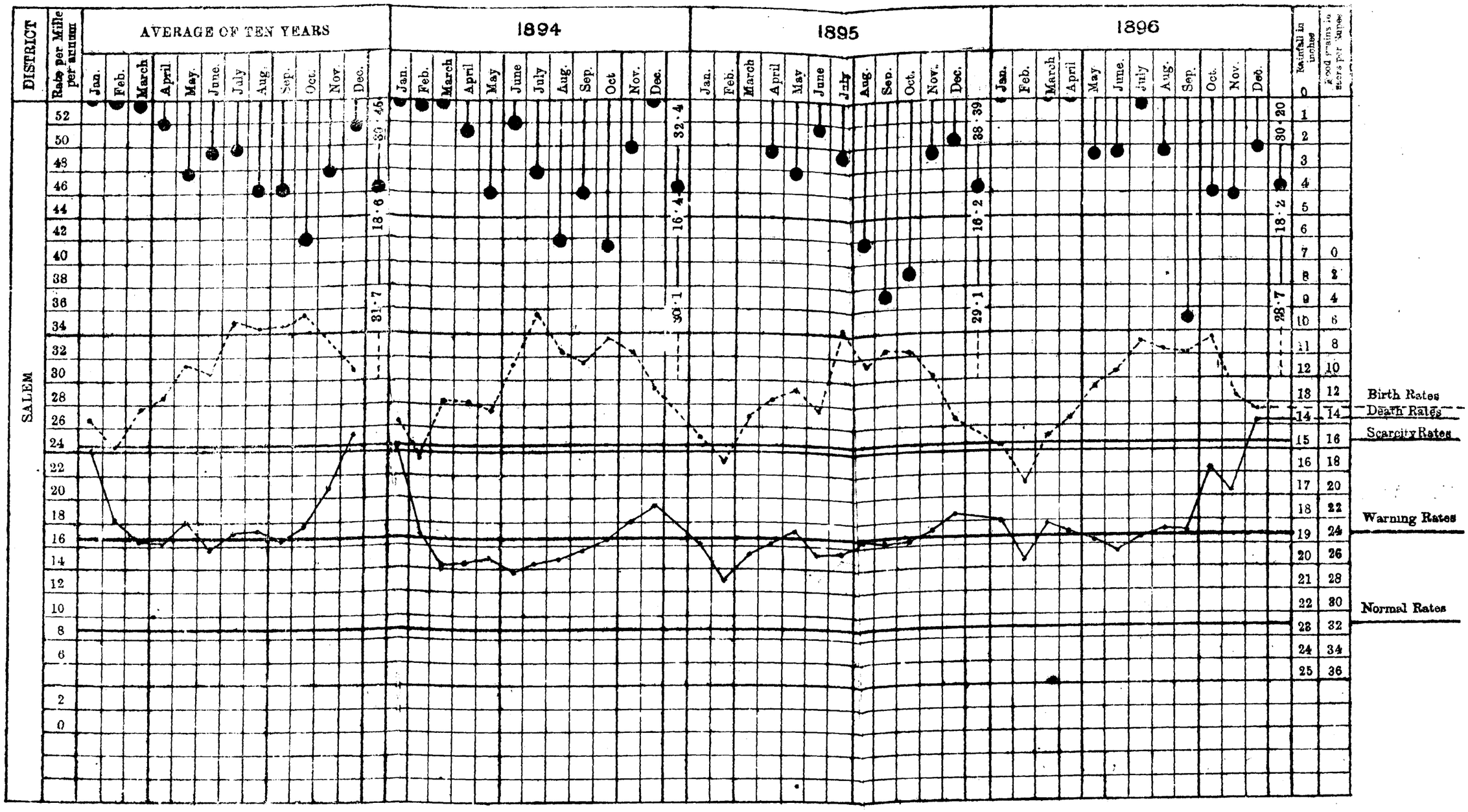

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Diagram showing the Birth and death Rates per Mile per annum in the District of Coimbatore with Rainfall and prices of food (CUMBU) during the year 1896 Compared with 1894 and 1895 and the average of the ten years ending 1893

Census population of 1891 = 2004839 ✻ Area = 7860 Sqr. Miles ✻ Class B = 57·83 ℘ Cent ✻ Class G = 8·72 ℘ Cent

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No. 12

Diagram showing the Birth and Death Rates per Mille per annum in the District of South Arcot with Rainfall and prices of food (CUMBU) during the year 1896 Compared with 1894 and 1895 and the average of the ten years ending 1893

Census population of 1891 = 2162851 ※ Area = 5217 Sqr. Miles ※ Class B = 70·64 % Cent ※ Class G = 11.64 % Cent

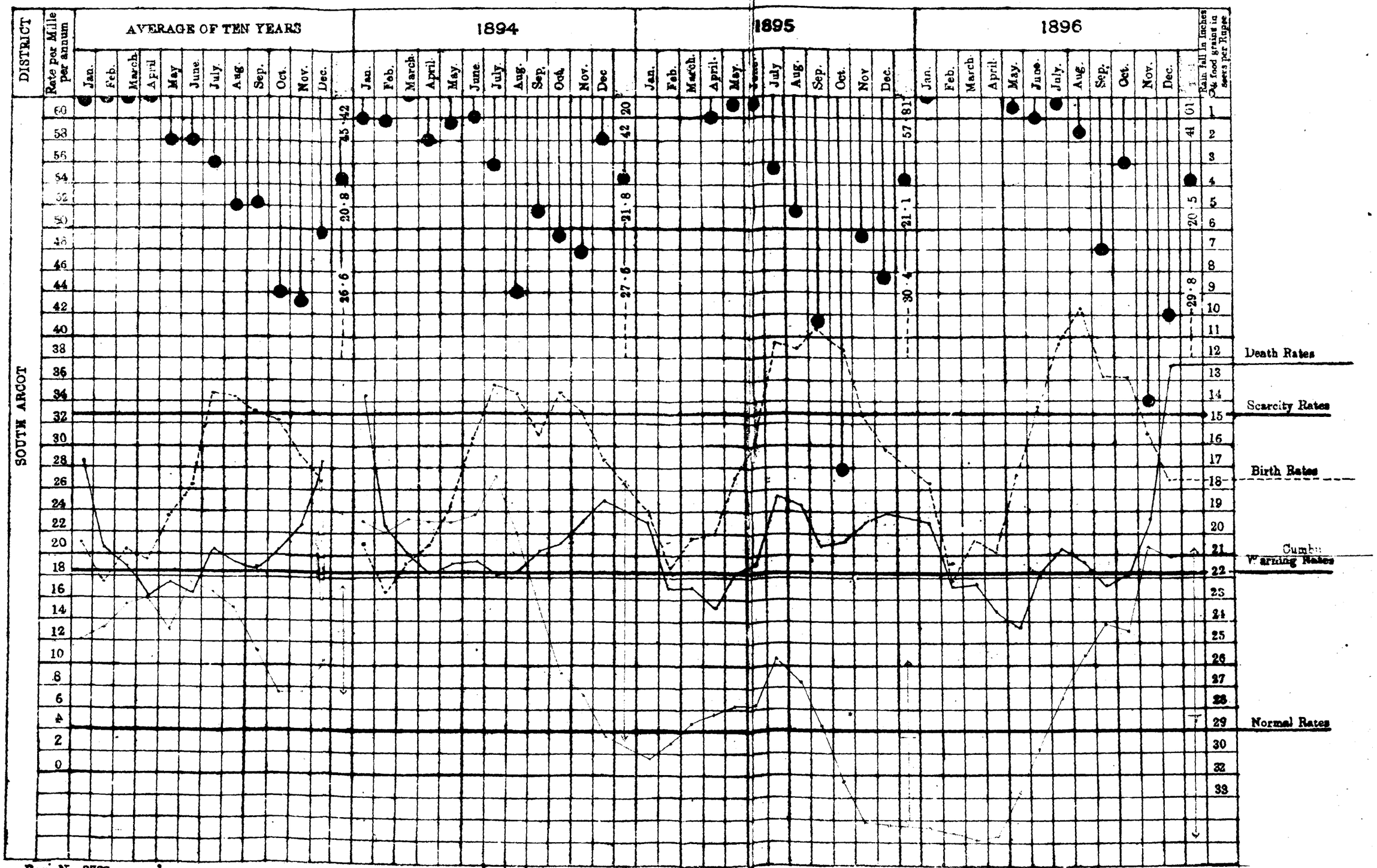

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Diagram showing the Birth and death Rates per Mille per annum in the District of Trichinopoly with rainfall and prices of food (CUMBU) during the year 1896 Compared with 1894 and 1895 and the average of the ten years ending 1893

Census population of 1891 = 1372717 ✻ Area = 3631 Sqr. Miles ✻ Class B = 69 · 89 ℘ Cent ✻ Class [illegible] 6 · [illegible] ℘ Cent.

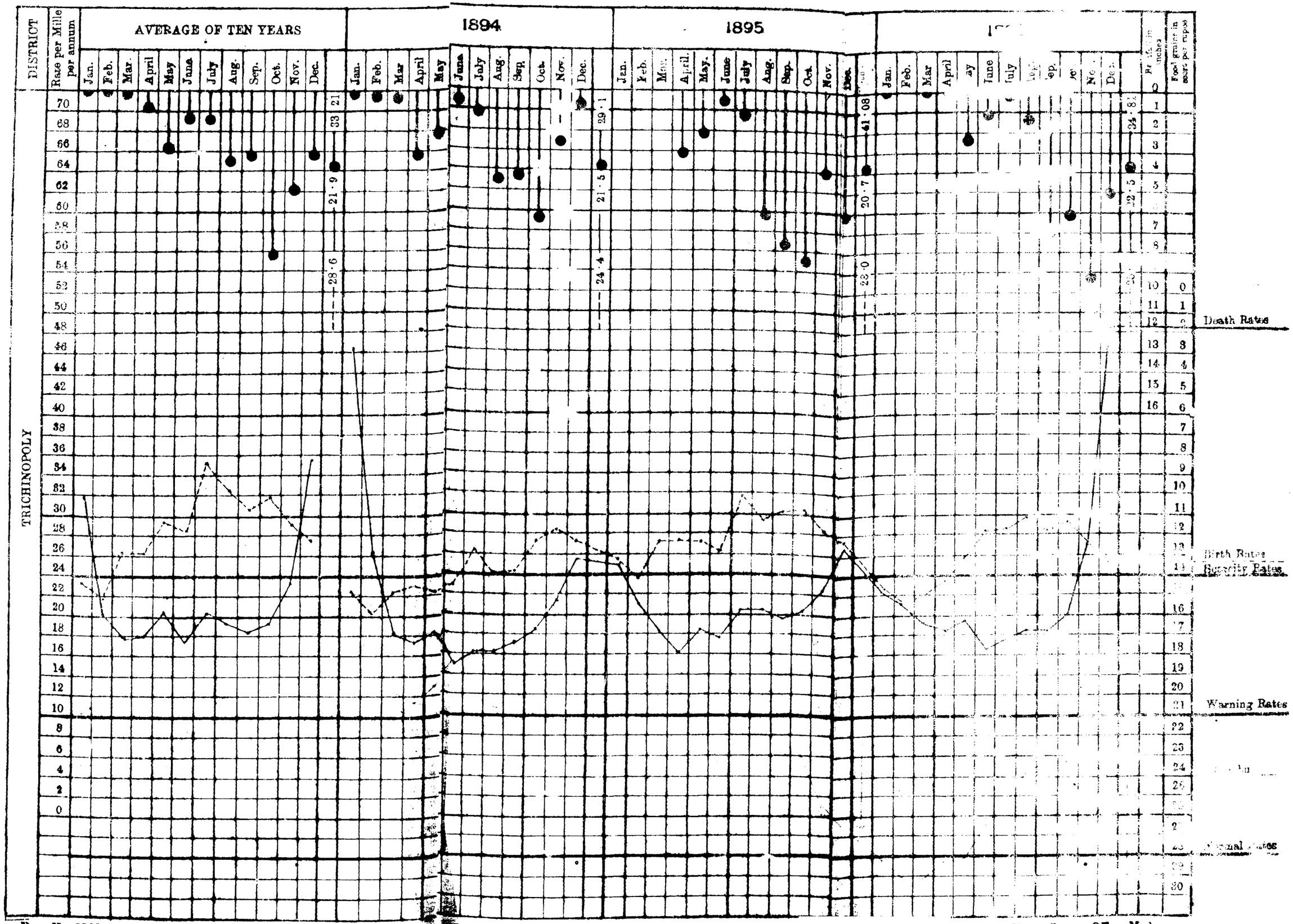

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Diagram Showing the Birth and Death Rates per Mille per annum in the District of Tanjore with Rainfall and prices of food (RICE) during the year 1896 Compared with 1894 and 1895 and the average of the ten years ending 1893.

Census population of 1891 = 2228114 Area = 3709 Sqr. Miles Class B = 61·02 ⅌ Cent ※ Class G = 7·27 ⅌ Cent

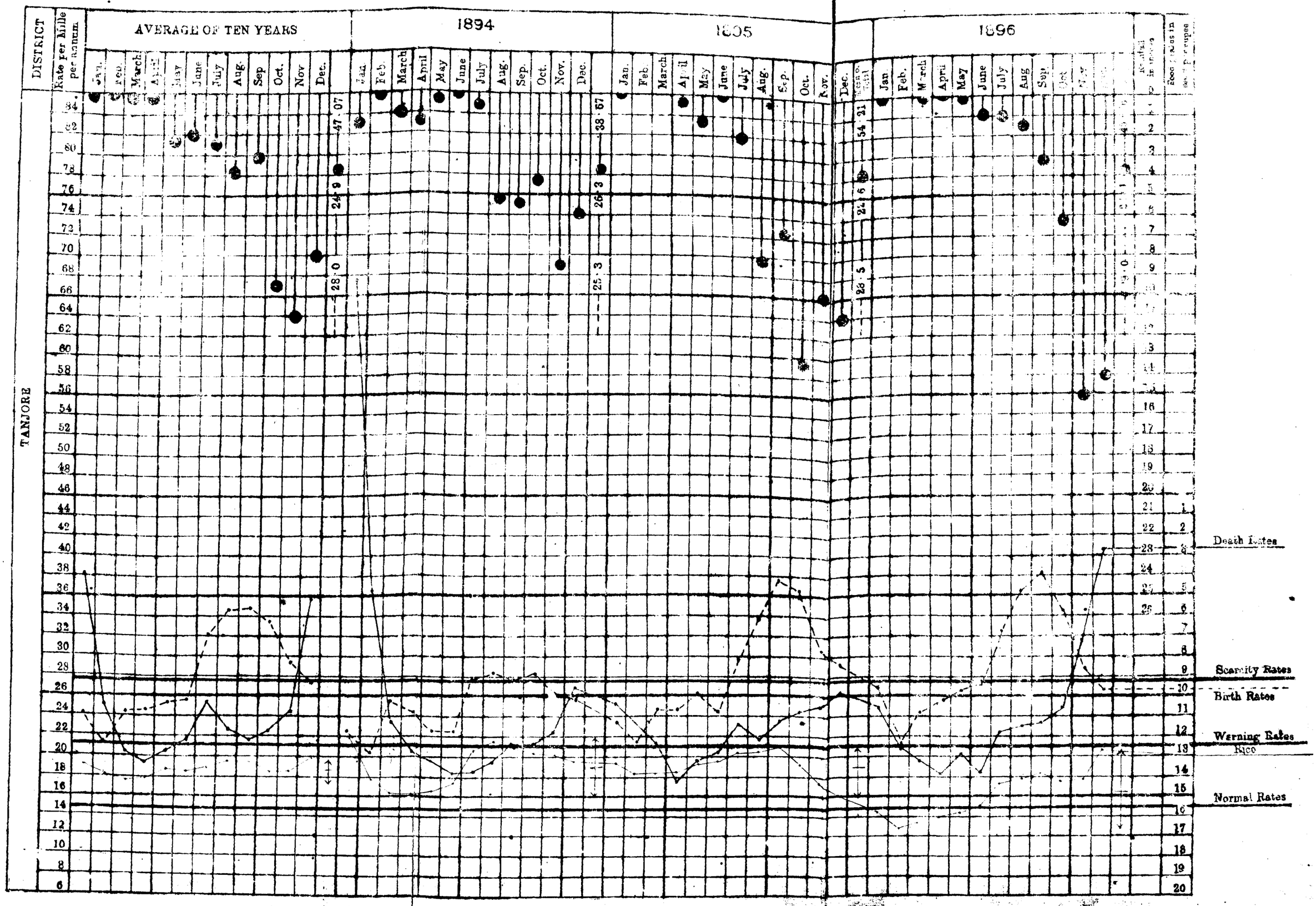

Diagram showing the Birth and Death Rates per Mille per annum in the District of Madura with Rainfall and prices of food (RAGI) during the year 1896 Compared with 1894 and 1895 and the average of the ten years ending 1893

Census population of 1891 = 2608404 Area = 9808 Sqr. Miles Class B = 65 · 54 ⅌ Cent Class G = 9 · 32 ⅌ Cent

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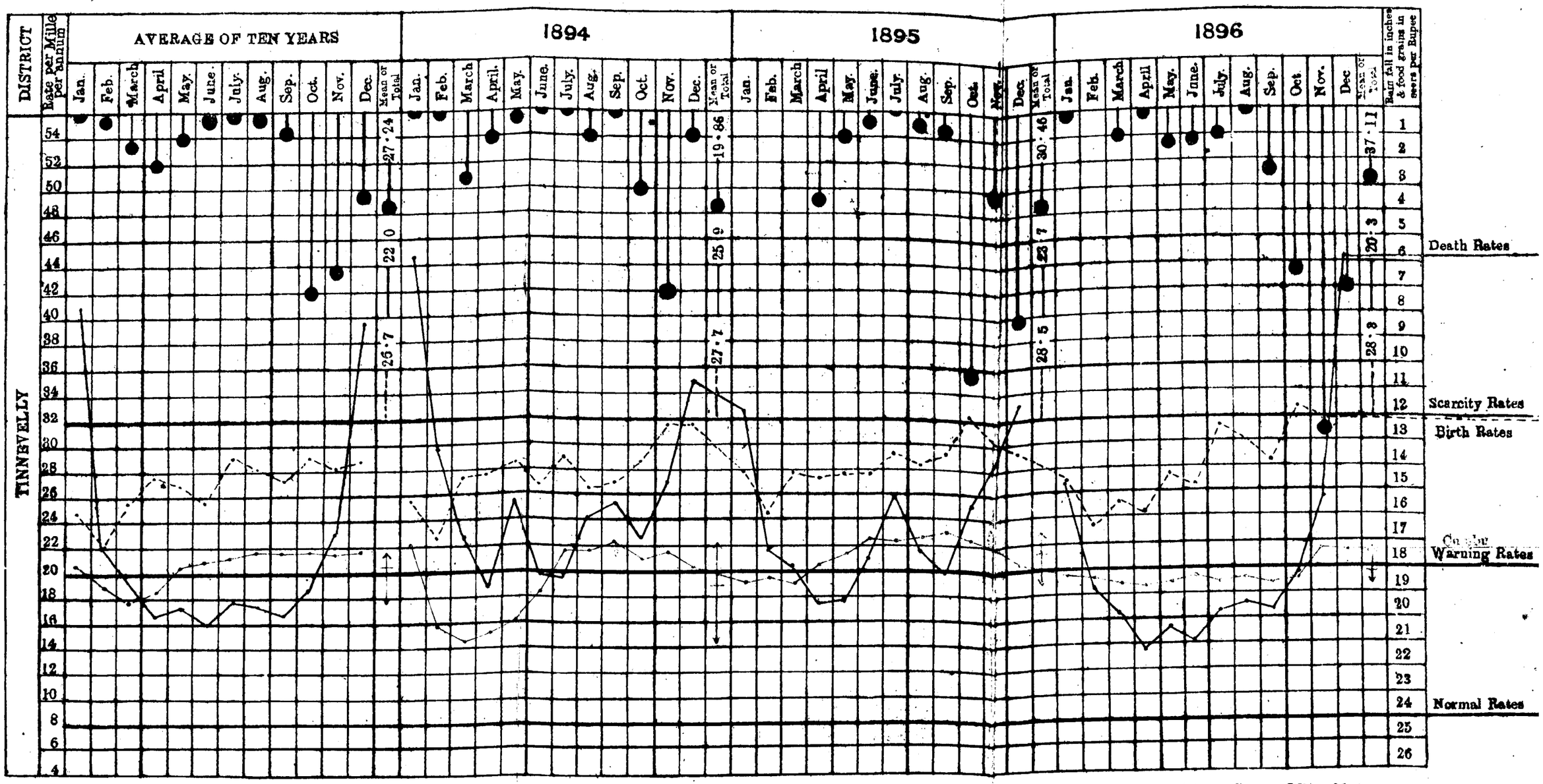
No. 19

Diagram showing the Birth and Death Rates per Mille per annum in the District of Tinnevelly with Rainfall and price of food (CUMBU) during the year 1895 Compared with 1894 and 1895 and the average of the ten years ending 1893

Census population of 1891 = 1916095 Area = 5387 Sqr Miles Class B = 59 · 62 ⅌ Cent Class G = 7·38 ⅌ Cent



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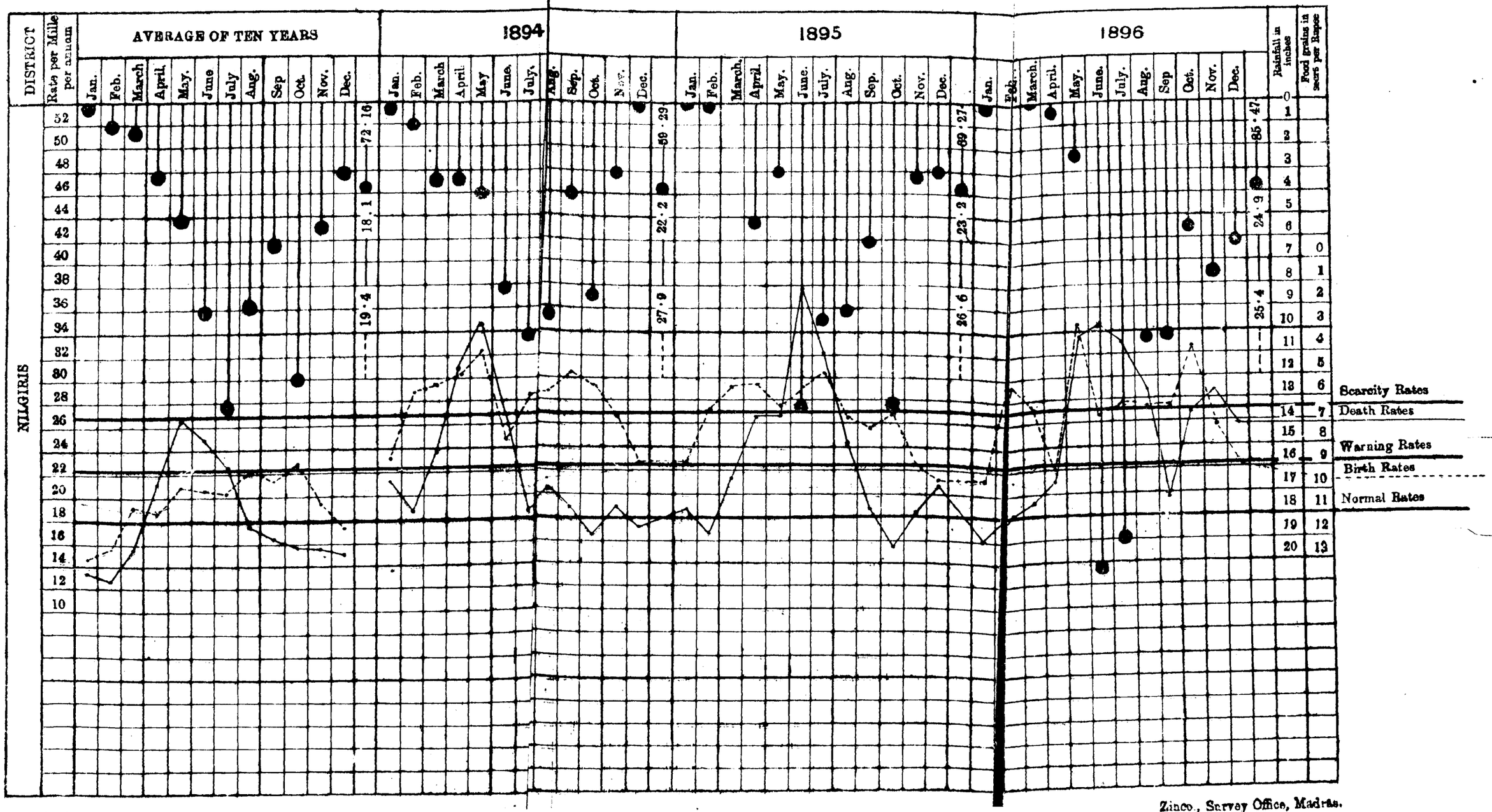
No. 20

Diagram showing the Birth and death Rates per Mille per annum in the District of Nilgiris with Rainfall and prices of food (RICE) during the year 1896 Compared with 1894 and 1895 and the average of the ten years ending 1893

Census population of 1891 = 99797 | Area = 957 Sqr. Miles | Class B = 58 · 67 ⅌ Cent | Class G = 11 · 55 ⅌ Cent



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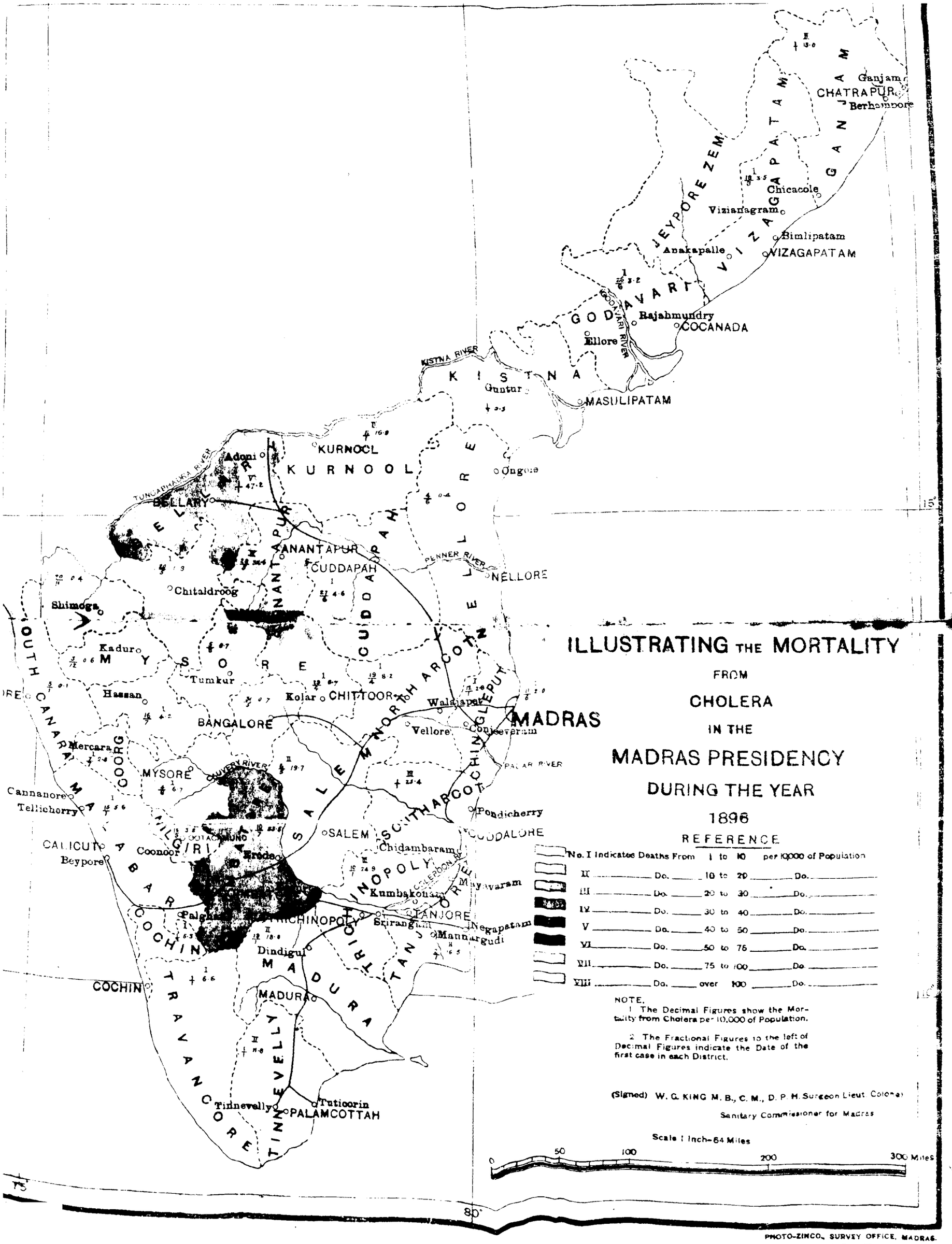
No. 21

Diagram showing the Birth and death Rates per Mille per annum in the District of Malabar with [illegible] prices of food (RICE) during the year 1896 Compared with 1894 and 1895 and the average of the ten years

Census population of 1891=2652565 Area=5585 Sqr. Miles Class B=56·15 ⅌ Cent Class [illegible]



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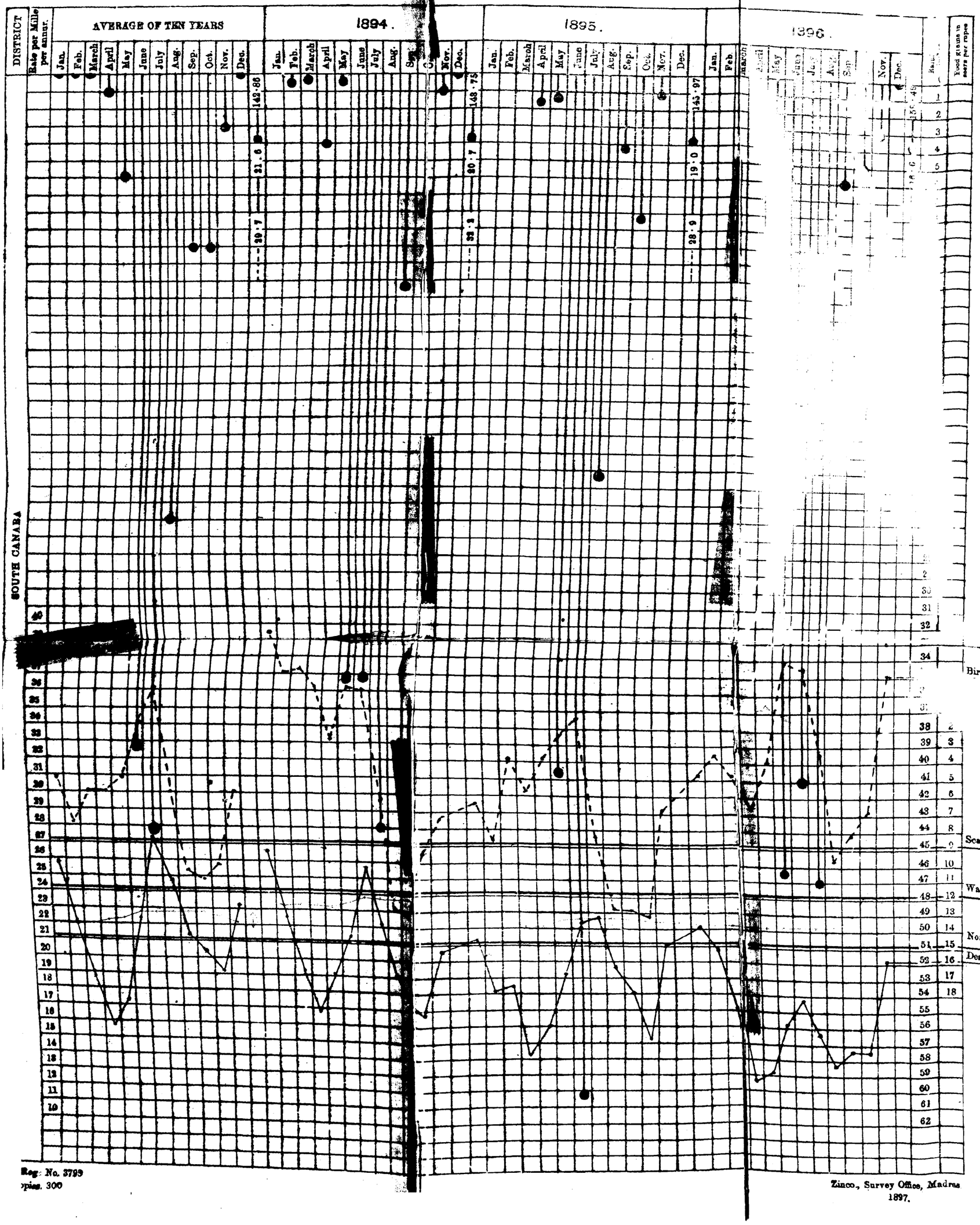
No. 22

Diagram showing the Birth and Death Rates per Mille per annum in the District of South Canara with Rainfall and prices of food (RICE) during the year 1896 Compared with 1894 and 1895 and the average of the ten years ending 1893

Census population of 1891 = 1056081 Area = 3902 Sqr. Miles. Class B = 61 08 ⅌ Cent Class G = 1 43 ⅌ Cent



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