L. & M.
1,800—10-8-96.

Local & Munl. (1895) Department.

PRINTED.

G.O., No. 1177 & 1178 L.

DATED 8th July 1895

[Despatch Abstract.]

Reports.

Reviewing the Sanitary Commissioner's and the Sanitary Engineer's ---- for 1894.

BACK PAPERS.

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

FURTHER PAPERS.

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

First copy sent to Press.

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Returned for signature.

Despatched in print.

Read again G.O., No. 189 , Dated

Current No.

Enclosures to C. No.

Order of Government

Letter of Government.

Statement with ditto.

Papers not filed by being meant for despatch in original.

N.B.—

A = Print in full.
B = Not to be printed.
P = Print abstract only.
H = Print heading only.

[1]

VE

PRESS.

LOCAL AND MUNICIPAL DEPARTMENT.
G.O., DATED 8-7-95
No. 1177 & 1178.

INDEXED.

First copy sent to Press. 8/7/95

Returned for signature. 15/7/95

Despatched in print. 18/7-19/7-20/7

[Despatch Abstract.]

Reports

Reviewing the Sanitary
missioners and the
anitary Engineer's
orts for 1894.

Read again Order of Government, dated 18 , No.

Back Paper, No. of 18

Further Paper, No. of 18

Enclosures.

Current No. 619 L
1396 L
1721 L

a

Statement with ditto.

Order, &c., of Government—A.

Papers kept out of File for despatch in original (not paged).

Number of copies required. Order complete. 1100
Letter only.
Order complete with Letter.

This includes 275 copies for the Sanitary Commissioners

Given to Book Dep

N.B.—
A = Print in full.
B = Not to be printed.
P = Print abstract only.
Q = Print heading only.
R = Print, but not for monthly volume.

The rate of mortality in Municipal areas was 3.5 p.m., while that in rural tracts was 0.6, the far higher rate in Municipalities being due to the Causes mentioned in para 6 supra regarding infant mortality. The district rate ranged from 2 p.m. in Chingleput to 0.2 in Kistna and Anantapur. In Municipal towns, the list was headed by Vizagapatam (11.2) Tanjore (7.1), Karur (6.7), Mannargudi (6.5) Periyakulam (5.7), Coonoor (5.7), Tinnevelly (5.5) and Madras (5.3), while the lowest rates were recorded in Adoni (nil) Anantapur (0.1), Nellore (0.3), Palni (0.7) Ongole (0.8), Vaniyambadi (0.8) and Masulipatam (0.9)

11 Injuries &c. There was a small increase (623) in the number of deaths attributed to injuries, while those from unspecified Causes rose from 297,346 to 312,583.

12. The geographical map of disease distribution appended to para 57 of the report forms an interesting and valuable addition to it and the Government approves Dr King's

proposal that it should be revised and issued from time to time, but ~~it appears to Govt. that it would be sufficient enough if the map is published once in five years.~~

13. Sanitary Works - Civil.

The subjects dealt with by the Sanitary Commissioner under this head 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.

(Notwithstanding the direction in para 2 of G.O. dated 26th October 1894 no 2189 L)

15. General Remarks. The Sanitary Commr. and his Deputy visited only 46 minor towns and villages and submitted reports thereon against 52 in 1893 (notwithstanding the direction in para 2 of G.O. of 26 October 1894 no 2189 L). Dr King was deputed to Bombay early in the year to give evidence before the Opium Commission and, with the permission of Govt., inspected Bombay, Poona, Berhampur and Aurangabad, with the object of making himself acquainted

As Dr King remarks, there is in this specimen now submitted considerable room for improvement, and he should especially consider when next revising it whether it is not possible to show (a) the degree of intensity with which a disease prevails in a particular place and (b) the prevalence of two different diseases in the same local area. After the form has been finally settled, the issue of the map once in five years will, in the opinion of Government, be sufficient.

Information regarding the effect of large and important drainage or water supply works, in the form prescribed by the Govt. of India in its letter communicated with G.O. of 20th December 1894 no 2654 L. ~~has not been furnished in the report.~~ This omission should not be allowed to recur.

14 ~~The Sanitary Commissioner's~~ Dr King's remarks in para. 101 of the report, on the absence of any regulation as regards vaccination, in the case of pilgrims proceeding to Mecca, will be considered in the Public Department.

His suggestion in para 63 that the Sanitary Board should be required to determine in what towns the introduction of water supply and drainage would, with reference to 'water carriage', be likely to demand subsequent modifications of methods of conservancy so that in the rest the complete conservancy of night soil might be at once insisted on, has the approval of Government. He has not attached to this section of the report as also has that in para 89 regarding the inspection fairs and festivals by District Sanitary officers

As it has been found in the past that the inspection by District Medical and Sanitary officers of large numbers of outlying villages has been productive of but little substantial benefit while it interferes greatly with the proper performance of their duties at headquarters it has been decided (G.O. dated 24th January 1895 no 57 Public) to limit it in future to municipal towns and unions and the villages where the larger fairs and festivals take place.

It is noted, however, that in the 'Abstract of Sanitary Reports of Municipalities' a 'night soil farm' at Avakapalle is spoken of. Whether this is a mistake for 'depôt' or not is not clear.

acquainted with works of Sanitary interest. The District Medical and Sanitary officers visited on an average 47 places against 58 in the previous year, the Medl. officers of Cuddapah, Anantapur and Malabar ~~having visited~~ visiting the largest and those of Vizagapatam and Tanjore the least number of places. The advantages of sewage farming were impressed ~~again and~~ frequently ~~again~~ on Municipal Councils and Distt Medl. offrs. but although several have promised that the matter will be attended to ~~the list of Mems. in which~~ the system is reported to have been ~~was~~ in operation only in — Madras, Tanjore, & Negapatam as in the previous year. The Govt. is pleased to note Dr King's testimony to the good work done by Surg. Cap. Bannerman.

The report though of 7 May/95 was recd. in the Govt. office only on the 18th idem and the statts appended to it were not forwarded until the 1st of June and the noso-geographical

map until the 8th ~~idem~~ June. ~~The Govt. wishes to impress on Dr King that~~ The report cannot be regarded as having been submitted on the due date unless it is so sent accompanied ~~with~~ by all the appendices, diagrams &c. ~~Dr King's suggestion in~~ with reference to para 113 of the report ~~that certain of the appendices might be usefully abolished or modified, and form the subject of a separate communication.~~ Government will be glad to receive proposals for reducing the bulk of the appendices of the report, which are some of them unnecessarily cumbrous. It is observed, however, in this connection that the Sanitary Commissioner has omitted to attach to Section IX the statement prescribed by the Government of India in its letter communicated with G.O. dated 20th December 1894 no 2654 regarding the effect of large and important drainage and water supply works on the death rate — an omission which should not be allowed to recur.

CG
18.VI

11

~~May 1895, No. , Local and Municipal.~~

~~GOVERNMEN OF MADRAS.~~

~~LOCAL AND MUNICIPAL DEPARTMENT.~~

SANITARY GINEERING.

16 In the course of the year under re , which is the fifth since this department was organised, the Sanitary Engine visited eleven towns and the Assistant Sanitary Engineer sixteen, against fifte d ten, respectively, in 1893.

17 One drainage and seven water-sup works, estimated to cost Rs. 19,10,703 in the aggregate, were in progress duri the year. Of these, the Kumbakónam drainage and the Madura water-supply orks were completed and handed over to the municipal councils concerned and isfactory progress was made in carrying out the Adóni, Dindigul and Tanjore w er-supply works. The experimental well-boring in Cochin was carried to a de f 325 feet at a cost of Rs. 5,195, but as the chances of discovering a sufficient s of good water by further boring did not appear to be such as to justify any mo penditure, the operations have since been suspended. The schemes submitted b Sanitary Engineer for the water-supply of Coimbatore and Tuticorin have bee ered to lie over pending the amendment of the District Municipalites Act IV 884, as the taxes now levied under it are not sufficient to enable the municipal ncils to undertake the construction and maintenance of the works. As regard rúr, the Government has decided that in this case, as in Negapatam and Tirupati ater-supply scheme is of more importance than one for drainage and the Sanitar gineer has been directed to draw up the former.

18 Three surveys were completed and schemes prepared during the year, while one new estimate, namely, that for Con am, and four revised ones, for Dindigul, Kurnool, Tanjore and Trichinopoly, rec sanction. Eight municipal councils and one district board set aside sums in thei gets for 1895–96 for surveys or investigation of schemes. These do not all fin e, however, in the list given in paragraph 6 of the report which is incomplete a s not even correspond with the Sanitary Engineer's programme for 1895 which pproved in G.O., dated 8th November 1894, No. 1668 M.

The drainage and water-supply tacamund also received attention and measures were taken for their improve uring 1895.

19 The department scrutinised plan stimates for 31 municipal and 71 local fund works estimated to cost Rs. 1,04, the aggregate, and furnished new plans and designs where necessary. The fac the estimates submitted appertained only to 16 municipal councils and 26 local rds out of a total of 55 and 106, respectively, in the presidency, makes it pro , as remarked in paragraph 18 of G.O., dated 2nd July 1894, No. 1210 L., that r works of a sanitary nature exceeding Rs. 200 in cost have been executed wit eference to the Sanitary Engineer. The attention of all municipal councils and boards will therefore be again drawn to the rules issued in G.O., dated 16th Ja 1891, No. 79 L., under which no such works should be undertaken unless th and estimates have been first approved by him. The department also prepa gh sketches of hospital and dispensary buildings so that type plans and es for them could be drawn up by the Consulting Architect to Government.

new line

20 The Government notes with pleas stimony borne by the Sanitary Engineer to the good work done by Messrs sji Nowroji and Minchin.

(True tract.)

Chief Secretary.

To The Sanitary Commissioner
" Sanitary Engineer
" Sanitary Board
" Surgeon General
" Public Department
" Public Works Departt
" Lieut Genl Commandg the Forces, Madras
" Revenue Departt
" Inspr Genl of Police
" Inspr Genl of Prisons
" Accountt General
All Collectors
" Prests of Dt Hds
" Chairmen of Munl Councils
The Presd Munl Comm Madras
Editors Table.

Endt. of
Copy to the Govt.

Home Departt.

G.O. of 21-1-95 No 93 M

H his remarks on C No 1759 M of 1894 and G.O. of 6-2-95 No 180 M

G.O. of 19-3-95 No 469 M

VE

Press

Please set this in type & send three copies on broad sheets soon, incorporating with the Review of the Sanitary Engineers report already in type as paras 16 to 20

[illegible]
21/6/95

Review of the Sanitary Commissioner's Report for 1894.

Note for A S

To avoid delay this draft review prepared by the Office is submitted to the A S direct as usual. As soon as it is passed by the A S it will be set in type as usual before being sent up to the C S and H M. Meanwhile the copies of the report put up with this may be submitted to the C S and H M for perusal in advance of the Review. The review of the Sanitary Engineers report which has already been passed by the A S will also be incorporated with this, where it is printed. The review is due with the Govt of India on the 1st July

[illegible]
12/6/95

G. M. Foucoseau

...umis.

...e promised that the matter will be
...operation only in Madras, Tanjore
...d, however, that in the "abstract
...farm" at Anakápalle is ~~spoken of~~. ~~mentioned~~ alluded to.
...s not clear. The Government is
... work done by Surgeon-Captain

...received in the Government office
...d to it ~~were~~ not forwarded until the
~~...he 8th June~~. The report cannot
...ate unless it is ~~so sent~~ accompanied
...ce to paragraph 113 of the report,
...icing the bulk of the appendices
... cumbrous. ~~It is observed, how-~~
~~...sioner has omitted to attach to~~
~~...ent of India, in its letter com-~~
~~...No. 2654 L., regarding the effect~~
~~...ks on the death-rate—an omission~~

/uns
/ when received,
/s
/se

Vide cur No 1721 L, since received.

There are others again which are quite unnecessary in a report of this nature the inclusion of which is a cause of needless delay and expense.

...NG.

...hich is the fifth since this depart
... eleven towns and the Assistant
...spectively, in 1893.
...s, estimated to cost Rs. 19,10,703
...ar. Of these the Kumbakónam
... completed and handed over to
... progress was made in carrying
... works. The experimental well-
...et at a cost of Rs. 5,195, but as
... water by further boring did not
..., the operations have since been
... Engineer for the water-supply
...e over pending the amendment
...ne taxes now levied under it are
... undertake the construction and
... Government has decided that in
...ply scheme is of more importance
...as been directed to draw up the

x
/further
/able

...emes prepared during the year,
...am, and four revised ones, for
...ed sanction. Eight municipal
...heir budgets for 1895–96 for
... find place, however, in the list
..., and does not even correspond
... which was approved in G.O.,

The table given in paragraph 7 also is incorrect in a number of instances.

... also received attention and

... for 31 municipal and 71 local
...ate, and furnished new plans
...es submitted appertained only
... total of 55 and 106, respec-
...ed in paragraph 18 of G.O.,
... a sanitary nature exceeding

10. *Dysentery and Diarrhœa.* 24,801 against 23,814 in 1893. Tl
mille, while that in rural tracts wa
to the causes mentioned in paragra
rate ranged from 2 per mille in Ol
municipal towns the list was heade
(6·7), Mannárgudi (6·5), Periyaku
Madras (5·3), while the lowest rate
Nellore (0·3), Palni (0·7), Ongole (0

11. *Injuries, &c.*—There was a
attributed to injuries, while those
312,583.

12. The geographical map of di
the report forms an interesting and
approves Dr. King's proposal that it
As Dr. King remarks, there is in th
improvement, and he should especia
not possible to show (*a*) the degree
particular place, and (*b*) the prevalenc
After the form has been finally settle
in the opinion of Government, be suffi

13. *Sanitary Works—Civil.*—The
sioner under this head will be noticed a
reports of the local bodies concerned a
reviews. His suggestion in paragraph
to determine in what towns the introdu
reference to "water-carriage" be likely
of conservancy, so that in the rest th
at once insisted upon, has the approval
regarding the inspection of fairs and fe
been disposed of by G.O., dated 24th
that the trustees of temples should be
incurred on festivals connected with the
enforced, but his remarks regarding the
for sanitary arrangements at these fest
lighting and similar luxuries in unions,
be communicated to local boards for atte

14. Dr. King's remarks in paragra
regulation as regards vaccination in the c
considered in the Public Department.

15. *General Remarks.*—Notwithstan
dated 26th October 1894, No. 2198 L.,
visited only 45 minor towns and villages
1893. Dr. King was deputed to Bombay
Opium Commission and with the perm
Poona, Berhampur and Aurangabad, wit
with works of sanitary interest. The
visited on an average 47 places against 58
of Cuddapah, Anantapur and Malabar visi
and Tanjore the least number of places.
inspection by District Medical and Sanitar
villages has been productive of but little sub
with the proper performance of their duties a
dated 24th January 1895, No. 57, Public)
and unions and the villages where the la
advantages of sewage-farming were impresse

lity from this cause was greater than
t throughout the year, being most
March and December and least so in
he scourge, and in Madura, Malabar,
hout the year. It was felt most
eath-rates being respectively 4·5,
lary the rate was only 0·06 and in
gapatam no more than 0·1 per mille.
Coast, Southern and South-eastern
act that in them the density of the
open to pollution than elsewhere.
wns was 2·1 against 2·2 per mille in
Of the municipalities, Berhampur,
Cuddapah, Mangalore and Telli-
while ten others returned less than
Tinnevelly exhibited death-rates of
n of Tenkási in Madura the rate per
mmissioner's suggestion that the
ter level were conducted subsequent
a view to facilitating enquiry as to
a separate communication.

nall-pox was 11,207 against 27,289
decrease is satisfactory. The deaths
opulation in the districts and 0·2 in
y, in the previous year, the smaller
buted to the system of compulsory
pecially marked in Bellary, Malabar
igh and the municipal rates, except
r. The disease was, as usual, very
h the previous year (4·8) there was
From the careful enquiry made by
o the causes of the excessive morta-
ney of the present establishment to
chief among them; and it is hoped
mplation this may in great measure
next with rates of 0·8 and 0·6,
years, least affected, the mortality
he good work done in this direction
ion. In district municipalities the
ir (0·8), Cuddapah (0·6), Cuddalore
towns, against ten in 1893, were
be more fully dealt with when the

e from 258,415 to 270,456. The
), Cuddapah (17·5), Nilgiris (16·9),
11·4), and the lowest in Tanjore
nevelly (4·6). As compared with
districts of Vizagapatam, Nilgiris,
rcot and a decrease in Cuddapah,
case of Vizagapatam, where the
changes have not been explained.
rural tracts, the rate being high in
ram (12·4). On the other hand,
ul (3·4) were least affected.

C. Ragavalo

At the end of this section I should like some notice taken of the waste of money involved in the printing of the mass of details given by the S.C. in his report — I have turned down the pages which it seems to me might be omitted — unless any of these details have been ordered to be supplied, in which case the orders shd. be brought up for review, their omission should be ordered for the future; and unless all the copies of the report have already been struck off they should now be omitted from the copies which have still to be struck off. It is no doubt very useful to the S.G. to have all this detailed infn. & it is well that he should communicate it and detailed remarks thereon to the local authorities concerned, but it is perfectly useless to the persons for whose use the advn. Report is intended — that is to say, to Govt. (which already has recd. much of the infn. in different forms), to the G. of I., the S. of S. & the army Sanr. Commn. to be put in possession of a quantity of infn. so far beyond their means of criticism and in many cases relating to villages & smaller towns of which they have never heard and a large number of which could not even be found in any ordinary maps. The S.C. should be told in future to confine his report within the limits of 75 pages of print at the outside, appendices and statements included.

District Medical Officers, but although se
attended to, the system is reported to hav
and Negapatam as in the previous year
of sanitary reports of municipalities" a "
Whether this is a mistake for "depôt
pleased to note Dr. King's testimony t
Bannerman.

21. The report, though dated 7th May
only on the 18th idem and the statements
1st of June ~~and the noso-geographical ma~~
be regarded as having been submitted on
by all the appendices, diagrams, &c. W
Government will be glad to receive propo
~~of this report~~, which are some of them u
~~ever, in this connection that the Sanita~~
~~section IX the statement prescribed by th~~
~~municated with G.O., dated 20th Decemb~~
~~of large and important drainage and water~~
~~which should not be allowed to recur.~~

last of the

19th

SANITARY

22. 16. In the course of the year under
ment was organised, the Sanitary Engine
Sanitary Engineer sixteen, against fifteen

23. 17. One drainage and seven water-su
in the aggregate, were in progress duri
drainage and the Madura water-supply
the municipal councils concerned and s
out the Adóni, Dindigul and Tanjore wa
boring in Cochin was carried to a dept
the chances of discovering a sufficient su
appear to be such as to justify any ~~more~~
suspended. The schemes submitted by
of Coimbatore and Tuticorin have been
of the District Municipalities Act IV of
not sufficient to enable the municipal c
maintenance of the works. As regards
this case, as in that of Negapatam and Tirupati, a
than one for drainage and the Sanitary
former.

24. 18. Three surveys were completed
while one new estimate, namely, that fo
Dindigul, Kurnool, Tanjore and Trichin
councils and one district board set aside
surveys or investigation of schemes. The
given in paragraph 6 of the report which
with the Sanitary Engineer's program
dated 8th November 1894, No. 1668 M

25. The drainage and water-supply
measures were taken for their improver

26. 19. The department scrutinised pla
fund works estimated to cost Rs. 1,04,69
and designs where necessary. The fact th
to 16 municipal councils and 26 local b
tively, in the presidency, makes it proba
dated 2nd July 1894, No. 1210 L., tha

Cap

890.	† 1891.	† 1892.	† 1893.	† 1894.
2	2·9	2·3	1·0	1·3
0	1·2	1·3	0·8	0·3
2	7·3	8·3	7·7	8·0
	1·0	1·0	0·7	0·7
4	0·4	0·3	0·3	0·4
1	9·4	9·1	8·8	9·3
8	22·2	22·3	19·3	20·0

ion of 1881.
of 1891.
also.

894 was 672,668 or 22,886 more
d scarcity or great epidemic during
e accounted for by increased energy
of preparing the returns. The fact,
Anantapur, Coimbatore, Ganjám,
nd Vizagapatam—return rates of less
l are from any approach to complete-
ar of age was 160·6 per mille of the
mille in 1893, while the rate for
9·6 in that year. Infant mortality
Arcot, Tanjore and Nilgiris, being
icipal towns recorded a similar rate,
The higher rates in municipalities
d in certain towns to the sewage-
sub-soil water.

recorded in Madras—a result which
ity and partly to accuracy in regis-
Commissioner during the year and a
under consideration. Mr. Cousins'
in paragraph 6 of G.O., dated 2nd
y Government, as it was considered
arrangements are being made for the
s of one for the purification of the
ect on the health of the people.

was 19·2 per mille against 18·5 in
ortality of 26·4, 26·2 and 26·0 per
jám and Malabar the rate returned
oints to very inaccurate registration.
e ranging from 61·8 at Káyalpatnam
The rates for rural towns in Salem
ow and indicate the untrustworthy
eturned for the notoriously unhealthy
ln. concerned is called to these remarks.

where, as a rule, more reliable statis-
individual rate varied from 40·0 in
n Cochin, Periyakulam, Negapatam
5 per mille, respectively, and in ~~14~~ fourteen
King, there is nothing, either
on, to lead to the supposition
xceptionally healthy and the
r the low death-rate can only
egistration work was much
y the municipal council, ~~which~~
~~give proper attention to the sub~~
~~n the current year~~. In the towns
in the margin the rates differed
derably as compared with the pre-
year, but no explanation has been
d for ~~this~~, although the same
for 1893. The difference appears to have most probably
and the reverse in others

but also financially impossible

G.O. 7-11-94 No 1651. M

however,

The Chairman should see that this subject has more attention during the current year

of this

for the ten years ending with 1891 were reached in any district, and Dr. King considers that food-grains are not likely ever to reach those rates again, as their dearness is probably an expression of the levelling up of prices as the result of better facilities for exchange of articles of commerce and diversion of labour from agriculture to manufactures, due more or less to the extension of railways. The Government is not, however, inclined to this view as the rainfall of the year was in many districts less than the decennial average or the quantity registered in 1893 and 1892.

4. * *Vital Statistics.*—Of a total population of 35,630,440 according to the census of 1891, returns of births and deaths were received in respect of only 33,733,121, the difference representing the population of certain zemindari tracts where no arrangements have been made for the registration of vital statistics. This figure must, however, be raised to 35,647,633 if the estimated increase since 1891 be taken into account. The machinery for the collection of these statistics continued the same as in the previous year but a complete scheme for its improvement is now under consideration in the Revenue Department.

5. *Births.*—The number of births registered during the year was 933,059 and was 27·7 per mille of the census population against 27·0 in 1893. The rates for municipalities, rural towns and rural villages were 33·2, 25·2 and 27·4 per mille, respectively, against 34·1, 24·8 and 26·5 in the previous year, thus showing some advance as regards rural areas and a retrogression in municipal towns. The former is more probably due to a general improvement in the accuracy of the returns than to any real increase in the number of births and appears in all districts except Chingleput, Coimbatore, Madura, South Arcot, Tanjore and Trichinopoly. Excluding Madras, the highest birth-rate was recorded in Chingleput (33·9 per mille). The results obtained in Bellary, Kistna, Kurnool, Salem and South Canara were also fair, being more than 30 per mille, while the worst results were reported from Ganjám (19·1), Malabar (22·1), Gódávari (23·4), and Nellore (24·6). Even in these districts some improvement was shown, while in Vizagapatam, which was named with them last year, the rate improved from 22·1 to 26·4 per mille. The matter, however, still requires the unremitting attention of the Collectors concerned. Registration in rural towns having a population of over 10,000 was again less satisfactory than in rural villages, the worst results appearing at St. Thomas' Mount in Chingleput, where a rate of only 4·0 per mille was recorded against 34·0 per mille in the villages. The Collector of this district is requested to report what measures he proposes to adopt to improve matters in this direction. In Tinnevelly, however, the exact opposite was the case and, while the general rate for rural towns was 34·9, that for one of them—Káyalpatnam—was no less than 65·0 per mille, the highest rate recorded in the Presidency. Coming next to municipalities, the rate exceeded 40 per mille in Periyakulam, Cannanore, Dindigul, Vániyambádi and Tiruppattúr, in the last three of which similar results were obtained in 1893. In 34 towns it was between 30 and 40 and in 14 others it was between 20 and 30, while in Trichinopoly and Cuddapah it fell to 18·3 and 15·9, respectively. The low birth-rate in Cuddapah is due partly to the influence of malaria, but that in Trichinopoly is evidently the result of indifference on the part of the municipal council, as evidenced by the total absence of prosecutions for failure to register births. In fact, in only 31 out of 55 district municipal towns were penalties inflicted for failure to register births or deaths—a fact which shows that much neglect is still displayed by municipal councils throughout the Presidency in regard to this important branch of the administration, notwithstanding the repeated orders of Government in the matter.

6. *Deaths.*—The following statement shows the number of deaths per mille of the population recorded in the year under review, as compared with the previous five years:—

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

* 1889.	
2·7	
1·0	
8·2	
1·0	
4	

Read cur No 6192 - from the Sanitary Engineer
" 13962 - " Sanitary Commissioner
" 17212 - " Do

GOVERNMENT OF MADRAS.

LOCAL AND MUNICIPAL DEPARTMENT.

ORDER—dated 8th June 1895, No. 1177 L., Local and Municipal.

With the letters read above, the Sanitary Commissioner and the Sanitary Engineer submit the reports on the administration of their departments for the year 1894.

2. The constitution of the Sanitary Board and the rules for the conduct of its business continued the same as in the previous year, but towards the end of the year orders were passed appointing the Hon'ble Colonel J. Pennycuick, Chief Engineer, Public Works Department, President of the Board, with effect from the 1st January 1895. Considerable changes were at the same time ordered in the manner of its working and a draft set of rules on the lines indicated by Government called for from the Board.

GENERAL SANITATION.

3. *Rainfall and Prices of Food-grains.*—The mean quantity of rain registered was 25·21 inches during the South-west and 12·69 during the North-east monsoon, the average for the ten years ending with 1891 being 23·77 and 17·04 inches, respectively. The South-west monsoon was thus satisfactory, although in Malabar and Nilgiris there was a decrease of 5·93 and 6·40 inches, respectively, as compared with the ~~above~~ average ~~and some apprehension of scarcity is stated to be now prevailing in these districts as the result of the scanty rainfall~~. The North-east monsoon was generally insufficient, the districts of the East Coast, Central and Southern groups, which, for the most part had shown a largely increased fall in this monsoon in the previous year, being those most markedly affected. The district which fared best in both monsoons taken together was Vizagapatam, in which the aggregate rainfall amounted to 52·93 inches, or 14·18 inches more than the average of the ten years ending 1891, though even this is less than the quantity recorded in ~~the two~~ previous years.

The following table compares the prices of the three principal food-grains with those of the preceding two years and the average for the ten years ending with 1891 :—

—	Number of seers for the rupee.			Average for the ten years ending with 1891.
	1894.	1893.	1892.	
Rice	12¼	11·2	10·3	14·4
Ragi	23¼	20·1	17·3	29·0
Cholam	21¾	18·1	16·1	27·4

The prices of these grains, which showed a tendency to decline towards the close of 1893, exhibited a further decrease in the year under report, except in Bellary as regards rice and cholam, in Anantapur as regards rice, and in Ganjám as regards ragi. The increase in Bellary has alone been explained by the Sanitary Commissioner, who ascribes it to caution in the local markets subsequent to October, owing to the fall of slightly less rain than in the previous year and to partial failure of crops in certain taluks. This explanation is not, however, borne out by the statement on pages 9 and 10 of the report which shows that the rise in prices was almost entirely confined to the months prior to October. In spite of the general decline of prices above alluded to, neither the normal rates estimated by the Board of Revenue nor the average prices

Rs. 200 in cost have been executed without e to the Sanitary Engineer. The attention of all municipal councils and loca will therefore be again drawn to the rules issued in G.O., dated 16th Januar No. 79 L., under which no such works should be undertaken unless the pla stimates have been first approved by ~~him~~ Head Offices

The department also prepared rough s of hospital and dispensary buildings so that type plans and estimates for th d be drawn up by the Consulting Architect to Government.

20. The Government notes with pleasu testimony borne by the Sanitary Engineer to the good work done by Messrs. ji Nowroji and Minchin.

(True Ex

Chief Secretary.

To the Sanitary Commissioner.
„ the Sanitary Engineer.
„ the Sanitary Board.
„ the Surgeon-General.
„ the Public Department.
„ the Public Works Department.
„ the Revenue Department.
„ the Lieutenant-General Commanding the Forces.
„ the Inspector-General of Police.
„ the Inspector-General of Prisons.
„ the Accountant-General.
„ all Collectors.
„ all Presidents of District Boards.
„ all Chairmen of Municipal Councils.
„ the President, Municipal Commission, Madras.
Editors' Table.

ENDORSEMENT—dated June 1895, No. L., nd Municipal.
Copy to the Government of India, Home ment.

Chief Secretary.

1889.	
2·7	
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—	* 1889.
Cholera	2·7
Small-pox	1·0
Fevers	8·2
Dysentery and diarrhœa	‡ 1·0
Injuries	0·4
Other causes	10·2
Total ..	23·5

* Calculated on the census pop
† ,, ,, ,,
‡ Includes other bowel-compla

8. The total number of deaths recorded in
than in the previous year. As there was no fo
the year to cause this increase, it is probably to
on the part of the officers entrusted with the du
however, that no less than nine districts—vi
Gódávari, Malabar, Nellore, North Arcot, Salem
than 20 per mille, shows how far these returns sti
ness. The mortality among infants under one y
registered births of the year against 156·6 pe
municipalities alone was 216 per mille against 2
was very high in the districts of Ganjám, South
above 200 per mille, while no less than 24 mu
Negapatam heading the list with 347 per mille.
are attributed to better registration generally, a
sodden state of the soil and the high level of the

district 9. The highest mortality (36·9) was, as usual,
is due partly to the insanitary condition of the
tration. The city was inspected by the Sanitary
full report submitted to Government which is no
scheme for the drainage of Madras referred to
July 1894, No. 1210 L., has not been approved
to be unsuited to the conditions of the city, but
introduction of a water-supply scheme as well a
Cooum which, it is hoped, will have a marked ef

10. The average death-rate in rural villages
1893. In Tinnevelly, Kurnool and Tanjore, a m
mile, respectively, was registered, while in Ga
was scarcely more than half this—a fact which
In rural towns similar variations occurred, the rat
in Tinnevelly to 7·0 at Paramagudi in Madura.
(9·0) and South Arcot (13·7) were also very l
character of the returns, as does the rate of 15·5 r
town of Nandyal in Kurnool.

11. The average rate for district municipalities,
tics are obtained, was 30·0 per mille, while the
Tinnevelly to 14·9 in Anantapur. It was high i
and Kumbakónam, being 39·8, 38·7, 38·5 and 37
other towns it was above 30·0. As remarked by
in the situation of Anantapur or in its sanitary
that

	1894.	1893.
Erode	29·4	39·2
Cuddapah	34·2	47·3
Periyakulam ..	38·7	20·7
Cochin	39·8	29·5
Gudiyáttam	20·8	36·4
Tanjore	26·9	35·6
Negapatam	38·6	28·9
Trichinopoly ..	24·4	36·7
Srírangam	30·4	38·1

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5TH JULY 1895, NOS. 1177, 1178 L., LOCAL AND MUNICIPAL.

GOVERNMENT OF MADRAS.

LOCAL AND MUNICIPAL DEPARTMENT.

READ—the following papers:—

From J. A. JONES, Esq., MEM. INST. C.E., F.R.S.E., Sanitary Engineer to Government, to the Chief Secretary to Government, dated Fort St. George, 28th February 1895, No. 482.

As directed in G.Os., Nos. 1461 and 1815 L., Mis., Local and Municipal, dated 6th August and 17th September 1894, respectively, I have the honour to submit herewith eight advance copies of the Administration Report of this department for the calendar year 1894.

2. The report was written by the Acting Sanitary Engineer, Mr. R. E. Ellis.

3. The report will, as usual, be bound with that of the Sanitary Commissioner for Madras when ready.

From Surgeon-Lieutenant-Colonel W. G. KING, M.B., C.M., D.P.H., Acting Sanitary Commissioner for Madras, to the Chief Secretary to Government, dated Fort St. George, 17th May 1895, No. 941-S.

I have the honour to forward six stitched copies of my Sanitary Report for 1894. Diagrams and cholera and disease area maps are inserted in only one copy.

2. Two copies have, as usual, been forwarded to the Sanitary Commissioner with the Government of India.

3. The title-page, table of contents, diagrams and maps will be inserted in the bound copies.

From Surgeon-Lieutenant-Colonel W. G. KING, M.B., C.M., D.P.H., Acting Sanitary Commissioner for Madras, to the Chief Secretary to Government, dated Fort St. George, 13th June 1895, No. 1050-S.

In continuation of my letter, No. 941-S., dated 17th May 1895, submitting the Sanitary Report for 1894, I have the honour to forward herewith a statement furnishing the information called for by the Government of India in its letter, No. 10—326, dated 8th December 1894, Home Department (Sanitary), communicated with G.O., dated 20th December 1894, No. 2654 L., Mis., Local and Municipal.

ORDER—dated 8th July 1895, No. 1177 L., Local and Municipal.

With the letters read above, the Sanitary Commissioner and the Sanitary Engineer submit the reports on the administration of their departments for the year 1894.

* Printed on page 72 of the report.

13. Sanitary works Cond

The subjects dealt with by the Sanitary Commissioner under this head 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. His suggestion in para 63 that the Sanitary Board should be required to determine in what cases the introduction of water-supply and drainage would, with reference to "water-carriage" be likely to forward subsequent modifications of methods of conservancy, so that in the right he at once invited upon, has the approval of Government, while no else has that in para 84 regarding the inspection of fairs and festivals by District Sanitary has already been enforced by G.O. dated 29-1-95 no 57 Public Officers. His ~~proposal~~ suggestion that the trustees of temples should be made to contribute towards the expenditure incurred on festivals connected with them, cannot, in the present state of the law, be enforced, but his remarks regarding the insufficiency of the provision generally made for sanitary arrangements at these festivals and the wasteful excess of expenditure on lighting and similar luxuries in towns, in which the Government fully concurs, will be communicated to Local Boards for attention.

Inhabitants' meeting recommended for improvement subsequent to water supply difficulties &c

and Bellary (11·4) and the lowest in

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7. *Principal Diseases—Cholera.*—The mor in the previous year. The disease was preval virulent in the months of January, February July and October. No district was free from South Arcot and Tinnevelly it prevailed th severely in Tanjore, Tinnevelly and Madura 3·7 and 3·5 per mille of the population, while Cuddapah, Ganjám, Nellore, South Canara and The greater prevalence of the disease in the groups of districts is partly accounted for by t population is greatest and the water-supply m The average death-rate in municipal and other 1893, and that in rural districts 1·2 against 0·9 Vizagapatam, Vizianagram, Anakápalle, Ongo cherry enjoyed perfect immunity from the dise 10 deaths apiece. On the other hand, Cochin 13·5 and 10·0 per mille respectively, and in the mille was no less than 23·9. The Sanitary arrangements by which observations of sub-soil to the famine of 1876 should now be revived w the etiology of cholera should form the subject

8. *Small-pox.*—The number of deaths from in 1893 and 43,757 in 1892. This continued from this cause amounted to 0·3 per mille of the municipal areas, against 0·8 and 0·5, respecti mortality in the case of municipalities being at vaccination. The effects of this system were and Tanjore, where the district rates were very in the case of Cochin and Negapatam, much low severe (1·3) in Malabar, although as compared w a satisfactory reduction in the number of deaths Surgeon-Major Mallins in the course of the year i lity in this district, it appears that the inoffic cope with the large and scattered population is t that in the revision of the establishment now in co be removed. Bellary and South Arcot followe respectively, while Madras was, as in the precedi being only 0·03 per mille—a fact which testifies to and to the strict enforcement of compulsory vaccin death-rate was heaviest in Palamcottah (0·9), Ka (0·6), Cochin (0·6), and Tirupati (0·6), while altogether free from the disease. This subject wi Vaccination report for 1894–95 is reviewed.

9. *Fevers.*—The mortality under this head highest death-rates were recorded in Kurnool (2 Vizagapatam (14·2), Madras (13·9), and Bellary (2·3), Anantapur (3·1), Trichinopoly (4·4), and the previous year, there was a large increase in th Kurnool, South Canara, Tinnevelly and South Madras, Coimbatore and Salem. Except in th increase is attributed to improved registration, th The mortality in municipalities was higher than Cuddapah (17·1), Kurnool (14·8), and Viziana Calicut (3·0), Palni (3·2), Cochin (3·3) and Dindi

2. The constitution of the Sanitary Board and the rules for the conduct of its business continued the same as in the previous year, but towards the end of the year orders were passed appointing the Hon'ble Colonel J. Pennycuick, Chief Engineer, Public Works Department, President of the Board, with effect from the 1st January 1895. Considerable changes were at the same time ordered in the manner of its working and a draft set of rules on the lines indicated by Government were called for from the Board.

GENERAL SANITATION.

3. *Rainfall and Prices of Food-grains.*—The mean quantity of rain registered was 25·21 inches during the South-west and 12·69 during the North-east monsoon, the average for the ten years ending with 1891 being 23·77 and 17·04 inches, respectively. The South-west monsoon was thus generally satisfactory, although in Malabar and the Nilgiris there was a decrease of 5·93 and 6·40 inches, respectively, as compared with the average mentioned above. The North-east monsoon was generally insufficient, the districts of the East Coast Central and Southern groups, which for the most part had shown a largely increased fall in this monsoon in the previous year, being those most markedly affected. The district which fared best in both monsoons taken together was Vizagapatam, in which the aggregate rainfall amounted to 52·93 inches, or 14·18 inches more than the average of the ten years ending 1891, though even this is less than the quantity recorded in 1892 and 1893.

4. The following table compares the prices of the three principal food-grains with those of the preceding two years and the average for the ten years ending with 1891 :—

—	Number of seers for the rupee.			Average for the ten years ending with 1891
	1894.	1893.	1892.	
Rice	12·5	11·2	10·3	14·4
Ragi	23·5	20·1	17·3	29·0
Cholam	21·3	18·1	16·1	27·4

The prices of these grains, which showed a tendency to decline towards the close of 1893, exhibited a further decrease in the year under report, except in Bellary as regards rice and cholam, in Anantapur as regards rice, and in Ganjám as regards ragi. The increase in Bellary has alone been referred to by the Sanitary Commissioner, who ascribes it to caution in the local markets subsequent to October, owing to the fall of slightly less rain than in the previous year and to partial failure of crops in certain taluks. This explanation is not, however, borne out by the statement on pages 9 and 10 of the report which shows that the rise in prices was almost entirely confined to the months prior to October. In spite of the general decline of prices above alluded to, neither the normal rates estimated by the Board of Revenue nor the average prices for the ten years ending with 1891 were reached in any district, and Dr. King considers that food-grains are not likely ever to reach those rates again, as their dearness is probably the result of the levelling up of prices as the result of better facilities for exchange of articles of commerce and diversion of labour from agriculture to manufactures, due more or less to the extension of railways. On the other hand, it appears not impossible that the falling value of silver has affected prices generally in this country. The matter is one, however, on which it would be premature to express a decided opinion.

5. * *Vital Statistics.*—Of a total population of 35,630,440 according to the census of 1891, returns of births and deaths were received in respect of only 33,733,121, the

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

difference representing the population of certain zamíndari tracts where no arrangements have been made for registration. This figure must, however, be raised to 35,647,633 if the estimated increase since 1891 be taken into account. The machinery for the collection of these statistics continued the same as in the previous year, but its improvement is now under consideration in the Revenue Department.

6. *Births.*—The number of births registered during the year was 933,059 and was 27·7 per mille of the census population against 27·0 in 1893. The rates for municipalities, rural towns and rural villages were 33·2, 25·2 and 27·4 per mille, respectively, against 34·1, 24·8 and 26·5 in the previous year, thus showing some advance as regards rural areas and a retrogression in municipal towns. The former is more probably due to a general improvement in the accuracy of the returns than to any real increase in the number of births and appears in all districts except Chingleput, Coimbatore, Madura, South Arcot, Tanjore and Trichinopoly. Excluding Madras, the highest birth-rate was recorded in Chingleput (33·9 per mille). The results obtained in Bellary, Kistna, Kurnool, Salem and South Canara were also fair, being more than 30 per mille, while the worst results were reported from Ganjám (19·1), Malabar (22·1), Gódávari (23·4) and Nellore (24·6). Even in these districts some improvement was shown, while in Vizagapatam, which was named with them last year, the rate improved from 22·1 to 26·4 per mille. The matter, however, still requires the unremitting attention of the Collectors concerned and of their subordinates. Registration in rural towns having a population of over 10,000 was again less satisfactory than in rural villages, the worst results appearing at St. Thomas' Mount in Chingleput, where a rate of only 4·0 per mille was recorded against 34·0 per mille in villages. The Collector will report what measures he proposes to adopt to improve matters in this direction. In Tinnevelly, the exact opposite to what was observed in Chingleput was the case and, while the general rate for rural towns was 34·9, that for one of them—Káyalpatnam—was no less than 650 per mille—the highest figure recorded in the Presidency. In municipalities, the rate exceeded 40 per mille in Periyakulam, Cannanore, Dindigul, Vániyambádi and Tiruppattúr, in the last three of which similar results were obtained in 1893. In 34 towns it was between 30 and 40 and in fourteen others it was between 20 and 30, while in Trichinopoly and Cuddapah it fell to 18·3 and 15·9, respectively. The low birth-rate in Cuddapah was probably due partly to the influence of malaria, but that in Trichinopoly is apparently the result of indifference to their duties on the part of the municipal council— a view which is supported by the total absence of prosecutions for failure to register births. In only 31 out of 55 district municipal towns were penalties inflicted for failure to register births or deaths—a fact which shows that much neglect is still displayed by municipal councils throughout the Presidency, notwithstanding the repeated orders of Government in the matter in regard to this important branch of the administration.

7. *Deaths.*—The following statement shows the number of deaths per mille of the population recorded in the year under review, as compared with the previous five years :—

—	* 1889.	* 1890.	† 1891.	† 1892.	† 1893.	† 1894.
Cholera	2·7	1·2	2·9	2·3	1·0	1·3
Small-pox	1·0	1·0	1·2	1·3	0·8	0·3
Fevers	8·2	9·2	7·3	8·3	7·7	8·0
Dysentery and diarrhœa	‡ 1·0	‡ 0·9	1·0	1·0	0·7	0·7
Injuries	0·4	0·4	0·4	0·3	0·3	0·4
Other causes	10·2	10·1	9·4	9·1	8·8	9·3
Total ..	23·5	22·8	22·2	22·3	19·3	20·0

* Calculated on the census population of 1881.
† " " " " of 1891.
‡ Includes other bowel-complaints also.

8. The total number of deaths recorded in 1894 was 672,668, or 22,886 more than in the previous year. As there was no food scarcity or great epidemic during the year to cause this increase, it is probably to be accounted for by increased energy

on the part of the officers entrusted with the duty of preparing the returns. The fact, however, that no less than nine districts—viz., Anantapur, Coimbatore, Ganjám, Gódávari, Malabar, Nellore, North Arcot, Salem and Vizagapatam—return rates of less than 20 per mille, shows how far these returns still are from any approach to completeness. The mortality among infants under one year of age was 160·6 per mille of the registered births of the year against 156·6 per mille in 1893, while the rate for municipalities alone was 216 per mille against 219·6 in that year. Infant mortality was very high in the districts of Ganjám, South Arcot, Tanjore and Nilgiris, being above 200 per mille, while no less than 24 municipal towns recorded a similar rate, Negapatam heading the list with 347 per mille. The higher rates in municipalities are attributed to better registration generally, and in certain towns to the sewage-sodden state of the soil and the high level of the sub-soil water.

9. The highest district mortality (36·9) was, as usual, recorded in Madras—a result which is no doubt due partly to the insanitary condition of the city and partly to accuracy in registration. The city was inspected by the Sanitary Commissioner during the year and a full report submitted to Government which is now under consideration. Mr. Cousins' scheme for the drainage of Madras referred to in paragraph 6 of G.O , dated 2nd July 1894, No. 1210 L., has not been approved by Government, as it was considered to be not only unsuited to the conditions of the city, but also financially impossible; arrangements are being made, however, for the improvement of the water-supply as well as for the purification of the Cooum which, it is hoped, will have a decided effect on the health of the people.

10. The average death-rate in rural villages was 19·2 per mille against 18·5 in 1893. In Tinnevelly, Kurnool and Tanjore, a mortality of 26·4, 26·2 and 26·0 per mille, respectively, was registered, while in Ganjám and Malabar the rate returned was scarcely more than half this—a fact which points to very inaccurate registration. In rural towns similar variations occurred, the rate ranging from 61·8 at Káyalpatnam in Tinnevelly to 7·0 at Paramagudi in Madura. The rates for rural towns in Salem (9·0) and South Arcot (13·7) were also very low and indicate the untrustworthy character of the returns, as does the rate of 15·5 returned for the notoriously unhealthy town of Nandyal in Kurnool. The attention of the Collectors concerned is called to these remarks.

11. The average rate for district municipalities, where, as a rule, more reliable statistics are obtained, was 30·0 per mille, while the individual rate varied from 40·0 in Tinnevelly to 14·9 in Anantapur. It was high in Cochin, Periyakulam, Negapatam and Kumbakónam, being 39·8, 38·7, 38·5 and 37·5 per mille, respectively, and in fourteen other towns it was above 30·0. As remarked by Dr. King, there is nothing, either in the situation of Anantapur or in its sanitary condition, to lead to the supposition that it is exceptionally healthy and the explanation for the low death-rate can only be that the registration work was much neglected by the municipal council. The Chairman should see that this subject has more attention during the current year. In the towns noted in the margin the rates differed considerably as compared with the previous year, but no explanation of this has been offered although the same omission was noticed in the review of the report for 1893. The differences have most probably arisen from increased care in two or three cases and the reverse in others.

	1894.	1893.
Erode	29·4	39·2
Cuddapah	34·2	47·3
Periyakulam ..	38·7	20·7
Cochin	39·8	29·5
Gudiyáttam	20·8	36·4
Tanjore	26·9	35·6
Negapatam	38·6	28·9
Trichinopoly ..	21·4	36·7
Srírangam	30·4	38·1

12. *Principal Diseases—Cholera.*—The mortality from this cause was greater than in the previous year. The disease was prevalent throughout the year, being most virulent in the months of January, February, March and December and least so in July and October. No district was free from the scourge, and in Madura, Malabar, South Arcot and Tinnevelly it prevailed throughout the year. It was felt most severely in Tanjore, Tinnevelly and Madura, the death-rates being, respectively, 4·5, 3·7 and 3·5 per mille of the population, while in Bellary the rate was only 0·06 and in

Cuddapah, Ganjám, Nellore, South Canara and Vizagapatam no more than 0·1 per mille. The greater prevalence of the disease in the East Coast Southern and South-eastern groups of districts is partly accounted for by the fact that in them the density of the population is greatest and the water-supply more open to pollution than elsewhere. The average death-rate in municipal and other towns was 2·1 against 2·2 per mille in 1893 and that in rural districts 1·2 against 0·9. Of the municipalities, Berhampur, Vizagapatam, Vizianagram, Anakápalle, Ongole, Cuddapah, Mangalore and Tellicherry enjoyed perfect immunity from the disease, while ten others returned less than 10 deaths apiece. On the other hand, Cochin and Tinnevelly exhibited death-rates of 13·5 and 10·0 per mille, respectively, and in the town of Tenkási in Tinnevelly the rate per mille was no less than 23·9. The Sanitary Commissioner's suggestion that the arrangements by which observations of sub-soil water level were conducted subsequent to the famine of 1876 should now be revived with a view to facilitating enquiry as to the etiology of cholera should form the subject of a separate communication.

13. *Small-pox.*—The number of deaths from small-pox was 11,207, against 27,289 in 1893 and 43,757 in 1892. This continued decrease is satisfactory. The deaths from this cause amounted to 0·3 per mille of the population in districts and 0·2 in municipal areas, against 0·8 and 0·5, respectively, in the previous year, the smaller mortality in the case of municipalities being attributed to the system of compulsory vaccination. The effects of this system were especially marked in Bellary, Malabar and Tanjore, where the district rates were very high and the municipal rates, except in the cases of Cochin and Negapatam, much lower. The disease was, as usual, very severe (1·3) in Malabar, although as compared with the previous year (4·8) there was a considerable fall in the number of deaths. From the careful enquiry made by Surgeon-Major Mallins in the course of the year into the causes of the excessive mortality in this district, it appears that the inability of the present establishment to cope with the large and scattered population is a very considerable factor; it is hoped that by the revision of the establishment now in contemplation this may in great measure be removed. Bellary and South Arcot followed next with rates of 0·8 and 0·6, respectively, while Madras was, as in the preceding years, least affected, the mortality being only 0·03 per mille—a fact which testifies to the good work done in this direction and is an indication that compulsory vaccination is being strictly enforced. In district municipalities the death-rate was heaviest in Palamcottah (0·9), Karúr (0·8), Cuddapah (0·6), Cuddalore (0·6), Cochin (0·6), and Tirupati (0·6), while fifteen towns, against ten in 1893, were altogether free from the disease. This subject will be more fully dealt with when the Vaccination report for 1894–95 is reviewed.

14. *Fevers.*—The mortality under this head rose from 258,415 to 270,456. The highest death-rates were recorded in Kurnool (20·2), Cuddapah (17·5), Nilgiris (16·9), Vizagapatam (14·2), Madras (13·9), and Bellary (11·4), and the lowest in Tanjore (2·3), Anantapur (3·1), Trichinopoly (4·4), and Tinnevelly (4·6). As compared with the previous year, there was a large increase in the districts of Vizagapatam, Nilgiris, Kurnool, South Canara, Tinnevelly and South Arcot and a decrease in Cuddapah, Madras, Coimbatore and Salem. Except in the case of Vizagapatam, where the increase is attributed to improved registration, no explanation of these differences has been offered. The mortality in municipalities was higher than in rural tracts, the rate being high in Cuddapah (17·1), Kurnool (14·8), and Vizianagram (12·4). On the other hand, Calicut (3·0), Palni (3·2), Cochin (3·3) and Dindigul (3·4) were the least affected.

15. *Dysentery and Diarrhœa.*—The deaths recorded from these causes were 24,801 against 23,814 in 1893. The rate of mortality in municipal areas was 3·5 per mille, while that in rural tracts was 0·6, the far higher rate in municipalities being in the opinion of the Sanitary Commissioner due to the causes mentioned in paragraph 6 *supra* regarding infant mortality. The district rate ranged from 2 per mille in Chingleput to 0·2 in Kistna and Anantapur. In municipal towns the list was headed by Vizagapatam (11·2), Tanjore (7·1), Karúr (6·7), Mannárgudi (6·5), Periyakulam (5·7),

27. The Government notes with pleasure the testimony borne by the Sanitary Engineer to the good work done by Messrs. Hormusji Nowroji and Minchin.

(True Extract.)

J. F. PRICE,
for *Chief Secretary.*

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

ENDORSEMENT—dated 8th July 1895, No. 1178 L., Local and Municipal.

Copy to the Government of India, Home Department.

Chief Secretary.

Govt. of {1895} Madras.

LOCAL AND MUNICIPAL.

Press

Please Strike W

12/7/95

Issued

Recd. *Encl.*

G.O., &c., 8th July 1895,
Nos. 1177, 1178 L.

JULY.

Reports.

Reviewing the Sanitary Commissioner's and the Sanitary Engineer's — for 1894.

GOVERNMENT OF MADRAS.

LOCAL AND MUNICIPAL DEPARTMENT.

READ—the following papers:—

From J. A. JONES, Esq., MEM. INST. C.E., F.R.S.E., Sanitary Engineer to Government, to the Chief Secretary to Government, dated Fort St. George, 28th February 1895, No. 482.

As directed in G.Os., Nos. 1461 and 1815 L., Mis., Local and Municipal, dated 6th August and 17th September 1894, respectively, I have the honour to submit herewith eight advance copies of the Administration Report of this department for the calendar year 1894.

2. The report was written by the Acting Sanitary Engineer, Mr. R. E. Ellis.

3. The report will, as usual, be bound with that of the Sanitary Commissioner for Madras when ready.

From Surgeon-Lieutenant-Colonel W. G. KING, M.B., C.M., D.P.H., Acting Sanitary Commissioner for Madras, to the Chief Secretary to Government, dated Fort St. George, 17th May 1895, No. 941-S.

I have the honour to forward six stitched copies of my Sanitary Report for 1894. Diagrams and cholera and disease area maps are inserted in only one copy.

2. Two copies have, as usual, been forwarded to the Sanitary Commissioner with the Government of India.

3. The title-page, table of contents, diagrams and maps will be inserted in the bound copies.

From Surgeon-Lieutenant-Colonel W. G. KING, M.B., C.M., D.P.H., Acting Sanitary Commissioner for Madras, to the Chief Secretary to Government, dated Fort St. George, 13th June 1895, No. 1050-S.

In continuation of my letter, No. 941-S., dated 17th May 1895, submitting the Sanitary Report for 1894, I have the honour to forward herewith a statement* furnishing the information called for by the Government of India in its letter, No. 10—326, dated 8th December 1894, Home Department (Sanitary), communicated with G.O., dated 20th December 1894, No. 2654 L., Mis., Local and Municipal.

ORDER—dated 8th July 1895, No. 1177 L., Local and Municipal.

With the letters read above, the Sanitary Commissioner and the Sanitary Engineer submit the reports on the administration of their departments for the year 1894.

* Printed on page 72 of the report.

2. The constitution of the Sanitary Board and the rules for the conduct of its business continued the same as in the previous year, but towards the end of the year orders were passed appointing the Hon'ble Colonel J. Pennycuick, Chief Engineer, Public Works Department, President of the Board, with effect from the 1st January 1895. Considerable changes were at the same time ordered in the manner of its working and a draft set of rules on the lines indicated by Government was called for from the Board.

GENERAL SANITATION.

3. *Rainfall.*—The mean quantity of rain registered was 25·21 inches during the South-west and 12·69 during the North-east monsoon, the average for the ten years ending with 1891 being 23·77 and 17·04 inches, respectively. The South-west monsoon was thus generally satisfactory, although in Malabar and the Nilgiris there was a decrease of 5·93 and 6·40 inches, respectively, as compared with the average mentioned above. The North-east monsoon was generally insufficient, the districts of the East Coast Central and Southern groups, which for the most part had shown a largely increased fall in this monsoon in the previous year, being those most markedly affected. The district which fared best in both monsoons taken together was Vizagapatam, in which the aggregate rainfall amounted to 52·93 inches, or 14·18 inches more than the average of the ten years ending 1891, though even this is less than the quantity recorded in 1892 and 1893.

4. *Prices of Food-grains.*—The following table compares the prices of the three principal food-grains with those of the preceding two years and the average for the ten years ending with 1891 :—

—	Number of seers for the rupee.			Average for the ten years ending with 1891.
	1894.	1893.	1892.	
Rice	12·5	11·2	10·3	14·4
Ragi	23·5	20·1	17·3	29·0
Cholam	21·3	18·1	16·1	27·4

The prices of these grains, which showed a tendency to decline towards the close of 1893, exhibited a further decrease in the year under report, except in Bellary as regards rice and cholam, in Anantapur as regards rice, and in Ganjám as regards ragi. The increase in Bellary has alone been referred to by the Sanitary Commissioner, who ascribes it to caution in the local markets subsequent to October, owing to the fall of slightly less rain than in the previous year and to partial failure of crops in certain taluks. This explanation is not, however, borne out by the statement on pages 9 and 10 of the report which shows that the rise in prices was almost entirely confined to the months prior to October. In spite of the general decline of prices above alluded to, neither the normal rates estimated by the Board of Revenue nor the average prices for the ten years ending with 1891 were reached in any district, and Dr. King considers that food-grains are not likely ever to reach those rates again, as their dearness is probably the result of the levelling up of prices as the result of better facilities for exchange of articles of commerce and diversion of labour from agriculture to manufactures, due more or less to the extension of railways. On the other hand, it appears not impossible that the falling value of silver has affected prices generally in this country. The matter is one, however, on which it would be premature to express a decided opinion.

5. * *Vital Statistics.*—Of a total population of 35,630,440 according to the census of 1891, returns of births and deaths were received in respect of only 33,733,121, the

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

difference representing the population of certain zamíndari tracts where no arrangements have been made for registration. This figure must, however, be raised to 35,647,633 if the estimated increase since 1891 be taken into account. The machinery for the collection of these statistics continued the same as in the previous year, but its improvement is now under consideration in the Revenue Department.

6. *Births.*—The number of births registered during the year was 933,059 and was 27·7 per mille of the census population against 27·0 in 1893. The rates for municipalities, rural towns and rural villages were 33·2, 25·2 and 27·4 per mille, respectively, against 34·1, 24·8 and 26·5 in the previous year, thus showing some advance as regards rural areas and a retrogression in municipal towns. The former is more probably due to a general improvement in the accuracy of the returns than to any real increase in the number of births and appears in all districts except Chingleput, Coimbatore, Madura, South Arcot, Tanjore and Trichinopoly. Excluding Madras, the highest birth-rate was recorded in Chingleput (33·9 per mille). The results obtained in Bellary, Kistna, Kurnool, Salem and South Canara were also fair, being more than 30 per mille, while the worst results were reported from Ganjám (19·1), Malabar (22·1), Gódávari (23·4) and Nellore (24·6). Even in these districts some improvement was shown, while in Vizagapatam, which was named with them last year, the rate improved from 22·1 to 26·4 per mille. The matter, however, still requires the unremitting attention of the Collectors concerned and of their subordinates. Registration in rural towns having a population of over 10,000 was again less satisfactory than in rural villages, the worst results appearing at St. Thomas' Mount in Chingleput, where a rate of only 4·0 per mille was recorded against 34·0 per mille in villages. The Collector will report what measures he proposes to adopt to improve matters in this direction. In Tinnevelly, the exact opposite to what was observed in Chingleput was the case and, while the general rate for rural towns was 34·9, that for one of them—Káyalpatnam—was no less than 65·0 per mille—the highest figure recorded in the Presidency. In municipalities, the rate exceeded 40 per mille in Periyakulam, Cannanore, Dindigul, Vániyambádi and Tiruppattúr, in the last three of which similar results were obtained in 1893. In 34 towns it was between 30 and 40 and in fourteen others it was between 20 and 30, while in Trichinopoly and Cuddapah it fell to 18·3 and 15·9, respectively. The low birth-rate in Cuddapah was probably due partly to the influence of malaria, but that in Trichinopoly is apparently the result of indifference to its duties on the part of the municipal council—a view which is supported by the total absence of prosecutions for failure to register births. In only 31 out of 55 district municipal towns were penalties inflicted for failure to register births or deaths—a fact which shows that much neglect is still displayed by municipal councils throughout the Presidency, notwithstanding the repeated orders of Government in the matter, in regard to this important branch of the administration.

7. *Deaths.*—The following statement shows the number of deaths per mille of the population recorded in the year under review, as compared with the previous five years :—

—	* 1889.	* 1890.	† 1891.	† 1892.	† 1893.	† 1894.
Cholera	2·7	1·2	2·9	2·3	1·0	1·3
Small-pox	1·0	1·0	1·2	1·3	0·8	0·3
Fevers	8·2	9·2	7·3	8·3	7·7	8·0
Dysentery and diarrhœa	‡ 1·0	‡ 0·9	1·0	1·0	0·7	0·7
Injuries	0·4	0·4	0·4	0·3	0·3	0·4
Other causes	10·2	10·1	9·4	9·1	8·8	9·3
Total ..	23·5	22·8	22·2	22·3	19·3	20·0

* Calculated on the census population of 1881. ‡ Includes other bowel-complaints also.
† " " " " of 1891.

8. The total number of deaths recorded in 1894 was 672,668, or 22,886 more than in the previous year. As there was no food scarcity or great epidemic during the year to cause this increase, it is probably to be accounted for by increased energy

on the part of the officers entrusted with the duty of preparing the returns. The fact, however, that no less than nine districts—viz., Anantapur, Coimbatore, Ganjám, Gódávari, Malabar, Nellore, North Arcot, Salem and Vizagapatam—return rates of less than 20 per mille, shows how far these returns still are from any approach to completeness. The mortality among infants under one year of age was 160·6 per mille of the registered births of the year against 156·6 per mille in 1893, while the rate for municipalities alone was 216 per mille against 219·6 in that year. Infant mortality was very high in the districts of Ganjám, South Arcot, Tanjore and Nilgiris, being above 200 per mille, while no less than 24 municipal towns recorded a similar rate, Negapatam heading the list with 347 per mille. The higher rates in municipalities are attributed to better registration generally, and in certain towns to the sewage-sodden state of the soil and the high level of the sub-soil water.

9. The highest district mortality (36·9) was, as usual, recorded in Madras—a result which is no doubt due partly to the insanitary condition of the city and partly to accuracy in registration. The city was inspected by the Sanitary Commissioner during the year and a full report submitted to Government which is now under consideration. Mr. Cousins' scheme for the drainage of Madras referred to in paragraph 6 of G.O., dated 2nd July 1894, No. 1210 L., has not been approved by Government, as it was considered to be not only unsuited to the conditions of the city, but also financially impossible; arrangements are being made, however, for the improvement of the water-supply as well as for the purification of the Cooum which, it is hoped, will have a decided effect on the health of the people.

10. The average death-rate in rural villages was 19·2 per mille against 18·5 in 1893. In Tinnevelly, Kurnool and Tanjore, a mortality of 26·4, 26·2 and 26·0 per mille, respectively, was registered, while in Ganjám and Malabar the rate returned was scarcely more than half this—a fact which points to very inaccurate registration. In rural towns similar variations occurred, the rate ranging from 61·8 at Káyalpatnam in Tinnevelly to 7·0 at Paramagudi in Madura. The rates for rural towns in Salem (9·0) and South Arcot (13·7) were also very low and indicate the untrustworthy character of the returns, as does the rate of 15·5 returned for the notoriously unhealthy town of Nandyal in Kurnool. The attention of the Collectors concerned is called to these remarks.

11. The average rate for district municipalities, where, as a rule, more reliable statistics are obtained, was 30·0 per mille, while the individual rate varied from 40·0 in Tinnevelly to 14·9 in Anantapur. It was high in Cochin, Periyakulam, Negapatam and Kumbakónam, being 39·8, 38·7, 38·5 and 37·5 per mille, respectively, and in fourteen other towns it was above 30·0. As remarked by Dr. King, there is nothing, either in the situation of Anantapur or in its sanitary condition, to lead to the supposition that it is exceptionally healthy and the explanation for the low death-rate can only be that the registration work was much neglected by the municipal council. The Chairman should see that this subject has more attention during the current year. In the towns noted in the margin the rates differed considerably as compared with the previous year, but no explanation of this has been offered although the same omission was noticed in the review of the report for 1893. The differences have most probably arisen from increased care in two or three cases and the reverse in others.

	1894.	1893.
Erode	29·4	39·2
Cuddapah	34·2	47·3
Periyakulam	38·7	20·7
[illegible] ..	39·8	29·5
Cochin	20·8	36·4
Gudiyáttam	26·9	35·6
Tanjore	38·6	28·9
Negapatam	24·4	36·7
Trichinopoly ..	30·4	38·1
Srírangam		

12. *Principal Diseases—Cholera.*—The mortality from this cause was greater than in the previous year. The disease was prevalent throughout the year, being most virulent in the months of January, February, March and December and least so in July and October. No district was free from the scourge, and in Madura, Malabar, South Arcot and Tinnevelly it prevailed throughout the year. It was felt most severely in Tanjore, Tinnevelly and Madura, the death-rates being, respectively, 4·5, 3·7 and 3·5 per mille of the population, while in Bellary the rate was only 0·06 and in

Cuddapah, Ganjám, Nellore, South Canara and Vizagapatam no more than 0·1 per mille. The greater prevalence of the disease in the East Coast Southern and South-eastern groups of districts is partly accounted for by the fact that in them the density of the population is greatest and the water-supply more open to pollution than elsewhere. The average death-rate in municipal and other towns was 2·1 against 2·2 per mille in 1893 and that in rural districts 1·2 against 0·9. Of the municipalities, Berhampur, Vizagapatam, Vizianagram, Anakápalle, Ongole, Cuddapah, Mangalore and Tellicherry enjoyed perfect immunity from the disease, while ten others returned less than 10 deaths apiece. On the other hand, Cochin and Tinnevelly exhibited death-rates of 13·5 and 10·0 per mille, respectively, and in the town of Tenkási in Tinnevelly the rate per mille was no less than 23·9. The Sanitary Commissioner's suggestion that the arrangements by which observations of sub-soil water level were conducted subsequent to the famine of 1876 should now be revived with a view to facilitating enquiry as to the etiology of cholera should form the subject of a separate communication.

13. *Small-pox.*—The number of deaths from small-pox was 11,207, against 27,289 in 1893 and 43,757 in 1892. This continued decrease is satisfactory. The deaths from this cause amounted to 0·3 per mille of the population in districts and 0·2 in municipal areas, against 0·8 and 0·5, respectively, in the previous year, the smaller mortality in the case of municipalities being attributed to the system of compulsory vaccination. The effects of this system were especially marked in Bellary, Malabar and Tanjore, where the district rates were very high and the municipal rates, except in the cases of Cochin and Negapatam, much lower. The disease was, as usual, very severe (1·3) in Malabar, although as compared with the previous year (4·8) there was a considerable fall in the number of deaths. From the careful enquiry made by Surgeon-Major Mallins in the course of the year into the causes of the excessive mortality in this district, it appears that the inability of the present establishment to cope with the large and scattered population is a very considerable factor; it is hoped that by the revision of the establishment now in contemplation this may in great measure be removed. Bellary and South Arcot followed next with rates of 0·8 and 0·6, respectively, while Madras was, as in the preceding years, least affected, the mortality being only 0·03 per mille—a fact which testifies to the good work done in this direction and is an indication that compulsory vaccination is being strictly enforced. In district municipalities the death-rate was heaviest in Palamcottah (0·9), Karúr (0·8), Cuddapah (0·6), Cuddalore (0·6), Cochin (0·6), and Tirupati (0·6), while fifteen towns, against ten in 1893, were altogether free from the disease. This subject will be more fully dealt with when the Vaccination report for 1894–95 is reviewed.

14. *Fevers.*—The mortality under this head rose from 258,415 to 270,456. The highest death-rates were recorded in Kurnool (20·2), Cuddapah (17·5), Nilgiris (16·9), Vizagapatam (14·2), Madras (13·9), and Bellary (11·4), and the lowest in Tanjore (2·3), Anantapur (3·1), Trichinopoly (4·4), and Tinnevelly (4·6). As compared with the previous year, there was a large increase in the districts of Vizagapatam, Nilgiris, Kurnool, South Canara, Tinnevelly and South Arcot and a decrease in Cuddapah, Madras, Coimbatore and Salem. Except in the case of Vizagapatam, where the increase is attributed to improved registration, no explanation of these differences has been offered. The mortality in municipalities was higher than in rural tracts, the rate being high in Cuddapah (17·1), Kurnool (14·8), and Vizianagram (12·4). On the other hand, Calicut (3·0), Palni (3·2), Cochin (3·3) and Dindigul (3·4) were the least affected.

15. *Dysentery and Diarrhœa.*—The deaths recorded from these causes were 24,801 against 23,814 in 1893. The rate of mortality in municipal areas was 3·5 per mille, while that in rural tracts was 0·6, the far higher rate in municipalities being in the opinion of the Sanitary Commissioner due to the causes mentioned in paragraph 8 *supra* regarding infant mortality. The district rate ranged from 2 per mille in Chingleput to 0·2 in Kistna and Anantapur. In municipal towns the list was headed by Vizagapatam (11·2), Tanjore (7·1), Karúr (6·7), Mannárgudi (6·5), Periyakulam (5·7),

Coonoor (5·7), Tinnevelly (5·5) and Madras (5·3), while the lowest rates were recorded in Ádóni (*nil*), Anantapur (0·1), Nellore (0·3), Palni (0·7), Ongole (0·8), Vániyambádi (0·8) and Masulipatam (0·9).

16. *Injuries, &c.*—There was a small increase (623) in the number of deaths attributed to injuries, while those from unspecified causes rose from 297,346 to 312,583.

17. The geographical map of disease distribution appended to paragraph 57 of the report forms an interesting and valuable addition to it and the Government approves Dr. King's proposal that it should be revised and issued from time to time. As the Sanitary Commissioner remarks, there is in the specimen now submitted considerable room for improvement, and he should especially consider when next revising it whether it is not possible to show (*a*) the degree of intensity with which a disease prevails in a particular place and (*b*) the prevalence of two different diseases in the same local area. After the form has been finally settled, the issue of the map once in five years will, in the opinion of Government, be sufficient.

18. *Sanitary Works—Civil.*—The subjects dealt with by the Sanitary Commissioner under this head 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. His suggestion in paragraph 63 that the Sanitary Board should be required to determine in what towns the introduction of water-supply and drainage would, with reference to "water-carriage", be likely to demand subsequent modifications of methods of conservancy, so that in the rest the complete conservancy of night-soil might be at once insisted upon, has the approval of Government, while that in paragraph 89 regarding the inspection of fairs and festivals by District Sanitary Officers has already been disposed of by G.O., dated 24th January 1895, No. 57, Public. His proposal that the trustees of temples should be made to contribute towards the expenditure incurred on festivals connected with them cannot, in the present state of the law, be enforced, but his remarks regarding the insufficiency of the provision generally made for sanitary arrangements at these festivals and the wastefulness of expenditure on lighting and similar luxuries in unions, in which the Government fully concurs, will be communicated to local boards for attention.

19. Dr. King's remarks in paragraph 101 of the report, on the absence of any regulation as regards vaccination in the case of pilgrims proceeding to Mecca, will be considered in the Public Department.

20. *General Remarks.*—The Sanitary Commissioner and his Deputy visited fewer minor towns and villages in 1894 than in the preceding year. The inspections made, however, appear to have been thorough. Dr. King was deputed to Bombay early in the year to give evidence before the Opium Commission and with the permission of Government inspected Bombay, Poona, Burhanpúr and Aurangabad, with the object of making himself acquainted with works of sanitary interest. The District Medical and Sanitary Officers inspected on an average 47 places against 58 in the previous year, the Medical Officers of Cuddapah, Anantapur and Malabar inspecting the [illegible] Medical Officers [illegible] largest, and those of Vizagapatam and Tanjore the least number. As it has been found in the past that the inspection by District Medical and Sanitary Officers of large numbers of outlying villages was productive of but little substantial benefit, while it interfered greatly with the proper performance of their duties at head-quarters, it has been decided (G.O., dated 24th January 1895, No. 57, Public) to limit it in future to municipal towns and unions and the villages where the larger fairs and festivals take place. The advantages of sewage-farming were impressed frequently on municipal councils and District Medical Officers, but although several have promised that the matter will be attended to, the system is reported to have been, as in the previous year, in operation only in Madras, Tanjore and Negapatam. It is noted, however, that in the "Abstract of sanitary reports of municipalities" a "night-soil farm" at Anakápalle is alluded to. Whether this is a mistake for "depôt" or not is not clear. The Government is pleased to note Dr. King's testimony to the good work done by Surgeon-Captain Bannerman.

21. The report, though dated 7th May 1895, was received in the Government office only on the 18th idem and the last of the statements appended to it was not forwarded until the 19th of June. The report cannot be regarded as having been submitted on the due date unless it is, when received, accompanied by all the appendices, diagrams, &c. With reference to paragraph 113 of the report, Government will be glad to receive proposals for reducing the bulk of these appendices, which are some of them unnecessarily cumbrous. There are others again which are quite unnecessary in a report of this nature the inclusion of which is a cause of needless delay and expense.

Sanitary Engineering.

22. In the course of the year under review, which is the fifth since this department was organised, the Sanitary Engineer visited eleven towns and the Assistant Sanitary Engineer sixteen, against fifteen and ten, respectively, in 1893.

23. One drainage and seven water-supply works, estimated to cost Rs. 19,10,703 in the aggregate, were in progress during the year. Of these the Kumbakónam drainage and the Madura water-supply works were completed and handed over to the municipal councils concerned and satisfactory progress was made in carrying out the Ádóni, Dindigul and Tanjore water-supply works. The experimental well-boring in Cochin was carried to a depth of 325 feet at a cost of Rs. 5,195, but as the chances of discovering a sufficient supply of good water by further boring did not appear to be such as to justify any further expenditure, the operations have since been suspended. The schemes submitted by the Sanitary Engineer for the water-supply of Coimbatore and Tuticorin have been ordered to lie over pending the amendment of the District Municipalities Act IV of 1884, as the taxes now leviable under it are not sufficient to enable the municipal councils to undertake the construction and maintenance of the works. As regards Karúr, the Government has decided that in this case, as in that of Negapatam and Tirupati, a water-supply scheme is of more importance than one for drainage and the Sanitary Engineer has been directed to draw up the former.

24. Three surveys were completed and two schemes prepared during the year, while one new estimate, namely that for Conjeeveram, and four revised ones—for Dindigul, Kurnool, Tanjore and Trichinopoly—received sanction. Eight municipal councils and one district board set aside sums in their budgets for 1895–96 for surveys or investigation of schemes. These do not all find place, however, in the list given in paragraph 6 of the report, which is incomplete and does not even correspond with the Sanitary Engineer's programme for 1895 which was approved in G.O., dated 8th November 1894, No. 1668 M. The table given in paragraph 7 also is incorrect in a number of instances.

25. The drainage and water-supply of Ootacamund also received attention and measures were taken for their improvement during 1895.

26. The department scrutinised plans and estimates for 31 municipal and 71 local fund works estimated to cost Rs. 1,04,699 in the aggregate, and furnished new plans and designs where necessary. The fact that the estimates submitted appertained only to 16 municipal councils and 26 local boards out of a total of 55 and 106, respectively, in the Presidency, makes it probable, as remarked in paragraph 18 of G.O., dated 2nd July 1894, No. 1210 L., that other works of a sanitary nature exceeding Rs. 200 in cost have been executed without reference to the Sanitary Engineer. The attention of all municipal councils and local boards will therefore be again drawn to the rules issued in G.O., dated 16th January 1891, No. 79 L., under which no such works should be undertaken unless the plans and estimates have been first approved by that officer.

The department also prepared rough sketches of hospital and dispensary buildings, so that type plans and estimates for them could be drawn up by the Consulting Architect to Government.

27. The Government notes with pleasure the testimony borne by the Sanitary Engineer to the good work done by Messrs. Hormusji Nowroji and Minchin.

(True Extract.)

J. F. PRICE,
Chief Secretary.

To the Sanitary Commissioner.
" the Sanitary Engineer.
" the Sanitary Board.
" the Surgeon-General.
" the Public Department.
" the Public Works Department.
" the Revenue Department.
" the Lieutenant-General Commanding the Forces, Madras.
" the Inspector-General of Police.
" the Inspector-General of Prisons.
" the Accountant-General.
" all Collectors.
" all Presidents of District Boards.
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" the President, Municipal Commission, Madras.
Editors' Table.

ENDORSEMENT—dated 8th July 1895, No. 1178 L., Local and Municipal.

Copy to the Government of India, Home Department.

J. F. PRICE,
Chief Secretary.

Govt. of {1895} Madras.

LOCAL AND MUNICIPAL.

Issued

Recd. Encl.

G.O., &c., 8th July 1895,
Nos. 1177, 1178 L.

JULY.

Reports.

Reviewing the Sanitary Commissioner's and the Sanitary Engineer's — for 1894.

Madras (13·9)
~~Madras (13·9)~~
and Bellary (11·4) and the lowest in Tanjore (2·3), Anantapur (3·1), Trichinopoly (4·4) and Tinnevelly (4·6)

As compared with the previous year there was a large increase in the districts of Vizagapatam, Nilgiris, Kurnool, South Canara ~~and~~ Tinnevelly. The increase in Vizagapatam is regarded by Dr King as simply the result of better registration as evidenced by an improvement in the birth and death rates of the year, but that ~~increase~~ in the case of the other districts has not been explained. The mortality in Municipalities was higher than in rural tracts, the rate being high in Cuddapah (17·1), Kurnool (14·8), ~~Madras (13·9)~~ ~~Madras (13·9)~~ and Vizianagram (12·4). On the other hand, Calicut (3·0), Palni (3·2), Cochin (3·3) and Dindigul (3·4) were least affected.

10. Dysentery and Diarrhoea.

The deaths recorded from these causes were 24,801 against 23,814 in 189

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as Compared with the previous year (4.8) there was a very satisfactory reduction in the number of deaths, Bellary and South Arcot followed next with rates of 0.8 and 0.6, respectively, while Madras was, as in the preceding years, least affected, the mortality being only 0.03 p.m., a fact which testifies to the good work done in this direction and to the strict enforcement of Compulsory Vaccination.

In District Municipalities the death rate was heaviest in Palamcottah (0.9), Karur (0.8), Cuddapah (0.6), Cochin (0.6) & Tirupate (0.6) Cuddalore (0.6), while 15 towns, against ten in 1893, were altogether free from the disease. This subject will be more fully dealt with when the vaccination report for 1894-95 is reviewed.

9 Fevers. The mortality under this head rose from 258.415 to 270.4. The highest death rates were recorded in Kurnool (25.2) Cuddapah (17.5), Nilgiris (16.9) Vizagapatam (

From the careful enquiry made by Surgeon Major Mullins in the course of the year into the causes of the excessive mortality in this district it appears that the inefficiency of the present establishment to cope with the large and scattered population is the chief among them and it is hoped that in the revision of the establishment now in contemplation this may in great measure be remedied.

(Perhaps so)

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8. Small pox The number of deaths
from small pox was 11,207 against
27,289 in 1893 and 43,757 in 1892.
This continued decrease is satisfactory.
The deaths from this Cause amounted
to 0.3 p m of the population in the
districts and 0.2 in municipal areas,
against 0.8 and 0.5 respectively in
the previous year, the small mortality
in the case of Municipalities being the
result of Compulsory vaccination.
The disease was, as usual, very
severe (1.3) in Malabar although as

returned less than 10 deaths apiece.

and in the town of Tenkasi in
Madura the rate per mille was
no less than 23.9.

with a view to facilitating enquiry
as to the etiology of cholera

The effects of this system were especially marked
in Bellary, Malabar and Tanjore where the district
rates were very high and the municipal rates
except in the case of Cochin and Nagapatam,
much lower.

7 Principal Diseases - Cholera. The mortality from this ~~cause~~ was greater than ~~that recorded~~ in the previous year. The disease was prevalent throughout the year being most virulent in the months of January, February, March and December and least so in July and October. No district was free from the scourge and in Madura, Malabar, South Arcot and Tinnevelly it prevailed throughout the year. It was felt most severely in Tanjore, Tinnevelly and Madura, the death rates being, respectively, 4·5, 3·7 and 3·5 p.m. of the population, while in Bellary, ~~the death rate~~ the rate ~~registered~~ was only 0.06 and in Cuddapah, Ganjam, Nellore ~~and~~ S. Canara and Vizagapatam as more than 0.1 p.m. ~~The large number of deaths in Tanjore, Tinnevelly and Madura has not been explained.~~

The average death rate in Municipal and other towns was 2·1 against 2·0 p.m. in 1893. and that in rural districts 1·2 against 0·9. Of the Municipalities, Berhampur, Vizagapatam, Vizianagram, Anakapalle, Onjole and South Arcot (13·7) were also very low and indicate the untrustworthy character of the returns as does the rate of 15·5 returned for the notoriously unhealthy town of Kandyal in Kurnool.

The average rate for District Municipalities where, as a rule, more reliable statistics are obtained, was 30·0 per mille while the individual rate varied from ~~34·2~~ 4·0 in ~~Tinnevelly~~ to 14·9 in Ananlapur. It was high in Cochin, Periyakulam, Negapatam and Kumbakonam being 39·8, 38·7, 38·5, and 37·5 p.m. respectively and in 14 other towns it was above 30·0. As remarked by Dr King there is nothing either in the situation of Ananlapur or in its sanitary condition to lead to the supposition that it is exceptionally healthy and the only explanation for the low death rate can be that the registration work was much neglected by the Municipal Council, which did not give proper attention to the subject in the current year. In the towns noted in the margin the rates differed considerably as compared with the previous year but no explanation has been offered for this, although the same omission was noticed in the review of the report for 1893.

	1894.	1893.
Erode	29·4	39·2
Cuddapah	34·2	47·3
Periyakulam	38·7	20·7
Cochin	39·8	29·5
Gudiyattam	20·8	36·4
Tanjore	26·9	35·6
Negapatam	38·6	28·9
Trichinopoly	24·4	36·7
Srirangam	30·4	38·1

The greater prevalence of the disease in the East Coast Sultern and South Eastern groups of districts is partly accounted for by the fact that in them the density of the population is greatest and the subsoil water more open to pollution than elsewhere

are requested to arrange for the preparation of more trustworthy returns in future.

The highest mortality (36.9) was, as usual, recorded in Madras, a result which is due partly to the insanitary condition of the city and partly to accuracy in registration. The city was inspected by the Sanitary Commissioner during the year and a full report submitted to Government which is now under consideration. Mr Cousin's scheme for the drainage of Madras referred to in para 6 of G.O. dd 2nd July 1894 No 1210 L has not been approved by Govt, as it was considered to be unsuited to the conditions of the city.

G.O. 7-11-94 No 1651 M

but arrangements are being made for the introduction of a watersupply scheme as well as of one for the purification of the Cooum which, it is hoped, will have a marked effect on the health of the people.

The average death rate in rural villages was ~~[illegible]~~ 19.2 p.m. against 18.5 in 1893. In Tinnevelly, Kurnool and Tanjore, a mortality of 26.4, 26.2 and 26.0 p.m. respectively, was registered while in Ganjám and Malabar ~~and Vizagapatam~~ the rate returned was ~~extremely low and points~~ scarcely more than half this, to a factor which points very inaccurate registration. In rural towns, ~~also, the same~~ ~~similar~~ similar variations occurred, the rate ranging from 30.0 in Tinnevelly to 7.7 ~~in Chingleput~~ 70 at Paramagudi in Madison. The rates for rural towns in Sal

of only [illegible]

very high in the districts of Ganjám, South Arcot, Tanjore and Nilgiris, being above 200 ~~p.m.~~ per mille, while no less than 24 municipal towns recorded ~~a similar~~ ~~such a~~ a similar rate, Negapatam heading the list with ~~a rate of~~ 347 ~~p.m.~~ per mille. The higher rates in Municipalities are attributed to better registration generally and in certain towns, to the sewage-sodden state of the soil and the high level of the sub soil water. There being no reason to regard the death rates as increased by food scarcity in any part of the presidency, it may be presumed that the slight increase in the number of reported deaths was due to more accurate registration. If, however, the large variations in the death rates reported for the several districts ranging from 26.9 in Tinnevelly to 12.7 in Ganjám are considered, it is evident that imperfect registration still continues to a large extent. The rate was below 20 in Anantapur, Coimbatore, Gódávari, Malabar, Nellore, North Arcot, Salem and Vizagapatam, a result which [illegible] defective registration is doubtless due to [illegible] Collectors concerned are

branch of the administration, notwithstanding the repeated orders of Government in the matter.

6. Deaths. The following statement shows the number of deaths per mille of the population recorded in the year under review, as compared with the previous five years:—

	⊗ 1889	⊗ 1890	† 1891	† 1892	† 1893	† 1894
Cholera	2.7	1.2	2.9	2.3	1.0	1.3
Small pox	1.0	1.0	1.2	1.3	0.8	0.3
Fevers	8.2	9.2	7.3	8.3	7.7	8.0
Dysentery & Diarrh:	‡ 1.0	‡ 0.9	1.0	1.0	0.7	0.7
Injuries	0.4	0.4	0.4	0.3	0.3	0.4
Other Causes	10.2	10.1	9.4	9.1	8.8	9.3
Total	23.5	22.8	22.2	22.3	19.3	20.0

⊗ Calculated on the Census popn. of 1881.
† Includes other bowel complaints also.
‡ Includes other bowel complaints also.

The total number of deaths recorded in 1894 was 672,6~~88~~6 or 22,~~96~~88 more than in the previous year. As there was no food scarcity or great epidemic during the year to cause this increase, it ~~was~~ is probably to be accounted for by ~~an improvement in the~~ increased energy in the part of the officers entrusted with the duty of preparing the returns. The fact, however, that no less than 9 districts, ~~still return rates of~~ Anantapur, Coimbatore, Ganjam, Godávari, Kalabar, Nellore, North Arcot, Salem and Vizagapatam, ~~still~~ return rates of less than 20 per mille shows how far these returns still are approach to completeness

~~The mortality of the year~~ number of deaths recorded in 1894 (672,688) was slightly ~~larger than that of the previous year but was less than that of the preceding two years~~ The mortality among infants under one year of age was 160.6 per mille of the registered births of the year against 156.6 per mille in 1893 while the rate for Municipalities alone was 216 per [illegible] in that year. Infant mortality was

~~In any year between 1888 and 1892, and the decrease in mortality from small pox was remarkable~~

of only 4.0 per mille was recorded against 34.0 per mille in the villages. The Collector of this district is requested to report what measures he proposes to adopt to improve matters in this direction. Coming next to Municipalities, the rate exceeded 40 per mille in Periyakulam, Cannanore, Dindigul, Vániyambádi and Tiruppattur, in the last three of which similar results were obtained in 1893 ~~also~~. In ~~35~~ 34 towns, it was between 30 and 40 & in 14 others it was between 29 and 30 ~~less than 30~~, while ~~the worst work was done in Cuddapah and~~ in Trichinopoly and Cuddapah it fell to 18.3 and 15.9, respectively. ~~where the rate was 15.9 and 18.3 respectively~~ The low birth rate in Cuddapah is due partly to the influence of malaria, but that in Trichinopoly is evidently the result of indifference on the part of the Municipal Council as evidenced by the total absence of prosecutions for failure to register births. In fact, in only 31 of 55 District Muni towns ~~penalties~~ were penalties inflicted for failure to register births or deaths, a fact which ~~vital statistics and this~~ shows that much neglect is still displayed by Muni Councils throughout the Presidency in regard to this important branch

In Tinnevelly, however, the exact opposite was the case and, while the general rate for ~~and~~ rural towns was 34.9, that for one of them Káyalpatnam was no less than 65.0 per mille, the highest rate recorded in the Presidency. ~~This abnormal figure also needs explanation.~~

Cholam	21.3	18.1	16.1	27.4

The former is more probably due to

than to any real increase in the number of births and appears

rural areas and a retrogression in Municipal towns. ~~There was~~ a general improvement in the accuracy of the returns ~~compared with the previous year~~ in all ~~the~~ districts except Chingleput, Coimbatore, Madura, South Arcot, Tanjore and Trichinopoly. Excluding Madras, the highest birth rate was recorded in Chingleput (33.9 per mille). The results obtained in Bellary, Kistna, Kurnool, Salem and South Canara were also fair, being more than 30 per mille, while the worst results were reported from Ganjám (19.1) Malabar (22.1) Gódávari (23.4) and Nellore (24.6). ~~The Collectors of the last named districts in which the same defect was noticed in the last year also, should spare no pains to secure better results in the current future and ensuing years.~~ Registration in rural towns having a population of over 10,000 was again less satisfactory than in rural villages, the worst results appearing at St Thomas's Mount in Chingleput, where a rate

Even in these districts some improvement was shown, while in Vizagapatam, which was named with them last year, the rate improved from 22.1 to 26.4 per mille. The matter, however, still requires the unremitting attention of their Collectors concerned

...es of exchange of articles of commerce and diversion of labour from agriculture to manufactures due more or less to the extension of railways. The Govt is not, however, inclined to this view, the ~~average~~ rainfall of the year was in many districts less than the decennial average ~~as well as~~ or the ~~averages~~ quantity registered in ~~for~~ 1893 and 1892.

4.⊗ Vital statistics. Of a total population of 35,630,440 according to the Census of 1891, returns of births and deaths were received in respect of only 33,733,121, the difference representing the population of certain Zamindari tracts where no arrangements have been made for the registration of vital statistics. This figure must, however, be raised to 35,647,633 if the estimated increase since 1891 be taken into account.

5 Births. The number of births registered during the year was 933,059 and was 27.7 ~~per~~ mille of the census population against 27.0 in 1893. The rates for Municipalities, rural towns and rural villages were ~~however~~ 33.2, 25.2 and 27.4 per mille, respectively, against 34.1, 24.8 and 26.5 in the previous year, thus showing some ~~improvement~~ advance as regards rural

⊗ Foot note

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

Note

These figures have been taken from appendix II in which the Census population is taken into account. The ratios in the report (para 15) have been calculated on the estimated population for the ye

The prices of ~~food~~ these grains, which showed a tendency to decline towards the close of 1893, exhibited a further decrease in the year under report, except in ~~the~~ ~~districts of~~ Bellary as regards rice and Cholam, in Anantapur as regards rice, and in Ganjám as regards ragi. The ~~decrease~~ increase in Bellary ~~is ascribed stated to be due probably to~~ has alone been explained by the Sanitary Commissioner who ascribes it to caution in the local markets, subsequent to October, owing to the fall of slightly less rain than in the previous year and to partial failure of crops in certain taluks. ~~The increase in the remaining two districts, in one of which namely in Ganjam it was large (25.8 seers for a rupee against 27.3 in 1893), has not been explained by the Sanitary Commissioner.~~ This explanation is not, however, borne out by the statement on pages 9 and 10 of the report to which shows that the rise in prices was almost entirely confined to the months prior to October. In spite of the general decline of prices above alluded to, neither the normal rates estimated by the Board of Revenue, nor the average prices for the ten years ending with 1891 were reached in any district and Dr. King considers that food grains are not likely ~~again~~ ever to reach those rates again as their dearness is probably an expression of the levelling up of prices as the result

Malabar and Nilgiris there was a decrease of 5.13 and 6.40 inches, respectively, as compared with the above average and ~~an~~ some apprehension of scarcity is stated to be now prevailing in these districts as the result of the scanty rainfall. The North-East monsoon was generally insufficient, ~~and~~ the districts ~~of Chingleput, North Arcot, Tanjore, South Arcot and Trichinopoly were~~ of the East Coast Central and Southern groups, which for the most part had shown a largely increased fall in this monsoon in the previous year, being those most markedly affected. ~~thereby.~~ The district which fared best in both monsoons taken together was Vizagapatam in which the aggregate ~~fall~~ rainfall amounted to 52.93 inches or 14.18 inches more than the average of the ten years ending 1891, though even this is less than the quantity recorded in the two previous years.

~~The Sanitary Commissioner should in future is requested to give in future the mean quantity of rain registered in each of the several groups into which he has divided the presidency with reference to the monsoon currents.~~

The following table compares the prices of the three principal food grains with those of the preceding two years and the average for the ~~last five years~~ ten years ending with 1891.

	Number of seers for the rupee			Average for the ten years ending with 1891.
	1894	1893	1892	
Rice.	12.5	11.2	10.3	14.4
Ragi	23.5	20.1	17.3	29.0
Cholam	21.3	18.1	16.1	27.4

Read
Cur No 619 L from the Sanitary Engineer
" 1396 L from the Sanitary Commr

18

Order.

With the letters read above, the Sanitary Commr and the Sanitary Engineer submit the reports on the administration of their departments ~~during~~ for the year 1894.

2. The Constitution of the Sanitary Board and the rules for the conduct of its business continued the same as in the previous year, but towards the end of the year orders were passed appointing the Hon.ble Col. J. Pennycuick, the Chief Engineer P. W. D, ~~with~~ President of the Board with effect from the 1st January 1895. and a draft set of rules ~~for its working~~ on the lines indicated by Government ~~has been~~ called for from the Board.

Considerable changes were at the same time ordered in the manner of its working

Lm No 5 —

G.O. 16-11-1894, No 2380 G.

General Sanitation

3. Rainfall and Prices of Food Grains

The mean quantity of rain registered was 25.21 inches during the South-West and 12.69 during the North-East Monsoon* the average for the ten years ending with 1891 being 23.77 and 17.04 inches, respectively. The South-West Monsoon was thus satisfactory although in

(1) These have been corrected from pages 106 to 133, 144 to 160. and 179 to end. The remaining pages will be gone through before the review is finally sent to the press.

(2) It is too late to correct these now as the diagrams are almost ready in the Survey office.

(3) This will be found in G.O. 1464 L / 6.8.94 herewith sent.

(4) Nothing is known about this here as no orders appear to have been passed yet in the Public Departt on the replies to G.O. 477 Pub / 3.7.94.

(5) This may be done on obtaining information from the Pub. Deptt at Ooty.

(6) Attended to.

(7) No. a copy will be obtained from the press and sent up to Ooty.

JK
22/6/95

Note

The remaining papers connected with this file have been retained at the Ooty office

Office

Draft review herewith. Please get it printed as soon as possible.

1 At the same time, if it is not too late, please have all the misprints and ~~misst~~ mistakes in spelling names in the report carefully corrected. There are a number of them. I have been through all but pages 106 to 133 and 144 to end, but hadn't time to correct these. There are some things requiring correction in the diagrams also. e.g. Anantapur

2 G.O. no 477 PD / 3.VII.94 is missing from the file.

3 With refce to G.O. no 2189 / 21.X.94 please let me know what is being done on ~~the~~ para 2 of India's letter. Wouldn't it be well to make some reference to this matter in the review?

4 I have corrected your figures in a few places and added some remarks. Please check these and the corrections before sending to press

5. ~~CGT~~ 13.VI Is a copy of appendix A included in the vaccination scheme file now with C.S.? If not it should be.

6. D.O herewith to Mr Hill track him to expedite the printing.

CGT 18.VI

PTO

remarked in para 18 of G.O dated 2nd July 1894, No 1210 Z that other works of a Sanitary nature exceeding Rs 200 in cost have been executed without reference to the Sanitary Engineer. The attention of all Municipal Councils and Local Boards will therefore be again drawn to the rules issued in G.O dated 16th January 1891, No 79 Z, under which no such works should be undertaken — unless the plans and estimates have been first approved by him ~~the Sanitary Engineer~~ [The department also prepared rough sketches of hospital and dispensary buildings ~~in order~~ so that type plans and estimates for them could ~~may~~ be drawn up by the Consulting Architect to Government.

The Government notes with pleasure the testimony borne by the Sanitary Engineer to the good work done by Messrs Hormusji Nowroji and Minchin.

V.R. 24/4/95 CGT 13.V.

Tanjore and Trichinopoly, received sanction. Eight municipal Councils and one District Board ~~set~~ set aside sums in their budgets for 1895-96 for surveys or investigation of schemes. These do not all find place hamer in the list given in paragraph 6 of the report which is incomplete and does not even correspond with the Sanitary Engineer's programme for 1895 which was approved in G.O. dated 8th November 1894 no 1668 M.

The drainage and water supply of Ootacamund also received attention and measures were taken for their improvement during 1895.

projects proposed to be investigated in 1895. The first of these schemes is, moreover, included in the Sanitary Engineer's programme for 1895, approved in G.O dated 8th November 1894, No 1668 M. In Column 7 of Table No 1 appended to the report, the survey of the Adoni town in connection with water-supply should have been shown as completed, in as much as the execution of the water works ~~has~~ commenced in November 1893 and made fair progress in 1894.

The department scrutinised plans and estimates for 31 Municipal and 71 Local Fund works estimated to cost Rs 104,699 in the aggregate, and furnished new plans and designs where necessary. ~~As, however, these~~ The fact that the estimates submitted ~~works~~ appertained only to 16 Municipal Councils and 26 Local Boards out of a total of 55 and 106, respectively in the presidency, ~~it is possible~~ makes it probable, as remarked

sufficient supply of good water by further boring did not appear to be such as to justify any ~~further more~~ expenditure, the operations have since been suspended. The schemes submitted by the Sanitary Engineer for the water-supply of Coimbatore and Tuticorin have been ordered to lie over pending the amendment of the District Municipalities Act IV of 1884, as the taxes now levied under it are not sufficient to enable the Municipal Councils to undertake the construction and maintenance of the works. As regards Karur, the Government has decided that in this case as in Negapatam and Tirupati a water-supply scheme is of more importance than one for ~~of~~ drainage and the Sanitary Engineer has been directed to draw up the former.

In para. 6 of the report, the Negapatam and Palamcottah water-supply schemes, referred to, in paras. 40 and 44 respectively, should have been included among the

Vide G.O dy 21-1-95 No 93 M

Vide H.M's remarks on C No 1759 M of 1894 and G.O dy 6-2-95 No 180 M

Vide G.O dy 19-3-95 No 469 M

Three ~~Two~~ surveys were completed and two schemes prepared during the year while one new estimate, namely that for Conjeevaram, and four ~~three~~ revisions, for Dindigul Karaool

Sanitary Engineering

In the course of the year under review, which is the fifth since this department was organised, the Sanitary Engineer visited eleven towns and the Assistant Sanitary Engineer sixteen, against fifteen and ten respectively in 1893.

One drainage and seven water-supply works, estimated to cost Rupees 19.10.703 in the aggregate, were in progress during the year. Of these the Kumbakonam drainage and the Madura water-supply works were completed and handed over to the Municipal Councils concerned and satisfactory progress was made in carrying out the Ádóni Dindigal and Tanjore water supply works. The experimental well-boring in Cochin was carried to a depth of 325 feet at a cost of Rs 5,195, but as the chances of discovering a sufficient

Local & Municipal Dept.

Local & Municipal Dept.
CURRENT No. 1721 L

From Surg. Lieut Col W. G. King
M.B.C.M.D.S.H.
Hq. Sanitary Commrs for Madras

To,

The Chief Secretary to Govt.
Local & Municipal Dept
Fort Saint George

Dated 13th
Despd 19th } June 1895
Recd 11 JUN 95

No. 1050/S

Encl of one.

Subject.

Furnishing statement called for in Govt of India's letter No. 10/326 dated 8th December 1894 Communicated with GO No. 2654 L Mis dated 20th December 1894.

To be printed at close of the report

38

No. 1050/S

Office of Sanitary Comr.
Fort St George 13th June 1895

Local & Municipal Dept.
CURRENT No. 1721 L

From

Surgeon Lt Col W. G. King, MB, CM, DPH,
Ag Sanitary Commissioner for Madras

To

The Chief Secretary to Govt,
Local & Muml Dept.

Sir,

In continuation of my letter No. 941/S dated 17th May 1895, submitting the Sanitary Report for 1894, I have the honor to forward herewith a statement furnishing the information called for by the Government of India in its letter No. 10/326 dated 8th Dec 1894, Home Dept (Sanitary), communicated with G.O. of 20th Dec 1894 No. 2654, L Mis, Local & Muml.

Printed as an appendix to the report.

I have the honor to be,
Sir,
Your most obedient Sert,
W G King
Surgn Lt Col,
Ag Sanitary Commissioner
for Madras.

Local & Municipal Dept.
CURRENT No. 1396 L

Local & Municipal DEPARTMENT.

From

SURGEON LIEUT.-COL. ~~J. A. LAING~~ W. G. King MB, CM, DPH,
Ag SANITARY COMMISSIONER FOR MADRAS,

To

THE Chief Secretary to Government
Local & Muml Dept

No. 941/S

Dated 16th
Despatched 17th } May 1895.
Received

ENCLOSURES (Four)
only one was recd
[illegible] 18/5

Subject.

Submits Sanitary Report for 1894.

Despatch
Two copies of the report shd be sent to the Secy of State and two to the Govt of India in advance.
[illegible]
1/6/95

2 copies will be sent to Secy of State by next mail. [illegible]

[960 ... 12-92.]

No. 941/S.

28

OFFICE OF SANITARY COMMISSIONER,

Fort St. George, 16th May 1895.

Dep'd 17th

Local & Municipal Dept.

CURRENT No. 1396 L

From

SURGEON LIEUT.-COL. W. G. KING, M.B., C.M., D.P.H.,

ag SANITARY COMMISSIONER FOR MADRAS,

To

THE Chief Secretary to Government,

Local & Municipal Department,

Fort Saint George

Enclosure.

SIR,

I have the honor to forward six stitched copies of my Sanitary Report for 1894. Diagrams and Cholera and disease* area maps are inserted in only one copy.

2. Two copies have as usual been forwarded to the Sanitary Commissioner with the Government of India.

3. The title page, table of contents, Diagrams and maps will be inserted in the bound copies.

I have the honor to be,

Sir

Your most obedient Servant

W G King

Ag Sanitary Comm'r & Surg'l Lieut Col. for Madras

* Will follow

Since recd. and attached at the appropriate place

as reqd. in 1815 L 17-9-94

Local & Municipal Dept.

PR CURRENT No. 1895 619 L

From

The Sanitary Engineer to Government

To

The Chief Secretary to Government

Local & Mun'l Dept.

CHIEF SECRETARY 20 FEB 1895 GOVERNMENT OF MADRAS

No. 482

Dated 28"
Desp'd 28"
Rec'd
} February 1895

Encs. 8

Subject

Submitting 8 copies of the Administration Report of this Department for 1894.

To lie over pending receipt of the Sanitary Report for 1894, which is due on the 1st June next.

Note

Two* copies of the report will be sent to the Secretary of State, two to the Govt of India and two to the Sanitary Commissioner with the Government of India, in advance.

* Will be sent by next mail

5/3/95

Despatcher

Please attend to this

5/3/95

Done

6/3/95

P.T.O.

Ref

2/4/95

S. E. 6 22-8-93—1,000.

GOVERNMENT OF MADRAS.

No. 482

OFFICE OF SANITARY ENGINEER,

Fort St. George, 28th February 1895.

From

J. A. JONES, ESQ., MEM. INST. C.E., F.R.S.E.,

SANITARY ENGINEER TO GOVERNMENT,

To

The Chief Secretary to Government

Local and Municipal Department

SIR,

As directed in G.Os., Nos. 1461 and 1815 L.S.G., Local and Municipal, dated 6th August and 17th September 1894, respectively, I have the honor to submit herewith 8 advance copies of the Administration Report of this department for the calendar year 1894.

2. The report was written by the Acting Sanitary Engineer, Mr. R. C. Ellis.

3. The report will, as usual, be bound with that of the Sanitary Commissioner for Madras when ready.

I have the honor to be
Sir
your most obedient servant

SECTION VI.

GENERAL HISTORY OF CHIEF DISEASES.

CHOLERA.

32. At the close of 1893, the epidemic which spread over the southern part of the Presidency, and which appeared to have been directly accentuated by the occurrence of the festival at Tirupati of that year, prevailed in all the districts, with the exception of Nellore, Kurnool, Cuddapah and Anantapur. With the usual seasonal change, it decreased during the months of February, March, April and May; but, by June, it had shown the normal tendency for recrudescence in the south-western group. In the north-east group, however, Madura, whilst adhering to the seasonal type, did so in a less marked degree than other districts—(*Vide* Statements A and B). In this, as well as in Malabar, South Arcot, and Tinnevelly in no month of the year was cholera absent.

33. Altogether 43,427 souls perished of cholera—a preventible disease—during the year 1894. The mortality was equal to a total average of 74·6 per cent. of attacks. By reference to table A, it will be seen how greatly the rate of death to attacks differs in various districts. These results, I believe, do not exhibit any approach to the truth. The statistics serve to show that it is chiefly when death occurs that an attack of cholera is registered by the district authority. It is extremely unlikely that the rate of mortality in ordinary epidemics is more than about 50 per cent. of attacks. Yet, in 16 districts the rate ranges from 56·6 per cent. to 90·8 per cent., the four most marked delinquents being Tanjore (88·2), South Arcot (81·6), Madras (81·1) and Gódávari (90·8). Taking the normal rate at about 45 per cent., it would seem that possibly (for the statement must be open to a certain amount of conjecture) not less than 41,318 attacks of cholera occurred, which were never reported, even if it be understood that the total deaths have been accounted for—an unlikely contingency.

34. Statement C gives a fair idea of the extent to which this disease prevailed in various districts, with reference to density of population, area, and number of villages. The influence of density in aiding the distribution of the cholera microbe is here clearly exhibited, but it so happens that the districts showing the highest density are also those, which have, in the highest degree, the additional favouring factor of a domestic water-supply derived from irrigation channels common to several villages and open to gross fæcal pollution. In Tanjore, Tinnevelly and Trichinopoly the deaths from cholera reached the heavy proportion of 16·7, 13·7, and 11·5 per cent. of the mortality from all causes.

35. In my last year's report, I entered with fair fulness into the question of the relation between the seasonal prevalence of cholera and the meteorological conditions found in the Presidency. The bacteriologist of the day is apt to regard propagation as limited by methods he can verify within his laboratory. Given a certain amount of rainfall, it is argued the result is that the microbe reaches water sources, or flies are ready to effect its transport to articles of diet; with the approach of heat, the chances are against these methods of propagation, dryness being inimical. Whilst, undoubtedly, the most common cause of cholera spread is by contamination of water-supplies, it certainly is not sufficient to say that either transport by flies or by water will alone account for the preference of cholera to reside in one part of the Presidency during one monsoon, and, comparatively speaking, to forsake it during another. Thus, one can hardly imagine a better state of affairs for assisting growth of the cholera microbe than the rainfall of the north-east monsoon as it affects the south-western monsoon group of districts,

the temperature is then not so great as to be inimical, and a heavy dew nightly favours germ vitality. Still the cholera microbe shows itself adverse to these conditions, and, although, doubtless, when introduced into a locality, it will not fail to show its effects, a sharp and brief outbreak of practically localized character need alone be anticipated. Under these circumstances, granting the susceptibilities of the microbe to a varying supply of oxygen, a certain description of pabulum, and a certain grade of moisture, it seems to me but rational to study those seasonal phenomena that determine these results in nature. Thus, whilst a bacteriologist may be able to define the conditions under which local distribution of microbes already in a state of activity occurs, I consider it still remains to be shown how this regularity of attack, increased activity and subsidence take place, when geographically large areas are concerned. As having a direct relation to the environment of the cholera microbe, I regard it as most important that the ancient theory of the influence of sub-soil water level be carefully studied. This question has, in my opinion, instead of losing, very greatly increased in importance from the facts brought forward by bacteriologists, in view of the circumstance—that I find is commonly ignored—that sub-soil fluctuation is not synchronous with rainfall. I consider it would greatly facilitate enquiry as to the etiology of cholera, as well as of malaria and dysentery and diarrhœa, if the arrangements by which observations of sub-soil water level were conducted subsequent to the famine of 1876 were revived by Government in all districts.

36. Statement D shows how vastly the question of human intercourse also affects the prevalence of the disease. Reading the history of first cases, the sum total would amount to the fact that certain villagers went to such and such a fair, where cholera prevailed, there were infected, that upon their return they exhibited the usual symptoms of the disease, and thereupon it spread to the population generally. The incompleteness with which the information has reached this office as to the actual medium by which the cholera microbe was distributed, notwithstanding efforts to secure intelligence, serves to show how very inadequate to the requirements of the country is the existing sanitary organization. Such reports are usually compiled upon information obtained by medical subordinates who arrive late upon the scene, and necessarily have their hands too full of medical work to enable them to make a correct sanitary investigation. The cases marked with an asterisk in the statement referred to are of much sanitary interest.

37. In the absence of any definite idea as to the medium of spread, it follows that efforts may not always be made in the correct direction. Nevertheless, the importance of prevention of specific contamination of water is recognized not only by all medical and sanitary authorities in the country, but also very largely by the people. The necessity for using water that has been boiled during cholera prevalence has certainly been impressed upon the people by all authorities dealing with epidemics for over twenty years past, and the use of this precautionary measure is spreading amongst the people. Hence, care bestowed in these directions, during the hurried visits of medical subordinates, is better than nothing. One can only hope that as time advances an improved financial condition of the country may render it possible to have not only within each municipal town, but in all important villages, in charge of defined areas in rural tracts, well-trained Sanitary Inspectors capable of giving first sanitary aid to the people. The eagerness with which the class lately opened for Sanitary Inspectors was attended by private students proves that there need be no fear as to lack of suitable men, if local bodies would and could pay for them. The extracts in Appendix C from reports by Civil Apothecary, Kangayam, describe graphically conditions at present met with during cholera epidemics in rural tracts.

38. The question of spread of the disease by railway traffic is referred to in para. 92.

STATEMENT A.

Cholera incidence and rate of mortality to attacks during 1894 according to months.

Months.	1	2			3			4			5		
		Ganjám.			Vizagapatam.			Gódávari.			Kistna.		
		Attack.	Death.	Percentage.	Attack.	Death.	Percentage.	Attack.	Death.	Percentage.	Attack.	Death.	Percentage.
January		72	51	70·8	190	90	47·4	110	110	100·0	85	69	81·2
February		58	47	81·0	122	49	40·2	198	165	83·3	706	573	81·2
March		9	9	100·0	5	5	100·0	123	116	94·3	689	442	64·2
April		2	2	100·0	...	...	...	4	4	100·0	188	95	50·5
May		...	...	...	...	...	...	...	...	...	...	...	...
June		...	...	...	...	..	...	...	...	...	1	1	100·0
July		...	...	...	...	...	...	...	...	...	...	...	...
August		...	...	...	...	...	...	...	...	...	...	...	...
September		...	...	...	...	...	...	...	...	...	...	...	...
October		...	...	...	...	...	...	...	...	...	...	...	...
November		73	61	83·6	...	...	...	...	...	...	...	...	...
December		19	18	94·7	...	...	...	...	...	...	...	...	...
Total		233	188	80·7	317	144	45·4	435	395	90·8	1,669	1,180	70·1

Months.	6			7			8			9		
	Nellore.			Madras.			Chingleput.			South Arcot.		
	Attack.	Death.	Percentage.	Attack.	Death.	Percentage.	Attack.	Death.	Percentage.	Attack.	Death.	Percentage.
January	...	...	...	19	19	100·0	199	119	59·8	2,342	2,013	85·9
February	40	30	75·0	14	12	85·6	79	53	67·1	1,128	910	80·7
March	37	31	83·8	5	4	80·0	4	4	100·0	557	441	79·2
April	64	20	31·2	1	1	100·0	1	1	100·0	247	193	78·1
May	...	...	...	1	1	100·0	13	7	53·8	162	96	59·3
June	...	...	...	...	...	...	2	2	100·0	74	46	62·2
July	1	1	100·0	...	...	...	5	4	80·0	49	34	69·4
August	...	...	...	...	...	...	...	...	...	49	33	67·3
September	...	...	...	...	...	...	...	...	...	78	53	67·8
October	...	...	...	...	...	...	5	2	40·0	1	1	100·0
November	...	...	...	2	1	50·0	...	...	...	48	32	66·7
December	12	7	58·3	53	39	73·6	338	184	54·4	703	583	82·9
Total	154	89	57·8	95	77	81·1	646	376	58·2	5,438	4,435	81·6

Months.	10			11			12		
	Trichinopoly.			Tanjore.			Madura.		
	Attack.	Death.	Percentage.	Attack.	Death.	Percentage.	Attack.	Death.	Percentage.
January	2,860	2,247	78·5	7,728	6,931	89·7	3,140	1,818	57·9
February	1,162	833	71·7	2,634	2,259	85·8	1,546	856	55·4
March	355	228	64·2	525	450	85·7	669	394	58·9
April	110	75	68·2	109	100	91·7	744	644	86·5
May	*	36	...	16	16	100·0	761	529	69·3
June	1	1	100·0	1	1	100·0	300	115	38·3
July	...	...	...	...	...	...	605	306	50·6
August	...	...	...	1	1	100·0	514	297	57·8
September	1	1	100·0	1	1	100·0	456	174	38·2
October	...	...	...	5	5	100·0	175	76	43·4
November	12	12	100·0	...	...	..	843	337	40·0
December	124	113	91·1	260	183	70·4	1,709	1,048	61·3
Total	4,625	3,546	76·7	11,280	9,947	88·2	11,462	6,594	57·5

* Number attacked not known.

STATEMENT A.

Cholera incidence and rate of mortality to attacks during 1894 *according to months*—cont.

Months.	13 Tinnevelly.			14 Kurnool.			15 Cuddapah.		
	Attack.	Death.	Percentage.	Attack.	Death.	Percentage.	Attack.	Death.	Percentage.
January	3,092	2,455	79·4	...	...	...	...	...	...
February	1,454	1,154	79·4	...	...	...	...	...	...
March	547	481	87·9	297	172	57·9	...	...	...
April	229	188	82·1	278	184	66·2	...	...	...
May	237	206	86·9	179	116	64·8	...	...	...
June	256	213	83·2	158	95	60·1	...	...	...
July	97	90	92·8	191	85	44·5	...	...	...
August	703	624	88·8	96	51	53·1	1	1	100·0
September	1,096	799	72·9	214	95	44·4	59	22	37·3
October	360	273	75·8	6	5	83·3	220	102	46·4
November	305	254	83·3	...	...	...	27	17	60·7
December	421	348	82·7	...	...	...	2	2	100·0
Total ...	8,797	7,085	80·5	1,419	803	56·6	309	144	46·6

Months.	16 Bellary.			17 Anantapur.			18 North Arcot.			19 Salem.		
	Attack.	Death.	Percentage.	Attack.	Death.	Percentage.	Attack.	Death.	Percentage.	Attack.	Death.	Percentage.
January	55	20	36·4	...	...	...	1,530	1,089	71·0	1,070*	1,070	100·0
February	3	3	100·0	...	...	...	581	433	74·5	426*	426	100·0
March	1	1	100·0	...	...	...	143	101	70·6	118*	118	100·0
April	...	...	...	16	8	50·0	96	62	64·6	128*	128	100·0
May	...	...	...	16	2	12·5	50	40	80·0	15*	15	100·0
June	5	1	20·0	231	120	51·9	50	39	78·0	...	...	...
July	51	26	51·0	273	117	42·8	142	105	74·0	...	...	...
August	2	1	50·0	683	349	51·1	112	71	63·4	...	...	...
September	1	1	100·0	150	70	46·7	13	4	30·8	...	...	...
October	...	...	...	51	33	64·7	22	11	50·0	5	4	80·0
November	...	...	...	55	24	43·6	...	...	...	243	169	69·5
December	...	...	...	3	3	100·0	365	265	72·6	269	214	79·5
Total ...	118	53	44·9	1,478	726	49·1	3,104	2,220	71·5	2,274	2,144	94·3

Months.	20 Coimbatore.			21 Nilgiris.			22 South Canara.			23 Malabar.		
	Attack.	Death.	Percentage.	Attack.	Death.	Percentage.	Attack.	Death.	Percentage.	Attack.	Death.	Percentage.
January	1,444	1,239	85·8	28	27	96·4	144	98	68·0	208	153	73·5
February	*262	262	100·0	7	3	42·9	53	31	58·5	492	320	65·0
March	*56	56	100·0	4	...	...	...	...	...	220	158	71·8
April	*33	33	100·0	6	...	...	...	...	...	213	163	76·5
May	*89	89	100·0	...	...	...	...	...	...	111	86	77·4
June	340	191	56·2	...	...	...	...	...	...	34	28	82·3
July	66	36	54·5	...	...	...	...	...	...	10	5	50·0
August	1	...	...	...	...	...	...	...	...	54	23	42·4
September	...	...	...	...	...	...	...	...	...	145	91	62·7
October	* 7	7	100·0	...	...	...	...	...	...	105	43	40·9
November	15	5	33·3	...	...	...	...	...	...	92	45	48·9
December	* 48	48	100·0	...	...	...	...	...	...	54	41	75·9
Total ...	2,361	1,966	83·3	45	30	66·7	197	129	65·5	1,738	1,156	66·5

* In these cases the deaths were taken as attacks in the absence of definite information as to the number of attacks.

STATEMENT B.

Cholera incidence exhibited according to monsoon periods.

	Districts.	South-west monsoon. June.	July.	August.	September	Total.	North-east monsoon. October.	November.	December.	Total.	Grand total of both the monsoon periods.
Districts chiefly affected by south-west monsoon.	*East coast, north—*										
	Ganjám	...	...	...	...	...	...	61	18	79	79
	Vizagapatam	...	...	...	...	...	...	...	...	...	...
	Gódávari	...	...	...	...	...	...	...	...	...	...
	Kistna	1	...	...	...	1	...	...	...	...	1
	North midland—										
	Kurnool	95	85	51	95	326	5	...	...	5	331
	Cuddapah	...	1	22	102	125	17	2	...	19	144
	Bellary	1	26	1	1	29	...	...	...	...	29
	Anantapur	120	117	349	70	656	33	24	3	60	716
	South-western—										
	South Canara	...	...	...	...	...	...	...	...	...	...
	Malabar	28	5	23	91	147	43	45	41	129	276
	Nilgiris	...	...	...	...	...	...	...	...	...	...
	Total ...	245	234	446	359	1,284	98	132	62	292	1,576
	Incidence per mille of population of south-west monsoon group.	...	...	...	...	0·08	...	...	...	0·02	0·10
Districts chiefly affected by north-east monsoon.	*East coast, central—*										
	Nellore	...	1	...	..	1	...	...	7	7	8
	Madras	...	...	...	...	...	..	1	39	40	40
	Chingleput	2	4	...	...	6	2	...	184	186	192
	North Arcot	39	105	71	4	219	11	...	265	276	495
	East coast, south—										
	South Arcot	46	34	33	53	166	1	32	583	616	782
	Trichinopoly	1	...	...	1	2	...	12	113	125	127
	Tanjore	1	...	1	1	3	5	...	183	188	191
	South-eastern—										
	Madura	115	306	297	174	892	76	337	1,048	1,461	2,353
	Tinnevelly	213	90	624	799	1,726	273	254	348	875	2,601
	South midland—										
	Salem	...	...	...	...	...	4	169	214	387	387
	Coimbatore	191	36	...	...	227	7	5	48	60	287
	Total ..	608	576	1,026	1,032	3,242	379	810	3,032	4,221	7,463
	Incidence per mille of population of north-east monsoon group.	...	...	...	...	0·16	...	...	...	0·22	0·38

STATEMENT C.

Statement showing incidence of mortality from cholera in relation to rainfall and density of population.

Number.	District.	Area in square miles.	Rainfall in inches. Inter-monsoon period (January to May).	Rainfall in inches. South-west monsoon period (June to September).	Rainfall in inches. North-east monsoon period (October to December).	Density of population per square mile.	Total number of villages and towns.	Total population of all villages and towns including Europeans and Eurasians.	Number of villages and towns affected by cholera.	Population of villages and towns affected by cholera.	Total mortality from all causes including Europeans and Eurasians.	Cholera. Attack.	Cholera. Death.	Percentage of villages and towns affected to total number of villages and towns.	Percentage of persons died to total number attacked.	Percentage of cholera deaths to total registered mortality from all causes.	Ratio per mille of deaths from cholera to population of villages and towns affected.	Ratio per mille of deaths from cholera to total population of all villages and towns.	Ratio per mille of deaths from all causes to total population of all villages and towns.
	Districts chiefly affected by south-west monsoon. — *East coast, north—*																		
1	Ganjám	8,370	4·00	31·71	10·39	227	6,037	1,896,803	28	* 56,509	24,061	233	188	0·5	80·7	0·8	3·3	0·1	12·7
2	Vizagapatam ...	4,619	4·76	33·23	14·94	421	2,668	1,943,211	28	* 85,994	32,472	317	144	1·0	45·4	0·4	1·7	0·1	16·7
3	Gódávari	7,857	2·04	22·61	15·04	264	2,603	2,078,782	68	232,211	35,551	435	395	2·6	90·8	1·1	1·7	0·2	17·1
4	Kistna	8,397	2·25	16·80	12·11	221	1,848	1,855,582	234	446,742	37,166	1,669	1,180	9·4	70·1	3·2	2·6	0·6	20·0
	North midland—																		
5	Kurnool	7,514	1·77	18·29	8·45	109	802	817,811	114	149,504	21,406	1,419	803	14·2	56·6	3·7	5·4	0·1	26·2
6	Cuddapah	8,722	2·42	17·48	8·88	146	1,276	1,272,072	21	32,580	27,989	309	144	1·6	46·6	0·5	4·4	0·1	22·0
7	Bellary	6,136	3·60	12·24	6·42	149	819	911,514	12	105,789	21,400	118	53	1·5	44·9	0·2	0·5	0·1	23·5
8	Anantapur	5,275	2·67	11·83	7·44	134	941	708,549	65	65,897	12,800	1,478	726	6·9	49·1	5·7	11·0	1·0	18·1
	South-western—																		
9	South Canara ...	3,902	6·41	128·05	9·29	269	1,277	1,052,359	46	* 59,635	22,524	197	129	3·6	65·5	0·6	2·2	0·1	21·4
10	Malabar	5,585	14·02	82·18	8·23	473	2,245	2,641,928	30	309,754	40,590	1,738	1,156	1·3	66·5	2·8	3·7	0·4	15·4
11	Nilgiris	957	13·66	33·19	12·44	104	52	99,797	6	30,603	2,343	45	30	11·5	66·7	1·3	1·0	0·3	23·5
	Districts chiefly affected by north-east monsoon. — *East coast, central—*																		
12	Nellore	8,765	2·21	11·50	18·55	167	1,793	1,463,736	27	71,762	24,348	154	89	1·5	57·8	0·4	1·2	0·1	16·6
13	Madras	29	2·39	23·08	22·31	15,604	1	452,518	1	452,518	16,542	95	77	100·0	81·1	0·5	0·2	0·2	36·6
14	Chingleput	2,842	3·51	20·62	19·82	423	2,134	1,202,928	99	211,725	24,786	646	376	4·6	58·2	1·5	1·8	0·3	20·6
15	North Arcot	7,616	4·21	15·91	11·44	278	4,328	2,114,487	279	462,702	35,578	3,104	2,220	6·4	71·5	6·2	4·8	1·0	16·8
	East coast, south—																		
16	South Arcot	5,217	6·38	19·35	16·47	414	2,897	2,162,851	663	768,426	50,033	5,438	4,435	22·9	81·6	8·9	5·8	2·0	23·1
17	Trichinopoly	3,631	7·16	11·40	10·45	378	1,502	1,372,717	479	617,306	30,799	4,625	3,546	31·9	76·7	11·5	5·7	2·6	22·4
18	Tanjore	3,709	6·05	12·82	19·80	601	3,550	2,228,114	1,255	1,132,091	59,618	11,280	9,947	35·3	88·2	16·7	8·8	4·5	26·8
	South-eastern—																		
19	Madura	† 8,808	7·86	8·20	16·29	† 296	† 4,103	† 2,608,404	† 462	† 968,746	‡ 33,340	† 11,462	† 6,594	11·3	57·5	19·8	6·8	2·5	12·7
20	Tinnevelly	5,387	5·70	2·22	11·94	356	1,538	1,916,095	683	1,281,479	51,593	8,797	7,085	44·4	80·5	13·7	5·5	3·7	26·9
	South-midland—																		
21	Salem	7,529	7·45	15·19	9·40	261	3,811	1,962,591	354	293,650	34,587	2,274	2,144	9·3	94·3	6·2	7·2	1·1	17·6
22	Coimbatore	7,860	7·11	6·67	9·07	255	1,478	2,004,839	268	637,958	33,969	2,361	1,966	18·1	83·3	5·8	3·1	1·0	16·9
	Total ...	128,727	5·35	25·21	12·69	262	47,703	34,767,688	5,161	8,479,581	673,475	58,194	43,427	10·8	74·6	6·4	5·1	1·3	19·4

* Represents the figures of 1881 census, as the 1891 census talukwar statement has not yet been published.

† Comprises the whole district including the zemindary tracts of Sivaganga and Ramnad.

‡ Represents the mortality recorded in the taluks and towns other than those of Ramnad and Sivaganga zamindary tracts except the four zamindary towns of Ramnad, Kílakarai, Aruppukóttai and Paramagudi for which towns only vital statistical returns are received.

STATEMENT D.

Abstract of information furnished by District Sanitary Officers as to the presumed mode of introduction and spread of Cholera in their respective Districts.

District.	Name and rank of reporting officer.	Taluk or village in which the disease first appeared.	Date of first case in last outbreak.	Date of first case in present outbreak.	Method of introduction as suggested by reporting officers.	When disease became epidemic.	Number of deaths from date of present outbreak.	Date of last case reported up to December 1894.	Remarks.
Anantapur.	Surgeon-Major H. M. Hakim, District Sanitary Officer.	Kummanamala, Tadpatri taluk.	.....	8th and 12th April 1894.	Some persons of the village of Kummanamala (Tadpatri taluk) went to Kanakadripalli in Koilkuntala taluk (Kurnool district), where cholera was prevalent at the time for the purpose of cutting wood. These people, having become affected there, spread it in their own village. The first case in the village occurred on the 2nd April 1894, and the last on the 14th idem. The disease was also introduced into the village of Talaricheru and Gandlapudu (Tadpatri taluk) on the 8th and 12th April 1894, some of the permanent residents of these villages having gone to Ankireddipalli in Koilkuntla taluk where cholera prevailed and returned to the villages with it. In the former there were three deaths and in the latter only one death. The disease next appeared in the town of Tadpatri in a boy of 9 years of age. There were only two deaths in this place, one on 31st May and another on 13th June; but the disease made its appearance in some of the villages of Anantapur, Tadpatri and Gooty taluks, but in the two first rather severely. Cholera is said to have been introduced into Anantapur taluk by some of the villagers of Nadigal (Anantapur taluk), who came to Tadpatri, on the 21st May for a feast and returned immediately owing to the presence of cholera in the place. The Tahsildar of Tadpatri states there was cholera at the time in the village of Ankireddipalli, and people of that village, who came to Tadpatri market with the disease, spread it in the town. The Hospital Assistant of Tadpatri states:—"When tracing out the cause of the epidemic of cholera, I learn that a man affected with the disease at Ankireddippalli brought the disease and died here."	.....	4	14th April 1894.	
.....	.....	.....	.....	11th and 12th April 1894.		.....	4		
.....	.....	.....	.....	31st May 1894.		June.	726	December 1894.	"The vicinity of Tadpatri to the Kurnool district makes it more liable to outbreaks of the disease as well as its physical condition, the extreme heat prevailing during the hot months and scarcity of good water. The water for drinking is obtained from a channel in the river bed and it is a physical impossibility to keep the supply free from pollution. The condition of the drains, which lie in the main streets, are all covered over and reeking with filth as well as the state of the channel which runs through the town which is nothing more than a foul elongated latrine and, unless this is diverted, they will never be able to keep the disease off Tadpatri. I wonder why the disease does not establish itself and make its presence felt more severely under such favourable conditions." (Signed) H. M. HAKIM District Sanitary Officer. "The disease in this village (Nadigal) is said to have been imported from Tadpatri. On the 21st May 1894, some people of this village went to Tadpatri for the festival and returned immediately for fear of catching cholera. On the 26th two females of those that returned were attacked and the disease gradually spread over the village, and it is in a declining state at present. The disease is also in existence in two or three other villages of this taluk." (Signed) H. M. HAKIM, District Sanitary Officer.
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

STATEMENT D—*cont.*

Abstract of information furnished by District Sanitary Officers as to the presumed mode of introduction and spread of Cholera in their respective Districts—continued.

District.	Name and rank of reporting officer.	Taluk or village in which the disease first appeared.	Date of first case in last outbreak.	Date of first case in present outbreak.	Method of introduction as suggested by reporting officers.	When disease became epidemic.	Number of deaths from date of present outbreak.	Date of last case reported up to December 1894.	Remarks.
Bellary.	Mr. James Connor, Apothecary.	Municipal Town, Bezwada.	.....	* 8th Jan. 1894.	The disease first made its appearance in the town of Bezwada on the 8th January 1894. The individuals attacked were 4 females residing in fisherman's line of Buckinghampet. Three of these died. The Apothecary writes: "Of what appears to be true Asiatic cholera." Two other Muhammadans living at a short distance from the first attacked also suffered from cholera.	January.	140	27th March 1894.	"* All these people who have been attacked are old residents of this place and have not been away from home for less than a year. All these people use a well for drinking water." (Signed) JAMES CONNOR, Apothecary.
	M.R.Ry. Pillai Avergal, Acting District Sanitary Officer, Bellary.	Kámalápuram, Hospet taluk.	.....	30th June 1894.	On the 30th June cholera appeared at Kámalápuram (Hospet taluk). Five persons were attacked on that date. Of these 3 appear to have come from Gollarahalli (Hospet taluk), 15 miles distant from Kámalápuram, 27th June 1894, one a permanent resident of Kámalápuram and the other 2 visitors from Gollarahalli. This village is reported to be healthy and up to 13th no cases were reported from it. M.T. Bellary 4th September 1894, 1 death. There were two cases, one at Hospet on the 1st and another at Chitwadigi close to Hospet on 6th July 1894. The former was a beggar and the latter got the attack after visiting Kámalápuram, both died. None since.	.....	28 (excluding 1 death in July, Bellary town).	31st July 1894.	. . . . "It would appear that at the end of November 1893 one suspicious case occurred in a resident of the village who had returned from Coomaraswámi festival that 15 days afterwards three children were attacked with diarrhœa and died. Between 2nd and 6th January there were 11 cases, all of which were of a mild type." . . . (Signed) W. O'HARA, District Sanitary Officer. "* The disease appears to have had its origin in the insanitary condition of the village itself. This village is situated immediately above the bank of an irrigation channel called Roya which branches off from the Tungabhadra river and feeds a large tank on which, as well as on a step well, called Gari Bhavi . . . . people depend for their drinking water supply. From information received the ground seems to slope towards the tank from the village and the bank of this tank appears to be covered with rubbish and dung heaps, so that during heavy rain all the filth from the town gets washed into the tank. The Gari Bhavi also appears to be unprotected at one part, so that surface drainage may find its way easily into it." . . . . (Signed) D. S. AMURTHASWAMI PILLAI, Acting District Sanitary Officer.
Kistna.	D. C. deRozario, Civil Apothecary.	Basapúr and Thimalapúr (Hospet taluk).	.....	2nd January 1894.	The disease first appeared in Basapúr, a small shotriem village, in Hospet taluk (2nd January 1894), and on the 7th idem it made its appearance in Thimalapúr (Bellary taluk), a village adjoining Basapúr. Into the second village it is said to have been introduced by people of Basapúr, who came to Thimalapúr, on the 2nd January to celebrate a feast. M.T. Bellary January (1), Ádóni February (1), March (1).	.....	21 (excluding 3 deaths in municipal town, 1 in Bellary and 2 in Ádóni).	4th February 1894.	. . . . "It would appear that at the end of November 1893 one suspicious case occurred in a resident of the village who had returned from Coomaraswámi festival that 15 days afterwards three children were attacked with diarrhœa and died. Between 2nd and 6th January there were 11 cases, all of which were of a mild type." . . . (Signed) W. O'HARA, District Sanitary Officer.
Kurnool.	M.R.Ry. Kandayya Pillai, District Surgeon, Kurnool.	Municipality of Kurnool.	.....	20th May 1894.	The first case of cholera in the Municipality of Kurnool was on the 20th May 1894 in Roza, a suburb near the north-western toll-gate of the town. The patient, an old woman, who went on a visit to Gopalasingavaram, a village about 9 miles from Kurnool, where cholera was prevalent, was seized on her return with diarrhœa and vomiting, and died the following day. A child living close by was next attacked and died. There were 5 deaths in all between the 20th and 22nd May.	.....	24	3rd July.	The first case of cholera in the district broke out at Srisailam and the person attacked was one among a number of people who went on a pilgrimage there from Kistna district where cholera was prevailing at the time. It seems that the persons, who went to Srisailam to attend the festival, carried the infection to different parts of the district. (Signed) S. KANDAYYA, Acting District Sanitary Officer.
	M.R.Ry. Kumaswámi, Civil Apothecary, Local Fund Hospital, Répalle.	M.T. Guntúr, Municipal Town, Masulipatam.	.....	22nd Feb. 1894.	Cholera next appeared in the town of Masulipatam on the 27th January 1894. It was introduced into the town by some people who came from Bezwada in a Radhari boat. The District Sanitary Officer writes: "On the 24th some passengers were attacked in a Radhari boat, one man was removed at Vamramki lock, half way between here and Bezwada and died there: another man eluded the police guard at the tunnel and came into the town (Masulipatam) and died on the 26th. Five more cases, all recently arrived, occurred on the 26th and from that date the disease had spread." In Guntúr Municipality it made its appearance on the 22nd February 1894. It is said to have been imported into the districts by persons who went to Kotappakonda festival and returned.	February.	62	27th Jan. 1894.	
	Surgeon-Major A. J. Sturmer, Dist. Sanitary Officer, Kistna.	.....	.....	2nd February 1894.	A fatal case of cholera appeared in a woman at Donaipudi, 2nd February 1894, a village situated on the Kistna bank canal and 10 miles from Répalle. She returned from Bezwada where cholera was prevalent. It next appeared in Vellatúr, a village lower down the canal and 2 miles distant from Donaipudi. From Vellatúr it spread to Gorigapudi, a village lower down still and 2 miles from the last-named place. Two persons were attacked in this village and died and their bodies were through fear dragged and thrown into the Kistna bank canal. Some people, who saw the two dead bodies as they were being drifted down, died through fear. [?] These dead bodies were removed and buried by the village officers of Kunchinapudi which is the terminus of Isukapalli branch channel. People living on either side of the cart road leading from Vellatúr to Chandole also suffered. Two boatmen, who returned to their hamlets near Nizampatam from Bezwada, died of cholera. On the 17th February 1894 a Mussalman woman was attacked with cholera in this village. Writing on the 20th February the Apothecary states "that about 3 weeks ago a man named Kannara Ramaswámi, who was attacked with cholera at Bezwada, came to Patibundla (Sattenapalle) in a convalescent state. A week after his arrival a man named Katadu living in the vicinity was attacked with all the symptoms of the malady. He got well after two days' illness. A few days later on Ali Saib, a boy aged about 11 years (residing with a relative of the woman now attacked), was very ill for two days and who subsequently recovered.	.....	16	21st March 1894.	"* Cholera of a mild type broke out in March and was imported by those who attended the Kotappakonda festival where cholera was rife. Fortunately the epidemic was restricted to those alone who returned from the feast and in a localised area." (Signed) A. J. HESTERLOW, Acting Civil Surgeon.
	.....	.....	.....	.....		.....	.....	.....	
	.....	.....	.....	.....		.....	.....	.....	
	Municipality of Kurnool.	Patibundla.	.....	.....		February.	269	16th April 1894.	
	.....	.....	.....	.....		.....	.....	.....	
	.....	.....	.....	.....		.....	.....	.....	
	.....	.....	.....	.....		.....	.....	.....	

* The first case in the district was on the 2nd January 1894 in Nayampalli village, Bapatla taluk.

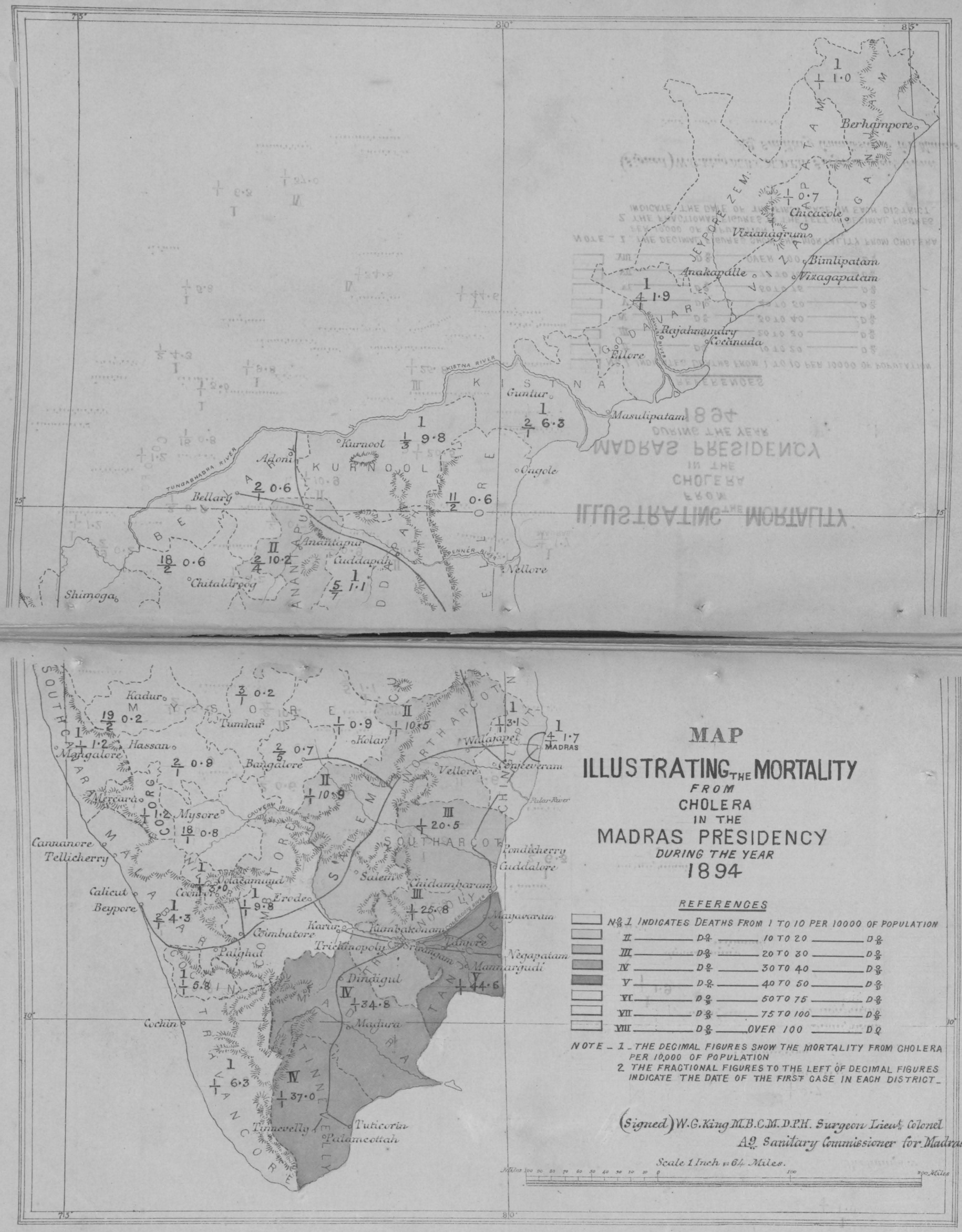
STATEMENT D—*cont.*

Abstract of information furnished by District Sanitary Officers as to the presumed mode of introduction and spread of Cholera in their respective Districts—continued.

District.	Name and rank of reporting officer.	Taluk or village in which the disease first appeared.	Date of first case in first outbreak.	Date of first case in present outbreak.	Method of introduction as suggested by reporting officers.	When disease became epidemic.	Number of deaths from date of present outbreak.	Date of last case reported up to December 1894.	Remarks.
Nellore.	M.R.Ry. N. Jagannayagulu Naidu, Hospital Assistant, Addanki.	.....	.....	7th February 1894.	Cholera was imported into this district by some people who had been to Mahodayam festival, which was held on the 5th February in Chinna Ganjám near Kistna district. On the 7th it was reported that a woman who had been there died of cholera in Venkatapuram, a suburb of Addanki. On the 8th and 12th reports were received from Janakavaram and Allavalapad that a woman died in each village. When I went to the places I found that all the victims were pilgrims. According to District return first case was on 11th February 1894.	.....	.....	.....	"On Monday the 5th February 1894, Mahodayam, a very sacred day among Hindus falling once in 30 years, came off and thousands of people went to the sea in order to bathe therein on that day. From this division too (Addanki) many went, the place selected being Mottupally near Chinna Ganjám, Kistna district, where on the seashore there is a temple dedicated to Siva. Cholera, it appears, has been raging in almost all the taluks of the Kistna district, especially in the taluks which are near the temple. On the day referred to many from the affected localities of the Kistna district came there and with them the people of this division came in contact. One or two days all mingled together eating, drinking and bathing. The result has been that some persons who went from this division caught the contagion and brought cholera to this division. The fact that all those who were attacked were the pilgrims to this temple strengthens my belief that the contagion was caught at the temple."
Kurnool.	Surgeon-Major Reeves, Dist. Sany. Officer, Madura.	Palni Municipality.	.....	12th Dec. 1894.	On the 11th December a Muhammadan woman was attacked; the second attack occurred in a neighbouring house; the third person attacked also lived close by; all residents of the town.	.....	46	31st December 1894.	"It is probable that Malayalees introduced the disease for a number arrived about the 11th instant, but this cannot be proved. . . . It is significant that all the cases of cholera have occurred near the tank or among the population who use this tank and not among those who drink water from wells." (Signed) F. C. REEVES, District Sanitary Officer.
Madura.	M.R.Ry. Venkoba Rao, Chairman, Municipal Council, Kurnool.	Municipal Town Kurnool.	.....	.....	On the 7th June cases occurred in the town itself, although peons were kept to guard the several gates and to fumigate people that entered the town from the infected parts.	.....	.....	.....	"Cholera first broke out in the district in Markapur taluk and at Srisailam in the Nandikotkur taluk on the occasion of the festival at the latter place. The disease was imported from the Kistna district by pilgrims that came from there. Since that date it has been lingering in several of the villages of the Nandikotkur taluk till at last it entered Alampur in the Nizam's territory 7 miles from Kurnool. Thence it found its way into Mangalapad and Roza and Tundrapad and finally in the town itself on the 7th June 1894." (Signed) VENKOBA RAO, Chairman.

GENERAL.

MAP
ILLUSTRATING THE MORTALITY
FROM
CHOLERA
IN THE
MADRAS PRESIDENCY
DURING THE YEAR
1894



REFERENCES

No. 1 INDICATES DEATHS FROM 1 TO 10 PER 10000 OF POPULATION

II ____ D. ____ 10 TO 20 ____ D.

III ____ D. ____ 20 TO 30 ____ D.

IV ____ D. ____ 30 TO 40 ____ D.

V ____ D. ____ 40 TO 50 ____ D.

VI ____ D. ____ 50 TO 75 ____ D.

VII ____ D. ____ 75 TO 100 ____ D.

VIII ____ D. ____ OVER 100 ____ D.

NOTE – 1. THE DECIMAL FIGURES SHOW THE MORTALITY FROM CHOLERA PER 10,000 OF POPULATION

2. THE FRACTIONAL FIGURES TO THE LEFT OF DECIMAL FIGURES INDICATE THE DATE OF THE FIRST CASE IN EACH DISTRICT.

(Signed) W.G. King M.B.C.M. D.P.H. Surgeon Lieut.t Colonel
Ag. Sanitary Commissioner for Madras

Scale 1 Inch = 64 Miles.

Miles 100 90 80 70 60 50 40 30 20 10 0 100 200 Miles

Statement illustrating the distribution, &c., of Cholera in the Madras Presidency during the year 1894, 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.		Period of Maximum Intensity of the Disease.	Number of Villages in each of the Circles.	Number of those	
						Total Deaths in each of the Circles.	Ratio per 10,000 of Population.			Affected by Cholera.	Not affected by Cholera.
Anantapur.	1	Anantapur ... M.T.C.	6,973	1st Aug....	3rd Sept. ...	6	8·6	...	1	1	...
	2	Tadpatri ... T.C.	10,275	13th June...	9th Oct. ...	74	72·0	August ...	1	1	...
	3	Anantapur ... R.C.	97,296	1st June..	17th Oct. ...	358	36·8	August ...	122	27	95
	4	Gooty ... R.C.	142,577	3rd Aug....	31st Dec. ...	51	3·6	November...	153	7	146
	5	Tadpatri ... R.C.	102,373	2nd April.	11th Oct. ...	225	22·0	August ...	95	27	68
	6	Penukonda ... R.C.	80,269	...	...	...	...	...	103	...	103
	7	Dharmavaram R.C.	118,714	9th Sept.	15th Nov....	12	1·0	November...	215	2	213
	8	Hindúpur ... R.C.	81,674	...	...	...	...	...	101	...	101
	9	Madakasíra ... R.C.	67,992	...	...	...	...	...	150	...	150
	9	Total, District ...	708,143	2nd April.	31st Dec. ...	726	10·2	August ...	941	65	876
Bellary.	10	Bellary ... M.T.C.	57,780	20th Jan. ...	4th Sept....	2	0·3	...	1	1	...
	11	Ádóni ... M.T.C.	26,216	20th Feb....	14th Mar. ...	2	0·8	...	1	1	...
	12	Hospet ... T.C.	12,869	2nd July...	2nd July...	1	0·8	...	1	1	...
	13	Kampli ... T.C.	10,528	...	...	...	...	...	1	...	1
	14	Rayadrug ... T.C.	10,378	...	...	...	...	...	1	...	1
	15	Bellary ... R.C.	120,800	8th Jan. ...	4th Feb....	17	1·4	January ...	129	1	128
	16	Hospet ... R.C.	69,103	2nd Jan....	31st July ...	30	4·3	July ...	77	7	70
	17	Kúdligi ... R.C.	94,295	...	...	...	...	...	105	...	105
	18	Hadagalli ... R.C.	104,035	...	...	...	...	...	85	...	85
	19	Harpanahalli ... R.C.	82,240	...	...	...	...	...	83	...	83
	20	Alúr ... R.C.	88,076	...	...	...	...	...	91	...	91
	21	Ádóni ... R.C.	134,551	21st Aug....	21st Aug....	1	0·07	...	129	1	128
	22	Rayadrug ... R.C.	87,419	...	...	...	...	...	91	...	91
	23	Zemindari	11,371	...	...	...	...	...	24	...	24
	14	Total, District ...	909,661	2nd Jan....	4th Sept....	53	0·6	July ...	819	12	807
Chingleput.	24	Conjeeveram ... M.T.C.	42,543	1st Jan. ...	30th Dec. ..	60	14·1	January ...	1	1	...
	25	St. Thomas' Mount T.C.	12,140	25th Dec....	25th Dec....	1	0·8	...	1	1	...
	26	Saidapet ... R.C.	209,477	1st Jan. ...	31st Dec. ...	69	3·3	December...	275	25	250
	27	Chingleput ... R.C.	137,176	7th Jan. ...	31st Dec. ...	71	5·2	December...	300	21	279
	28	Madurántakam R.C.	263,130	3rd Jan. ...	31st Dec. ...	72	2·7	January ...	514	22	492
	29	Conjeeveram ... R.C.	176,121	16th Jan. ...	31st Dec. ...	79	4·5	December...	372	19	353
	30	Tiruvallúr ... R.C.	* 236,916	9th Feb. ...	30th Dec. ...	20	0·9	December...	431	6	425
	31	Ponnéri ... R.C.	122,398	14th Dec. ...	24th Dec. ...	4	0·3	...	240	4	236
	8	Total, District ...	1,199,901	1st Jan. ...	31st Dec. ...	376	3·1	December...	2,134	99	2,035
Coimbatore.	32	Coimbatore ... M.T.C.	46,007	1st Jan. ...	16th Feb. ...	6	1·3	February ...	1	1	...
	33	Erode ... M.T.C.	12,238	1st Jan. ...	29th Jan. ...	38	31·1	...	1	1	...
	34	Karúr ... M.T.C.	10,740	2nd Jan. ...	17th Nov....	44	41·9	January ...	1	1	...
	35	Coimbatore ... R.C.	260,421	1st Jan. ...	7th July ...	388	14·9	January ...	263	51	212
	36	Erode ... R.C.	234,677	1st Jan. ...	31st Dec. ...	119	5·1	January ...	202	23	179
	37	Satyamangalam R.C.	184,088	1st Jan. ...	16th May...	318	17·3	January ...	191	58	133
	38	Pollachi ... R.C.	183,650	4th Feb. ..	31st Dec. ...	160	8·7	June ...	161	19	142
	39	Palladam ... R.C.	270,384	1st Jan. ...	31st Dec. ...	208	7·7	January ...	195	29	166
	40	Bhaváni ... R.C.	119,867	1st Jan. ...	21st Feb. ...	136	11·3	January ...	63	20	43
	41	Kollegal ... R.C.	88,524	2nd Jan. ...	9th Dec. ...	4	0·4	...	130	2	128
	42	Udamalpet ... R.C.	143,056	29th Jan. ...	28th Dec. ...	85	5·9	June ...	93	10	83
	43	Karúr ... R.C.	201,043	1st Jan. ...	28th May ...	165	8·2	January ...	95	28	67
	44	Dhárápuram ... R.C.	249,216	1st Jan. ...	9th Nov...	295	11·8	January ...	82	25	57
	13	Total, District ...	2,003,911	1st Jan. ...	31st Dec. ...	1,966	9·8	January ...	1,478	268	1,210
Cuddapah.	45	Cuddapah ... M.T.C.	17,211	...	...	...	...	...	1	...	1
	46	Badvél ... R.C.	93,150	...	...	...	...	...	120	...	120
	47	Proddatúr ... R.C.	98,417	9th Sept....	9th Nov....	9	0·9	September...	91	4	87
	48	Sidhout ... R.C.	66,809	18th Sept....	30th Sept....	9	1·3	...	79	2	77
	49	Pullampet ... R.C.	149,093	...	...	...	...	...	135	...	135
	50	Cuddapah ... R.C.	137,455	...	...	...	...	...	151	...	151
	51	Jammalamadugu R.C.	101,273	5th July ..	3rd Nov....	126	12·4	September...	127	15	112
	52	Pulivendla ... R.C.	105,842	...	...	...	...	...	106	...	106
	53	Ráyachóti ... R.C.	113,234	...	...	...	...	...	94	...	94
	54	Kadiri ... R.C.	134,892	...	...	...	...	...	142	...	142
	55	Vayalpad ... R.C.	127,035	...	...	...	...	...	125	...	125
	56	Madanapalle ... R.C.	127,310	...	...	...	...	...	105	...	105
	12	Total, District ...	1,271,721	5th July...	9th Nov....	144	1·1	September...	1,276	21	1,255
Ganjám.	57	Chicacole ... M.T.C.	18,204	25th Jan....	15th Feb....	12	6·6	February ...	1	1	...
	58	Berhampur ... M.T.C.	25,493	...	...	...	...	...	1	...	1
	59	Parlákimedi ... M.T.C.	16,379	5th Jan. ...	5th Jan. ...	1	0·6	...	1	1	...
	60	Chicacole ... R.C.	194,330	1st Jan. ...	22nd Feb....	64	3·3	February ...	305	6	299

* Includes 66,000, the population of 137 villages transferred from North Arcot District.

Statement illustrating the distribution, &c., of Cholera in the Madras Presidency during the year 1894, *to accompany the Cholera Map*—continued.

1 Districts.	2 Number of Circles of Registration.	3 Name of Circle.	4 Population for which Returns were received.	5 Date of First Case of Cholera in the Circle during the Year.	6 Date of Last Case of Cholera in the Circle during the Year.	7 Cholera. Total Deaths in each of the Circles.	7 Cholera. Ratio per 10,000 of Population.	8 Period of Maximum Intensity of Disease.	9 Number of Villages in each of the Circles.	10 Number of those Affected by Cholera.	10 Number of those Not affected by Cholera.
Ganjám—*cont.*	61	Berhampur R.C.	297,736	6th Mar....	9th Dec. ...	33	1·1	November...	543	7	536
	62	Goomsur ... R.C.	185,831	8th Nov....	8th Dec. ...	8	0·4	November...	710	2	708
	63	Zemindaries	851,109	7th Jan. ...	29th Dec. ...	70	0·8	November...	2,630	11	2,619
	64	Agency Tracts	307,318	...	...	...	...	...	1,846	...	1,846
	8	Total, District ...	1,896,400	1st Jan. ...	29th Dec....	188	1·0	November ..	6,037	28	6,009
Gódávari.	65	Cocanada ... M.T.C.	40,068	17th Jan....	5th Mar....	7	1·7	March ...	1	1	...
	66	Rajahmundry... M.T.C.	28,279	15th Jan. ..	9th April ...	21	7·4	March ...	1	1	...
	67	Ellore ... M.T.C.	29,296	11th Jan. ...	21st Mar. ...	116	4·0	February ..	1	1	...
	68	Pithápuram ... T.C.	13,731	...	...	...	...	...	1	...	1
	69	Peddápuram ... T.C.	13,652	...	...	...	...	...	1	...	1
	70	Samalkot ... T.C.	13,409	...	...	...	...	...	1	...	1
	71	Dowlaishweram T.C.	10,454	2nd Mar....	11th Mar....	8	7·7	March ...	1	1	...
	72	Rámachandrapuram R.C.	261,183	4th Jan. ...	4th April...	65	2·5	March ...	164	15	149
	73	Narsapur ... R.C.	230,315	31st Jan. ...	17th Mar. ...	116	4·0	March ...	139	10	129
	74	Amalápuram ... R.C.	256,072	5th Feb. ..	13th Mar...	22	0·9	February ...	170	6	164
	75	Tanuku ... ... R.C.	204,040	21st Jan. ...	16th Feb....	9	0·4	January ...	176	3	173
	76	Bhimavaram ... R.C.	121,990	9th Feb. ...	29th Mar....	15	1·2	March ...	138	5	133
	77	Ellore ... ... R.C.	142,585	23rd Jan. ...	26th April...	65	4·6	February ...	219	18	201
	78	Yernagúdem ... R.C.	136,204	25th Jan. ...	19th Mar....	6	0·4	March ...	137	4	133
	79	Rajahmundry ... R.C.	106,866	12th Jan....	20th Jan. ...	3	0·3	...	116	1	115
	80	Peddápuram ... R.C.	124,028	...	...	...	...	...	123	...	123
	81	Bhadráchalam ... R.C.	* 127,114	26th Jan. ...	31st Mar. ...	31	2·4	February ...	969	2	967
	82	Zemindaries	218,572	...	...	...	...	...	245	...	245
	18	Total, District ...	2,077,858	4th Jan. ...	26th April...	395	1·9	February ...	2,603	68	2,535
Kistna.	83	Masulipatam M.T.C.	38,667	27th Jan. ...	6th Mar....	62	16·0	February ..	1	1	...
	84	Guntúr ... M.T.C.	23,267	22nd Feb....	21st Mar. ...	16	6·9	March ...	1	1	...
	85	Bezwada ...M.T.C.	20,611	9th Jan. ...	27th Mar....	137	66·5	February ...	1	1	...
	86	Chírála ... T.C.	10,581	12th Feb ...	12th Feb....	1	0·9	...	1	1	...
	87	Répalle ... R.C.	222,756	31st Jan....	13th June...	270	12·1	March ...	151	53	98
	88	Bápatla ... R.C.	171,345	2nd Jan. ...	7th April ...	103	6·0	March ...	116	29	87
	89	Guntúr ... R.C.	143,367	29th Jan....	30th April .	42	2·9	Jan. & Apl.	112	16	96
	90	Palnad ... R.C.	142,005	11th Mar....	28th April...	15	1·1	April ...	98	3	95
	91	Narasaraopet ... R.C.	156,364	5th Mar....	31st Mar. ...	54	3·5	...	115	12	103
	92	Gudiváda ... R.C.	118,308	9th Jan....	7th April ...	139	1·2	February ...	213	27	186
	93	Sattenapalle ... R.C.	138,611	7th Mar....	11th April...	35	2·5	March ...	176	13	163
	94	Masulipatam ... R.C.	159,547	28th Jan. .	7th April...	135	8·5	February ...	188	21	167
	95	Nandigáma ... R.C.	126,698	24th Feb. ..	23rd Mar....	17	1·3	March ...	169	7	162
	96	Bezwada ... R.C.	85,731	9th Jan....	14th April...	55	6·4	February ...	108	20	88
	97	Vinukonda ... R.C.	82,431	12th Mar....	24th April...	30	3·6	April ...	72	7	65
	98	Zemindaries	214,735	9th Jan. ...	27th Mar. ...	66	3·1	February ...	326	22	304
	16	Total, District ...	1,855,024	2nd Jan. ...	13th June ...	1,177	6·3	Feb. & Mar.	1,848	234	1,614
Kurnool.	99	Kurnool ...M.T.C.	24,306	20th May....	3rd July ...	24	9·9	June ...	1	1	...
	100	Nandyal ... T.C.	10,704	10th Mar....	3rd Oct....	12	11·2	March ...	1	1	...
	101	Ramallakot ... R.C	100,590	13th Mar....	29th Sept....	85	8·4	May ...	106	16	90
	102	Pattikonda ... R.C.	138,703	23rd July....	29th Sept. ...	6	0·4	September..	107	2	105
	103	Nandikotkur ... R.C.	88,559	1st Mar. ...	1st Oct. ...	293	33·1	June ...	113	31	82
	104	Nandyal ... R.C.	85,542	10th Mar. ...	28th Sept....	174	20·3	April ...	100	20	80
	105	Koilkuntla ... R.C.	86,543	30th Mar. ...	7th Oct. ...	30	3·5	April ...	85	7	78
	106	Sirvel ... R.C.	65,164	21st Mar. ..	29th Sept....	12	1·8	April ...	87	3	84
	107	Cumbum ... R.C.	117,578	8th Mar. ...	23rd April...	41	3·5	March ...	108	10	98
	108	Markapur ... R.C.	99,971	4th Mar. ...	7th May ...	126	12·6	April ...	94	23	71
	10	Total, District ...	817,660	1st Mar....	7th Oct. ...	803	9·8	Apl.& Mar...	802	114	688
Madras.	109	Madras ... M.T.C.	436,375	4th Jan. ...	31st Dec. ...	75	1·7	December ...	1	1	...
Madura.	110	Madura ... M.T.C.	87,121	1st Jan. ...	31st Dec. ...	382	43·8	January ...	1	1	...
	111	Dindigul ... M.T.C.	20,115	2nd Jan. ...	31st Dec....	23	11·4	January ...	1	1	...
	112	Periyakulam ... M.T.C.	16,363	28th Jan. ...	11th Dec.. .	127	77·6	February ...	1	1	...
	113	Palni ... M.T.C.	16,940	1st Jan. ...	31st Dec....	72	42·5	December ...	1	1	...
	114	Ramnad ... T.C.	13,589	3rd Jan. ...	18th Feb. ...	43	31·6	January ...	1	1	...
	115	Aruppukóttai T.C.	12,673	14th Jan. ...	13th Sept....	189	14·9	June ...	1	1	...
	116	Kílakarai ... T.C.	12,396	3rd Jan. ...	22nd June ...	11	8·9	January ...	1	1	...
	117	Paramagudi ... T.C.	10,001	1st Jan. ...	2nd Jan. ...	2	2·0	...	1	1	...
	118	Madura ... R.C.	173,755	1st Jan. ...	31st Dec....	896	5·2	January ...	280	80	200

* Including Agency Hill Tracts.

Statement illustrating the distribution, &c., of Cholera in the Madras Presidency during the year 1894, *to accompany the Cholera Map*—continued.

1 Districts.	2 Number of Circles of Registration.	3 Name of Circle.	4 Population for which Returns were received.	5 Date of First Case of Cholera in the Circle during the Year.	6 Date of Last Case of Cholera in the Circle during the Year.	7 Cholera. Total Deaths in each of the Circles.	7 Cholera. Ratio per 10,000 of Population.	8 Period of Maximum Intensity of the Disease.	9 Number of Villages in each of the Circles.	10 Number of those Affected by Cholera.	10 Number of those Not affected by Cholera.
Madura—*cont.*	119	Mélúr ... R.C.	148,650	2nd Jan. ...	30th Nov. ...	299	20·1	January ...	100	30	70
	120	Tirumangalam R.C.	264,620	1st Jan. ..	31st Dec. ...	437	16·5	August ...	273	64	209
	121	Periyakulam R.C.	246,845	19th Jan. ...	31st Dec. ...	2,018	81·8	December...	85	59	26
	122	Dindigul ... R.C.	370,857	1st Jan ...	31st Dec. ...	587	15·8	January ...	213	78	135
	123	Palni ... ... R.C.	178,110	1st Jan. ...	28th Dec. ...	395	22·2	January ...	115	20	95
	124	Sattenandal Villages, &c.	1,283	...	...	...	...	...	4	...	4
	15	Total, District ...	1,573,318	1st Jan. ...	31st Dec. ...	5,481	34·8	Jan. and Dec.	1,078	339	739
Malabar.	125	Tellicherry ... M.T.C.	26,631	...	...	...	...	...	1	...	1
	126	Calicut ... M.T.C.	64,798	2nd Jan. ...	28th Mar....	135	20·8	January ...	1	1	...
	127	Palghat ... M.T.C.	39,367	19th Jan. ...	18th Dec. ...	40	10·2	August ...	1	1	...
	128	Cochin ... M.T.C.	16,147	24th Jan. ...	27th Nov....	218	55·4	February ...	1	1	...
	129	Cannanore ... M.T.C.	26,653	2nd Sept....	25th Nov ...	89	33·4	October ...	1	1	...
	130	Chirakkal ... R.C.	283,471	15th Jan. ...	4th Dec. ...	36	1·3	November...	282	2	280
	131	Kóttayam ... R.C.	168,260	6th Feb. ...	23rd Feb. ...	7	0·4	...	220	2	218
	132	Kurumbranád... R.C.	304,011	1st Feb. ...	1st Mar ...	9	0·3	February ...	340	2	338
	133	Calicut ... R.C.	171,582	17th Jan....	3rd Mar....	51	3·0	February ...	191	4	187
	134	Ernád ... R.C.	339,187	22nd Mar...	18th Sept...	90	2·7	May ...	233	2	231
	135	Ponnáni ... R.C.	449,253	20th Jan....	25th Dec. ...	308	7·0	April ...	460	6	454
	136	Walavanád ... R.C.	332,334	13th Jan....	14th Nov....	107	3·2	May ...	317	4	313
	137	Palghat ... R.C.	332,627	11th Jan. ...	30th Dec. ...	53	1·6	January ...	136	3	133
	138	Wynaad ... R.C.	76,365	...	...	...	...	...	58	...	58
	139	Cochin ... R.C.	5,988	12th Mar...	13th Mar. ...	2	3·3	...	3	1	2
	15	Total, District ...	2,636,674	2nd Jan....	30th Dec. ...	1,145	4·3	February ...	2,245	30	2,215
Nellore.	140	Nellore ... M.T.C.	29,128	2nd July ...	2nd July....	1	0·3	...	1	1	...
	141	Ongole ... M.T.C.	10,832	...	...	...	...	...	1	...	1
	142	Gudur ... R.C.	116,758	...	...	...	...	...	121	...	121
	143	Rapúr ... R.C.	61,305	...	...	...	...	...	113	...	113
	144	Nellore ... R.C.	168,548	22nd Dec....	29th Dec....	7	0·4	...	150	1	149
	145	Átmakúru ... R.C.	96,349	...	...	...	...	...	104	...	104
	146	Kávali ... R.C.	68,876	20th Feb. ...	26th Mar....	27	3·9	March ...	55	8	47
	147	Udayagiri ... R.C.	55,382	...	...	...	...	...	53	...	53
	148	Kandukúr ... R.C.	113,357	13th Feb. ...	24th Feb. ...	8	0·7	...	115	2	113
	149	Kanigiri ... R.C.	61,066	...	...	...	...	...	50	...	50
	150	Ongole ... R.C.	166,979	11th Feb. ...	5th April ...	21	1·3	February ...	112	8	104
	151	Zemindaries	514,777	26th Mar. ...	16th April ..	25	0·5	April ...	918	7	911
	12	Total, District ...	1,463,357	11th Feb. ...	29th Dec. ...	89	0·6	Mar.& Feb...	1,793	27	1,766
Nilgiris.	152	Ootacamund ... M.T.C.	13,991	8th Jan. ...	8th Jan. ...	1	0·8	...	1	1	...
	153	Coonoor ... M.T.C.	5,586	15th Jan. ...	23rd Jan. ...	4	7·2	...	1	1	...
	154	Nilgiris ... R.C.	52,168	1st Jan. ...	7th Feb. ...	24	4·6	January ...	38	4	34
	155	South-East Wynaad R.C.	25,020	...	...	...	...	...	12	...	12
	4	Total, District ...	96,765	1st Jan, ...	7th Feb. ...	29	3·0	January ...	52	6	46
North Arcot.	156	Vellore ... M.T.C.	44,724	1st Jan ..	30th Dec. ...	148	33·1	January ...	1	1	...
	157	Wálajápet ... M.T.C.	10,485	1st Jan. ...	27th Dec. ...	13	12·4	January ...	1	1	...
	158	Gudiyáttam ... M.T.C.	18,745	2nd Jan. ...	14th Dec. ...	33	17·6	January ...	1	1	...
	159	Tirupati ... M.T.C.	14,238	17th Jan. ...	24th Dec. ...	17	11·9	February ...	1	1	...
	160	Kálahasti ... T.C.	11,715	10th Oct. ...	10th Oct. ...	1	0·9	...	1	1	...
	161	Arcot ... T.C.	10,928	1st Jan. ...	7th Feb. ...	60	54·9	January ...	1	1	...
	162	Ambúr ... T.C.	10,583	1st Jan. ...	24th Feb. ...	113	10·7	January ...	1	1	...
	163	Chittoor ... R.C.	200,186	3rd Jan. ...	25th Dec. ...	19	0·9	January ...	337	8	329
	164	Chendragiri ... R.C.	100,030	1st Jan. ...	4th Oct. ...	129	12·9	January ...	231	12	219
	165	Palmanér ... R.C.	48,131	21st Jan. ...	24th Jan. ...	2	0·4	...	93	1	92
	166	Gudiyáttam ... R.C.	157,863	1st Jan. ...	31st Dec. ...	487	30·8	January ...	183	53	130
	167	Vellore ... R.C.	137,367	1st Jan. ...	21st Dec. ...	315	22·9	January ...	149	43	106
	168	Póluru ... R.C.	139,697	12th Jan. ...	30th Dec. ...	92	6·6	December...	263	21	242
	169	Wandiwash ... R.C.	177,719	7th Jan. ...	31st Dec. ...	90	5·1	August ...	285	23	262
	170	Arcot ... R.C.	165,948	1st Jan. ...	31st Dec. ...	213	12·8	January ...	258	38	220
	171	Wálajápet ... R.C.	228,630	1st Jan. ...	31st Dec. ...	229	10·0	January ...	250	37	213
	172	Zemindaries ...	* 636,596	1st Jan. ...	27th Dec....	258	4·1	January ...	2,272	36	2,236
	17	Total, District ...	2,113,585	1st Jan. ..	31st Dec. ...	2,219	10·5	January ...	4,328	279	4,049
Salem.	173	Salem ... M.T.C.	67,640	2nd Jan. ...	20th Dec ...	123	18·2	January ...	1	1	...
	174	Vániyambádi ... M.T.C.	15,838	1st Jan. ...	30th Mar. ...	25	15·8	January ...	1	1	...
	175	Tiruppattúr ... M.T.C.	16,463	6th Jan. ..	22nd Dec....	32	19·4	January ...	1	1	...
	176	Sendamangalam T.C.	13,354	24th Jan....	6th Feb. ...	4	3·0	...	1	1	...
	177	Rásipuram ... T.C.	10,539	30th Nov....	30th Nov. ...	1	0·9	...	1	1	...
	178	Salem ... R.C.	338,759	1st Jan. ...	30th Dec ...	199	51·3	February ...	499	31	468
	179	Atúr ... R.C.	183,202	1st Jan. ...	31st Dec. ...	453	54·4	December...	176	53	123
	180	Námakkal ... R.C.	286,686	1st Jan. ...	11th May ...	446	51·5	January ...	347	181	166

* Excludes 66,000, the population of 137 villages transferred to Chingleput District.

Statement illustrating the distribution, &c., of Cholera in the Madras Presidency during the year 1894, *to accompany the Cholera Map*—continued.

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.		Period of Maximum Intensity of the Disease.	Number of Villages in each of the Circles.	Number of those	
							Total Deaths in each of the Circles.	Ratio per 10,000 of Population.			Affected by Cholera.	Not affected by Cholera.
Salem—*cont.*	181	Tiruchengódu	R.C.	248,667	1st Jan.	25th Dec.	422	17·0	January	168	23	145
	182	Hosúr	R.C.	155,693	...	...	...	...	...	757	...	757
	183	Krishnagiri	R.C.	152,116	1st Jan.	17th Mar.	74	4·2	January	510	14	496
	184	Dharmapuri	R.C.	178,420	1st Jan.	11th Dec.	142	8·0	January	575	8	567
	185	Tiruppattúr	R.C.	156,295	1st Jan.	25th Dec.	133	8·5	January	322	14	308
	186	Úttangarai	R.C.	138,112	1st Jan.	28th Dec.	89	6·5	January	452	25	427
	14	Total, District		1,961,784	1st Jan.	31st Dec.	2,143	10·9	January	3,811	354	3,457
South Arcot.	187	Cuddalore	M.T.C.	47,025	1st Jan.	14th Dec.	95	20·2	January	1	1	...
	188	Chidambaram	M.T.C.	18,634	1st Jan.	31st Dec.	96	51·5	February	1	1	...
	189	Porto Novo	T.C.	14,045	3rd Jan.	21st Dec.	20	14·2	January	1	1	...
	190	Tiruvannámalai	T.C	12,148	2nd Mar.	31st Dec.	83	68·3	December	1	1	...
	191	Cuddalore	R.C.	289,908	1st Jan.	30th Dec.	553	19·1	January	231	89	142
	192	Villupuram	R.C.	301,690	1st Jan.	31st Dec.	348	11·5	January	305	63	242
	193	Chidambaram	R.C.	249,569	1st Jan.	31st Dec.	1,484	59·5	January	437	172	265
	194	Tindivanam	R.C.	315,994	5th Jan.	31st Dec.	234	7·4	December	474	53	421
	195	Kallakurchi	R.C.	240,179	1st Jan.	31st Dec.	313	13·0	March	383	60	323
	196	Tirukkóyilúr	R.C.	257,115	1st Jan.	30th Dec.	569	22·1	January	354	88	266
	197	Tiruvannámalai	R.C.	193,238	1st Jan.	31st Dec.	239	12·4	December	402	64	338
	198	Vriddhachalam	R.C.	222,791	2nd Jan.	29th Dec.	400	18·0	January	307	70	237
	12	Total, District		2,162,336	1st Jan.	31st Dec.	4,434	20·5	Jan. & Feb.	2,897	663	2,234
S. Canara.	199	Mangalore	M.T.C.	40,620	...	...	...	...	...	1	...	1
	200	Mangalore	R.C.	237,974	— Jan.	— Feb.	38	1·6	January	307	14	293
	201	Kasaragód	R.C.	280,655	— Jan.	— Feb.	60	2·1	January	243	17	226
	202	Uppinangádi	R.C.	118,804	— Jan.	— Feb.	24	2·0	January	277	12	265
	203	Udipi	R.C.	253,699	— Jan.	— Jan.	7	0·3	...	259	3	256
	204	Coondapoor	R.C.	120,250	...	...	...	...	...	190	...	190
	6	Total, District		1,052,002	1st Jan.	28th Feb	129	1·2	January	1,277	46	1,231
Tanjore.	205	Tanjore	M.T.C.	54,258	1st Jan.	27th Dec.	222	40·9	January	1	1	...
	206	Kumbakónam	M.T.C.	54,254	1st Jan.	30th Dec.	351	64·7	January	1	1	...
	207	Máyavaram	M.T.C.	23,754	2nd Jan.	24th Dec.	90	37·9	January	1	1	...
	208	Negapatam	M.T.C.	58,573	1st Jan.	28th Mar.	203	3·5	January	1	1	...
	209	Mannárgudi	M.T.C.	20,392	1st Jan.	22nd Apl.	104	51·0	January	1	1	...
	210	Tiruválúr	T.C.	12,934	1st Jan.	15th Dec.	45	34·8	January	1	1	...
	211	Tanjore	R.C.	356,021	1st Jan.	31st Dec.	1,436	40 3	January	426	191	235
	212	Kumbakónam	R.C.	323,350	1st Jan.	31st Dec.	2,968	91·8	January	519	325	194
	213	Máyavaram	R.C.	220,977	1st Jan.	31st Dec.	677	30·6	January	338	109	229
	214	Shiyali	R.C.	119,801	1st Jan.	25th Dec.	411	34·3	January	191	63	128
	215	Nannilam	R.C.	215,905	1st Jan.	31st Dec.	1,359	62·9	January	388	186	202
	216	Negapatam	R.C.	148,177	1st Jan.	19th Dec.	827	55·8	January	317	124	193
	217	Mannárgudi	R.C.	167,033	1st Jan.	27th Dec.	517	31·0	January	308	111	197
	218	Tirutturaippúndi	R.C.	180,293	1st Jan.	22nd Dec.	540	30·0	January	226	100	126
	219	Pattukkótai	R.C.	271,359	1st Jan.	30th Dec.	193	71·1	January	831	40	791
	15	Total, District		2,227,081	1st Jan.	31st Dec.	9,943	44·6	Jan. & Feb.	3,550	1,255	2,295
Tinnevelly.	220	Tinnevelly	M.T.C.	24,756	1st Jan.	17th Dec.	247	99·8	January	1	1	...
	221	Palamcottah	M.T.C.	18,612	1st Jan.	13th Dec.	64	34·4	January	1	1	...
	222	Tuticorin	M.T.C.	24,964	13th Jan.	1st Dec.	32	12·8	February	1	1	...
	223	Srívilliputtúr	T.C.	21,448	31st Mar.	29th Sept.	30	14·0	September	1	1	...
	224	Kulasékarapatnam	T.C.	15,910	2nd Jan.	9th June	12	7·5	June	1	1	...
	225	Virudupatti	T.C.	14,075	5th Jan.	24th Nov.	26	18·5	October	1	1	...
	226	Viravanallúr	T.C.	13,951	9th Jan.	4th Sept.	65	46·6	January	1	1	...
	227	Rajahpalliyam	T.C.	13,301	25th Feb.	14th Dec.	6	4·5	April	1	1	...
	228	Tenkási	T.C.	12,861	3rd Jan.	31st Dec.	307	238·7	January	1	1	...
	229	Sivakási	T.C.	12,184	4th Jan.	31st Dec.	51	41·9	April	1	1	...
	230	Káyalpatnam	T.C.	11,464	2nd Jan.	24th Mar.	24	20·9	January	1	1	...
	231	Kalladakurchi	T.C.	11,096	15th Jan.	28th Dec.	16	14·4	February	1	1	...
	232	Ottappidáram	R.C.	316,990	1st Jan.	30th Dec.	1,002	31·6	September	395	125	270
	233	Tenkárai	R.C.	260,196	1st Jan.	25th Dec.	1,021	39·2	January	146	91	55
	234	Tinnevelly	R.C.	141,252	1st Jan.	31st Dec.	752	53·2	January	120	83	37
	235	Srívilliputtúr	R.C.	155,761	1st Jan.	28th Dec.	337	21·6	September	98	39	59
	236	Sankaranáyinárkóyil	R.C.	213,798	2nd Jan.	31st Dec.	541	25·3	August	127	61	66
	237	Nángunéri	R.C.	174,410	1st Jan.	21st Dec.	516	29·6	January	236	79	157

Statement illustrating the distribution, &c., of Cholera in the Madras Presidency during the year 1894, *to accompany the Cholera Map*—continued.

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.		Period of Maximum Intensity of the Disease.	Number of Villages in each of the Circles.	Number of those	
							Total Deaths in each of the Circles.	Ratio per 10,000 of Population.			Affected by Cholera.	Not affected by Cholera.
Tinnevelly—*cont.*	238	Ambásamudram	R.C.	158,552	1st Jan.	31st Dec.	855	53·9	January	94	73	21
	239	Sáttúr	R.C.	158,046	1st Jan.	31st Dec.	359	22·7	August	209	62	147
	240	Tenkási	R.C.	142,075	2nd Jan.	31st Dec.	821	57·8	January	101	58	43
	21	Total, District		1,915,702	1st Jan.	31st Dec.	7,084	37·0	Jan. & Feb.	1,538	683	855
Trichinopoly.	241	Trichinopoly	M.T.C.	89,666	1st Jan.	31st Dec.	278	31·0	January	1	1	...
	242	Srírangam	M.T.C.	21,632	1st Jan.	22nd Dec.	45	20·8	January	1	1	...
	243	Trichinopoly	R.C.	248,561	1st Jan.	20th Dec.	713	28·7	January	364	192	172
	244	Musiri	R.C.	282,615	1st Jan.	20th Dec.	845	29·9	January	223	76	147
	245	Kulittalai	R.C.	243,685	1st Jan.	18th Dec.	169	6·9	January	246	25	221
	246	Perambalúr	R.C.	195,004	1st Jan.	31st Dec.	249	12·8	January	219	37	182
	247	Udaiyárpálaiyam	R.C.	201,530	1st Jan.	31st Dec.	960	47·6	January	335	111	224
	248	Zamindaries	...	89,033	1st Jan.	19th May	287	32·2	January	113	36	77
	8	Total, District		1,371,726	1st Jan.	31st Dec.	3,546	25·8	Jan. & Feb.	1,502	479	1,023
Vizagapatam.	249	Vizagapatam	M.T.C.	33,961	...	...	...	...	...	1	...	1
	250	Bimlipatam	M.T.C.	9,696	28th Jan.	7th Feb.	5	5·2	January	1	1	...
	251	Vizianagram	M.T.C.	30,735	...	...	...	...	...	1	...	1
	252	Anakápalle	M.T.C.	17,001	...	...	...	...	...	1	...	1
	253	Bobbili	T.C.	14,448	3rd Jan.	18th Jan.	2	1·4	...	1	1	...
	254	Sálúru	T.C.	12,910	23rd Jan.	6th Feb.	10	7·7	January	1	1	...
	255	Palkonda	T.C.	10,364	...	...	...	...	...	1	...	1
	256	Párvatípuram	T.C.	10,053	22nd Jan.	23rd Jan.	2	2·0	...	1	1	...
	257	Sarvasiddhi	R.C.	154,950	...	...	...	...	...	145	...	145
	258	Narasapatnam or Golgonda	R.C.	118,512	...	...	...	...	...	176	...	176
	259	Anakápalle	R.C.	135,145	...	...	...	...	...	142	...	142
	260	Vizagapatam	R.C.	62,806	...	...	...	...	...	74	...	74
	261	Viravilli	R.C.	197,865	...	...	...	...	...	240	...	240
	262	Bimlipatam	R.C.	105,456	7th Jan.	27th Feb.	21	2·0	February	117	4	113
	263	Srungavarapukota	R.C.	129,319	31st Jan.	5th Mar.	16	1·2	February	181	1	180
	264	Vizianagram	R.C.	135,718	...	...	...	...	...	193	...	193
	265	Gajapatinagaram	R.C.	123,795	...	...	...	...	...	222	...	222
	266	Chipurupalle	R.C.	156,826	23rd Mar.	23rd Mar.	1	0·07	...	268	1	267
	267	Sálúru	R.C.	70,782	1st Jan.	26th Jan.	30	4·2	...	159	6	153
	268	Bobbili	R.C.	114,312	...	...	...	...	...	169	...	169
	269	Palkonda	R.C.	198,444	18th Jan.	18th Feb.	21	1·1	February	371	5	366
	270	Párvatípuram	R.C.	99,097	8th Jan.	21st Feb.	36	3·6	January	203	7	196
	22	Total, District		1,942,195	1st Jan.	23rd Mar.	144	0·7	January	2,668	28	2,640

39. The following statement gives the meteorological conditions observed at Madura and Tinnevelly, where cholera prevailed during the greater part of the year under review :—

Daily Record of Meteorological Observations and of Cholera Deaths at MADURA during the prevalence of the Disease in the year 1894.

Month and date.	Rainfall in inches.	Temperature of air in shade.			Moisture of air per cent., 100 being saturation.	Wind.		Deaths from cholera recorded on each day.
		Maximum.	Minimum.	Range.	8 A.M.	Direction. 8 A.M.	Velocity in miles per hour.	
JANUARY.								
1	...	89·4	73·0	16·4	80	N.N.E.	2	6
2	...	88·9	73·0	15·9	87	Calm.	3	4
3	...	87·4	70·5	16·9	81	N.N.E.	2	4
4	...	86·8	68·6	18·2	74	N.N.W.	2	29
5	...	87·4	75·0	12·4	81	N.N.W.	2	31
6	...	88·4	72·0	16·4	74	N.N.E.	4	32
7	...	85·8	69·6	16·2	79	N.N.W.	3	21
8	...	87·4	69·1	18·3	81	N.N.W.	3	26
9	...	87·9	68·6	19·3	77	N.N.W.	3	13
10	...	87·4	69·1	18·3	70	N.N.E.	3	18
11	...	86·3	64·7	21·6	65	N.N.W.	3	9
12	...	87·4	66·6	20·8	70	N.N.W.	3	1
13	...	88·4	71·0	17·4	70	N.N.E.	4	14
14	...	82·8	71·0	11·8	66	N.N.E.	5	3
15	...	85·8	68·6	17·2	76	N.N.W.	4	3
16	...	86·8	69·1	17·7	74	N.N.E.	4	3
17	...	87·9	67·6	20·3	61	N.N.E.	4	3
18	...	86·8	69·1	17·7	63	N.N.E.	4	10
19	...	86·8	67·6	19·2	70	N.N.W.	4	4
20	...	85·8	66·6	19·2	79	N.N.W.	3	2
21	...	86·8	70·0	16·8	74	N.N.W.	3	12
22	...	89·4	72·5	16·9	74	N.N.E.	3	2
23	...	87·4	69·6	17·8	72	Calm.	4	2
24	...	87·9	68·1	19·8	72	N.N.E.	2	3
25	...	90·9	67·1	23·8	72	N.N.E.	3	1
26	...	86·3	65·6	20·7	78	N.N.E.	2	5
27	...	87·9	66·6	21·3	72	N.N.W.	2	5
28	...	87·4	62·7	24·7	73	Calm.	2	6
29	...	93·5	62·7	30·8	62	N.E.	2	1
30	...	90·9	62·2	28·7	66	N.N.W.	2	1
31	...	90·9	63·2	27·7	71	N.N.W.	2	1
FEBRUARY.								
1	...	88·9	64·2	24·7	74	N.N.W.	2	2
2	...	88·9	67·1	21·8	72	N.N.W.	3	...
3	...	90·4	71·5	18·9	81	Calm.	2	7
4	...	91·9	75·0	16·9	81	E.N.E.	2	1
5	...	83·3	72·0	11·3	87	N.N.E.	2	...
6	...	87·9	71·0	16·9	85	E.S.E.	2	2
7	...	86·8	65·6	21·2	71	N.N.E.	3	1
8	...	86·8	69·1	17·7	74	N.N.W.	3	2
9	...	88·9	72·5	16·4	80	N.N.E.	3	2
10	...	89·9	71·5	18·4	76	N.N.W.	3	2
11	...	91·9	73·5	18·4	76	N.N.E.	3	3
12	...	89·4	72·5	16·9	81	N.N.W.	3	3
13	...	91·9	69·1	22·8	74	N.N.W.	3	...
14	...	89·9	69·1	20·8	71	N.N.W.	3	1
15	...	89·9	69·6	20·3	72	N.N.W.	3	...
16	...	90·4	70·5	19·9	76	N.N.W.	3	1
17	...	91·4	68·1	23·3	76	N.N.E.	3	...
18	...	90·9	69·1	21·8	74	N.E.	2	2
19	...	90·4	67·1	23·3	74	N.N.E.	2	1
20	...	90·4	70·0	20·4	76	N.N.W.	2	1
21	...	90·9	72·0	18·9	76	N.N.E.	2	...
22	...	92·4	72·0	20·4	73	N.N.E.	2	1
23	...	92·4	70·5	21·9	75	E.S.E.	2	1
24	...	93·4	70·5	22·9	72	E.S.E.	1	2
25	...	94·4	71·5	22·9	74	E.N.E.	2	...
26	...	92·9	70·5	22·4	72	N.N.E.	2	...
27	...	93·4	70·0	23·4	74	N.N.W.	2	...
28	...	94·4	72·0	22·4	74	N.N.E.	2	...

Daily Record of Meteorological Observations and of Cholera Deaths at MADURA during the prevalence of the Disease in the year 1894—continued.

Month and date.	Rainfall in inches.	Temperature of air in shade.			Moisture of air per cent., 100 being saturation.	Wind.		Deaths from cholera recorded on each day.
		Maximum.	Minimum.	Range.	8 A.M.	Direction. 8 A.M.	Velocity in miles per hour.	
MARCH.								
1	...	92·4	69·6	22·8	76	N.N.E.	2	...
2	...	93·9	71·5	22·4	73	N.N.E.	1	1
3	...	98·5	72·0	26·5	74	Calm.	1	...
4	...	100·0	75·0	25·0	58	N.N.E.	1	...
5	...	100·5	72·0	28·5	77	Calm.	2	...
6	...	99·0	73·5	16·5	87	S.S.E.	2	...
7	...	99·0	72·5	26·5	81	N.N.E.	2	...
8	...	...	...	...	...	...	...	...
9	...	98·5	76·0	22·5	81	E.S.E.	2	...
10	...	98·5	75·0	23·5	80	E.S.E.	2	...
11	...	92·4	74·0	18·4	83	S.S.E.	...	...
12	...	92·4	73·0	19·4	80	N.N.W.	...	...
13	...	96·4	73·5	22·9	73	N.N.W.	1	...
14	...	98·0	72·5	25·5	69	N.N.E	3	...
15	...	95·9	74·5	21·4	73	N.N.E	3	...
16	...	93·9	77·9	16·0	74	N.N.E.	5	...
17	...	95·9	73·0	22·9	83	N.N.E.	1	...
18	...	90·4	76·0	14·4	87	Calm.	2	...
19	...	92·4	74·5	17·9	85	N.W.	1	...
20	...	88·4	76·5	11·9	82	Calm.	1	...
21	...	88·4	74·5	13·9	79	N.N.E.	1	...
22	...	95·4	76·0	19·4	75	N.N.E.	2	...
23	...	95·4	72·0	23·4	77	N.N.W.	2	...
24	...	96·4	79·4	17·0	75	N.N.W.	1	...
25	...	96·9	73·5	23·4	79	Calm.	1	...
26	...	100·0	74·5	25·5	66	N.N.W.	1	...
27	...	101·0	78·4	22·6	67	N.N.E.	2	...
28	...	101·0	77·4	22·6	72	N.N.W	1	...
29	...	98·5	74·0	24·5	75	N.N.E.	2	...
30	...	94·4	73·5	20·9	75	N.N.W.	2	...
31	...	95·9	77·4	18·5	81	N.N.E.	2	...
APRIL.								
1	...	98·0	75·5	22·5	77	N.N.W.	1	...
2	...	99·0	76·0	23·0	73	E.S.E.	2	...
3	...	98·5	76·5	22·0	73	N.N.E.	2	...
4	...	99·5	79·4	20·1	79	E.S.E.	2	...
5	...	99·0	77·9	21·1	73	N.N.E.	2	...
6	...	...	...	...	...	...	...	...
7	...	87·4	75·5	11·9	77	Calm.	...	...
8	...	96·9	73·5	23·3	73	E.S.E.	2	...
9	...	100·0	77·4	22·6	71	E.N.E.	1	...
10	...	...	...	...	...	...	...	...
11	...	101·0	76·0	25·0	71	Calm.	2	...
12	...	100·0	77·9	22·1	69	E.S.E.	2	...
13	...	100·0	77·9	22·1	69	S.E.	1	...
14	...	99·0	77·9	21·1	71	Calm.	2	...
15	...	94·4	77·4	17·0	77	S.E.	1	...
16	...	99·5	76·9	22·6	71	Calm.	2	...
17	...	98·5	79·4	19·1	73	E.S.E.	1	...
18	...	100·5	78·4	22·1	64	N.N.W.	1	...
19	...	103·0	74·5	28·5	78	N.N.E.	2	...
20	...	86·3	71·5	14·8	79	Calm.	1	3
21	...	95·4	75·0	20·4	77	Calm.	1	...
22	...	96·4	76·9	19·5	81	S.E.	1	...
23	...	98·5	77·4	21·1	76	S.S.E.	1	...
24	...	100·0	77·9	22·1	67	N.N.W.	1	2
25	...	103·5	76·9	26·6	78	Calm.	2	...
26	...	100·0	81·4	18·6	71	N.N.W.	2	1
27	...	91·4	75·5	15·9	69	E.S.E.	1	1
28	...	100·5	75·5	25·0	67	N.N.E.	1	...
29	...	97·5	76·5	21·0	69	N.N.W.	1	...
30	...	98·0	75·5	22·5	72	N.N.W.	2	...

29	0·23
30	0·02

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		Maximum.	Minimum.	Range.	8 A.M.	Direction. 8 A.M.	Velocity in miles per hour.	
MAY.								
1	0·22	99·5	73·0	26·5	66	N.N.W.	1	...
2	...	101·5	77·4	24·1	60	N.N.W.	1	...
3	0·10	102·0	73·0	29·0	65	Calm.	2	...
4	...	100·0	76·9	23·1	63	N.N.W.	1	...
5	...	101·0	77·9	23·1	65	N.N.W.	1	...
6	...	100·0	76·5	23·5	65	N.N.W.	1	...
7	...	101·5	79·4	22·1	67	N.W.	2	...
8	...	102·5	79·4	23·1	68	W.S.W.	1	...
9	...	103·0	79·4	23·6	75	S.W.	1	...
10	...	...	...	...	...	...	...	...
11	...	103·5	81·4	22·1	58	N.N.W.	2	...
12	0·04	104·5	75·5	29·0	63	W.S.W.	2	...
13	...	101·5	79·9	21·6	64	N.W.	2	...
14	...	103·0	80·4	22·6	57	N.N.W.	1	...
15	...	103·0	79·4	23·6	51	N.N.W.	2	1
16	0·19	103·5	79·9	23·6	60	N.W.	2	1
17	0·07	104·0	80·4	23·6	61	N.N.W.	2	...
18	...	...	...	...	...	...	...	1
19	...	97·5	78·4	19·1	72	Calm.	1	2
20	...	99·5	78·4	21·1	67	N.W.	1	...
21	...	98·0	77·4	20·6	57	N.N.W.	1	1
22	...	100·0	77·9	22·1	56	N.N.W.	1	...
23	...	100·5	78·4	22·1	62	N.N.W.	2	...
24	...	100·5	75·0	25·5	65	N.N.W.	2	...
25	...	99·0	79·4	19·6	75	N.N.E.	1	...
26	...	100·5	79·4	21·1	71	N.N.E.	2	...
27	...	103·0	80·4	22·6	57	N.N.W.	2	...
28	...	102·0	78·4	23·6	62	N.N.W.	1	...
29	...	101·5	81·9	19·6	60	N.W.	2	...
30	...	104·0	81·4	22·6	59	N.N.W.	1	...
31	...	105·0	82·4	22·6	61	S.W.	1	...
OCTOBER.								
1	...	96·9	75·5	21·4	56	N.N.W.	2	...
2	...	96·4	76·9	19·5	56	S.W.	2	...
3	0·62	97·5	74·0	23·5	71	N.N.W.	2	...
4	0·20	95·4	72·5	22·9	66	N.N.W.	1	...
5	0·43	93·9	73·5	20·4	60	N.N.W.	2	...
6	0·03	94·4	73·5	20·9	60	N.N.W.	1	...
7	...	95·4	74·5	20·9	62	N.W.	2	...
8	...	95·9	73·5	22·4	62	N.N.W.	1	...
9	...	96·4	75·5	20·9	59	N.W.	2	...
10	...	98·0	75·6	22·4	70	Calm.	2	...
11	0·01	97·5	72·5	25·0	66	N.N.W.	2	...
12	...	94·9	74·5	20·4	66	E.S.E.	2	...
13	...	93·4	76·5	16·9	68	S.E.	2	...
14	...	93·9	73·5	20·4	72	Calm.	1	...
15	0·12	95·9	75·0	20·9	77	N.N.W.	1	...
16	1·61	94·4	70·5	23·9	69	N.N.E.	1	...
17	4·22	93·4	71·5	21·9	77	Calm.	1	...
18	1·22	88·4	72·0	16·4	90	N.W.	1	...
19	...	89·4	73·0	16·4	78	N.W.	...	...
20	0·55	86·8	73·0	13·8	84	Calm.	1	...
21	0·78	85·8	72·5	13·3	92	Calm.	...	...
22	0·41	86·8	73·5	13·3	83	N.N.E.	...	...
23	...	87·4	73·5	13·9	83	Calm.	...	...
24	0·20	90·9	73·0	17·9	75	N.N.E.	1	...
25	...	89·9	75·0	14·9	77	N.N.W.	2	...
26	...	91·4	75·0	16·4	76	N.N.E.	1	...
27	0·10	89·4	73·0	16·4	78	N.N.W.	1	...
28	0·39	91·9	72·5	19·4	87	N.N.W.	1	...
29	2·81	88·4	70·5	17·9	84	Calm.	1	...
30	...	82·8	74·0	8·4	80	Calm.	...	1
31	0·14	85·3	72·5	12·8	89	Calm.	...	1

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		Maximum.	Minimum.	Range.	8 A.M.	Direction. 8 A.M.	Velocity in miles per hour.	
NOVEMBER.								
1	...	82·8	71·5	11·3	79	N.W.	1	...
2	...	...	...	...	...	...	...	...
3	...	86·8	70·0	16·8	54	N.N.W.	1	...
4	...	87·4	73·5	13·9	60	N.N.W.	2	...
5	0·13	89·9	74·0	15·9	75	N.N.W.	1	...
6	...	87·9	73·5	14·4	77	N.N.W.	2	...
7	1·98	88·4	71·0	17·4	82	N.W.	1	...
8	...	85·3	74·8	10·8	85	N.N.E.	1	...
9	...	84·8	72·5	12·3	81	N.N.W.	1	...
10	0·14	87·9	72·5	15·4	83	N.N.E.	2	...
11	...	86·3	73·5	12·8	79	N.N.E.	1	...
12	...	87·4	75·0	12·4	73	N.N E.	4	...
13	...	85·8	74·0	11·8	74	N.N.W.	4	...
14	0·02	87·4	73·0	14·4	75	N.N.E.	3	1
15	...	87·4	74·5	12·9	77	E.N.E.	2	1
16	...	88·4	74·0	14·4	85	N.N.E.	3	1
17	0·70	85·3	73·0	12·3	85	N.N.E.	2	...
18	...	82·3	72·5	9·8	83	N.N.E.	1	1
19	0·08	84·3	72·0	12·3	84	N.E.	2	...
20	...	82·8	70·5	12·3	80	N.N.E.	1	...
21	...	84·8	74·0	10·8	73	N.N.W.	2	2
22	...	85·8	70·5	15·3	59	N.N.E.	4	...
23	...	84·8	71·1	13·7	76	N.N.E.	4	...
24	...	85·3	73·0	12·3	78	N.N.W.	5	1
25	0·07	84·3	70·0	14·3	72	N.N.E.	2	2
26	...	84·3	72·8	11·8	78	N.N.E.	2	...
27	...	85·8	70·0	15·8	80	N.N.E.	3	2
28	...	85·8	73·5	12·3	78	N.N.E.	4	1
29	...	84·3	71·5	12·8	73	N.N.E.	4	1
30	...	80·2	72·0	8·2	78	N.N.E.	4	...
DECEMBER.								
1	0·93	87·4	71·0	16·4	82	N.N.E.	3	3
2	0·14	83·8	72·5	11·3	76	N.N.E.	2	1
3	...	84·3	73·0	11·3	80	N.N.E.	2	2
4	0·38	85·3	71·0	14·3	78	N.N.E.	1	2
5	...	82·3	72·0	10·3	81	N.N.E.	1	1
6	...	85·3	71·5	13·8	78	N.N.E.	2	1
7	...	85·8	70·5	15·3	73	N.N.E.	1	2
8	...	84·8	67·6	17·2	80	N.N.W.	1	2
9	...	85·3	69·6	16·7	80	N.N.W.	1	2
10	...	85·3	70·0	15·3	80	N.N.W.	3	...
11	...	86·3	67·1	19·2	71	N.N.W.	2	1
12	...	86·3	69·6	16·7	75	N.N.W.	1	6
13	...	87·4	70·5	16·9	80	N.N.W.	2	1
14	...	86·3	70·0	16·3	82	N.N.E.	1	1
15	...	86·3	69·1	17·2	76	N.N.E.	2	3
16	...	87·4	71·5	15·9	83	N.N.E.	2	1
17	...	86·3	71·5	14·8	78	N.N.E.	4	2
18	0·08	84·8	72·5	14·3	74	N.N.E.	3	...
19	...	86·8	71·5	15·3	76	N.N.E.	3	2
20	...	87·9	72·5	15·4	73	N.N.E.	3	1
21	0·02	88·4	72·5	15·9	80	N.E.	3	...
22	...	86·3	70·5	15·8	74	N.N.W.	3	...
23	0·01	86·3	70·0	16·3	75	N.N.E.	3	...
24	...	80·2	72·0	8·0	78	N.N.E.	2	4
25	...	83·8	69·6	14·2	77	N.N.E.	2	2
26	...	86·3	67·6	18·7	77	N.N.E.	1	...
27	...	85·3	68·1	17·2	75	N.N.W.	1	...
28	...	84·8	67·1	17·7	72	N.N.E.	1	...
29	...	85·3	67·1	18·2	73	N.N.E.	1	1
30	...	85·8	65·1	20·7	76	N.N.E.	2	2
31	...	85·3	66·1	19·2	75	N.W.	1	2

Daily Record of Meteorological Observations and of Cholera Deaths at TINNEVELLY during the prevalence of the Disease in the year 1894.

Month and date.	Rainfall in inches.	Temperature of air in shade.			Moisture of air per cent., 100 being saturation.	Wind.		Deaths from cholera recorded on each day.
		Maximum.	Minimum.	Range.	8 A.M.	Direction. 8 A.M.	Velocity in miles per hour.	
JANUARY.								
1	...	90·7	74·9	15·8	82	N.N.W.	5	7
2	...	88·2	75·9	12·3	80	N.N.W.	5	3
3	0·02	89·2	76·9	12·3	80	N.W.	6	6
4	...	88·7	71·9	16·8	82	N.	5	7
5	...	88·7	71·9	16·8	73	N.N.W.	6	5
6	0·06	88·2	72·9	15·3	79	N.W.	6	3
7	...	87·7	71·9	15·8	75	N.N.W.	7	7
8	...	90·2	74·4	15·8	75	N.	8	6
9	...	88·7	71·9	16·8	73	N.N.W.	7	7
10	...	88·2	73·4	14·8	67	N.	7	6
11	...	86·2	72·4	13·8	63	N.N.W.	6	11
12	...	88·2	69·9	18·3	68	W.N.W.	6	4
13	...	90·2	70·9	19·3	81	N.	5	5
14	0·02	88·2	70·9	17·3	86	N.	8	6
15	...	88·2	70·9	17·3	77	N.W.	6	7
16	...	88·7	72·4	16·3	77	N.W.	7	18
17	...	88·7	69·9	18·8	72	N.N.W.	7	12
18	...	88·2	70·4	17·8	70	N.W.	6	10
19	...	89·2	69·9	19·3	70	N.W.	7	9
20	...	88·7	69·9	18·8	76	W.N.W.	7	4
21	...	88·7	71·9	16·8	77	N.N.W.	6	5
22	...	90·2	73·9	16·3	79	N.	8	4
23	0·10	83·7	71·9	11·8	88	N.	4	4
24	...	88·2	71·9	16·3	88	N.W.	6	5
25	...	...	...	...	...	...	...	...
26	...	88·7	69·9	18·8	72	N.W.	6	2
27	...	89·2	66·9	22·3	81	W.N.W.	6	1
28	...	87·2	70·4	16·8	76	N.N.W.	4	...
29	...	93·7	66·9	26·8	62	N.	4	...
30	...	91·2	66·4	24·8	78	N.N.W.	6	...
31	...	93·7	71·4	22·3	76	W.N.W.	6	2
FEBRUARY.								
1	...	90·7	68.9	21·8	74	N.N.W.	6	1
2	...	90·2	69·9	20·3	68	W.N.W.	6	...
3	...	90·7	73·9	16·8	78	N.W.	5	2
4	...	92·7	75·9	16·8	80	N.E.	4	1
5	0·14	91·7	73·9	17·8	91	N.N.W.	7	2
6	...	89·2	73·9	15·3	80	N.	6	2
7	...	90·2	70·9	19·3	66	N.N.W.	8	1
8	...	89·7	71·4	18·3	72	N.N.W.	6	2
9	...	91·2	73·9	17·3	80	N.	6	5
10	...	90·2	74·4	15·8	77	N.W.	7	2
11	...	93·7	74·4	19·3	84	N.	7	1
12	...	93·2	73·9	19·3	80	N.	7	1
13	...	93·2	72·9	20·3	73	N.N.W.	8	1
14	...	92·2	70·9	21·3	75	N.W.	8	...
15	...	92·2	71·9	20·3	77	N.W.	7	3
16	...	92·7	76·4	18·3	77	N.N.W.	7	...
17	...	92·2	73·9	18·3	77	N.	7	2
18	...	93·7	69·9	23·8	77	N.W.	5	...
19	...	91·2	68·9	22·3	77	N.N.W.	6	2
20	...	92·2	73·9	18·3	77	N.	4	1
21	...	94·2	72·9	21·3	70	W.N.W.	4	...
22	...	94·2	72·9	21·3	74	W.N.W.	5	1
23	...	94·2	70·9	23·3	82	N.N.E.	5	3
24	...	...	...	...	...	...	...	1
25	...	95·2	74·4	20·8	78	N.N.W.	4	1
26	...	94·7	74·9	19·8	74	N.W	4	3
27	...	95·2	76·9	18·3	72	N.N.W.	4	1
28	...	95·7	73·9	21·8	74	N.	5	2

Daily Record of Meteorological Observations and of Cholera Deaths at TINNEVELLY during the prevalence of the Disease in the year 1894—continued.

Month and date.	Rainfall in inches.	Temperature of air in shade.			Moisture of air per cent., 100 being saturation.	Wind.		Deaths from cholera recorded on each day.
		Maximum.	Minimum.	Range.	8 A.M.	Direction. 8 A.M.	Velocity in miles per hour.	
MARCH.								
1	...	...	...	...	...	...	...	...
2	...	95·2	73·4	21·8	61	N.N.W.	3	2
3	...	98·3	74·9	23·4	80	N.W.	4	...
4	...	99·3	74·9	24·4	65	N.W	4	2
5	...	102·4	75·9	26·5	85	N.E.	5	...
6	...	100·3	76·9	23·4	73	S.E.	6	...
7	...	99·3	75·9	23·4	78	N.	6	...
8	...	...	...	...	...	...	...	...
9	...	99·3	75·4	23·9	80	N.W.	5	1
10	...	98·8	78·9	19·9	75	W.N.W.	4	...
11	...	99·3	75·4	23·9	80	N.W.	5	2
12	...	97·3	75·9	21·4	87	N.E.	1	3
13	...	97·8	75·9	21·9	78	N.N.W.	4	4
14	...	99·3	76·9	22·4	74	N.N.E.	6	1
15	...	97·3	78·9	18·4	80	N.E.	10	3
16	...	89·7	75·9	13·8	87	N.N.E.	9	...
17	...	88·2	75·9	12·3	82	W.N.W.	7	...
18	...	89·2	75·9	13·3	87	N.W.	5	...
19	...	85·2	74·9	10·3	86	N.W.	3	...
20	...	87·2	76·4	10·8	89	S.S.E.	3	...
21	...	94·2	76·9	17·3	78	N.E.	3	...
22	...	92·7	76·9	15·8	78	N.W.	5	...
23	...	92·7	76·9	15·8	67	W.N.W.	4	2
24	...	96·7	76·9	19·8	83	N.W.	4	2
25	...	97·8	78·9	18·9	77	N.W.	3	2
26	...	98·8	76·9	21·9	67	S.W.	4	1
27	...	99·8	77·9	21·9	70	S.E.	2	2
28	...	99·3	75·9	23·4	77	N.N.E.	3	1
29	...	97·3	79·4	17·9	75	N.	6	1
30	...	91·2	74·9	16·3	74	W.N.W.	5	1
31	...	88·7	77·9	10·8	77	N.W.	3	1
APRIL.								
1	0·06	93·2	74·9	18·3	74	S.W.	3	...
2	...	96·7	75·4	21·3	67	W.N.W	6	1
3	0·06	97·3	76·4	20·9	71	N.N.W.	6	2
4	...	97·8	77·9	19·9	70	S.E.	5	...
5	...	98·3	80·4	17·9	73	N.N.E.	5	...
6	0·20	97·3	72·9	24·4	91	W.	7	...
7	...	89·2	75·9	13·3	71	S.W.	2	...
8	...	92·2	76·9	15·3	74	N.N.W.	5	...
9	...	96·2	76·9	19·3	68	E.	3	...
10	...	100·3	81·9	18·4	60	N.W.	3	...
11	0·03	98·8	77·9	20·9	68	W.N.W.	3	...
12	...	98·8	79·4	19·4	75	N.W.	6	...
13	...	98·8	82·9	25·9	75	W.N.W.	5	...
14	...	99·3	78·9	20·4	77	S.S.W.	7	...
15	...	90·2	74·9	15·3	68	N.N.W.	3	...
16	...	95·7	81·9	13·8	68	N.N.E.	3	...
17	...	...	...	...	...	...	...	...
18	...	100·3	78·9	21·4	58	W.N.W.	3	...
19	...	102·4	84·9	17·5	57	N. W.	3	...
20	0·77	91·7	71·9	19·8	78	N.W.	5	...
21	...	94·7	77·9	16·8	81	N.W.	4	...
22	...	96·2	78·4	17·8	72	E.	4	...
23	...	98·3	82·8	15·5	65	N.W.	4	...
24	...	99·8	80·4	19·4	57	S.W.	6	...
25	...	102·4	81·9	20·5	65	N.	6	...
26	0·13	97·3	80·9	16·4	65	N.W.	5	...
27	0·20	95·7	73·9	21·8	77	N.E.	4	...
28	...	97·3	78·9	18·4	63	S.W.	6	...
29	...	97·8	81·4	16·4	55	W.	8	...
30	...	100·3	78·9	21·4	67	W.	7	...

Daily Record of Meteorological Observations and of Cholera Deaths at TINNEVELLY during the prevalence of the Disease in the year 1894—continued.

Month and date.	Rainfall in inches.	Temperature of air in shade.			Moisture of air per cent., 100 being saturation.	Wind.		Deaths from cholera recorded on each day.
		Maximum.	Minimum.	Range.	8 A.M.	Direction. 8 A.M.	Velocity in miles per hour.	
NOVEMBER.								
1	...	88·7	76·4	14·3	67	W.S.W.	6	...
2	...	94·2	75·4	18·8	62	N.E.	6	...
3	...	91·7	74·9	16·8	60	S.W.	8	...
4	...	92·2	75·4	16·8	62	W.S.W.	7	...
5	...	96·2	74·9	21·3	61	W.	5	...
6	...	95·7	77·9	17·8	63	N.W.	7	...
7	0·27	97·8	73·9	23·9	82	W.N.W.	5	...
8	0·36	90·7	72·9	17·8	91	N.W.	4	...
9	...	88·2	74·9	13·3	78	N.N.W.	4	...
10	1·57	84·2	72·9	11·3	89	N.N.W.	4	...
11	0·56	87·7	76·4	13·3	82	N.N.W.	3	...
12	...	89·2	73·9	15·3	78	N.	6	...
13	...	84·2	72·9	11·3	82	N.N.E.	7	...
14	...	87·2	74·9	12·3	82	N.E.	6	...
15	0·14	84·2	74·4	9·8	91	N.N.E.	4	...
16	3·24	85·2	71·9	13·3	96	N.N.W.	4	...
17	1·36	83·2	72·9	10·3	95	W.N.W.	4	...
18	0·55	81·2	72·9	8·3	86	N.N.W.	4	...
19	0·18	83·2	73·9	9·3	86	N.W.	6	...
20	...	84·2	71·4	12·8	75	N.W.	5	...
21	0·03	86·2	75·9	10·3	84	N.	5	...
22	...	82·2	73·9	8·3	75	N.N.W.	7	...
23	...	82·2	72·9	8·3	75	N.W.	6	...
24	...	84·2	74·9	9·3	75	N.N.E.	8	...
25	...	86·2	73·9	12·3	82	N.N.W.	7	...
26	...	89·2	72·9	16·3	78	N.N.W.	7	...
27	...	86·2	71·9	14·3	77	N.W.	8	...
28	...	86·2	74·4	11·8	82	N.	8	...
29	0·20	86·2	73·9	12·3	76	N.	8	1
30	...	84·2	74·9	9·3	73	N.	8	...
DECEMBER.								
1	0·34	87·7	72·9	14·8	91	N.N.E.	8	...
2	0·26	83·2	74·4	8·8	86	N.N.E.	7	1
3	0·23	85·2	73·9	11·3	91	N.N.E.	6	1
4	0·36	82·2	72·9	9·3	89	N.W.	5	...
5	0·11	83·2	74·9	8·3	86	N.W.	4	1
6	...	82·2	72·9	9·3	92	N.	4	...
7	...	87·2	71·9	15·3	77	N.	5	...
8	...	85·7	71·9	13·8	75	N.W.	5	...
9	...	87·7	70·9	16·8	77	N.W.	7	1
10	...	85·2	70·9	14·3	75	N.N.W.	5	...
11	...	87·2	70·4	16·8	67	N.N.E.	7	...
12	...	89·2	73·9	15·3	77	N.N.W.	5	...
13	...	90·2	73·4	16·8	77	N.W.	5	...
14	...	90·7	73·9	16·8	82	N.	5	...
15	...	89·2	72·4	16·8	80	N.W.	6	...
16	...	89·2	75·4	13·8	76	N.	6	...
17	0·08	89·2	72·9	16·3	75	N.N.E.	8	1
18	...	83·2	72·4	10·8	82	N.N.W.	7	...
19	...	89·2	72·9	16·3	80	N.	8	...
20	...	89·7	73·4	16·3	82	N.	6	...
21	...	86·2	74·9	11·3	80	N.	8	...
22	...	86·7	72·9	13·8	75	N.W.	7	...
23	...	88·7	72·9	15·8	77	N.N.W.	8	...
24	0·21	83·7	71·9	11·8	86	N.	7	...
25	...	78·7	70·9	7·8	79	N.W.	4	...
26	...	87·2	70·9	16·3	93	N.	8	...
27	...	87·2	68·9	18·3	72	N.N.W.	7	...
28	...	87·2	69·9	17·3	68	N.W.	8	...
29	...	88·2	68·4	19·8	72	N.	9	...
30	...	87·2	67·4	19·8	71	N.W.	8	...
31	...	88·2	67·9	20·3	69	N.	6	...

SMALL-POX.

40. A total of 11,207 deaths from small-pox occurred throughout the Presidency, against 27,289 during the year 1893. The heaviest mortality from this cause occurred during the first quarter of the year, when 5,145 deaths were registered or 45·9 per cent. of the total for the year. This would accord with the theory that small-pox virus is placed under the best conditions during a season of but slight moisture, and a considerable, but not excessive, grade of heat.

41. It has become a stereotyped expression in the monthly statistical returns of this office to state that Malabar 'as usual' registered the highest mortality from small-pox. During the year 3,540 souls, and in the last quinquennial period 31,906, or 12·0 per mille of the estimated population, have perished from small-pox in this district. Authorities dealing with this report have, from time to time, drawn attention to the fact that the death-rate from small-pox in Malabar demands special explanation. Various theories have been advanced from time to time. A very careful inspection by Surgeon-Captain Bannerman, Deputy Sanitary Commissioner, of the state of vaccination in the Cuddapah district last year led to the suspicion that the unreliability of the statistics of the Vaccination Department was greater than usually admitted. Under these circumstances, I requested his successor Surgeon-Major Mallins, Acting Deputy Sanitary Commissioner, to undertake a full investigation of the state of vaccination in the Malabar district. A lucid report drawn up by him goes to show that whilst in the more easily approached villages 55·84 per cent. of the *children* were vaccinated, in those off the main lines of communication this sunk to 37·46 per cent. This condition of affairs is greatly contributed to by the fact that the houses of the people, in accordance with the custom in this part of the country, are widely scattered; so that to secure operations upon a few children vaccinators have to travel very long distances. Equally does this factor influence the care with which inspections are effected by Deputy Inspectors of Vaccination. The incentive to falsification is therefore considerable. The District Board of Malabar has made arrangements in the budget for 1895–96 to secure the services of a larger number of vaccinators.

42. The above and other circumstances go to show that, in the absence of compulsory vaccination and of a better class of subordinate supervision than at disposal at present, it would be undesirable to draw conclusions as to the efficacy of vaccination in this Presidency from a simple comparison of the supposed rate of vaccination of the population with small-pox prevalence. At the same time, it is probable Malabar is the worst specimen of the state of affairs resulting from the employment of the poorly-educated and badly-paid agency representing the Vaccination Department, and that there are many grades of a better class of results to be found in the various districts. As it stands, Malabar affords a good instance of the persistent prevalence of small-pox in a population very imperfectly protected by vaccination.

43. Municipal areas, notwithstanding the greater density of their population, present a mortality of ·2 per mille, against ·3 in the case of the districts. In all, vaccination is compulsory, but the time during which this has been in force varies in individual cases. Nevertheless, the influence of a more carefully conducted system than it can be possible to attain in the absence of compulsion in rural areas, is sufficiently marked in the figures quoted.

44. There is happily in the Madras Presidency practically no opposition to vaccination from religious motives, although much apathy and unwillingness to submit children to the operation as such have to be contended against. During my inspection tours, I find it is usually not a difficult matter to meet any arguments that may be brought to bear on the subject of the uselessness of vaccination by exhibiting to the people groups of children 'protected' and 'unprotected' taken haphazard on the streets. The contrast of faces of adults with those of the rising generation is an object lesson that the most obstinate anti-vaccinator cannot

gainsay. Here are a few results of inspection of groups of children examined without selection, as met on the streets of municipal towns :—

—	Trichinopoly M.T.	Cuddapah M.T.	Tirupati M.T.	Bellary MT	Walājāpet M.T.	Erode M.T.	Vellore M.T.
Total examined	50	33	35	134	40	83	110
	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
Protected	56	33·3	54·3	73·9	42·5	92·8	70
Unprotected	44	66·7	45·7	26·1	57·5	7·2	30
Protected—attacked with small-pox.	...	...	15·8	...	17·7	2·6	2·6
Unprotected-attacked with small-pox.	36·4	54·5	93·7	57·1	74·0	100	81·8

45. I represented to Government the desirability of fostering attention to the important subject of re-vaccination, by requiring that all candidates for employment in the service of Government, should produce certificates of re-vaccination after the completion of the tenth year; or, should they not have been vaccinated in early childhood, of vaccination after reaching the age of ten years. Government was pleased to issue orders accordingly (G.O., dated 18th August 1894, No. 609, Public). Special circulars were issued to local fund bodies and municipalities on the subject of encouraging this operation, and I believe the Inspector of Vaccination will, in consequence, be in a position to record an increase of results under this head. A useful provision requiring that before grants-in-aid of schools be paid it should be shown that the scholars bear marks of vaccination was in danger of being abolished, by the issue of a new code by the Educational Department. This would, undoubtedly, have had a depressing effect upon the advance of vaccination, in a population where compulsion is not employed. On my representing this to Government, it was pleased to direct that the old rule be maintained (G.O., dated 20th December 1894, No. 977, Educational). My proposal made in a report embodied in G.O., dated 12th January 1891, No. 61-L, that in municipalities infants below six months of age residing in houses infected with small-pox may be compulsorily vaccinated on a certificate granted by a qualified medical practitioner, was referred to the Committee on the amendment of Act IV of 1884.

FEVERS.

46. A total of 270,456 deaths were registered from fever during 1894, or 7·6 per mille of the estimated population subject to registration. Of these, 17,942 occurred within municipal areas, being 8·2 per mille of the estimated population. Of the mortality from all causes, the total deaths from fever amounted to 28·9 in municipal towns, and 41·4 per cent. in rural areas. It is, of course, to be understood in the present state of registration and medical knowledge in the country, that these deaths from fever were not solely due to malaria; but it must be accepted that a very large proportion is due to this cause. Much of the difference in municipalities and rural areas of incidence of mortality from 'fever' as registered, must be ascribed to better knowledge of nosology in the former.

47. As compared with the previous year, there was an excess of deaths from fevers to the extent of 0·3 per mille (Form IX in the appendix) :—

Districts.	Rate per mille from fevers during 1893.	Rate per mille from fevers during 1894.	Increase or decrease.	District.	Rate per mille from fevers during 1893.	Rate per mille from fevers during 1894.	Increase or decrease.
Anantapur ...	3·8	3·1	— ·7	Nellore	7·6	8·6	+ 1
Bellary	10·5	11·4	+ ·9	Nilgiris	14·8	16·9	+ 2·1
Chingleput ...	5·9	6·1	+ ·2	North Arcot ...	7·1	7·0	— ·1
Coimbatore ...	7·3	6·3	— 1	Salem	8·1	7·1	— 1
Cuddapah	19·8	17·5	— 2·3	South Arcot ...	5·9	7·0	+ 1·1
Ganjám	9·5	9·8	+ ·3	South Canara ...	7·3	9·0	+ 1·7
Gódávari	7·5	8·4	+ ·9	Tanjore	2·2	2·3	+ ·1
Kistna	7·2	7·9	+ ·7	Tinnevelly ...	3·4	4·6	+ 1·2
Kurnool	18·4	20·2	+ 1·8	Trichinopoly ...	3·9	4·4	+ ·5
Madras	15·0	13·9	— 1·1	Vizagapatam ...	11·9	14·2	+ 2·3
Madura	5·7	5·8	+ ·1				
Malabar	6·7	6·9	+ ·2	Total ...	7·7	8·0	+ ·3

This occurred chiefly in the districts of Vizagapatam (2·3), Nilgiris (2·1), Kurnool (1·8), South Canara (1·7) and Tinnevelly (1·2). In the first-mentioned district only can this increased rate be regarded as of much importance. But, in this instance, I believe that the larger number is simply the result of better attention to registration, as shown by both an improvement of the birth and death rates secured this year. The supposed increase is, however, much diminished by reckoning the totals upon the estimated population thus :—

Districts.	Deaths from fever.	Rate per mille of census population.	Rate per mille of estimated population.
Anantapur	2,264	3·1	2·9
Bellary	10,375	11·4	10·5
Chingleput	7,351	6·1	* 6·2
Coimbatore	12,725	6·3	6·0
Cuddapah	22,300	17·5	16·8
Ganjám	18,455	9·8	9·5
Gódávari	17,401	8·4	8·0
Kistna	14,623	7·9	7·4
Kurnool	16,515	20·2	19·0
Madras	6,066	13·9	12·9
Madura	9,153	5·8	5·4
Malabar	18,122	6·9	6·6
Nellore	12,623	8·6	8·1
Nilgiris	1,635	16·9	15·9
North Arcot	14,791	7·0	6·4
Salem	13,942	7·1	6·6
South Arcot	15,152	7·0	6·6
South Canara	9,514	9·0	8·7
Tanjore	5,091	2·3	2·2
Tinnevelly	8,731	4·6	3·9
Trichinopoly	~~27,045~~ 6042	4·4	4·2
Vizagapatam	27645	14·2	13·8
Total ...	270,456	8·0	7·6

48. In the case of municipal towns, Madras, Kurnool and Cuddapah exhibited the heaviest incidence, viz., 13·9, 14·8 and 17·1 per mille of deaths under all heads. Happily these towns are at present the subject of schemes, which it is hoped will go towards relieving the conditions upon which the propagation of the malarial parasite depends. These schemes are referred to under Section IX, Municipalities. The rates for other municipal towns will be found in Form VI-B in the Appendix.

DYSENTERY AND DIARRHŒA.

49. 24,801 deaths from diarrhœa and dysentery were registered. In the rural population, these formed 2·9 per cent. of the deaths from all causes, and in the municipal population 11·7 per cent. The maximum mortality was reached in the month of January, when 3,075 deaths occurred; the month of minimum mortality was April.

50. The higher death-rates from dysentery and diarrhœa in municipal areas must, I think, be ascribed to conditions, which I have already mentioned in discussing infantile mortality (paragraph 30).

The following list shows the rates in towns chiefly affected :—

Municipalities.	Rate per mille from dysentery and diarrhœa.	Municipalities.	Rate per mille from dysentery and diarrhœa.
Vizagapatam	11·2	Tinnevelly	5·5
Tanjore	7·1	Madras	5·3
Karúr	6·7	Bimlipatam	4·7
Mannárgudi	6·5	Rajahmundry	4·6
Periyakulam	5·7	Negapatam	4·5
Coonoor	5·7	Tuticorin	4·5

* Increase due to the inclusion of the statistics of a few villages in the Maderpak Division of North Arcot district, transferred to Chingleput district, but the populations of those villages have not been taken into account in estimating the average population of Chingleput for 1894.

51. In municipalities, the ratio per mille of deaths under this head was 3·5, in rural circles 0·6, and in rural towns 0·6 per mille.

52. In Vizagapatam, which shows a mortality of 11·2 per mille, the water-supply is precarious, brackish and but imperfectly protected.

53. If the views expressed in paragraph 2 of appendix B be correct, there can be little room for argument as to the cause of the prevalence of dysentery and diarrhœa in Madras to the extent of 5·3 per mille. In addition to the unfavourable conditions referred to, although the municipality has undergone the expense necessary to provide a public pipe water-supply, the people are allowed to continue the use of shallow well-water derived from a foul soil.

54. A considerable number of deaths from bowel-complaints—for it must be remembered that, under existing system of registration, there is no possibility of distinguishing the conditions roughly described as "Diarrhœa and Dysentery"—is probably due to irritation from the presence of intestinal parasites. Of these, the most commonly prevalent are the ascaris lumbricoides, and the oxyuris vermicularis. *Post mortems* and medical practice show that there are very few natives that are not affected, more or less, with these parasites—a result, doubtless, due to careless disposal of fæcal matter and the consequent contamination of water-supplies. Anchylostomiasis, although present, has so far not been ascertained to be common in this Presidency.*

INJURIES.

55. Considering the very large population dealt with, the total deaths returned as due to injuries vary marvellously little from year to year, whether these be classed as due to wounds and accidents, suicides or snake-bites and 'killed by wild beasts,' as shown below. This is as might be expected in a country, where conditions influencing the attendant chances change little from year to year:—

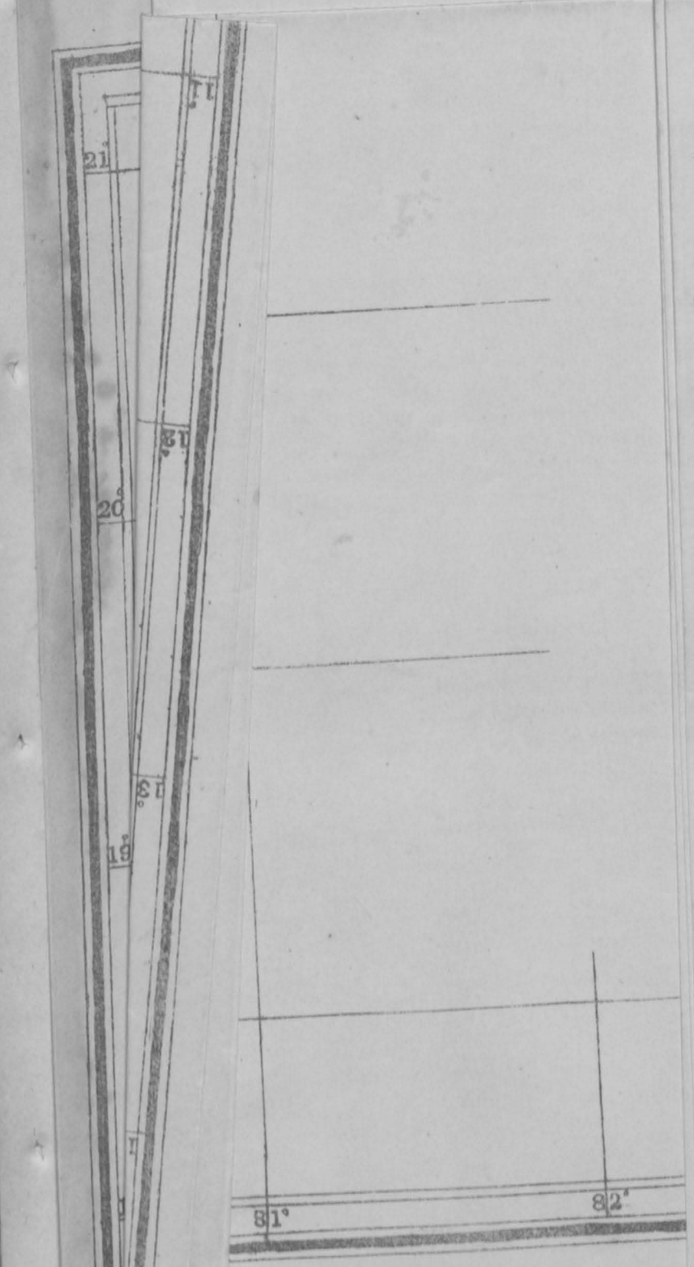
Years.	Suicides.	Wounds and accidents.	Snake-bite and killed by wild beasts.	Total.
1875	1,811	8,057	2,553	12,421
1876	1,715	7,083	2,377	11,175
1877	2,575	11,797	2,088	16,460
1878	2,464	10,554	1,989	15,007
1879	1,926	8,324	2,369	12,619
1880	1,487	6,985	2,373	10,845
1881	1,603	7,532	2,392	11,527
1882	1,644	7,665	2,302	11,611
1883	1,477	7,714	2,318	11,509
1884	1,514	7,498	2,290	11,502
1885	1,573	7,716	2,370	11,659
1886	1,628	9,057	2,418	13,103
1887	1,784	7,339	2,205	11,328
1888	2,483	6,587	2,331	11,401
1889	2,392	6,768	2,346	11,506
1890	1,991	6,369	2,042	10,402
1891	1,916	6,322	2,304	10,542
1892	2,120	7,094	2,098	11,312
1893	1,958	6,711	2,040	10,709
1894	2,017	7,050	2,265	11,332

Suicides by men are as 1 to 1·3 of women against 1 to 1·4 last year.

ALL OTHER CAUSES.

56. The total deaths registered under this head amount to 312,583, or 46·5 per cent. of the total mortality. No information of value can be derived from a study of the statistics thus collected, except in ascertaining the proportion which these deaths bear to those actually defined under the headings already discussed.

* Since the above was in type, Surgeon-Captain Williams, writing in the *Indian Medical Gazette* (May 1895, page 175), has shown that in 26 *post-mortem* examinations of patients dying in the General Hospital, Madras, 52 per cent. were affected with anchylostomiasis. It is therefore probable that it is far more common than has hitherto been supposed. Native habits would certainly lend themselves to the extensive propagation of the parasite.



MAP
OF THE
MADRAS PRESIDENCY
SHEWING
AREAS AFFECTED WITH SPECIAL DISEASES

SCALE OF MILES
10 0 20 40 60 80 100 MILES

75° 76 77 78° 79° 80° 81° 82°

CENTRAL PROVINCES

BAY OF BENGAL

BOMBAY PRESIDENCY

MYSORE

HYDERABAD

GODAVARY

KISTNA

NELLORE

MASULIPATAM

COCANADA

KURNOOL

BELLARY

CUDDAPAH

CHITTOOR

MADRAS

MANGALORE

SOUTH CANARA

NILGIRI

OOTACAMUND

CALICUT

COIMBATORE

SALEM

SOUTH ARCOT

CHINGLEPUT

PONDICHERRY

CUDDALORE

TRICHINOPOLY

GEOGRAPHICAL MAP OF DISEASE DISTRIBUTION.

57. In 1893, I called upon District Sanitary officers to supply this office with a noso-geographical map of their respective districts. Several difficulties in the matter of securing draftsman and the like delayed their forwarding the results of their enquiries. These have, however, now been duly compiled in this office. The results cannot be considered unexceptionable. The information has been gathered by officers busy in other departments of their profession, and many of them are new to the districts of which they hold charge. Still, I consider the foundation has been laid of the securing of most valuable information, and I trust Government will be pleased to direct that the officers concerned will prosecute their enquiries, so that after, say, the lapse of two years the map may again be published with any inaccuracies that may in the interval come to notice duly corrected. Such a map is not only of utility in gauging present conditions, but would have a special value in tracing the changes which improvements in sanitary methods may, in future, bring about. I attach extracts from the remarks of such officers as have kindly furnished me with notes, in explanation of the maps forwarded by them. Several points brought to notice are of much sanitary interest, and it is important that they should be placed on record:—

Remarks by Surgeon-Major O'HARA, District Sanitary Officer, Bellary.

* * * * *

2. The taluk of Kúdligi has been returned as highly malarious, and those of Bellary and Adóni as remarkable for Guinea-worm.

3. In the way of general remarks, I should wish to state that, in my opinion, the whole district of Bellary may be regarded as more or less subject to malarial influences.

Remarks by Surgeon-Major W. A. LEE, District Sanitary Officer, North Arcot.

* * * * *

Malarious fevers are prevalent in many parts of the district especially upon the Mysore plateau (to which the Punganúru and Kangundi divisions and Palmanér taluk geographically belong); and in parts of Kálahasti and Karvetnagar divisions, and of the Chendragiri, Gudiyáttam, and Polúr taluks.

The Javadi Hills, the highest peaks of which attain an elevation of 3,000 feet, are in the last-named taluk.

Elephantiasis is reported to be prevalent in the town of Walajapet (or Walajanagar).

None of the other diseases specified prevail to any unusual extent in the district.

Remarks by Surgeon-Major H. A. F. NAILER, District Sanitary Officer, Chingleput.

After giving the matter due thought and consideration I have given the whole district the colour assigned to dysentery and diarrhœa, as the deaths due to these two causes are unproportionately large, compared with those under other headings. I take it, therefore, that the attacks are large, proportionately with the deaths. I regret that the information at my disposal does not permit me to separate these two causes or to indicate the conditions that produce one from those that produce the other, but, as a guide in this matter, I have obtained from the various dispensaries and hospitals in the district figures for the past five years of these diseases. There is not much to choose between them. In Conjeeveram town dysentery seems to be more prevalent.

The undue prevalence of dysentery and diarrhœa throughout the district must, therefore, be due to some cause universal throughout. The only cause that I can attribute this to is the hardness of the water. The geological formation of the soil points to a layer of sand and mould, of varying depth resting upon a rocky bed of limestone; chloride of sodium too, I believe, can be detected in quantity in some parts. As this excess of chloride of sodium cannot be due to sewage contamination, it can only point to infiltration by sea-water. In the northern part of this district, *i.e.*, in the Tiruvallúr taluk and in some parts of Sríperumbúdúr there are elevations covered by soil which consist of water-worn stones, some of great size. At Nágalápuram the outstanding range of hills to west and north have

their shelving sides wholly composed of water-worn stones and shells. Whether all this land is an upheaval of the bed of the ocean, or is what is left from the rushing into the sea of some enormous river I am unable to divine. I incline to the former view.

Remarks by Surgeon-Major W. F. THOMAS, District Sanitary Officer, Kistna.

The Kistna district extends between 15° to 17° North Latitude and from 79° 5′ to 82° East Longitude. Area in square miles 8,397 ; number of villages 2,102 ; population 1,855,582 ; population per square mile 220 ; average rainfall in inches 30.

The hills are of trifling elevation, the height being about 1,500 feet. The principal river is the Kistna. The coast line is so low that it is often inundated. Lake Colair in the Kistna district, between the rivers Kistna and Gódávari, formed by the overflowing of these rivers, has a length of 47 miles and a breadth of 14 miles. The district is well intersected by canals. Much of the district is composed of arid plains, with the thermometer occasionally rising to 115° in the shade. Mists and heavy fogs are not uncommon in the rainy season (September to December).

On the coast there is a wide tract of low-lying land, and the deltas and alluvial deposits of the Kistna river, in which the water stagnates more or less below the surface. Practically the food-supplies of the people depend upon rain clouds which accompany winds. Any marked failure of seasonable rain means drought, famine and pestilence. This district is perennially haunted by *fever*, *cholera* or *bowel-complaints*. Season has also a marked influence on disease, the cold weather being the most fatal to natives and the dry hot months the healthiest. Living on the alluvial soils of the Kistna river involves the frequent risk of cholera and the heritage of bowel-complaints.

During the last 25 years the mortality from *cholera* throughout the Madras Presidency may be put down at the mean rate of 44·02 per 1,000 inhabitants ; but in Kistna district 33·4. At times this district has epidemic waves of *fever*, which travel like a cyclone causing panic and death. The haunts of *malaria* are low-lying places with a soil charged with organic matter, badly drained river valleys in which the air stagnates, jungle-covered hills of low elevation, and tracts of land at the base of mountain ranges where the soil is rich and covered with forest. In my opinion fever is not due to irrigation. The mean ratio per 1,000 of deaths registered from fevers in this district is 8·9. This district suffers from *small-pox*.

Beri-beri is endemic in various places of this district ; and sometimes assumes an epidemic form, especially in the wet season, or from July to December. Beri-beri germs are bred in the soil and carried in the air. When the ground remains damp, after inundation or rain, the bacteria multiply on the surface. Beri-beri is more common on the coast than inland, but low-lying places in the valleys of the Kistna river also suffer. *Mycetoma* or *fungus disease* prevails at Guntúr. It is also prevalent where black soil is common. *Elephantiasis* is endemic on the coast line.

In this district there seems to me to be a local distribution of *vesical calculi ;* bowel-complaints, *skin diseases*, *cancer*, *guinea-worm* and *intestinal worms*.

Remarks by Surgeon-Lieutenant-Colonel T. J. HACKETT WILKINS, District Sanitary Officer, Ganjám.

The chief diseases in this district are *fevers*, *diarrhœa* and *dysentery*, *elephantiasis* and *beri-beri*. The fevers are most prevalent in the hills known here as the Máliahs. These hills are densely wooded and are a low-lying range. The type of fever is severe and proves very fatal to the natives, particularly to those ~~among~~ from other districts and is attended with very severe gastric symptoms.

The rainfall is about 40 inches a year, and I am informed that really the worst months are those preceding the rains which usually set in about the middle of June and continue with a short break till November.

In the low country, *i.e.*, from the northern bank of the Rushikulya river up towards Cuttack, we have a great deal of malarial fever.

The soil of the country is chiefly disintegrated granite, but the sub-soil water is very superficial barely 6 feet from the surface in the hot season and up to 3 feet in many places in the rains. At Ganjám the worst part the soil is simply water-

logged and the fever contracted there is of a virulent form. Diarrhœa and dysentery are also prevalent in the rains and they are due to an excess of saline matters in the soil.

Elephantiasis is prevalent to a great extent, but strange to say that it seems to be more limited to the scrotum and vulvæ than to the legs as one sees down south.

Beri-beri is endemic and appears to attack new arrivals more than the regular residents, and it is limited to a few miles from the sea and is much prevalent in the southern portion of the district.

I have not seen a case of calculus or goitre and only a few cases of guinea-worm, but they have been patients who have come from the south.

We have cases of remittent fever taking a low typhoid form, but I have not seen a pure case of typhoid fever. I am informed however that there was an epidemic of typhoid some years ago.

Remarks by Surgeon-Major J. C. MARSDEN, District Sanitary Officer, Gódávari.

* * * * *

2. With regard to the meteorological, physical and sanitary peculiarities of the district and their bearing on disease, I have the honour to state that the northern portion is hilly and unhealthy, whereas the southern portion is flat and irrigated by canals and channels which branch from the river. The river itself, which divides the district into nearly equal parts, is the chief feature of the district and enters the plains through a gorge clothed with jungles.

It gradually widens, contains islands in its bed (some of which are cultivated) and passes Rajahmundry, until it is barred at Dowlaishweram by the 'anicut.' Here the water is distributed throughout the delta by numerous canals. The main branches flow into the sea and divide the delta into three great divisions. As the river and canals are the chief sources of drinking water in the tracts bordering on them, and as this water is open to pollution at all points, it stands to reason that water-borne diseases (such as cholera and dysentery) can spread with great facility. The canals are in the condition of open sewers during the hot weather. Fortunately they are closed for repairs during the very hottest period of the year.

3. The prevailing diseases of the district are malarial fever and beri-beri.

With regard to *fever*, the whole of the Agency tracts are notoriously malarious, fever being endemic and especially severe during the rains and the cold season. Many of our Madras regiments have reason to remember 'Rumpa fever.' In the plains, fever is due chiefly to the malarious winds which prevail during the north-east monsoon, and which sweep down from the jungles of the hill tracts. Some have considered it to be caused by the inundations to which certain of the flat, low-lying tracts are subject. This is a disputed point.

Beri-beri is prevalent, more or less, throughout the district and prevails mostly after the rains have set in. It affects the same areas as malarial fever does, though to a less extent, but is most prevalent in the deltas, when it is shown on the map.

Cholera * frequently appears as an epidemic and is, indeed, considered almost endemic at Ellore, where it is fostered and favoured by dirt. There is also the constant and ever-present danger of this scourge being imported by rail from Bezwada, a hot-bed of the disease. It often appears in the deltas as it does (under similar conditions, physical, &c.) in the other deltas of India.

Elephantiasis has been reported as prevalent in the Peddápuram taluk. I have not seen many cases of the disease in this district.

Diarrhœa and dysentery were very prevalent in parts of the Bhímavaram taluk when I visited it. During the rains, these diseases prevail more or less everywhere, and especially along the course of the river and canals ; they are due to the filth washed down from the banks polluting the water.

There is no special prevalence of *goitre*, *calculus*, *guinea-worm* and *typhoid fever*, and they do not occur in so aggravated a degree as to render them characteristic of any locality.

* As this disease is not specified amongst the others mentioned in your letter under reference, I have not shown it in the map.

4. With regard to the principal towns, *Narsapúr* is universally considered the most healthy station in the district. It is open, cool, fairly clean (for an Indian town) and not over-crowded.

Rajahmundry is fairly healthy, except when epidemics prevail, as they do periodically. It has good natural drainage.

Cocanada is one of the dirtiest towns I have ever seen, is full of undrained swamps and is unhealthy at most seasons.

Ellore is in a deplorably bad sanitary condition and subject to frequent epidemics of cholera. This has been referred to above.

Remarks by Surgeon-Major G. L. WALKER, M.D., Civil Surgeon, Ootacamund.

* * * * *

The map of the Nílgiri district and South-East Wynaad with the areas considered highly malarious during a certain period of the year (March till June) coloured in blue, all these malarious areas lie at the foot of the ghauts; no special disease prevails on the Nílgiri plateaux.

Remarks by Surgeon-Major D. F. DYMOTT, M.B., District Sanitary Officer, Salem.

* * * * *

My conclusions have been arrived at by comparing the diseases treated in the various hospitals and dispensaries during the past five years.

The areas specially affected with malarial fevers are Salem, Uttangarai and parts of Hosúr and Dharmapuri taluks. Those affected with diarrhœa and dysentery are Salem and Krishnagiri. Guinea-worm prevails in Salem, Námakkal and Tiruchengódu.

Remarks by Surgeon-Major K. C. SANJANA, District Sanitary Officer, Tinnevelly.

* * * * *

With the exception, to a certain extent, of the guinea-worm, none of the diseases mentioned therein prevail in so aggravated a degree as to render them characteristic of any particular locality.

With regard to paragraph 5 of the same letter, I have the honour to furnish the following information regarding the metecrological, physical and sanitary peculiarities of the district, most of which has been derived from the Tinnevelly District Manual.

Physical characters.—The Western Ghauts form the western boundary of the district. They are well clothed with forests and give rise to rivers and streams which wind through the plain country below in a direction more or less east and reach the sea which forms the eastern boundary of Tinnevelly.

The geological basis of the district is a continuation of the gneiss rock of which the mountains consist. This rock in the plains is largely covered by more recent formations, but protrudes through them in isolated patches, or rounded and conical or domed masses. Of the strata which overlie the gneiss rock the principal are (1) quartz having a considerable percentage of iron; (2) a nodular limestone or kunkur; (3) sandstone alternating with clay stone. The first of these appears through the soil in the pale red ridges which are conspicuous objects in all the taluks bordering the main ghaut range as well as in Tinnevelly and Tenkarai taluks. These rocks, by their decomposition, have given rise to the red series of soils which covers a large part of the western and southern taluks of Tinnevelly.

The second is found in irregular patches underlying a poor stony soil, is well supplied with water and abounds in well cultivation. It is chiefly found in the central portion of the district.

The third is a sea coast series; it follows the line of the coast within a distance of about ten miles. Several successive parallel ridges of similar sandstone form dangerous bars and reefs at a short distance out to sea, and are known as the Tinnevelly Pearl Banks. Inland these rocks formed originally a nearly continuous ridge rising to about 300 feet, through which the rivers descending from the ghauts have broken and worn away their road to the sea. These are called the 'Peri

tracts,' the surface being entirely formed of blown sand, and they are one of the most peculiar natural features of Tinnevelly.

Throughout the length of this range, during the alongshore winds which blow from the south and south-east, the air is filled with volumes of red sand, which is carried by the wind and deposited like snow in drifts often several feet in depth, sometimes burying fertile lands, trees and even houses situated near the ridge. With the setting in of the north-east monsoon, this phenomenon is repeated in the opposite direction.

In the process of decomposition this series has given rise to stiff red soil in a few places, but in general to a soil having a great excess of sand and fit for little but the growth of palmyras.

Next comes the black cotton soil extending from the Madura boundary southward for about 60 miles, and having an average breadth of 40 miles. This soil varies much in quality. In some places it is equal to the best black cotton soil of the northern districts, but elsewhere is mixed with gravel and sand and is of very inferior quality.

Lastly, we have the river alluvium, which forms a narrow but extremely rich strip on either side of the Tambraparni river and its tributary the Chittár from the ghauts to the sea. The greater part of this belt is cultivated twice in the year with rice.

On the whole, then, the position of the different soils of the district may be briefly described as follows:—

Along the base of the Western Ghauts a belt from 10 to 20 miles wide of red loam and red sand derived chiefly from the quartz and gneiss.

Along the sea a belt 3 to 15 miles wide of a light grey and red soil with a great excess of sand chiefly from the decomposition of the clay stone and sand stone ridges which run parallel to and near the sea.

These two belts widen out and overlap one another so as to occupy the whole country to the south of Tinnevelly town.

Between them to the north the intervening space is occupied by broad black cotton plains.

Meteorological character.—The climate of Tinnevelly is peculiar, the result of the influence of the two monsoons. On the whole, its principal characteristics are light rainfall and equable temperature.

The seasons are the results of the south-west and north-east monsoons. The south-west monsoon breaks on the western or Travancore side of the ghauts early in June. For some weeks before, strong westerly and south-westerly winds prevail. During this monsoon little rain falls in the district and that chiefly in slight showers along the foot of the ghauts; but the climate throughout the district is sensibly cooled by the westerly winds blowing through the monsoon rain by way of the various gaps and passes through the mountain range.

The north-east monsoon begins about the 15th October and is often accompanied by storms of considerable violence and high and sudden floods in the rivers. It lasts till January, and is less regular but heavier in its discharges of rain which at this time is general over the district. Occasional showers fall also in April and May. Total rainfall during the past five years averages 24·21 inches; nearly two-thirds of which fall during the rains, that is, during October, November and December.

The hot season commences with the month of February and continues with an occasional thunder shower until the south-west monsoon breaks in June. Strong winds from the south, known as alongshore winds, prevail especially near the coast and carry volumes of sand in their course.

The mean temperature ranges from 80° to 90° throughout the year. The temperature sometimes goes as high as 105° in shade in the hot months of April and May.

Sanitary peculiarities.—The district is, on the whole, healthy. Fevers, small-pox and cholera are the principal causes of death. The first two prevail throughout the district and during all the months of the year. Cholera mostly prevails during the north-east monsoon, and its maximum intensity is felt in south Tinnevelly, especially in the taluks watered by the river Tambraparni.

SECTION IX.

SANITARY WORKS—CIVIL.

MUNICIPALITIES.

58. During the year, Government had before it the question of amending Act No. IV of 1884, under which municipalities are administered. Several important modifications were suggested to Government by myself and other officers; so that, if the majority of these receive the approval of the Madras and India Governments, the municipal authorities will next year be furnished with a very necessary increase of power to effect sanitary requirements, in reference to the check of epidemic diseases, and protection of water and milk supplies.

59. In municipalities differing so much in area, in natural advantages derived from physical position, custom of races, and in class of education of the councillors responsible for administration as in the case of those of this Presidency, it is to be expected that sanitary results secured differ widely. Government has lately required the appointment of 'whole time' Chairmen in two of the larger municipalities—Trichinopoly and Salem; this will doubtless serve to improve their general administration, as it is impossible that native gentlemen having their own professions to attend to, can devote sufficient time to supervise the sanitary interests of eighty to ninety thousand people.

60. The following table shows the conservancy establishment and plant available in each municipality during 1894:—

Municipalities.	Population as per census of 1891.*	Number of inspectors.	Number of supervisors.	Number of overseers.	Number of maistries.	Number of peons.	Number of sweepers.	Number of toties for cleaning public latrines.	Number of toties for private scavenging.	Number of latrines scavenged by the Municipality.	Number of carts.	Number of latrines.				Number of dust-bins.			Number of tank watchers.
												Pucka built.	Brick wall enclosures.	Mud wall enclosures.	Tatty.	Wooden.	Masonry.	Iron.	
Coonoor ...	5,586	1	...	...	1	...	18	7	7	137	16	13	...	...	...	...	...	55	...
Anantapur ...	6,973	1	...	...	...	2	14	8	3	114	4	1	4	3	...	...	26	46	...
Bimlipatam ...	9,696	1	...	4	...	2	37	3	26	255	2	4	...	...	...	...	30	...	1
Walajapet ...	10,485	3	...	1	...	...	13	9	6	480	5	8	...	...	...	...	40	§ 480	6
Karúr	10,740	2	...	...	1	2	27	7	2	93	8	3	...	5	5	...	25	35	...
Ongole	10,832	1	...	...	...	2	20	4	8	231	3	..	5	...	...	...	...	14	1
Erode	12,238	1	...	...	...	5	24	16	4	193	25	4	...	9	‡2	...	70	114	1
Ootacamund ...	13,391	4	...	1	7	...	76	24	20	245	28	48	...	...	...	...	...	40	...
Tirupati ...	14,238	1	...	...	2	...	32	5	6	170	15	...	1	...	11	...	145	29	3
Vániyambádi ...	15,838	2	...	...	2	...	44	12	6	320	30	1	1	3	6	...	...	100	7
Periyakulam ...	16,363	...	...	...	1	2	32	8	16	120	5	†4	10	...	...	100	13	56	2
Parlákimedi ...	16,379	1	...	...	...	3	28	10	...	311	16	1	4	2	...	...	...	...	3
Tiruppattúr ...	16,463	1	...	...	4	...	9	5	8	884	12	1	1	5	...	...	29	85	1
Palni ...	16,940	1	...	...	...	2	21	24	15	280	7	6	...	...	7	2	23	14	2
Cochin ...	16,147	1	...	4	1	...	38	21	4	114	5	2	2	18	1	...	...	19	...
Anakápalle ...	17,001	...	..	1	3	1	29	28	14	883	16	28	...	7	§7	...	10	32	1
Cuddapah ...	17,211	2	...	...	1	6	38	7	17	266	6	2	4	1	8	2	§ 166	7	...
Chicacole ...	18,204	...	1	...	1	4	7	6	32	1,556	32	6	2	...	2	...	28	21	3
Palamcottah ...	18,612	3	...	...	...	3	22	8	3	156	15	2	2	...	2	...	106	...	2
Chidambaram ...	18,634	1	...	...	5	...	16	11	2	117	18	6	4	3	...	...	...	...	4
Gudiyáttam ...	18,745	2	...	...	5	...	16	18	5	146	29	4	...	14	...	...	100	74	7
Dindigul ...	20,115	2	...	1	...	6	34	1	5	73	20	...	2	...	1	28	26	18	5
Mannárgudi ...	20,392	2	...	...	2	...	33	20	14	570	31	4	...	...	†16	...	18	60	6
Bezwada ...	20,611	1	...	2	1	6	13	20	15	989	23	...	8	...	8	...	...	179	...
Srírangam ...	21,632	4	...	...	1	10	44	31	12	513	44	20	...	...	...	...	83	13	1
Guntúr ...	23,267	...	...	6	2	6	17	5	9	324	23	3	...	...	13	...	5	45	2
Máyavaram ...	23,754	3	...	...	...	5	38	13	4	170	7	38	...	...	...	...	179	25	6
Kurnool ...	24,306	1	...	...	1	8	43	14	21	1,679	37	9	7	1	6	...	255	...	...
Tinnevelly ...	24,756	4	...	...	...	6	20	6	14	1,013	25	7	...	...	9	...	23	129	2
Tuticorin ...	24,964	3	...	...	...	5	77	21	26	574	19	...	5	17	...	...	43	84	1
Berhampur ...	25,493	4	...	...	6	...											120	...	2

* Exclusive of Europeans and Eurasians. † Corrugated iron. ‡ Zinc. § Of slabs.

Municipalities.	Population as per census of 1891.*	Number of inspectors.	Number of supervisors.	Number of overseers.	Number of maistries.	Number of peons.	Number of sweepers.	Number of toties for cleaning public latrines.	Number of toties for private scavenging.	Number of latrines scavenged by the Municipality.	Number of carts.	Number of latrines.				Number of dust-bins.			Number of tank watchers.
												Pucka built.	Brick wall enclosures.	Mud wall enclosures.	Tatty.	Wooden.	Masonry.	Iron.	
Ádóni ...	26,216	1	...	...	2	6	30	23	16	847	11	†12	...	4	...	...	74	51	8
Tellicherry ...	26,631	3	...	...	2	...	23	15	16	431	16	5	...	...	19	7	36	...	...
Cannanore ...	26,653	...	...	2	...	2	18	14	8	266	12	11	...	...	‖ 7	23	18	...	...
Rajahmundry ...	28,279	2	1	1	1	6	46	21	33	1,039	1	4	...	5	6	46	112	78	2
Nellore ...	29,128	2	...	...	6	...	45	25	17	769	15	...	13	1	12	...	70	118	...
Ellore ...	29,296	5	...	...	4	...	30	23	13	217	12	...	9	..	9	...	46	54	1
Vizianagram ...	30,735	4	11	...	37	...	94	26	63	1,111	33	26	...	...	12	105	26	106	7
Vizagapatam ..	33,961	14	...	...	10	18	119	57	50	1,039	12	...	48	...	35	180	180	63	1
Masulipatam ...	38,667	6	...	1	1	4	77	7	12	326	39	‡ 5	8	...	...	...	...	8	2
Palghat ...	39,367	1	...	...	8	2	46	16	19	1,000	30	10	...	...	4	...	...	151	...
Cocanada ...	40,068	1	...	2	...	6	44	47	14	295	9	10	...	...	8	...	...	139	9
Mangalore ...	40,620	1	8	...	...	...	24	4	29	2,283	5	8	1	...	¶ 5	...	80	40	...
Conjeeveram ...	42,543	5	...	...	...	...	44	12	12	620	28	20	9	1	...	...	376	123	5
Vellore ...	44,724	8	...	1	1	11	40	48	14	519	49	1	24	1	...	...	365	181	6
Coimbatore ...	46,007	3	...	1	7	...	78	31	30	410	39	14	8	7	...	...	...	122	1
Cuddalore ...	47,025	7	...	...	...	6	57	26	6	140	32	13	...	...	12	23	187	118	3
Kumbakónam ...	54,254	7	...	...	...	7	32	23	29	489	48	...	21	...	¶ 1	...	170	213	2
Tanjore ...	54,258	6	...	...	...	18	88	35	20	711	36	1	28	...	...	...	194	68	14
Bellary ...	57,780	8	...	1	2	21	66	55	24	1,532	64	23	...	4	...	...	285	95	5
Negapatam ...	58,573	5	...	...	1	13	93	18	93	1,512	43	2	16	...	2	...	513	94	11
Calicut ...	64,798	5	...	...	...	...	68	17	31	1,071	30	11	...	...	...	...	20	21	...
Salem ...	67,640	3	...	8	11	36	148	55	16	537	29	12	9	24	10	...	37	198	2
Madura ...	87,121	10	...	...	...	11	89	33	13	584	82	8	...	...	2	...	59	334	1
Trichinopoly ...	89,666	16	...	1	7	17	69	89	100	4,232	111	§ 3	4	75	3	...	42	110	25
Total ...	1,634,616	176	21	38	147	270	2,356	1,097	1,008	35,252	1,315	424	261	220	256	516	4,453	4,332	174
Madras ...	436,375	7	...	20	50	158	1,420	527	27	21	771	114	97	3	...	4	1,019	51	...

* Exclusive of Europeans and Eurasians. † Six of these are of iron. ‡ Zinc. § One of them is of corrugated iron.
‖ Sentry box, wooden. ¶ Corrugated iron.

61. Notwithstanding the fact that some of the most populous towns have ranked as municipalities for nearly thirty years, certain of them still lack the first essentials in the matter of decency and protection of public health, namely, reliable systems of night-soil collection and removal. One of the best examples of this condition of affairs is Madura, the second largest town in the Madras Presidency, having a population of 87,428. A large part of this population, both male and female, might, in accordance with the custom of this Presidency, reasonably be expected to resort to public latrines—yet only 10 of these exist; whilst to remove from the town precincts daily a total of 872·5 cubic feet of human excreta exclusive of urine, there are but 18 carts having a cubic capacity of 261 cubic feet. Therefore allowing for three trips, even if the carts were full, a total of 89·5 cubic feet of night-soil would be left on the site daily. In Tirupati, an important place of pilgrimage, I found the municipality attempting to remove the total night-soil of 14,242 inhabitants in two conservancy buckets, having a cubic capacity of $2\frac{1}{2}$ cubic feet each! The insufficiency of the plant for night-soil conservancy in other municipal towns is exhibited in the following table:—

Municipalities.	Quantity of excreta excluding urine that has to be removed daily.	Quantity removed daily if, on each trip, each cart be full.	Quantity left on the soil daily.
	C. FT.	C. FT.	C. FT.
Conjeeveram	424·6	162	262·6
Cuddapah	173·4	13·5	159·9
Ellore	293·2	18	275·2
Guntúr	233·1	134	99·1
Masulipatam	387·3	90	297·3
Cochin	175·7	99	76·7
Palghat	394·0	39·7	354·3
Tellicherry	271·4	118·6	152·8
Cannanore	273·6	173·4	100·2
Mannárgudi	203·5	28	175·5
Anakápalle	169·8	27·5	142·3
Gudiyáttam	187·1	98	89·1
Madras	4,462·0	3,098	1,364

62. Whilst the above affords some idea of the defective state of the first step in sanitation—the preservation of the purity of the soil—the equally urgent question of a water-supply open to pollution has usually to be taken into account, and again, sewage removal cannot be neglected.

63. Confronted with the question of funds at disposal left to sanitation after other demands have been attended to, the matter resolves itself into a question of what to attempt first. Municipalities now understand that the procuring of loans for water-supply and drainage schemes is sound financial and sanitary policy, but have not yet realized the importance of dealing in this way with the conservancy question. The removal of excreta from the soil must go a very long way in securing the prevention of water pollution ; there are, therefore, *a priori* grounds for thinking this is the first step in systematic sanitation a municipality should take. But, there is this to be said that where 'water-carriage' is ultimately adopted, the introduction of a water-supply and correct under-ground drainage system are necessary preliminaries ; hence, a large amount spent upon a system of 'separate removal' of night-soil would be in great part wasted. It is not likely that 'the water-carriage system' of conservancy will be adopted in any but the larger municipal towns ; the progress of effecting water-supply schemes cannot but be slow ; whilst the case of the smaller towns must necessarily be considered last. Consequently, it seems to me advisable for the Sanitary Board to be required to determine in what towns the introduction of water-supply and drainage would, with reference to 'water-carriage,' be likely to demand subsequent modifications of methods of conservancy ; in all other towns, the essential matter of complete night-soil conservancy should be insisted upon, even if it were necessary to raise loans to cover the required outlay on plant. The amounts requisite would certainly not be great in any case, and in the majority of instances the outlay could be met in very short periods. In this connection, I am glad to be able to state that the important town of Calicut, acting upon a suggestion in my inspection notes, has had under consideration the question of using a tramway for conservancy purposes. In this town, the distances to be covered are very heavy, and there can be no doubt that the use of a tramway, instead of trusting to cartage, will go far towards solving both the economical and sanitary difficulty.

64. The matter of improved forms of latrines has been steadily pressed upon the notice of municipalities, both by Government and this office. The point is one demanding careful consideration if conservancy is to be correctly conducted. The usual type of latrine employed is not such as to commend itself to natives, nor are they usually retained by municipalities in a state of cleanliness to offer an inducement to use them without the compulsion of the law. This can only be attained when the 'separate' or 'dry-earth' system is employed, by appointing a scavenger for each latrine, and providing for his residing close to the spot.

65. In respect to the organization of the staff dealing with sanitation in municipalities, much has to be done. In most towns, the idea that the so-called Sanitary Inspector is a person whose duty it is to collect municipal revenue, look after the roads and do any *practical* work not connected with that theoretical science known as sanitation, still prevails. The first step has, therefore, been to make the Sanitary Inspector realize what practical sanitation is. Acting upon a recommendation, in which I was supported by the Surgeon-General with the Government of Madras and the Director of Public Instruction, Government has made a special grant for a course of training of all English-speaking Sanitary Inspectors, and the assembly of the first class has been directed in January 1895. Applications for the training of candidates have been made by 35 municipalities and 26 private students—many of a good standard of general education who will have to pay for their course of study, have also presented themselves. Certificates of qualification as Sanitary Inspectors will be given to successful candidates. It is therefore to be hoped that it may be possible to require, in the near future, that the position of Sanitary Inspectors may be sufficiently raised to ensure that municipalities shall offer fixed and suitable rates of pay for trained men. Certain of the municipalities have populations sufficient to demand that well-trained native medical officers of health should be employed for their sanitary supervision.

66. Very much more endeavour was made by municipalities during the past year to meet the demands of epidemics than formerly. This has, I believe, been due to the decided character of the order issued by Government in reference to the epidemic at Trichinopoly referred to in paragraph 46 (4) of my last year's report. Government has also under consideration suggestions made by me for the endeavouring to bring about action of a systematic and pre-arranged description on the approach of cholera in municipalities generally. These suggestions have been referred by Government to certain officers for opinion as to their practicability with reference to funds and the supervision required by District Medical and Sanitary Officers, and I trust that next year this office will be in a position to record that these arrangements have finally superseded the haphazard and dilatory modes hitherto employed for saving life.

67. The theme of the advantages of sewage farming has been duly advanced in the case of each municipality, both by myself and my Deputy, where its adoption gave a fair chance of success. With a view to aiding in the same direction, the remarks on this subject made from time to time by the Government of India, the local Government, and by the Army Sanitary Commission, have been collected and circulated for the information of District Sanitary Officers and all public bodies. Several have promised that the matter 'will be attended to.' So far I have, however, but to record that the list of municipalities using sewage farming, as last year, is limited to Tanjore, Negapatam, and Madras. On the subject of the two latter, Government called for an explanation of my assertion that, whilst these places carried on the process with economically good results, their working could not be regarded as successful from a sanitary point of view (*vide* paragraph 101 of my report for 1893). In both instances, I believe I have advanced full data to support this criticism. Orders on this matter are now pending before Government.

68. The necessity for urging forward the system of private conservancy has been attended with considerable success, so that at the close of the year the various municipalities show an increase of 5,013 houses attended to (*vide* table annexed). Much of this progress is due to Government having in a vigorously-written Order called the attention of municipalities to the sanitary and financial advantages of private scavengering (G.O., No. 749 M., dated 13th June 1894) :—

Municipalities.	Number of occupied houses as per census of 1891.	Number of houses served by the municipality.	Proportion per cent. of columns 3 to 2.	Municipalities.	Number of occupied houses as per census of 1891.	Number of houses served by the municipality.	Proportion per cent. of columns 3 to 2.
Coonoor	1,464	137	9	Tinnevelly	5,912	1,679	28
Anantapur	1,372	114	8	Tuticorin	4,649	1,013	22
Bimlipatam	1,998	255	12	Berhampur	5,554	574	10
Walajapet	2,167	480	22	Adóni	4,784	847	18
Karúr	1,741	93	5	Tellicherry	3,477	431	12
Ongole	2,062	231	11	Cannanore	4,243	266	6
Erode	1,950	193	10	Rajahmundry ...	4,831	1,039	22
Ootacamund	3,500	245	7	Nellore	6,377	769	12
Tirupati	2,918	170	6	Ellore	5,226	217	4
Vániyambádi ...	2,844	320	11	Vizianagram	6,566	1,111	17
Cochin	2,570	280	11	Vizagapatam ...	7,020	1,039	15
Periyakulam ...	3,142	296	9	Masulipatam	7,960	326	4
Parlákimedi	3,366	120	4	Palghat	6,810	1,000	15
Tiruppattúr	2,823	311	11	Cocanada	4,808	295	6
Palni	2,653	884	33	Mangalore	7,128	2,283	32
Anakápalle	3,626	114	3	Conjeeveram ...	6,430	620	10

Municipalities.	Number of occupied houses as per census of 1891.	Number of houses served by the municipality.	Proportion per cent. of columns 3 to 2.	Municipalities.	Number of occupied houses as per census of 1891.	Number of houses served by the municipality.	Proportion per cent. of columns 3 to 2.
Cuddapah	4,057	883	22	Vellore	6,707	519	8
Chicacole	3,693	266	7	Coimbatore	6,875	410	6
Palamcottah	3,694	1,556	42	Cuddalore	8,422	140	2
Chidambaram ...	3,648	156	4	Kumbakónam ...	7,946	489	6
Gudiyáttam	3,275	117	4	Tanjore	9,742	711	7
Dindigul	3,183	146	5	Bellary	11,565	1,532	13
Mannárgudi	3,592	73	2	Negapatam	9,793	1,512	15
Bezwada	2,466	570	23	Calicut	9,839	1,071	10
Srírangam	4,163	989	24	Salem	10,865	537	5
Guntúr	4,243	513	12	Madura	13,439	584	4
Máyavaram	4,585	324	7	Trichinopoly	15,785	4,232	26
Kurnool	5,074	170	3	Total ...	28,8622	35,252	12

69. The receipts in municipalities under conservancy, which include fees for private scavengering and sale-proceeds of night-soil, street sweepings, &c., have increased from Rs. 65,780 in last year to Rs. 71,912 in the year under review, showing that these important subjects have been duly attended to. Further remarks on conservancy are made under the heading 'District Boards.'

70. Rs. 4,95,835 or 19·6 per cent. of the total income of the mofussil municipalities were allotted for conservancy, and Rs. 4,99,382 or 19·8 per cent. for water-supply. Whilst it is probable that before the end of the official year all amounts for conservancy were duly spent under establishment, it is improbable that the full allotments for improvements of water-supply were utilized. Unfortunately, this report being for the calendar year, the result cannot be correctly traced. Further details as to expenditure are shown in the following tables:—

	1893–94.		1894–95.	
	Amount sanctioned.	Amount spent.	Amount sanctioned.	Amount spent in 9 months ending with December 1894.
	Rs.	Rs.	Rs.	Rs.
For conservancy	4,81,560	4,67,845	4,95,835	3,55,365
For improvement of village or town sites	2,40,791	2,30,162	2,45,076	1,51,938
For improvement of water-supply, cleansing, repairing and construction of tanks and wells	4,95,255	5,28,965	4,99,382	2,13,926
For sanitary arrangements during fairs and festivals.	4,310	4,053	4,830	4,032
For construction and repair of markets and slaughter-houses	63,522	36,627	48,933	15,176
For other sanitary objects	2,04,176	87,237	68,729	40,884
Total ..	14,89,614	13,54,889	13,62,785	7,81,321

Statement showing the estimated income and allotment for sanitary purposes in each Municipality during the year 1894–95.

Municipalities.	Population as per census of 1891.*	Estimated income, 1894–95.	Rate per cent. of sanitary allotment to estimated income.	Rate per cent. of sanitary expenditure to amount sanctioned.	1894-95. Sanitary allotment. Allotment.	Sanitary allotment. Expenditure during the 9 months ending December 1894.	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 repair of markets and slaughter-houses. Allotment.	Construction and repair 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 ...	6,973	19,140	17·6	69·0	3,375	2,328	2,660	1,956	610	273	45	38	...	...	10	11	...	...
Adóni ...	26,216	78,800	76·8	128·5	60,510	77,753	8,380	5,675	2,300	394	†48,310	70,864	...	...	250	820	1,270	...
Bellary ...	57,780	76,000	47·7	73·0	36,230	26,479	27,290	19,788	6,700	5,715	590	218	...	...	100	...	1,550	758
Conjeeveram ...	42,543	36,910	48·6	53·9	17,950	9,669	10,950	6,245	4,100	1,362	500	541	1,240	1,062	700	...	460	459
Coimbatore ...	46,007	43,060	32·4	71·0	13,950	9,918	11,600	8,381	...	...	1,040	306	...	...	150	...	1,160	1,241
Erode	12,238	14,630	46·0	72·0	6,730	4,849	3,870	2,950	1,750	654	480	1,183	30	...	120	29	480	35
Karúr	10,740	15,160	37·6	68·7	5,710	3,922	3,580	2,533	1,800	1,344	100	19	...	...	...	21	230	5
Cuddapah ...	17,211	45,620	27·5	78·3	12,554	9,825	8,130	5,013	...	...	3,724	4,049	...	17	400	282	300	464
Berhampur ...	25,493	24,060	43·8	55·5	10,530	5,843	5,930	4,431	3,320	1,276	130	136	...	...	100	...	1,050	30
Chicacole	18,204	21,460	28·1	80·1	6,040	4,837	3,520	2,712	1,640	1,568	230	178	...	...	450	235	300	...
Parlákimedi ...	16,379	12,530	31·5	79·9	3,950	3,157	2,720	1,805	800	1,247	130	105	...	...	...	...	1,000	804
Cocanada	40,068	42,990	37·6	81·6	16,150	13,176	9,690	7,178	4,640	4,072	820	1,122	...	...	...	...	1,850	864
Ellore	29,296	29,360	48·5	65·6	14,240	9,338	7,020	5,487	4,000	2,890	370	97	...	...	1,000	...	1,250	913
Rajahmundry ...	28,279	30,850	57·0	65·5	17,590	11,514	10,850	8,582	4,270	1,288	320	161	...	...	900	570	520	218
Bezwada	20,611	32,380	62·7	77·6	20,300	15,750	10,930	8,690	2,950	2,055	2,900	3,516	...	...	3,000	1,270	1,250	913
Guntúr	23,257	39,080	62·6	65·1	24,830	16,179	9,790	7,362	5,000	3,124	3,140	755	...	...	5,500	4,741	1,400	197
Masulipatam ...	38,567	48,120	27·4	71·8	13,200	9,479	8,700	6,440	...	...	1,100	1,296	...	...	250	88	3,150	1,655
Kurnool	24,306	2,40,790	89·4	3·0	2,15,370	6,398	6,460	4,501	2,700	1,700	†2,06,120	150	...	...	...	...	90	47
Dindigul	20,115	26,370	49·7	70·0	13,100	9,176	5,820	4,320	3,220	2,073	740	696	...	...	950	654	2,370	1,433
Madura	87,121	1,82,330	62·6	85·0	1,14,125	97,023	23,400	17,808	10,000	6,054	68,720	71,232	2,000	1,929	9,000	...	1,000	...
Palni	16,940	11,340	45·9	53·7	5,200	2,794	3,000	2,029	1,380	482	760	266	50	10	...	...	10	7
Periyakulam ...	16,363	11,820	46·6	74·1	5,513	4,084	2,920	2,238	1,900	1,409	220	187	...	...	51	51	422	199
Calicut	64,798	65,170	35·3	74·9	22,900	17,212	10,840	6,415	10,000	9,724	...	60	...	...	150	93	2,000	920
Canannore ...	26,653	26,740	39·1	55·1	10,470	5,767	6,220	4,356	2,951	1,411	60	...	...	...	37	...	1,202	...
Cochin	16,147	19,860	30·6	75·6	6,095	4,605	4,580	4,024	920	262	65	13	...	...	60	66	470	240
Palghat	35,307	76,670	37·4	37·7	28,645	10,810	7,870	4,943	8,240	5,568	210	45	70	70	12,000	...	255	184
Tellicherry ...	26,631	45,950	24·7	62·9	11,360	7,155	7,800	4,879	2,870	1,804	...	...	50	56	150	77	490	339
Nellore	29,128	39,930	22·0	73·9	8,819	6,517	6,780	5,103	...	...	161	64	...	...	1,028	833	850	467
Ongole	10,832	12,160	34·8	52·8	4,240	2,237	2,750	2,027	800	...	610	99	...	...	...	...	80	111
Gudiyáttam ...	18,745	15,870	33·4	66·7	5,310	3,542	3,020	2,127	1,720	1,054	360	290	10	10	200	...	...	61
Tirupati	14,238	1,09,380	5·0	113·7	5,470	6,220	3,530	3,182	1,540	1,150	350	865	...	368	...	...	500	1,261
Vellore	44,724	53,510	65·1	43·9	34,830	15,285	14,530	9,366	19,075	4,288	725	370	...	...	...	...	50	655
Walajapet ...	10,485	13,920	25·4	50·0	3,540	1,772	2,990	1,706	...	...	330	60	...	...	220	6	...	...
Coonoor	5,586	33,800	41·0	81·9	13,872	11,360	6,880	4,730	5,000	4,870	692	686	...	...	300	276	1,000	798
Ootacamund ...	13,991	1,21,760	75·5	44·0	97,895	40,487	22,870	17,565	13,140	12,654	†49,040	4,632	...	...	1,000	746	5,845	4,822
Salem	67,640	69,520	52·4	52·2	36,445	19,012	19,750	14,856	6,500	2,323	790	610	...	...	222	23	9,183	1,200
Tiruppattúr ...	16,463	16,700	37·3	71·9	6,230	4,477	3,600	2,648	1,700	1,122	60	36	...	...	500	350	370	321
Vániyambádi ...	15,838	16,690	32·2	74·3	5,380	3,996	3,560	2,700	1,300	903	370	304	...	...	...	...	150	89
Chidambaram ...	18,634	18,950	34·8	64·7	6,612	4,279	4,759	3,275	...	...	512	485	100	23	250	229	1,000	267
Cuddalore ...	47,025	46,160	51·6	66·7	23,840	15,913	11,020	7,770	10,610	6,171	380	369	...	...	50	90	1,780	1,513
Mangalore ...	40,620	39,600	47·0	73·5	18,600	13,669	7,900	5,943	7,750	5,868	1,856	1,351	...	...	100	53	1,000	454
Kumbakónam ...	54,254	69,340	52·2	88·5	36,190	32,014	20,370	12,463	11,750	6,448	1,560	1,792	10	...	600	438	1,900	10,873
Mannárgudi ...	20,392	23,930	36·0	120·9	8,620	11,201	4,390	2,705	3,610	7,427	200	494	200	197	220	225	...	153
Máyavaram ...	23,754	35,480	41·7	51·4	14,810	7,614	6,310	4,538	2,590	1,792	990	459	120	139	200	251	4,600	435
Negapatam ...	58,573	68,340	59·4	66·2	40,620	26,903	21,710	14,998	12,330	7,016	4,160	3,172	300	...	825	794	1,295	923
Tanjore	54,258	69,380	28·8	68·6	19,980	13,710	11,575	8,900	1,000	955	2,700	1,460	...	...	2,000	690	2,705	1,705
Palamcottah ...	18,612	20,710	35·4	55·5	7,340	4,073	5,750	2,945	980	599	210	185	...	...	70	69	330	275
Tinnevelly ...	24,756	24,400	51·5	59·9	12,570	7,529	7,100	5,843	2,400	1,298	190	188	50	...	2,680	59	150	141
Tuticorin ...	24,964	33,470	50·6	57·6	16,940	9,755	8,900	6,379	5,380	2,290	1,638	940	...	..	50	22	972	124
Srirangam ...	21,632	24,490	53·7	40·9	13,160	5,379	7,120	4,703	5,080	478	170	46	600	...	50	27	140	102
Trichinopoly ...	89,666	1,34,320	106·6	50·9	1,43,180	72,875	35,510	27,155	13,000	8,468	88,020	36,574	...	..	2,050	408	4,600	270
Anakápalle ...	17,001	13,450	48·9	62·9	6,580	4,136	3,390	2,427	2,000	1,116	790	518	...	...	...	...	350	75
Bimlipatam ...	9,696	14,090	35·1	53·3	4,950	2,636	3,000	2,186	1,600	81	...	39	...	...	...	...	350	330
Vizagapatam ...	33,961	37,050	103·8	52·4	38,490	20,167	12,610	9,072	20,160	8,790	1,220	455	...	...	700	154	3,800	1,696
Vizianagram ...	30,735	29,400	59·9	88·4	17,620	15,573	9,650	7,312	6,000	7,029	480	180	...	128	240	375	1,250	549
Total ...	1,634,6 16	25,26,060	53·9	57·3	13,62,785	7,81,321	4,95,835	3,55,365	2,45,076	1,51,938	4,99,382	2,13,926	4,830	4,032	48,933	15,176	68,729	40,884
Madras	436,375	12,76,350	37·2	68·2	4,75,206	3,24,268	3,41,826	2,27,176	79,470	79,360	33,090	11,860	90	90	...	...	20,730	5,782

NOTE.—Rs. 76,515 were spent for water works in Tanjore.
Adóni Rs. 70,864. This includes sum adjusted on account of advance made last year for water works.
* Exclusive of Europeans and Eurasians.
† Water works.

MAJOR WORKS.‡

71. *Madura* (Population 87,428).—Here a water-supply scheme was completed by the Sanitary Engineer's Department during the year. The supply is collected in an infiltration gallery from the sub-stream of the river Vaigai, upon the banks of which much of the town is built, and is pumped to the town direct. For some time after opening the works, the amount of water obtainable from this source was very small. But, according to the Acting Sanitary Engineer's estimate, at the close of the year, it amounted to six gallons per head of the population. The estimate of the Sanitary Engineer's Department as to the supply obtainable has

‡ These notes are furnished in accordance with the request of the Army Sanitary Commission contained in para. 8 of its memorandum on the Madras Sanitary Report for 1891. Minor works are sufficiently described under Abstract of Sanitary Reports of District Boards and Municipalities, pages 73–84 and 106–111.

therefore not been realized. The head works are situated suitably above the town with regard to protection of drainage from its area, but not so with regard to certain villages, one of which especially is close to the infiltration gallery. On date of my inspection, as a consequence of the insufficient supply from the new works, a former source depending upon infiltration wells opposite the town was being largely drawn upon. The surrounding area and sandy river-bed were found to be very badly conserved by the municipality, both in the case of the new and old works. Considering the description of matter found, it cannot be presumed that the absence of a marked excess of chlorides pointed to the albumenoid ammonia being solely, or even largely, of vegetable origin. This is the analysis furnished by the Chemical Examiner of the supplies referred to:—

——	Madura water-works water.	Mantapam water.
Total solids, Grms. per litre	0·590	0 600
Volatile solids Do.	0·080	0·100
Chlorine Do.	0·163	0·166
Total hardness, Clark's scale	9°·100	10°·500
Permanent hardness Do.	1° 400	1°·925
Free ammonia, Mlgrms per litre	Trace.	Trace.
Albumenoid ammonia Do.	0·480	0·800
Nitric acid Do. (as ammonia).	Trace.	Trace.

Enquiry has been made as to the feasibility of removing the village near the head works, and a graveyard within the sub-soil drainage catchment of the river has also been closed. It is hoped that, as a result of the opening of the great Periyár irrigation project, the Vaigai will receive more water and that the scheme may ultimately afford a greater supply. At present, in view of the fact that the old shallow wells of the town are still employed, the full sanitary protection of the population has not been accomplished.

72. *Coonoor* (Population 6,049).—In this sanitarium, a completed sewerage scheme was inspected. It is on the 'open system.' A considerable portion of the town is not included. The form of house connection consisting of a brick structure square in section and closed at the top seems inappropriate, and, to my mind, annuls the little advantage which an 'open system' may possess. Arrangements for securing that each householder should launch his sewage into the drains are very incomplete, with the result that much of the sewage that should reach the main outlet lodges within the premises.* No marked sanitary benefit from this partial system need therefore, I think, be anticipated. The sewage is launched direct into the neighbouring mountain stream. This is an undesirable method of discharge, and I trust that, in the absence of a suitable plot of ground for sewage farming, which probably led to this method of disposal being adopted, a sewage filter may be placed at the outlet. Flushing arrangements being poor, I advised the addition of automatic flushing tanks, which, by reason of the situation of overflows from certain springs near the heads of drains, would seem specially suitable.

A water-supply scheme has also been presented by the Sanitary Engineer to the Municipal Council. I found the catchment area proposed is largely cultivated with tea, and has numerous native and European houses within it. It is proposed to deliver the water by gravitation after sedimentation in the service reservoir. In consideration of the nature of the catchment area, I pointed out that if, for financial and engineering reasons, this scheme were adopted, the use of filter beds should be regarded as essential. It was also advised that another source should be further surveyed, before a final decision as to the adoption of any scheme were arrived at.

73. *Vellore* (Population 44,925).—In this town a scheme designed before the institution of the present Sanitary Engineer's Department is being carried out by the

* Legislation is contemplated by Government with reference to the amendment of Act No. IV of 1884 that will provide the necessary power in such cases.

Municipality. It is also on the 'open system.' As far as feasible with respect to bulk of sewage and gradient obtainable, my inspection showed that professional supervision by the Sanitary Engineer's Department was desirable. To save expenditure upon realignment of certain parts of streets—an almost necessary accompaniment of an 'open drain system'—the Municipality had allowed the side channels to be built with endless sharp curves; it also seems possible that the full gradient available was not taken advantage of. Government accordingly directed supervision by the Sanitary Engineer's Department.

74. *Trichinopoly* (Population 90,609).—It was possible for me to obtain but little information as to the nature of the water-supply scheme contemplated by the Sanitary Engineer here, as under the system which existed up to the end of 1894, this office was told nothing as to sanitary works till they were completed, and then it was limited to information gained by personal inspection. I understand, however, that the scheme embraces the using of the sub-stream of the Cauvery and pumping direct to the town. Floods during 1893 having washed away the head works, I was required by Government to inspect one of the alternative sites proposed for the head works. I found it unsuitable, as, indeed, was suggested by the Sanitary Engineer as probable.

75. *Karúr* (Population 10,750).—I inspected this town with reference to a sewerage scheme proposed by the Sanitary Engineer's Department, and advised against a sewerage scheme, in view of the greater urgency for a pure water-supply.

76. *Negapatam* (Population 59,221) *and Tirupati* (Population 14,242).—In the case of the proposals of the Sanitary Engineer's Department as to the sewerage schemes of Negapatam and Tirupati, I advised that they be held in abeyance pending the introduction of a public water-supply, for which in both cases there is great urgency. Government, accordingly, acceded to the recommendation. Advice of this description is decidedly at variance with usually accepted views as to sanitary requirements. It is, therefore, desirable that I should explain that the two Municipalities dealt with are so poor that having laid down a sewerage scheme, it would be problematical when the additional expenditure for a water scheme could be afforded; it is, therefore, a matter of choosing which for a series of years to come is most likely to be directly beneficial to the inhabitants. Considering the extent of *gross* pollution of water sources, there can be no shadow of doubt that, although important exceptions may occur, the provision of a protected water-supply is that which offers the chances of the quickest sanitary returns for money invested. Against the usual argument as to the evil effect of the introduction of water into a site without due arrangement for its removal, I have to state there are few towns that are likely to secure an amount that would in any way alter their present evil position in this respect; that is to say, the total introduced by water works will not be materially greater than that actually entering the soil from existing sources.

77. *Madras* (Population 452,518).—This large Municipality was carefully inspected during the year. The highly unhealthy condition of the city having attracted the attention of the Madras Government in 1890, a special committee—of which I was a member—was appointed to advise as to the nature of the urgent sanitary improvements in connection with water-supply and drainage considered necessary. Rough schemes having been formulated, it was advised by the committee that the Government should entertain the services of a European expert Sanitary Engineer to advise and estimate for complete schemes. Extracts from my inspection notes, supplying particulars as to these works of the nature desired by the Army Sanitary Commission, will be found in Appendix B.

Since these notes were written, Government has decided that the financial condition of the Municipality is such as to render any prospect of both the water-supply and the sewerage system being carried out simultaneously out of the question. Under these circumstances, I have advised what may at first sight appear a reversal of the policy laid down in Appendix B; that is, I have urged the importance of the introduction of some part of the sewerage system before completion of the water-supply system. There is, however, no real contradiction in principle. There is in the case of this city an area (Black Town) drained on a system of 'open drains'

completed within recent years, with other larger areas possessed also of open drains but of ancient date and inferior in point of engineering when compared with the system of later date, whilst the greater part of the whole city possesses a water-supply received in pipes. Neither water-supply nor drainage efforts therefore made up to date subserve full sanitary demands, and we have, in whatever direction we look, money spent upon works that are incomplete. Turning to sanitary results secured by these works, we find that even in the part of the city (Black Town) possessed of a modern water-supply and the modernized sample of 'open drain system' — where, if anywhere, therefore, diminution of mortality ought to be forthcoming — a study of vital statistics shows that no sanitary improvements sufficient to save life largely, or even diminish cholera prevalence, has been effected (*vide* Appendix B).

Under these circumstances, the question of scanty finances, in my opinion, would dictate the necessity of spending any sum of money available to the best advantage, by making existing partial systems as perfect as possible in selected parts of the town. Thus, at least, it might be possible to save a certain number of lives annually. I, therefore, suggested to Government that, undesirable as the risk was of continuing the present open water-supply channel from the Red Hills tank to the point of the service reservoir at Madras, it would be better to use the money meant for a conduit for building a main sewer (the latter being a suggestion of Mr. Ellis, Acting Sanitary Engineer), so as to secure removal from certain parts of the sewage. I pointed out that if this main sewer (necessary under any scheme) were made in part, it could be adapted to my former suggestion of using the Latham hydraulic system, or ordinary lifting of sewage by pumping, by following the 'radial system,' and extending it from time to time; whilst as regards water-supply, a considerably increased grade of sanitary protection would be afforded, in spite of the open channel, by the use of complete filtration before delivery under correctly calculated pressure by direct pumping. In this way, it was thought the giving of a filtered supply of water to the entire town, and the correct sewerage of area after area in succeeding years would go towards securing sanitary results, that could be demonstrable; and thus the small means at disposal would be used to better advantage than if either the single effort of a complete water scheme, or complete sewerage scheme only were attempted.

78. *Cuddapah* (Population 17,379).—On my inspection of the water-works of this town, I found it necessary to make the following recommendations with respect to the protection of the sources of supply: "The water-works site is held "in veneration by certain castes of Hindus. There is a small temple on the spot, "and a chattram in which pilgrims are accommodated. Two large wells exist, or, "rather, enclosures of springs, which are used by pilgrims to bathe in; one of these "has been breached, so as to enable a full flow to proceed to the water-works "gathering ground. Further, yearly, some thousands from Cuddapah and adjoining "villages assemble here for the celebration of a festival, in which the sacrifice "of animals forms a prominent part. Again, a pious Hindu is collecting material "for enlarging the chattram for the accommodation of pilgrims. Caution is neces- "sary in these matters. The whole area should be carefully conserved, so that the "bare possibility of contamination by a human being should be out of the question." [Then followed specific recommendations as to the site.]

In regard to sanitary measures directed against the very marked prevalence of malarial fever in this town (*vide* paragraph 20, Vital Statistics), I considered radical efforts were requisite before any real result could be expected. My recommendations embraced the usual precautions as to obstructed surface and subsoil drainage, which is sufficiently evident in connection with the large Patha Cuddapah tank and certain streams possessed of irregular beds which are artificially dammed. These points having been attended to, it was contended that the town should be provided with a sewerage and sub-soil drainage system, special stress being laid upon the latter necessity. This important subject has been referred to the Sanitary Board by the Government with orders "to go fully "into the causes of malarial fever in Cuddapah, and to suggest comprehensive "measures for removing this as thoroughly and completely as possible." The matter is one of special sanitary interest, and, in view of the full nature of the

Order of Government, it is to be hoped that there will result the first illustration of the application of sanitary works on a large scale to the eradication of malaria in this Presidency. These have been eminently successful elsewhere, and there can be no reason to doubt if funds be forthcoming for works of a sufficiently complete nature, that it will be feasible to render Cuddapah healthy.

79. *Kurnool* (Population 24,376).—Having the same end in view, but treating the subject from a different standpoint, a water-supply scheme was sanctioned during the year for Kurnool. This will doubtless go far towards diminishing malarial fever, although it cannot be expected that it will be got rid of until the town area and its surroundings are supplied with the necessary adjunct of a drainage scheme. I showed in my report for 1893, page 72, that the appearance of an aggravated form of malarial fever here was synchronous with the introduction into the sub-soil of excessive moisture, due to placing throughout the town leaky rubble masonry conduits, by way of a water-supply system. The abolition of this ancient and mischievous method by the use of modern pipes, will go far towards remedying existing evil conditions favouring the growth of the *plasmodium malariæ*.

80. *Ádóni* (Population 26,243).—The following is an extract of my report upon the water-works at Ádóni:—

"*Water-supply*.—(*a*) The new water-supply is taken from a source that is not "above suspicion, there being a considerable amount of cultivated ground included "within the catchment area. The parts close to the tank have been duly acquired "by the Municipality, or, rather, the right of using water has been alienated from "the cultivators. This still, however, leaves the question of pollution open. I "inspected a large part of the catchment, and consider the Municipality should "endeavour to secure the whole of it within the same valley as the tank, and main- "tain it solely under grass cultivation. This probably is a matter that cannot be "faced for financial reasons at present, but the Municipality should hold the "matter in mind, and not consider the scheme complete till this further sanitary "protection is afforded."

"(*b*) Notwithstanding this defect seeing that the works will be supplied with "filter-beds, Ádóni may well be congratulated on securing a supply that, if not "absolutely above suspicion, will at least be an enormous improvement upon "existing sources."†

* * * * *

"(*d*) The design shows that the filtered water reservoir is to be provided "with a cover having the two ends open. It would be advisable that the water "after filtration be completely covered, and be retained in the dark. There is no "method of regulating automatically the head of filtration; consequently, the rate "will vary and with it the purity of the water supplied. This could be remedied "by the Sanitary Engineer at probably little extra expense."

81. *Dindigul* (Population 20,203).—The necessity for a public water scheme in this town is very urgent, not only with respect to replacing the existing impure supply from shallow wells that are open to contamination, but also with respect to the securing of a sufficient quantity, the amount now obtained from a gneiss stratum being very scanty. Infiltration galleries have been formed by the Sanitary Engineer's Department, in preference to obtaining a supply from a neighbouring river on account of the expenditure necessary. This course was the best in consideration of financial circumstances; but the supply is likely to be very scanty, and the chances are that it will diminish after considerable pumping—taking into consideration the configuration of the surrounding country and nature of the stratum in which water is found. On my inspection, the work was regarded as experimental. Since this period, the scheme has been adopted. As this work was conducted under the old rules of the Sanitary Board, I am not aware of when this was determined upon, or what the quality of the water is.

† It is gratifiying to find that the efforts of Government in the matter of aiding in giving water-supplies to municipal towns are not without recognition by the people. In connection with the above remark in dealing with my report, the Ádóni Municipality passed the following resolution:—

The Council takes this opportunity to express its sense of gratitude to the Government for the generous manner in which it has helped the Council in securing an efficient system of water-supply.

82. *Vizagapatam* (Population 34,487).—The following is an extract from a report by Surgeon-Captain Bannerman on the proposed water-supply scheme at Vizagapatam:—

"I inspected the site of the proposed reservior at Mudusellarah, as the "Chemical Examiner had reported that there was excess of chlorine in the water "derived from the stream there. The catchment area consists of grass covered "hills on either side of a long valley, the soil of which contains a good deal of "nodular limestone. The village of Mudusellarah will be submerged if the reser- "voir is constructed as proposed, and there is also a hamlet (Gollapalem) a short "way up the valley. These two villages contain a population of 535 and also "1,300 cattle, and as the water examined was taken at a time when the stream "was low, I think the excess of chlorine is amply accounted for. I do not think "it would be advisable to make the reservoir below these villages, and would "therefore recommend that it be moved a short way up the valley where to the "unprofessional eye there appears to be a suitable site. If this is not practicable, "then the inhabitants ought to be at once removed and the site cleared, the "surface soil of the village-sites being removed to a depth of one foot and the "place left free for at least one year before water is collected from it. If these "villages are removed or the reservoir constructed above them, then the place "appears admirably adapted for the purpose of a water-supply."

Abstract of Sanitary Reports of Municipalities.

Number.	Districts.	Municipalities.	Population.	Death-rate.	Drainage.	Water.	Domestic cleansing and conservancy.	Measures taken to remedy the evils in each Municipality.
1	Anantapur.	Anantapur.	6,973	14·9	No system. Main streets have rough-stone drains, while the others have merely side cuttings. Cess-pools abound. Most of these are covered over and cleared when full.	Is obtained from a few wells and a large tank, but the latter source is subject to pollution, washing and bathing being allowed in it. Most of the wells are provided with parapets and platforms, but owing to defective construction the overflow is carried back into the wells. Nearly all the wells have notice boards as a warning against pollution. The Garabhavi wells, which are much used, have no arrangements for receiving waste water from the basement drains.	Street sweepings and house refuse are carted to a depôt, one mile distant from the town. Night-soil is buried in trenches. There are eight latrines which are freely used. Good many resort to fields also.	Two wells and a slaughter-house were repaired at a cost of Rs. 88 and Rs. 11, respectively.
2	Bellary.	Adôni.	26,216	24·3	There are drains on either side of the roads. About 600 cess-pools exist which are mostly large wells. They leak and allow sub-soil drainage. Endeavours are now being made to line the interior of new cess-pools with cement so as to render them impervious.	Is obtained from six step wells and two springs which are set apart for drinking purposes and guarded by watchmen. The new waterworks are nearly completed. The collecting area unavoidably embraces a certain amount of cultivated ground. The impounding reservoir is an old tank. Distribution is by gravitation and will be on the constant system. Filtration beds are provided.	The refuse of the town is collected in dust-bins and removed to the depôt, a furlong from the town, by a contractor, where it is allowed to decay and eventually sold as manure. There are 16 latrines, all of which are freely resorted to.	Besides an expenditure of Rs. 70,567 on the water-supply, Rs. 820 was spent on the construction of a market.
3	Bellary.	Bellary.	57,780	28·8	No system. Certain parts of the town are provided with surface drains for the removal of storm water. Drainage of houses is bad. Cess-pools are largely used, but they are not kept very clean.	The chief sources of supply are the Main-waring tank and the fort ditch which are guarded and their feeding channels supervised and cleaned. The collecting area embraces much inhabited ground. The supply is both scanty and open to dangerous contamination.	The refuse is removed daily in carts and stored in depôts, of which there are four. It is then allowed to decay and sold as manure. There are 27 latrines which are freely resorted to. Night-soil is buried in trenches and sold in auction to ryots who have now begun to appreciate its value as manure.	Certain improvements were made to a latrine constructed during the previous years (Rs. 163). A few movable latrines and some urinals were constructed (Rs. 842 and Rs. 253, respectively). A slaughter-house and a latrine were repaired (Rs. 39 and Rs. 83, respectively).

Abstract of Sanitary Reports of Municipalities—continued.

Number.	Districts.	Municipalities.	Population.	Death-rate.	Drainage.	Water.	Domestic cleansing and conservancy.	Measures taken to remedy the evils in each Municipality.
4	Chingleput.	Conjeeveram.	42,543	30·6	The streets are provided with side ditches for the free flow of rain water. Drainage of houses escapes into backyards where it is allowed to soak and evaporate. Cess-pools exist in a few houses. Their contents are removed to fields or other vacant spaces far from dwelling houses.	The people of Big Conjeeveram get their supply of water from tanks, some of which are fed by the Lalakal channel which takes its rise from the sub-stream of the river Vagavathi. The channel is open in its course for some distance. People in the remaining parts of the town obtain their water from wells and tanks. These are in certain cases supplied by surface drainage from ground contaminated with the ordure of pigs and human beings.	The sweepings of streets are carted away to rubbish depôts and sold annually as manure. The contents of latrines are buried in trenches near the depôt and sold with street refuse as there is no demand for night-soil separately. There are 30 public latrines on the dry-earth system provided with trenches. These are chiefly used by visitors and those that have no privies in their backyards. The ordinary method of private conservancy is for the inhabitants to use their backyards; holes are left in the surrounding walls to allow the approach of pigs which consume the human fœcal matter.	Three public latrines and some dust-bins constructed (Rs. 459) and a few drains made (Rs. 140).
5	Coimbatore.	Coimbatore.	46,607	26·4	No system. The existing drains are merely side ditches which are, as a rule, full of stagnant sewage. The bazaar street drains are still in an insanitary state.	The chief sources of supply are wells, private and public, two tanks and one teppakolam. Private wells generally contain water of bad quality. The public wells are provided with masonry platforms and walls, but their surroundings are unsatisfactory, some being quite close to drains and cess-pools.	The sweepings of the town and rubbish are burnt in cinerators and the ashes used in covering the excreta. A portion of the sweepings, which could not be burned, is sold to ryots for use as manure. Night-soil is taken to the northern end of the town and buried in shallow trenches. There are 29 latrines, but most of them are in a dilapidated and foul smelling condition. The latrines would be more freely resorted to if they were kept in a good condition.	Two latrines and drains repaired (Rs. 1,231), Rs. 279 were spent in repairing a few wells.
6	Coimbatore.	Erode.	12,238	29·4	Defective. Cess-pools abound which are cleaned at indefinite intervals.	Is obtained from a tank, a channel and a few wells in the town. The channel forms the chief source of supply and is open to contamination.	The refuse of the town is carted to a mud wall enclosure where it is stored and sold in auction. Night-soil is being buried in trenches. The sweepings of the weekly market are burnt in a cinerator intended for the purpose. There are 15 latrines in good condition; all of which are freely resorted to.	Rs. 62 were spent in making a drain and repairing a slaughter-house.
7	Coimbatore.	Karûr.	10,740	28·6	The streets have side-ditches to carry off rain water. Sewage of houses is allowed to soak in backyards. Cess-pools exist, but only a few of these are properly kept. A sewage scheme has been drawn up for the town.	The chief source of supply is the river Amrávati. There are also 17 public wells provided with platforms and parapet walls.	The street sweepings are daily carted to a depôt outside municipal limits, where they are sold by public auction. Night-soil is buried in trenches. There are eight public latrines which are freely resorted to.	A well, a latrine and a slaughter-house were repaired (Rs. 45).
8	Cuddapah.	Cuddapah.	17,211	34·2	Defective. Side-channels are cut on either side of the streets and roads to carry off rain water. Each house has a cess-pool which is cleaned, when full, by the owner. This rarely occurs on account of the cess-pool being pervious. A complete drainage scheme is under contemplation.	Is ample and wholesome. Water is supplied to the town by means of pipes from the Bugga springs.	The sweepings of streets and contents of latrines are removed respectively in country and covered wooden box carts to night-soil depôt where the former is deposited and the latter buried in trenches and sold eventually as manure by public auction. There are 42 public latrines which are freely used by the people.	A few drains were made (Rs. 315). Some public latrines, drains and markets were repaired (Rs. 431).
9	Ganjám.	Berhampur.	25,493	21·1	Defective. U and V shaped drains exist in principal streets to carry away rain and surface water. There are many cess-pools which are cleaned daily.	Wells and tanks supply water of good quality. They are guarded by watchmen from pollution.	The sweepings of the town are conveyed outside municpal limits where the combustible portion is burnt in cinerators. Night-soil is removed in covered baskets and buried in trenches outside the town. There are 22 latrines in good repair.	Repairs to a feeding water channel were executed (Rs. 52) and dust-bins constructed (Rs. 30). Construction of a few public latrines, dust-bins and urinals is in progress.
10	Ganjám.	Chicacole.	18,204	24·1	Defective. The natural drainage is towards the river. V shaped drains exist. There are 40 cess-pools, but at present they are not properly cleaned. The municipality will soon undertake this work.	Is obtained from a river, wells and tanks. Well water is good, but the river and tanks yield water of fair quality. The river bed within municipal limits is conserved and people found to commit nuisances, &c., are prosecuted. Watchmen are placed over some of the tanks.	The refuse is removed in two carts to depôts outside the town where they are deposited and eventually disposed of to ryots and land-holders on payment for purposes of manure. Night-soil is removed in covered receptacles and buried in pits away from human habitations. There are nine latrines, all of which are freely resorted to.	Some tanks and wells were repaired (Rs. 88). Rs. 52 were spent in the repair of latrines and drains. Some dust-bins were constructed (Rs. 92) and a latrine and a market repaired (Rs. 35 and Rs. 235, respectively).
11	Gódávari.	Parlákimedi.	16,379	21·9	Some of the larger streets have stone drains and a few more are being similarly provided. In most of the houses refuse water either soaks in backyards or escapes into pits where it stagnates. There are eight cess-pools which are daily cleaned.	Is obtained from wells and tanks, but none of these sources are solely set apart for drinking. Three watchmen are placed over two of the tanks only to see that nc nuisance is committed on their banks and that people do not wash dirty clothes in them.	The rubbish and street sweepings are deposited in bamboo dust-bins and removed in carts to two depôts where they are burnt as there is not much demand for them. Night-soil is buried in trenches. There are 14 latrines, all of which are resorted to to some extent.	Nothing of importance beyond the repair of a tank which cost Rs. 16.
12	Gódávari.	Cocanada.	40,068	23·4	Drainage hardly exists. An open sewer fed by a few minor drains runs from the market tank to the creek. The insanitary condition of this sewer has been year after year pointed out since 1891.	The canal is the main source of water-supply. A few tanks and wells are set apart for drinking. These are either situated near road sides or close to paracherries. Watchmen are employed to guard them from pollution. The canal water passes through a foul sub-soil ~~in~~ pervious rubble masonry tanks.	Street sweepings and refuse are removed in carts and wheel barrows to cinerators where they are burnt, and the ashes thrown into the trenches intended for the deposit of night-soil. There are 18 latrines which are in good repair and freely resorted to by the people.	A few tanks, some public latrines and drains were repaired at a cost of Rs. 873.
13	Gódávari.	Ellore.	29,296	23·2	No regular system. Main roads have cut stone drains. There are also surface cuttings leading to irrigation channels, drains, or cess-pools. Houses have badly constructed brick drains leading to cess-pools. Many simply pour their contents on the soil. There are many unlicensed cess-pools in a bad state.	Quality of drinking water is bad. It is derived from 30 wells, 2 tanks, the Kistna canal, and a small river. The first two sources are said to be set apart for drinking purposes and a watcher is employed. The wells have parapet walls and platforms and four of them have drains also, but the surrounding ground is badly drained and the water is polluted. The canal is open to pollution by boats employed for navigation.	The sweepings of streets are removed in carts to five depôts outside the town and sold once a year. Night-soil is carried in carts provided with iron receptacles and buried in a depôt outside the town. There are 18 latrines in fair repair which are freely used. They are daily cleaned by municipal scavengers aided by pigs.	Twelve dust-bins were constructed (Rs. 96). Nine public latrines were repaired (Rs. 232).

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Number.	Districts.	Municipalities.	Population.	Death-rate.	Drainage.	Water.	Domestic cleansing and conservancy.	Measures taken to remedy the evils in each Municipality.
14	Gôdávari—*cont.*	Rajahmundry.	28,279	30·3	Defective. The roads have either side-cuttings or badly constructed masonry drains. Drainage of houses runs into cess-pools or ditches. Cess-pools abound, but they are as a rule dirty.	Is obtained from the river which is the chief source of supply. A tank and some wells are also set apart for drinking purposes. The river water is polluted and the surroundings of wells are not good.	Refuse is sold to contractors who remove it outside municipal limits. Night soil is removed in cavadies by scavengers daily to the depôt east of the town. There are 15 public latrines which require better supervision as to cleanliness. They are not used much, as some people resort to road-sides and waste lands for purposes of nature.	A well was repaired (Rs. 61). A public latrine and a market were constructed (Rs. 104 and Rs. 169, respectively). Rs. 1,210 were spent in repairing some latrines, drains, a market and a slaughter-house.
15	Kistna.	Bezwada.	20,611	33·3	No system. Side cuttings exist. Drainage of houses either escapes into the cess-pools or percolates in the house soil or public roads. There are 27 cess-pools which are said to be cleaned once a day.	Is obtained from the river Kistna and canals. The latter source is open to pollution. No wells or tanks are set apart for drinking. One private well is used, but its surroundings are bad.	The refuse matter is carted away to depôts and ultimately disposed of by auction as manure. Night-soil is buried in trenches. There are 20 latrines, all of which are freely resorted to by the people. The latrines were often found in an offensive state.	A few wells were sunk and others repaired (Rs. 646). A few dust-bins and a market were constructed (Rs. 200 and Rs. 1,270, respectively). Six public latrines were repaired (Rs. 18).
16		Guntur.	23,267	28·7	There is no drainage in the town. All refuse water flows into the streets and into cess-pools, of which there are 14 in good repair.	Is obtained from two large reservoirs fed by the black tank and 103 public wells. The use of the water of the reservoirs cannot be considered safe as the area drained to supply the black tank is subject to pollution. The surroundings of public wells are good.	The sweepings and night-soil of the town are removed to depôts outside the town where the former is sold annually to ryots to be used as manure, whilst the latter is buried in trenches dug for the purpose. There are 20 latrines, nearly all of which are on the standard plans. They are freely resorted to by the people.	A few dust-bins, a market and 2 slaughter-houses were constructed at a total cost of (Rs. 4,936).
17		Masulipatam.	38,667	30·2	Defective. Side cuttings exist in roads and lanes, but they are dirty and hold stagnant water. Drainage of houses either empties into cess-pools or percolates into public roads and streets.	Defective. Quality of drinking water is brackish and hard. Water is brought into the town from the river Kistna through conduits to a central reservoir whence it is distributed throughout the town by conduits and minor reservoirs. There are besides three tanks and a few wells set apart for drinking. They are guarded and their surroundings kept fairly clean.	The refuse matter is collected in carts and taken to rubbish depôts where it is sold by auction for manure. Night-soil is trenched in a forest reserve. There are 13 public latrines which are fairly cleaned and resorted to by the people.	A few cinerators and dust-bins were constructed (Rs. 768), and a few latrines, drains, markets, and a slaughter-house were repaired (Rs. 976).
18	Kurnool.	Kurnool.	24,306	31·3	The waste water from houses escapes into the main drains in the streets. There are numerous cess-pools in the town. A sum of Rs. 400 has been budgeted for the improvement of the drainage in the direction pointed out by the Sanitary Commissioner.	Is obtained from Government irrigation canal through masonry conduits conducted into the town and from springs dug in the beds of the rivers Handri and Tungabhadra. Cisterns are provided at short distances all along the town supply channels. They are conserved for drinking purposes. The water-supply scheme has been taken on hand and the survey of the town appears to have been completed.	The sweepings and refuse of the streets are removed in carts or on buffaloes either to the manure or rubbish depôt. Night-soil is carted in closed vehicles to the municipal manure depôt, buried in rubbish heaps deposited there and covered over with dry earth. Manure thus collected is auctioned periodically. There are 38 public latrines.	A few drains were made and others repaired (Rs. 122). A slaughter-house was constructed (Rs. 147). Rs. 9 were spent towards the repair of public latrines.
19	Madura.	Dindigul.	20,115	23·5	No change. The drainage scheme is deferred as the proposed water-supply scheme will take up all the money it is possible for the council to raise.	The scheme for supplying the town with water has been sanctioned by Government. Some progress has been made and further experiments will be resumed. As in last year the Jubilee well and rain-fed tanks which are conserved formed the chief sources of supply.	No change. The sweepings of the town and the contents of latrines are removed to depôts, where the former are stored and the latter buried in trenches dug near them.	A well was sunk (Rs. 91) and some tanks and wells were repaired (Rs. 361). A public latrine and a market were constructed (Rs. 382) and a few drains made (Rs. 282). A public latrine, a few drains and markets were repaired (Rs. 662).
20		Madura.	87,121	32·6	The drainage of the town is extremely unsatisfactory and a drainage scheme is now under consideration.	Is obtained chiefly from the river Vaigai substream which is pumped direct to the town. There are also many wells both public and private still in use as the public water-supply is defective as to amount available.	The sweepings of streets are heaped outside the town and sold by public auction. Night-soil is trenched. There are ten latrines.	Rs. 63,244 were expended in completing the water works.
21		Palni.	16,940	25·1	Some of the main streets have pucka drains built of granite stone, while others have only side cuttings. Drainage of houses empties into street drains. Cess-pools exist, but they are cleaned by the owners themselves.	Is obtained from Vyapuri tank fed by a channel running down the hills, a river and three wells. The Vyapuri tank is guarded against pollution, but it cannot be set apart exclusively for drinking as people bathe in it on account of its sacred character. The wells are provided with parapet walls and platforms and reserved for drinking purposes. The necessary levels for the preparation of a water-supply scheme have been taken.	The rubbish is stored in a depôt removed from habitations and eventually sold. Night-soil is buried in trenches in the land acquired during the year. There are seven latrines, all of which are freely resorted to.	Nothing of importance beyond the repair of some wells at a cost of (Rs. 37). A latrine was also repaired for Rs. 7.
22		Periyakulam.	16,363	38·7	No system. The river is the natural drain of the town. Side cuttings exist in several of the main streets. Drainage of houses flows into side cuttings and stagnates there. Cess-pools abound, but they are not daily cleaned for want of sufficient number of cess-pool carts.	Is obtained chiefly from Varugavathy which takes its source from the Palni Hills. It is freely polluted by all possible means. A watchman is placed over the river in the mornings during cholera seasons to prevent pollution. People living at a distance from the river use well water, the surroundings of which are not generally kept clean. Five wells have parapet walls with platforms and drains.	The refuse of the town is carted off to rubbish depôts and there stored and eventually sold in public auction to ryots for being used as manure. Night-soil is buried in trenches. There are 13 public latrines, all of which are freely resorted to by females only.	A well was sunk and three others were repaired (Rs. 99). Two public latrines, a few dust-bins and a market were constructed (Rs. 199). Two public latrines and a market were repaired (Rs. 51).
23	Malabar.	Calicut.	64,798	25·3	No system	Is obtained chiefly from wells. Each house has a well but most of them have no parapet walls, platforms and drains. A large tank in the centre of the town is set apart exclusively for drinking purposes.	The refuse and street sweepings of the town are partly buried in the beach and partly burnt on the road side. Night-soil is removed to the beach behind the volunteer butts and there buried in the sand. There are 11 public latrines which are freely resorted to by the public.	Six public latrines were repaired (Rs. 920). A market and a slaughter-house were constructed (Rs. 49 and Rs. 44, respectively).
24		Cannanore.	25,653	31·1	There are no proper and well laid out drains in old town Cannanore. The town being overcrowded and the streets narrow, any drainage scheme would involve a large outlay. Laterite stone drains exist in the Cantonment which are kept in good repair. Cess-pools to some extent are used as latrines in the old town.	Is obtained from 34 municipal wells, good in quality and sufficient in quantity. All the municipal wells are protected by parapet walls with drains around. There are several private wells in compounds of houses, but their surroundings in some cases are not good.	The refuse is carted away from the town and buried in a compound rented for the purpose. There are 18 latrines.	Nothing of importance. A few latrines and a market and a slaughter-house were repaired (Rs. 183).

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Number.	Districts.	Municipalities.	Population.	Death-rate.	Drainage.	Water.	Domestic cleansing and conservancy.	Measures taken to remedy the evils in each Municipality.
25	Malabar—*cont.*	Cochin.	16,147	39·8	Nearly all the streets in the Fort have masonry drains, while in other parts of the town there are shallow trenches. In some places house drains are connected with street drains, in others waste water from houses often finds its way into surface tanks and pollutes the drinking water. Musquitoes and elephantiasis abound.	Is obtained from wells and surface tanks of bad quality. The surroundings of tanks are in an insanitary state and the municipality could do nothing in the matter as they are situated in private gardens. The public wells are well protected, but none are set apart for drinking. The well-to-do get their water from Alwaye, 15 miles from the town.	Street sweepings and rubbish from houses are removed to the rubbish depôts and are either burned or buried. The contents of latrines are buried in trenches in the beach. There are 13 latrines, all of which are freely resorted to.	A tank was repaired (Rs. 3). Rs. 306 were spent towards the repair of public latrines, drains, dust-bins and markets.
26	Malabar—*cont.*	Palghat.	39,367	25·6	Masonry drains exist in some parts of the town, while in others side channels are dug just before the monsoon. These latter become closed after one or two heavy showers. Sewage of houses in most cases is drained off to back-yards.	Drinking water is obtained from wells, public and private. Of the former there are nine provided with parapet walls, platforms and drains; of the latter there is one in each house or in some instances group of houses. There are also several tanks for bathing and washing purposes.	The refuse of the town is despoited in rubbish depôts and sold annually in auction. There are 13 public latrines which are fairly made use of by the people. Night-soil is removed in iron covered carts to depôts and buried in trenches.	A few latrines were repaired (Rs. 109) and a drain was made (Rs. 155). Repairs to wells (Rs. 54).
27	Malabar—*cont.*	Tellicherry.	26,631	20·6	Chiefly natural. Roads have side drains which are not paved with stones. Cess-pools exist, but their number is not known. They are mere pits which are filled up as necessity arises and others opened.	Obtained from wells good in quality and sufficient in quantity. Twenty wells are set apart for drinking. All of them are provided with parapet walls, platforms and drains.	The refuse is buried in pits, 6 feet deep, and the night-soil removed to a depôt situated within the municipal limits. There are 24 latrines, 19 of which are sentry box ones.	A public latrine and a market were repaired (Rs. 106). A few drains were also repaired (Rs. 310).
28	Malabar—*cont.*	Nellore.	20,128	20·8	Very defective, the drains being old fashoned and of incorrect levels. The main drains are flushed daily, but owing to defective levels a good deal of soakage results. Drainage of houses empties into street drains. Some of the existing cess-pools are never emptied; their contents are allowed to soak in the ground.	Is obtained from wells, public and private, and from the river Pennar and irrigation channels. Some of the wells and a reservoir are set apart for drinking and a watchman is placed over the latter source during the hot months. Most of the municipal wells are provided with parapets and platforms and their surroundings are clean.	The refuse of the town is carted to the rubbish depôts where it is allowed to accumulate and sold eventually to cultivators to be used as manure. Night-soil is trenched near the rubbish depôt. There are 24 latrines which are freely used by the people.	A few public latrines, some dust-bins and a market and a slaughter-house were constructed at a cost of Rs. 1,339. A few public latrines and drains were repaired (Rs. 55).
29	Nellore.	Ongole.	10,832	24·7	Some of the streets have masonry drains, while the others have only side channels. They are kept in good repair. No regular system of house drainage exists. Here and there sewage and waste water runs into street drains through holes from houses. There are a few small cess-pools—not recognized ones—which are the result of stagnant sewage escaping from houses.	Is obtained especially from a tank and ten wells recognized as fresh water-supply sources. These are reserved for drinking purposes only. There is a watchman placed over the tank. The wells have parapet walls and platforms, but no drains.	Street sweepings are removed in carts to two depôts on the outskirts of the town, where they are stored and auctioned. Night-soil is buried in shallow trenches near the rubbish depôt. There are seven latrines in fairly good condition, and if not themselves resorted to, their localities are.	Nothing of importance beyond repairing a tank at a cost of Rs. 16.
30	Nilgiri.	Coonoor.	5,586.	29·4	There are masonry street drains emptying into the main iron drain which discharges into the river. Houses are drained by open semi-oval tile drains which open into either stoneware pipes or into the street side-drains, the latter being open semi-oval drains made of cement concrete. No cess-pools.	The main source of supply is a channel fed by small streams which take their rise on the hill sides. Numerous smaller channels which are branches of this main channel supply water to bungalows, hotels, &c. The residents of the upper part of Coonoor obtain water from streams. At certain points the channels are subject to pollution.	The night-soil and general refuse are removed by a contractor to a distant estate, beyond municipal limits, twice a day. There are 13 latrines, all of which are freely resorted to. Waste lands and patches of under growth are also used as latrines.	A few dust-bins were purchased (Rs. 41). Some public latrines, drains, a market and a slaughter-house were repaired (Rs. 1,043).
31	Nilgiri.	Ootacamund.	13,991.	25·5	Ootacamund bazaar has a system of stone drains, while Kandal has a system of cement ones. Schemes for the drainage of old and new Agrahram, &c., are under consideration. There are no cess-pools.	Water is distributed into the town through iron pipes from two reservoirs Marlimund and Dodabetta—the catchment area of both of which is open to contamination. Water is being conveyed into Kodapamund by an open stream which undergoes every form of pollution. A scheme is under consideration by the Sanitary Board.	Night-soil, town sweepings and rubbish are deposited in the pits at Titical depôt 2 or 3 miles distant from the town. There are 48 public latrines, all of which are freely resorted to.	Improvements were effected to Dodabetta catchment area and Marlimund water-supply (Rs. 486). A few public latrines and dust-bins were constructed (Rs. 2,333). Latrines, drains, markets and slaughter-houses repaired (Rs. 1,320).
32	North Arcot.	Gudiyáttam.	18,745.	20·8	No system. One street has V-shaped masonry drains and others have rough drains. The former end in side cuttings which empty into a nullah. The houses are ill provided with drains. Cess-pools *nil*.	Is obtained from a river and some wells. The river is the chief source of supply. Holes are dug in the bed of the river to prevent the water from pollution, but part of the town being above the springs animals roam about the bed of the river. Hence water is somewhat contaminated. Some of the wells have parapets, platforms and drains and their surroundings are clean.	The refuse and night-soil are removed in carts outside the town and sold as manure. The contract system by which night-soil is removed does not seem to produce the desired effect. There are 12 latrines in good repair. They are freely resorted to.	A tank and a well were repaired (Rs. 60) and a dozen dust-bins constructed (Rs. 61).
33	North Arcot.	Tirupati.	14,238.	31·5	There are a good many rough drains in the town. Some end blindly and some flow into a large main drain known as the Renta channel which is always filthy, contains quantity of foul sewage. House drains are connected with street drains and flow into the streets, or into backyards or cess-pools. There are about 300 cess-pools which are generally pits covered with stone slabs and seldom cleaned.	Is obtained from two tanks and two or three wells. The tanks have watchmen to prevent pollution, yet the water is contaminated by washing and bathing. One tank is fed by an open channel subject to pollution. Wells are provided with walls and platforms. The surroundings of wells and tanks are clean, but sometimes nuisances are committed near them.	Town sweepings and rubbish are removed in open carts to rubbish depôts and there heaped up for sale when there is a fair demand. Night-soil is removed in closed receptacles and buried in trenches in the night-soil depôt. There are 12 latrines which are fairly well resorted to and cleaned daily.	A public latrine was constructed (Rs. 50) and a few others repaired (Rs. 222). Rupees 15 were spent in the repair of drains.

Abstract of Sanitary Reports of Municipalities—continued.

Number.	District.	Municipalities.	Population.	Death-rate.	Drainage.	Water.	Domestic cleansing and conservancy.	Measures taken to remedy the evils in each Municipality.
34	North Arcot—*cont.*	Vellore.	44,724.	25·4	Most of the streets are provided with drains or side cuttings. Owing to imperfect construction the fall is very often insufficient and as a result sewage stagnates in places. House drains flow into streets and form dirty stagnant pools. Cess-pools abound, some covered and others open. They are rarely cleaned, hence their contents soak into the soil.	Is obtained from tanks, wells—public and private—and the river Pálár. The Suryagunta supplies water for the main part of the town. It is merely surface water collected in a tank. A few wells of good quality are set apart for drinking. Their surroundings are clean.	Rubbish is removed in carts by a contractor outside municipal limits and disposed of as manure. Night-soil is mixed with dry-earth and ashes before removal and is similarly dealt with. There are 22 public latrines, most of which are in fair order and freely resorted to by the people.	A few wells were repaired (Rs. 152). A latrine was constructed and others repaired (Rs. 502). A market and a slaughter-house were repaired (Rs. 596).
35		Walajapet.	10,485.	23·7	The main streets have got brick and chunam or rough brick drains or side cuttings and these discharge into nullahs eventually reaching the fields or perhaps some of the tanks. House drains empty into street drains or side cuttings.	Is obtained from tanks and wells. The tanks contain surface water and in some instances the drains which run along the streets feed them. They are further polluted by washing, &c., although guarded by watchmen. Wells are provided with walls and platforms and their surroundings are fairly clean.	The refuse is removed in carts, deposited in heaps outside the town, and eventually sold by auction for manure. The contents of latrines are similarly dealt with. There are eight latrines, most of which are in fair order and are freely resorted to.	Nothing of importance. A slaughter-house was repaired at a cost of Rs. 6 and improvements to water-supply were effected (Rs. 60).
36	Salem.	Salem.	67,640.	24·4	Here and there are small lengths of masonry drains, but in most of the streets only surface earth drains exist which get more or less silted up and the sewage soaks into the ground or stagnates. Drains discharge into the river or on surrounding fields. Most of the cess-pools are badly constructed and are not systematically cleaned.	Unsatisfactory in quality and sometimes deficient in quantity. It is obtained from the river, three tanks and numerous step and draw-wells. The river water though used is really unfit for drinking as it undergoes pollution. Three tanks are set apart for drinking. They contain fairly good water and are guarded against pollution. There are some good wells, but the well water generally is brackish.	Rubbish is removed in carts to depôts situated conveniently and away from habitations and there allowed to accumulate. There is not much demand for rubbish as manure and hence the collections are getting very large. Night-soil is removed to depôts and buried. There are 55 latrines, all of which are resorted to freely.	A few wells were repaired (Rs. 477). Some public latrines were constructed and others repaired (Rs. 674 and Rs. 576, respectively). A market was repaired (Rs. 22).
37		Tirupattúr.	16,463.	27·9	Artificial drainage is very primitive. Some of the side cuttings in the main streets are more or less covered with slabs of stone, an objectionable method. Sewage of the town soaks into the soil. House drains either empty into street drains or into cess-pools.	The chetty tank, which is supplied by means of an open channel connected with an irrigation tank, and several step and draw-wells supply water. The water of the tank and wells is considered fairly good, but that of many of the private wells is brackish being in close proximity to cess-pools. A watchman is posted over the chetty tank.	The town rubbish is collected in dust-bins and removed daily to selected depôts. Night-soil is taken in covered carts to a depôt ¼ of a mile from the town and buried in trenches. The depôt is well looked after. There are six pairs of latrines, all of which are resorted to. The exterior of the latrines is also used for purposes of nature in some cases.	Nothing beyond the construction of two latrines costing Rs. 321 and the erection of a compound wall to the weekly market (Rs. 350).

Number.	District.	Municipalities.	Population.	Death-rate.	Drainage.	Water.	Domestic cleansing and conservancy.	Measures taken to remedy the evils in each Municipality.
38	Salem.	Vániyambádi.	15,838	26·3	There are small lengths of masonry drains in parts of streets, but in many places only surface earth drains exist. House drains end in cess-pools or are connected with street drains. Cess-pools exist, which are mere holes dug in the ground and never cleaned out.	Is obtained from the river, from springs dug in the river bed and from wells. River water is unsatisfactory being fouled by burial of dead bodies and by accumulation of filth in its vicinity. Water from public wells is good, while that from private ones is suspicious. Springs dug in the river bed are guarded over in the hot weather.	The town refuse is collected in dust-bins and carted away to selected depôts, but no sale could be obtained for the accumulation. Night-soil is removed in covered carts to the depôt on Puthur Road and buried in trenches. There are 11 public latrines in good condition and they are freely resorted to by the female population.	A public latrine was constructed and six others repaired (Rs. 89).
39	South Arcot.	Chidambaram.	18,634	31·4	No system. Side-channels exist to carry off storm water. House drains either lead into streets or into backyards of houses. Cess-pools are numerous, but only a few are on the standard plan.	Is obtained from wells and tanks. The wells in the temples yield fairly good water. Four tanks are reserved for drinking and a watchman is appointed over each, but their water is generally unreliable and unsafe.	The rubbish is stored in four depôts on the outskirts of the town and is sold in auction annually to ryots as manure. There are six latrines, but they are not freely resorted to.	Two public latrines were constructed (Rs. 253) and two markets repaired (Rs. 229).
40		Cuddalore.	47,025	21·2	In old town the drains are constructed of bricks, but they have become so old that sewage is either absorbed by bricks or finds its way into the ground through crevices. Drainage is effected in other parts by side cuttings only. Cess-pools exist. They are cleaned periodically at the expense of the municipality.	In old town water is brought from Copper Hill lake by an open channel to a settling reservoir whence it is passed through filtering beds consisting of iron ore, &c., into a well and distributed by several hydrants. People living in other parts obtain their water from the rivers Gadilam and Pennár and private and public wells. The surroundings of private wells are very bad. They have neither parapets, platforms or drains. Some of the public wells are in good condition.	The rubbish is carted by contractors to fields or deposited in the rubbish depôt for sale to ryots for agricultural purposes. Night-soil is buried in pits. There are 25 latrines on the dry-earth system which are freely resorted to.	A few dust-bins were constructed (Rs. 300). Repairs were made to some latrines, drains, a market and a slaughter-house at a cost of Rs. 1,303.
41	South Canara.	Mangalore.	40,620	27·0	The public drains and water-courses are in good repair, but many of the larger ones, which are water-courses in the monsoon season, are in very bad order, pools of stagnant water being common in their beds.	Is obtained from numerous wells and also a tank which is set apart for drinking purposes. The water in some of the drinking-water wells is suspicious. There are five public wells which contain good water.	Night-soil and sweepings are removed in carts to a depôt where the latter are incinerated and the ashes mixed with the night-soil and sold eventually to cultivators. There are 14 latrines, some of which are on the dry-earth system. All are freely used.	Four wells were sunk (Rs. 1,339). Two public latrines were constructed (Rs. 128) and a few drains made (Rs. 212). Rs. 167 were spent towards the repair of a few latrines, drains, dust-bins, markets and a slaughter-house.
42	Tanjore.	Kumbakónam.	54,254	37·5	A drainage scheme for the town has been completed. Many of the pucka houses are provided with masonry drains, the contents of which either run into cess-pools in backyards or on the road sides, or allowed to soak in backyards or streets. The cess-pools are in a very unsatisfactory condition.	Rivers Cauvery and Arasilár and a few private wells supply drinking water to the people. During the hot season springs dug in the river bed and wells afford drinking water. The wells are protected by parapet walls and platforms, but as they are not provided with drawing apparatus, the water undergoes pollution by people getting on the parapet walls to draw water.	The refuse, sweepings, &c., are carted to two depôts outside the town, and a portion thereof is sold as manure for fields. Night-soil is conveyed in covered iron carts to the said depôts and buried in trenches. There are 21 public latrines, but most of them are too small. Their number is insufficient. People resort to them freely.	Thirty zinc dust-bins were constructed (Rs. 302). A few public latrines, drains, markets and a slaughter-house repaired (Rs. 830).

Abstract of Sanitary Reports of Municipalities—continued.

Number.	Districts.	Municipalities.	Population.	Death-rate.	Drainage.	Water.	Domestic cleansing and conservancy.	Measures taken to remedy the evils in each Municipality.
43	Tanjore—*cont.*	Máyavaram.	23,754	32·5	Natural and very defective. Some of the streets have masonry drains, while in others there are merely side channels. Drainage of streets flows into the Cauvery and the adjoining channels. House drains generally run into backyards.	Is obtained from the river Cauvery, tanks and wells. Quality good. Four tanks are set apart for drinking, each of which has a watchman placed over it to prevent pollution. There are eight public and many private wells. The public wells and some of the latter are provided with parapet walls.	The sweepings of private dwellings and streets, &c., are stored in two depôts, one situated outside and another within the municipality and are disposed to mirasidars for purposes of manure. The contents of both public and private latrines are buried in trenches. There are 13 latrines on the dry-earth system, most of which are freely resorted to.	A market was constructed (Rs. 176) and another repaired (Rs. 75). Rs. 27 were spent in the construction of a latrine.
44		Mannárgudi.	20,302	34·3	Drainage of streets natural. House drains discharge into backyards and in some cases into streets where the refuse water is collected in cess-pools. Cess-pools abound.	Is obtained from the rivers Pámanár and Vadavár and from tanks fed by the former and wells. The river and tank water is subject to pollution. Four tanks and three wells are reserved for drinking. Their surroundings are fairly clean.	The sweepings of the town are collected outside the town where they are burnt and sold as manure. Night-soil is buried in trenches at one of the rubbish depôts. There are three latrines, which are almost always clean, being very little used by the people.	A latrine was constructed (Rs. 154) and markets were repaired (Rs. 225).
45		Negapatam.	58,573	38·6	No system. The drainage of some of the houses escapes into cess-pools, while that of the others soaks in backyards or in ground close to buildings. The drains in most cases are badly constructed, hence thorough flushing is rendered difficult.	Is obtained from wells and tanks. None of the wells, except the Jubilee well, the water of which is pumped into an iron tank, have the means of preventing pollution. A few tanks are reserved for drinking purposes, but the channels which feed these tanks undergo pollution.	The sweepings of a portion of the town are carted to Hathaways park, while those of the rest are removed to places close to habitations or a drinking-water source. Night-soil is chiefly buried in trenches. In a few instances it is buried in sea sand also. There are 20 latrines, all of which are freely used. The surroundings of latrines are also in some cases made use of.	A well was sunk (Rs. 131) and two tanks and three wells were repaired (Rs. 817 and Rs. 47, respectively). Rs. 1,712 were spent in constructing some latrines, dust-bins, a market and a slaughter-house.
46		Tanjore.	54,258	26·9	Defective. Masonry drains exist in the Fort, the contents of which empty into the river Vadavár. In places where there are no drains, drainage is collected in cess-pools which are kept fairly clean.	Is obtained from the rivers Vadavár and Vennár, Shivaganga tank and cisterns. The new waterworks are nearly complete and are estimated to supply the whole town with water from the river Vennár.	The sweepings are removed to rubbish depôts by a contractor outside the town and eventually sold by him for purposes of manure. Night-soil is also removed by a contractor to a depôt and sold as manure. There are 28 latrines in good repair, but they do not appear to be much used by the people, as they are in many cases situated in places not easy of access.	A well was sunk and a few tanks and wells were repaired (Rs. 527). A few dust-bins and a slaughter-house were constructed (Rs. 280 and Rs. 70, respectively). Rs. 1,997 were spent in effecting repairs to some latrines, dust-bins, drains and a market.
47		Palamcottah.	18,612	27·4	A few masonry drains and side-cuttings exist. House drains open into street drains or on the streets or into cess-pools. Cess-pools abound which are emptied daily.	The chief source of supply is a channel, a branch of the Tambraparni river. During the hot weather tanks, a reservoir fed by the channel, and wells yield water. All the wells are provided with parapets and platforms and notice boards put up warning against pollution. The channel is subject to much contamination throughout its course.	The sweepings of the town are burnt in a cinerator and the ashes thus obtained are used to cover up the night-soil which is buried in deep pits. There are 10 latrines which are in good repair and freely resorted to.	Two latrines were constructed (Rs. 228) and a few drains, a market and a slaughter-house were repaired (Rs. 47, Rs. 50, and Rs. 19, respectively).
48	Tinnevelly.	Tinnevelly.	24,756	40·0	No system. Some of the main and smaller streets are provided with masonry drains, but as they have no proper fall, it is found difficult to flush and clean them, hence sewage stagnates in many places. Drainage of houses empties into cess-pools or runs into streets. Cess-pools exist.	Three Teppakolums and one large channel-fed tank are the chief sources of supply. When these sources run dry, river Tambraparni and wells are resorted to. The channel water undergoes pollution, as it receives the drainage of many private houses and latrines. The Teppakolums are guarded.	The town rubbish is carted to a place a mile and-a-half distant from the town and burnt in a cinerator. The ashes are mixed with the night-soil and buried. There are 22 latrines in good condition, all of which are freely used by the male population.	A few wells, some public latrines and two markets were repaired (Rs. 330).
49		Tuticorin.	24,964	31·2	A few streets are provided with side-cuttings for the carriage of storm water. The masonry drains discharge into the sea. Refuse water from houses either soaks into the soil or runs into cess-pools which are said to be emptied daily. There are 177 cess-pools in the town.	Water is brought into the town by means of an open channel from Korampallam tank fed by the Tambraparni and a rain-fed stream. The channel is guarded by watchmen and neither bathing nor washing is allowed in it. There are only 11 wells from which drinking water is obtained. Some of the dipping wells have drains to carry off spilt water.	Rubbish is carted away outside the town, the solid portion of which is used in filling up hollow spaces, while all inflammable substances are burnt in cinerators. Prickly-pear is allowed to grow in some places within the town limits. There are 18 latrines, all of which are freely used. The contents of latrines are buried in trenches outside the town.	Two drains were made (Rs. 495) and six latrines, a drain and a slaughter-house were repaired (Rs. 92). Improvements to water-supply were effected (Rs. 732).
50	Trichinopoly.	Srirangam.	21,632	30·4	Defective. Surface drains to carry off rain water are occasionally cut in streets during winter season. There are many cess-pools in the front and rear of several houses which are cleaned once a year by the owners.	Is obtained from the rivers Cauvery and Coleroon and Nattuvaikal. A few wells are also set apart for drinking purposes and care is taken to prevent pollution by providing them with good platforms, but they are fed by a polluted sub-soil and do not yield chemically wholesome water. The Nattuvaikal is contaminated in a gross manner by the banks being used for easement.	The refuse is let on contract and the contractor sells it to the gardeners for use as manure. Night-soil is removed to a depôt, three-fourths of a mile from the town, where it is buried in trenches and covered with dry earth. There are 16 latrines which are freely used.	A public latrine, some dust-bins and a market were constructed (Rs. 107). A few public latrines and some markets were repaired (Rs. 21).
51		Trichinopoly.	89,666	24·4	No system. The main roads and streets are supplied with side drains for carrying off storm water. These drains are also the receptacles for house water and rubbish.	Is obtained from the Cauvery and its channels and tanks. Quality fair. The above sources are guarded against pollution, but the channels which feed the tanks are subject to pollution. A scheme for supplying the town with water is in progress.	The sweepings of public streets and refuse are removed daily to rubbish depôts and burnt in cinerators and the ashes ultimately used as manure. The contents of latrines and urinals are carried to selected depôts and buried in trenches.	A latrine was constructed (Rs. 26), and repairs to latrines, dust-bins, drains, markets, and slaughter-houses were executed at a cost of Rs. 653. Rs. 35,657 were spent in sinking a well in connection with the water-supply scheme.
52	Vizagapatam.	Anakápalle.	17,001	25·9	Defective. Some of the main streets are provided with V, U and semi-oval shaped masonry drains. The drains in backyards of houses, when they are not connected with municipal drains, empty into the gardens in backyards. There are 11 cess-pools, all of which are cleaned by sewage carriers.	Is obtained from a tank and nine public wells exclusively set apart for drinking purposes, and private wells, of which there is one in each house. The tank is watched by a kotwal peon and the wells, public and private, have parapet walls and basements.	The rubbish of the town is daily carted to three cinerators outside the town where it is burnt. The contents of most of the latrines are removed to, and buried in, the night-soil farm. Four latrines are kept on the trench system, as the farm is too far from the latrines. There are 23 latrines, all of which are freely resorted to.	Two wells were sunk and three others repaired (Rs. 475 and Rs. 43, respectively). A few public latrines and a market were repaired (Rs. 75).
53		Bimlipatam.	9,696	25·9	V and U shaped drains exist. They are in good order and their contents discharge into the sea. They are flushed daily.	Good and ample, obtained mostly from wells. Fifty-four wells and three tanks are set apart for drinking purposes. All the wells are provided with parapet walls, platforms, and drains and their surroundings are said to be clean.	The refuse is partly burnt in the cinerator and partly thrown into the sea. The contents of public and private latrines are removed in baskets to the night-soil depôt where they are buried in deep trenches. Sewage of drains is thrown into the sea. There are four pucka-built latrines which are freely resorted to.	A public latrine was constructed and two drains made (Rs. 21 and Rs. 49, respectively). A drain was repaired (Rs. 61).

Abstract of Sanitary Reports of Municipalities—continued.

Number.	Districts.	Municipalities.	Population.	Death-rate.	Water.	Drainage.	Domestic cleansing and conservancy.	Measures taken to remedy the evils in each Municipality.
54	Vizagapatam—*cont.*	Vizianagram.	30,735	28·7	Is obtained from eight tanks and 28 public wells. The tanks are watched.	There are stone drains in parts and side-cuttings in others. There are said to be only two cess-pools. The drains are kept clean.	Street sweepings are removed to rubbish depôts in carts and sold. Night-soil is buried in trenches. It has recently been sold and the value of it as manure is recognized by the ryots.	A few wells were repaired (Rs. 42). Some dust-bins and a slaughter-house were constructed and drains made (Rs. 659). A few drains were repaired (Rs. 864).
55	Vizagapatam—*cont.*	Vizagapatam.	33,961	23·8	Obtained from tanks and wells. The tanks are watched by peons. The surrounding ground is kept fairly clean.	Principal streets have V-shaped stone drains. House drains are connected with cess-pools, of which there are 20. These are cleaned by four cess-pool cleaners who carry away the sewage in chatties to the backwater.	Rubbish is removed in carts to cinerators and burnt and the ashes are used for the latrines. Night-soil is buried in trenches dug for the purpose at the depôt. There are 76 latrines.	A few wells were sunk and others repaired (Rs. 332 and Rs. 31). Some public latrines, dust-bins, slaughter houses and drains were constructed and repaired (Rs. 350 and Rs. 1,500).

DISTRICT BOARDS.

83. Act No. V of 1884, under which District Boards are administered, gives very little power of sanitary supervision. This matter is under the consideration of Government, and I have reason to hope the amended Act will take due cognizance of sanitary requirements. The population of the Presidency under municipal rule constitutes but 6·2 per cent. of the whole, and it is obviously necessary, whilst not pushing arrangements beyond the powers of the organizations that can be provided for supervision, or the powers of the people to correctly appreciate them, that, in the interests of human life, adequate efforts should be made in essential matters to apply sanitary measures for the protection of the rural population.

84. At present, endeavours are made unsupported by law to secure protection of populations by vaccination, repression of epidemics, and certain phases of conservancy of water-supplies. In these matters, the tahsildar's orders, in days now fast passing, were as good as law; but the influence of this officer and of village heads is waning under modern methods of administration of the Revenue Department, and the facility with which the law, as it actually exists, is known and can be appealed to. It is my business to be in constant contact with all classes of natives, and to discuss with the educated and uneducated alike the various phases of sanitary questions, and I fail to discover that spirit of opposition to sanitary reform with which natives are popularly credited. Provided legislation were guarded by a very ordinary amount of discretion in view of the exceptional 'prejudices' of certain sections of the community, the sanitation of every-day-life could be successfully enforced, and would be welcomed by the people.*

85. Rs. 3,19,945, or 4·2 per cent. of the total income of District Boards were allotted to conservancy, and Rs. 1,26,393 to water-supply, or 1·7 per cent. The other heads of expenditure are shown below :—

—	1893–94. For the full year.		1894–95.		Percentage of expenditure to allotment.
	Amount sanctioned.	Amount expended.	Amount sanctioned.	Amount spent in 9 months ending with December 1894.	
	Rs.	Rs.	Rs.	Rs.	
For conservancy	3,05,998	2,74,122	3,19,945	2,29,804	71·8
For improvement of village or town sites.	50,744	44,986	54,807	28,469	61·9
For improvement of water-supply, cleansing, repairing and construction of tanks and wells.	1,42,919	1,07,108	1,26,393	47,868	37·8
For sanitary arrangements during fairs and festivals.	14,007	11,902	14,428	6,666	46·2
For construction and repair of markets and slaughter-houses.	87,028	63,883	1,07,863	33,328	30·9
For other sanitary objects	32,105	22,853	31,969	9,382	29·4
Total ..	6,32,801	5,24,854	6,55,405	3,55,517	54·2

86. The following table shows the estimated income and allotment for sanitation during the official year 1894–95 in District Boards, considered individually :—

* Subsequent to the writing of the above I find a leading article in the chief organ of native opinion in the Presidency, which seems to me to bear out my opinion, that it is a mistake to assume that sanitary effort is not appreciated by the native public. I quote an extract :—

"A little courage is all that is wanted on the part of the Government, and the Hindu public opinion should "be interpreted otherwise than it was in the Viceregal Council on a recent occasion. The whole practice, so "repugnant to natural feeling and so opposed to the most obvious needs of health, will soon disappear, if only the "district officers will act with energy. The Hindu population is not what it was fifty or sixty years ago. It is now "more disposed to be influenced by reason and to sacrifice individual prejudice for public good, and will not object to "any strong measure taken by the Government towards this most important end."—Extract from the *Hindu*, April 23, 1895.

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 1894–95.	Rate per cent. of allotment to estimated income.	Rate per cent. of sanitary expenditure to allotment.	1894–95.			
									Sanitary allotment.		Conservancy.	
				Number of unions.	Number of other villages.				Allotment.	Expenditure for 9 months ending December 1894.	Allotment.	Expenditure.
1	2	3	4	5	6	7	8	9	10	11	12	13
						Rs.			Rs.	Rs.	Rs.	Rs.
Anantapur ...	701,170	5,275	941	11	12	1,18,710	16·9	50·7	20,020	10,152	9,300	7,140
Arcot, North ...	2,025,393	7,616	4,328	19	22	3,89,390	9·6	61·9	37,318	23,083	21,689	15,487
Arcot, South ...	2,096,677	5,217	2,897	11	16	3,68,990	10·4	69·1	38,320	26,488	18,914	12,584
Bellary	825,665	6,136	819	20	5	2,24,540	12·7	43·7	28,580	12,599	14,000	9,982
Canara, South ...	1,011,382	3,902	1,277	...	20	2,32,590	4·1	54·5	9,639	5,257	3,520	2,515
Chingleput ...	1,157,358	2,842	2,134	15	8	2,32,650	8·4	69·2	19,616	13,566	11,845	8,613
Coimbatore ...	1,934,926	7,860	1,478	24	20	3,64,710	13·0	63·4	47,338	30,030	15,506	11,892
Cuddapah ...	1,254,510	8,722	1,276	17	50	2,32,240	9·0	60·8	20,957	12,750	15,031	10,615
Ganjám	1,836,234	8,370	6,037	14	22	2,71,990	5·1	58·9	13,880	8,177	10,090	7,389
Gódávari	1,980,215	7,857	2,603	23	123	6,79,720	12·3	44·5	83,650	37,235	23,840	16,111
Kistna	1,772,479	8,397	1,848	27	21	5,50,440	7·8	41·0	43,450	17,823	20,020	14,256
Kurnool	793,354	7,514	802	19	14	1,75,120	14·4	43·0	25,248	10,850	12,758	8,709
Madura	1,432,779	5,024	1,078	35	19	4,81,780	13·3	42·6	63,995	27,262	27,750	19,294
Malabar	2,463,078	5,585	2,245	...	42	4,74,780	2·3	74·9	10,875	8,155	6,490	4,957
Nellore	1,423,397	8,765	1,793	14	14	2,85,630	4·5	51·8	12,780	6,624	5,950	4,222
Nilgiris	77,188	957	52	...	§ 5	1,32,690	2·2	59·0	2,960	1,746	1,960	1,298
Salem	1,861,843	7,529	3,811	† 29	29	3,68,120	10·2	49·7	37,655	18,722	21,749	16,229
Tanjore ...	2,015,850	3,709	3,550	18	20	9,85,250	3·5	66·2	34,540	22,868	26,190	18,481
Tinnevelly ...	1,847,370	5,387	1,538	‡ 27	65	4,57,750	12·3	61·0	56,352	34,406	29,838	22,497
Trichinopoly ...	1,260,428	3,631	1,502	12	29	2,20,330	10·6	61·9	23,295	14,437	11,728	8,876
Vizagapatam ...	1,850,802	4,619	2,668	14	15	3,36,280	7·4	54·5	24,937	13,288	11,777	8,657
Total ...	31,556,188	124,914	44,678	349	571	75,83,700	8·6	54·2	6,55,405	3,55,517	3,19,945	2,29,804

District Boards.	1894–95—*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	1,490	871	2,200	897	330	111	5,330	739	1,370	394
Arcot, North	2,130	2,859	6,695	3,690	858	691	4,497	276	1,449	80
Arcot, South	1,257	319	16,751	12,941	830	300	...	...	568	344
Bellary	1,710	73	2,950	856	1,260	...	6,050	1,238	2,610	450
Canara, South	...	...	2,087	1,130	975	990	1,816	481	1,241	141
Cuingleput	3,604	2,454	2,208	1,521	998	658	...	...	961	320
Coimbatore	1,404	647	5,501	1,606	727	259	22,926	15,050	1,274	576
Cuddapah	1,449	497	1,287	400	330	108	2,182	1,039	678	91
Ganjám	1,620	330	1,030	403	210	10	...	...	930	45
Gódávari	7,050	8,820	31,890	6,301	1,220	118	16,000	3,217	3,650	2,668
Kistna	5,470	427	13,910	2,894	1,330	222	...	...	2,720	24
Kurnool	3,752	324	3,948	337	690	34	1,200	830	2,900	616
Madura	4,520	1,294	3,170	2,099	390	264	26,975	4,294	1,190	17
Malabar	100	56	1,323	280	310	255	2,332	2,497	320	110
Nellore	2,019	719	4,329	1,261	440	392	...	...	42	30
Nilgiris	500	345	300	...	...	...	...	...	200	103
Salem	2,245	589	3,764	1,109	570	175	8,171	220	1,156	400
Tanjore	2,110	658	5,070	2,188	1,000	1,033	...	...	170	508
Tinnevelly	6,890	3,676	11,911	5,271	1,340	748	30	30	6,343	2,184
Trichinopoly	1,577	937	2,557	1,458	120	49	6,283	2,972	1,030	144
Vizagapatam	3,910	2,574	3,512	1,226	500	249	4,071	445	1,167	137
Total ...	54,807	28,469	1,26,393	47,868	14,428	6,666	1,07,863	33,328	31,969	9,382

* Exclusive of Europeans and Eurasians.
‡ One union (Srívilliputtúr) converted into a municipality on 1st October 1894
† Last year's figures.
§ Davaleer and Pundaleer abolished.

87. There is reason to believe that the remarks made in paragraph 70 (referring to expenditure in municipalities) apply still more strongly to District Board areas, and that much money allotted for sanitary purposes is never spent, or, if spent, is laid out with more hurry than is consistent with securing the best possible

results, with the object of raising the percentage before the close of the official year. If the table (pages 106–111) be scrutinized, it will be observed that the number of improvements *that cost money* represents a mere pittance of what was required. Here, for example, is the summary in the case of four districts having a united area of 28,374 square miles and a population of 6,189,468 souls:—

District.	Area.	Population.	Sanitary works effected.
Chingleput	2,842	1,157,358	Eight wells were sunk, Rs. 570. Six tanks repaired, Rs. 186, and 21 wells repaired, Rs. 108. Thirty-six dust-bins constructed, Rs. 117 and 3 public latrines repaired, Rs. 7.
Ganjám	8,370	1,836,234	Two wells were sunk, Rs. 84 and 4 others repaired, Rs. 44. A tank was repaired, Rs. 5. Rs. 12 were spent in constructing public latrines. Twenty-four dust-bins constructed, Rs. 33.
Kistna	8,397	1,772,479	Nineteen wells were sunk, Rs. 978, 5 tanks and 7 wells repaired, Rs. 287 and Rs. 386, respectively. Rs. 20 were spent in constructing dust-bins and Rs. 4 under miscellaneous works.
Nellore	8,765	1,423,397	Two wells were sunk, Rs. 163 and a tank and 22 wells repaired, Rs. 60 and Rs. 935, respectively. A drain was made, Rs. 30.

88. Again, making all allowance for the wants of different districts, I conceive that the sliding percentage devoted to sanitation represents not so much the real needs of the district as the light in which the authorities concerned regard sanitation, when balanced against demands urged upon them for more money for education, roads, &c. Thus, it will be perceived that the percentage of the total income given varies from 2·2 per cent. to 16·9 per cent. An effort towards regulating this expenditure and, as I would put it, varying estimate of the importance of sanitary advance, has been made by Government sanctioning my recommendation that all budgets should be scrutinized by District Sanitary officers before submission through this office to Government, in time for the taking into consideration of any suggestions they might wish to make (G.O., No. 1177 L., dated 26th June 1894). It is too early to ascertain the full effects of this provision, but it certainly should prove most useful, if fully utilized by the officers concerned.

89. The sanitary history of this Presidency, as shown by the reports of the various incumbents of this office for many years back, proves clearly that the correct sanitation of fairs and festivals is a matter of serious moment in regard to the mortality resulting from epidemic cholera. These are supervised by magisterial and revenue officers of the districts, not only with reference to the preservation of peace, but also in sanitary matters—aided in the latter respect by Medical subordinates. Acting upon a recommendation made by me, Government has ruled that the Collectors of districts should give a fortnight's notice to the Sanitary Commissioner, and the District Medical and Sanitary officer concerned, of festivals at which it may be supposed that more than 10,000 persons may assemble on any one day. This, I think, has been of considerable benefit, and has enabled District Medical and Sanitary officers to be duly apprised of these important occurrences within their districts. It would, in my opinion, be of utility if it were ruled in regard to the number of places required to be inspected yearly by a District Sanitary officer, that the inspection of fairs and of important festivals would be regarded as equivalent to the inspection of a village, as required under G.O., No. 57, Public, dated 24th January 1895. Government has also ruled that when an epidemic occurs, a full report of its history and measures taken shall be forwarded to this office (G.O., No. 296 L., dated 15th February 1895).

90. How very far the sanitary arrangements of these festivals at present fall short of requirements, may be ascertained from the abstract of statements submitted to Government through this office quoted in Appendix D. The direct effect of an ill-managed festival is patent to all, and consequently much energy is displayed and much physical hard work and exposure are undergone by civil

officers in supervising them. Failure, however, occurs in the absence of funds sufficient to provide the requisite executive sanitary and conservancy staffs. How very small the amounts placed at disposal are is exhibited in column 10 of Appendix D, showing that the total average expenditure per head was but 1·4 of a pie of pilgrims assembled for the whole presidency during 1894, and for important festivals having an attendance of over 25,000 each, that it ranged from a minimum of 0·3 of a pie to a maximum of 2 pies. In the case of Tiruvannámalai, which is a festival of great importance, the arrangements made were inadequate from a sanitary point of view, although I found the civil officers on the spot had thrown their whole energy into the matter. In a special report on the subject to Government, I have been able to show that cholera was spread to various localities by pilgrims returning from this festival. Certainly, had more funds been at disposal, the chances are greatly in favour of such an occurrence not having taken place. The local authority practically spent nothing on this fair, as the expenditure was more than recouped by the tolls and fees collected in the fair and market attached, and the voluntary contribution of Rs. 200 by the Dharmakartas of the temple.

91. In the case of Tirupati this year, I took the precaution of proceeding there sufficiently early to concert measures with the local authorities, and, accompanied by the Collector of the district, was enabled to make suggestions on the spot that, although not ultimately fully carried out, were greatly in advance of those hurriedly adopted last year. More funds than had been originally allotted were sanctioned by the District Board and the Municipality. The late Mahunt accompanied us throughout our inspection and showed an absence of unreasoning conservatism that augured well for the future, had he been happily spared. How thoroughly sanitary matters were supervised, I think, is shown by the fact that, although three attacks of cholera occurred during the festival, each case was early segregated, as well as full precautions were adopted for destruction of all infective matter, with the result that there was no spread of the disease. In short, there is no reason why, even when cholera occurs in a festival, there should be alarm for the safety of others, provided sanitary measures are promptly adopted and especially water-supplies do not get contaminated with the specific microbe. Inability to meet these ends by provision of sufficient sanitary staff for observation and conservancy must always result in mortality that may, at times, lead to the loss of hundreds of lives of adults that must bring with it much distress of a financial nature to families in various parts of the country. To temple authorities, whose income largely depends upon these annual festivals, the occurrence of cholera often means heavy monetary loss, as communication is now sufficiently rapid for persons to leave a locality wholesale directly rumours of cholera are current, and, indeed, large numbers of pilgrims are thus prevented leaving their homes. It seems to me but just that temple authorities should be required to contribute a fair proportion of the funds requisite for the correct sanitary care of the multitudes they cause to assemble together, or, failing their carrying out sanitary suggestions that are reasonable, they should become liable for expenditure incurred for the securing of sanitary safety by the local authorities. In this matter, doubtless a very great improvement of the old condition of affairs will be brought about, should Government ultimately adopt a modification of the Pooree Lodging House Act as suggested by it, in response to my recommendation to adopt legislation for the regulation of pilgrim lodging houses (G.O., No. 490 M., dated 14th April 1894).

92. The arrangements found at the Tiruvannámalai festival in regard to pilgrim traffic by rail, showed clearly that these required much more supervision than they at present obtain. On this subject, I have since addressed Government, and have submitted certain suggestions for favour of consideration. In Appendix E will be found an abstract of statements received of results of carriage of cholera-affected pilgrims. It will be seen that whilst where local circumstances or chances did not favour the widespread of the disease no epidemic occurred, there is evidence to show that considerable mortality was brought about that might have been avoided.

93. The importation into Conjeeveram seems to me a particularly typical instance of what must be expected to occur in the absence of supervision. In this case, the man passed motions in a crowded train, vomited within the public latrine of

the railway station, and passed into the town only to defile one of the public drinking water tanks. The result was an epidemic costing 94 * lives.

94. One of the most important problems the sanitarian has to deal with is the adoption, in rural tracts, of a method that shall at once secure the correct sanitary and economical disposal of excreta. The use of trench latrines in positions close to village sites offers both these desiderata. The idea is of very ancient origin; but it is one of those measures that, by constant infliction upon district authorities and the exhibition of a little extra long-suffering on their part, may result in much advance both in the hygienic and the agricultural well-being of the country. I, therefore, by no means despaired that some amount of good might be secured, by addressing Collectors and Presidents of District Boards on this well-worn subject. Without bothering them with facts concerning which they were as well aware as this office as to the advantages that would accrue, I asked them to give a 'fair trial' in some selected part of their districts to two matters:—firstly, the removal of cattle manure, to be neatly stored in selected places common to the villages at reasonable distance from habitations, and, secondly, the endeavouring to persuade private owners of ground to allow trench latrines to be made where the villagers should be induced to defæcate, and cover the fæcal matter by simply moving the foot so as to deposit the loose earth stored at the side of the trench, thus doing away with the necessity for attendance of scavengers; the field so treated to be afterwards cultivated and the resulting crop to be used as an object lesson. In these matters I found I was forestalled by Mr. Atkinson, Collector of the Kistna district, who had already issued a circular endeavouring to secure the co-operation of his subordinates on much the same lines. I asked these officers to let me have a report from the subordinate they selected, as to results at the end of six months. Most of the replies received showed that officers had given their cordial attention to the subject, but had obtained no success. On the other hand, some of a more favourable tenor have been received, and I adhere to the opinion that if all concerned will persevere, success must, in the end, result. A decided success in this matter has been scored by ~~Mr. Shurjadin~~, the Tahsildar of ~~Conjeeveram~~ taluk, ~~Chingleput~~. In a village near Gúduvánchéri (Chingleput) he not only has been able to get the villagers to use the trenches, but has, by demonstration of the crops produced over ground so manured, tempted two ryots *unasked* to apply for the method to be used in their fields; this, in a village where he had the greatest difficulty in persuading the owner of the first field to give permission for the trench system to be employed. Where very shallow trenches are used, fæcal matter, under the influence of the nitrifying microbes of the soil, rapidly arrives at the change of state desired; so that neither in the course of deposit, nor in subsequent ploughing of the fields can there be any caste question raised. Indeed, natives are well aware that fields close to the villages yield the best crops; for the reason that they receive the night-soil of the inhabitants who defæcate there. If villagers, therefore, can be taught to use shallow trenches, which can be kept in a cleanly and inodorous condition by prompt covering by earth, the chances of success are great. Decency can always be secured by a rough screen of boughs. In Bellary, Mr. Firth, a former Vice-President of the municipality, laboured for years *con amore* to induce the ryot to buy well-made poudrette. But his arguments never brought home conviction. The municipality then ceased to make poudrette, and began to trench it. The site of some old trenches was some time back acquired by the Hon. A. Sabapathy ~~Moodelliar~~, Rao Bahadur. Crops grown by this gentleman on these old sites presented a sufficiently marked contrast with those in the neighbourhood to excite the envy of ryots. The result has been that the Municipality of Bellary have had offers for the taking of the despised poudrette. It is by practical demonstration of this sort that success can be secured, and it is in this direction I hope efforts will in future be made. A ryot will in five minutes after inspecting a good crop find some method of getting over his caste difficulties as to night-soil—but the crop must be good.

95. In the matter of removal of manure heaps from the neighbourhood of habitations in specially-selected and neatly-kept places, considerable progress has

* Up to 8th March 1895.

been reported, and this combined with the method of covering the manure with earth ought to subserve all sanitary and agricultural ends desired. It is necessary, however, to allow more time to elapse, before the full results of this endeavour can be gauged.

96. A vast deal of useful work has been fulfilled, as usual, by the inspections of District Medical and Sanitary officers of rural tracts, * with reference to sanitation, registration and vaccination. In view of the chronic condition of 'want of funds' most of these are necessarily of a nature not involving much expenditure, but where funds have been spent, there can be no doubt that it has been to the best sanitary benefit, thus contrasting with the old system which permitted the tahsildar to be practically the sole authority on this point. It would be impossible to enter largely into the nature of improvements under their advice; and I therefore append a few samples of abstracts of their reports with a statement of remarks and of action taken by local authorities (page 91):—

97. The following localities have been formed into Unions under Act No. V. of 1884 during the year:—

District.	Name of union.
Bellary	Holalagundi.
Kistna	Wuyyúr. Tiruvúr. Vallúru.
Salem	Papparapatti. Karimangalam.
North Arcot	Peranambat.
Gódávari	Jaggampéta. Jagapatinagaram. Yeleswaram.
Cuddapah	Patha Cuddapah.
Trichinopoly	Kattupputtúr.
Ganjám	Surada.
South Arcot	Srímushnam.

98. The Union of Srívilliputtúr was brought under Act No. IV. of 1884.

99. More control of expenditure in Unions seems requisite than is at present exercised in the interests of sanitation. The general tendency is to regard conservancy as sufficiently attended to if rubbish is removed, although the urgent matter of night-soil disposal is not attempted. To possess street lamps seems the summit of ambition, and money is wasted on 'lighting' long before the rudimentary requirements of conservancy and water-supply have been arranged for. In these matters the District Boards, acting under the advice of the District Sanitary officers, should exercise supervision.

* *Vide* Appendix G.

District.	Name of village.	Remarks by the District Medical and Sanitary Officer.	Action taken by the authorities concerned.
Anantapur.	Guntakal (Gooty Taluk). Population 2,007. Inspd. 18th Dec. 1893.	*Backyards.*—All very dirty, filled with heaps of cowdung. No drains. *Water-supply.*—From two large open wells, quantity sufficient, quality said to be good, but it is contaminated. *Conservancy.*—A few streets in the front are fairly clean, but all the other streets, lanes and open spaces are very dirty. Rubbish and dung heaps lie at every corner and in every available place. *Public latrines.*—None ... ... *Slaughter-house.*—No slaughter-house. The butcher slaughters in his own house and leaves the offal, &c., lying in front for a long time.	The village officers have been ordered to tell the owners of houses to keep the backyards clean. There is a watcher employed by the Taluk Board on a salary of Rs. 4 per month to guard one of the wells. There are two sweepers employed in the villages. They were fined for neglect of duty, and warned to be more careful in their work in future. Temporary coolies will be employed to remove the dung heaps. Are not likely to be used by the inhabitants even if they are constructed. The butcher will be ordered to keep the house free from dirt.
	Gooty (Gooty Taluk). Population 6,606. Inspected 19th Dec. 1893.	*Conservancy.*—Contents of latrines are removed in baskets at present to trenches close by. No night-soil depôt. *Recommendations.*—Some of the wells require building up and vegetation should be removed from their walls and a watchman should be placed over the drinking wells. More latrines are required. Near the Chembubam well there are a lot of dirty gutters and pools of stagnant water which should be drained off.	Two night-soil carts have been since supplied, and the night-soil is no longer buried close to the latrines. A separate site has been selected for depositing night-soil. The attention of the Union Panchayat has been drawn to the improvement of the wells. The appointment of additional watchman for drinking water wells, and the construction of an additional latrine will be considered at the time of the preparation of the next budget. The dirty gutters and pools referred to were subsequently filled up and the ground levelled.
	Royalcheruvu (Tadpatri Taluk). Population 2,127. Inspected 21st Dec. 1893.	*Recommendations.*—Two sweepers should be employed and all rubbish and manure removed. Wells should be repaired and their surroundings cleaned.	The question of employment of two sweepers will be considered at the time of the preparation of the next budget. Temporary hands will be employed to clean the village. The Deputy Tahsildar of Yadiki will be requested to report the number of wells which are in need of repair and whether they are public or private wells.
	Tadpatri (Tadpatri Taluk). Population 10,283. Inspected 22nd December 1893.	*Conservancy.*—The people commit nuisance in open spaces. *Recommendations.*—A few more (three or four) sweepers are required so as to clean the town thoroughly, especially at the outskirts along the banks of the river. People should not be allowed to commit nuisances on the bank of the river or channel. The contractor should be compelled to remove all rubbish regularly to a distance, at present much is thrown quite close to the town, and there is a considerable quantity left in it. The slabs on the side cuttings in the main streets should be removed and the drains cleaned. More dust-bins are required and more latrines. The cess-pools should be opened up and cleaned regularly. The burial ground and especially the Muhammadan one, which has a well in it, have been frequently referred to and they should be closed and other places selected outside the town. A few more toties are needed.	The Police have been requested to prosecute such cases under the Town Nuisance Act. The town could be kept in a better state if proper supervision is exercised over the work of the present conservancy establishment. However, the employment of additional sweepers will be taken into consideration at the time of the preparation of the next budget. There is a watcher especially employed to prevent people from committing nuisance on the bank of the river or channel. The Union Panchayat's attention will be drawn to this. Structure over the side drains are permanent and long standing ones. I do not therefore think that they can be removed now. In future the people will not be permitted to make any constructions over the drains. The attention of owners of houses will be drawn to the regular cleaning of cesspools. The subject of removing the present Muhammadan burial-ground from its present locality is now under consideration of the Taluk Board, and will be settled soon. This will be considered at the time of the preparation of the next budget.
	Pamidi (Gooty Taluk). Population 6,120. Inspected 26th December 1893.	*Water-supply.*—No well set apart. There is one Local Fund well used for drinking; it is in good order, but not guarded, and cattle are tied quite close to it. *Conservancy.*—There are no roads. Only narrow lanes with very deep sand and much dirt, open spaces and corners especially about the outskirts are used as latrines, and the smell is abominable. *Public latrines.*—There are five public latrines, merely mud wall enclosures, either abutting against a bank or against the walls of houses. House drains in some cases run into them and form dirty gutters meandering through. Two are on the bank of a channel and close to the river. There are manure heaps piled up close by. Fæcal matter is deposited outside, and the smell all around is sickening.	The sweeper in charge of the Local Fund chattram at Pamidi will be made to look after this well. Owners will be ordered not to tie cattle close to it. The Union Panchayat have promised to take necessary action as far as the funds at their disposal would permit. The owners of houses have been served with notices not to let out the drain water in the street. .....

District.	Name of village.	Remarks by the District Medical and Sanitary Officer.	Action taken by the authorities concerned.
Anantapur—*continued.*	Pamidi—*cont.* Population 6,120. Inspected 26th Dec. 1893.	*Burial-ground.*—The Muhammadan burial-ground is just outside the town close to the houses. It is enclosed by mud walls. Hindus bury and burn in the bed of the river up the stream. Bones and fresh graves are to be seen and the people drink the water.	A separate site has been since selected for burying and burning the dead bodies of Hindus.
		Recommendations.—A couple of night-soil carts are required to remove night-soil to a distance.	Will be attended to on receipt of the sanctioned budget for the current year. (Since received).
	Tadpatri (Tadpatri Taluk). Population 10,283. Inspected 16th Feb. 1894.	*Conservancy.*—There is a channel running through the town, and people commit nuisance along its banks. Heaps of rubbish, dung, &c., are thrown by the side of it. The water is very dirty and the smell abominable. The bank of the river is also in a dirty state with fæcal deposit.	There is a watcher employed by the union to guard the bank of the river. People who commit nuisance along the bank of the river are prosecuted under the Towns Nuisance Act.
		Remarks by the Sanitary Commissioner.—This I am glad to find from recent correspondence is being attended to.	.....
		Burial-grounds.—Three Muhammadan burial-grounds. One has a well in it. All are in the town or just outside, and are not enclosed.	The subject of removing the present Muhammadan burial-ground from its present locality is attended with great difficulties. The Taluk Board will pay its best attention to the matter.
		Recommendations.—The wells should be attended to, walls should be built round them and their surroundings cleaned.	The wells, for the most part, belong to private individuals. The owners will be asked to construct parapet walls round them to keep the surroundings clean.
		Remarks by the Sanitary Commissioner.—This ought not to prove an expensive or difficult matter, whilst that it is an essential improvement is indubitable.	The Chairman has already been requested to pay his personal attention to the sanitation of the town, and it is hoped that the ward system of supervision, recently introduced in the union, will be productive of some good.
		General Remarks.—On the whole the town does not seem to be even as clean as it was on last report.	.....
	Narpla (Anantapur Taluk). Population 2,006. Inspected 30th and 31st August 1894.	*Water-supply.*—Some people use channel water which runs to the fields and is not protected from pollution. Manure heaps are deposited close to it almost along the whole length of the channel.	Tahsildar has issued orders to village officers to remove the rubbish from channel bund and to see that this is not deposited there.
		Recommendations.—The burial-ground should be removed to a distance.	Tahsildar has been asked to report if there is place available to remove the burial-ground to, and whether there is any objection to do so. On receipt of report necessary action will be taken.
	Uravakonda (Hooty Taluk). Population 8,557. Inspected 12th and 13th October 1894.	*Water-supply.*—The surroundings of the well in the pettah (set apart for drinking purposes) are very dirty.	The attention of the Chairman of the union has been drawn to this.
		The above wells (set apart for drinking purposes) are private property, but are used by the public and are now kept in repair from Local Funds.	.....
		Public latrines.—Six latrines for females only.	The Panchayat says that there is no space available to construct new latrines, and that, moreover, they are not necessary. I shall, however, look into the matter during my visit to the town.
		Remarks by the Sanitary Commissioner.—Provision for males is just as desirable sanitarily as for females.	.....
		Recommendations.—Bazaar drains are full of filth, and, as they are covered up, cannot be cleaned properly. They should be cleaned. People should be prevented from committing nuisance in the street.	The structures over the side drains are permanent and long standing ones. Most of them seem to have been constructed with permission. I do not, therefore, think that they can be removed now. In future, no permission will be granted for any construction over the drains.
Bellary.	Yerragunta (Raidrug Taluk). Population 1,067. Inspected 5th Sept. 1893.	*Condition of roads, streets and lanes.*—Utterly neglected. The whole village reeks with the smell of fermenting manure and worse. The streets and lanes are tortuous, irregular, uneven and very dirty.	The Tahsildar has been directed to see that the village is kept free of filth and dirt.
		Water-supply.—The Madigas complained bitterly that their well was spoiled and that they had no well. At present they are dependent upon the charity of the well-disposed caste people who pour out to them an occasional potful of water.	An estimate has been called for improving the supply of water for Madigas, and necessary funds will be allotted from Local Funds for the execution of the work necessary. Orders have also been issued for the disposal of manure in a place sufficiently distant from the village.

District.	Name of village.	Remarks by the District Medical and Sanitary Officer.	Action taken by the authorities concerned.
Bellary—*continued.*	Yerragunta. (Raidrug Taluk). Pop. 1,067. Inspd. 5th Sept. 1893.	*Remarks by the Sanitary Commissioner.*—Very advisable that a well be made for these people.	.....
	Hooly Kera. (Raidrug Taluk). Pop. 804. Inspected 8th Sept. 1893.	*Water-supply.*—Drinking water is derived mainly from a good draw well—without parapets—in the fort. A second well, a large step well outside the village limits, is also used for drinking purposes by some of the pettah people.	The attention of the Tahsildar is drawn to the matter and to report as to the ownership of the well.
		Remarks by the Sanitary Commissioner.—It would be desirable to alter the step well so as to secure protection from dirty feet.	.....
	Raidrug. (Raidrug Taluk). Pop. 10,380. Inspected 10th Sept. 1893.	*Recommendations.*—It would be advisable to work all the private latrines through the union agency. There are numerous waste and abandoned places in the town which ought to be reclaimed. The Police Act is in force, but is not worked satisfactorily.	The matter of working the private latrines through the union agency has already come before the Taluk Board and is under correspondence. The attention of the Police and the Taluk Magistrate is drawn to the defective working of the Police.
		Water-supply.—Chitwadgi water from one draw well and river channel; the latter is chiefly used. Its sides are constantly polluted.	The people of Chitwadgi chiefly drink Roya channel water, as the water in the wells (of which there are many) is brackish. If new wells are sunk the question is if the water come upon will be drinkable. To obviate the evil of pollution watchmen will have to be placed over the channel, and this will be done as soon as funds are available, viz., from April next.
	Hospet. (Hospet Taluk). Population 12,833. Inspected 2nd November 1893.	*Conservancy.*—All (six mud and two stone slab latrines) are intended for females.	There are altogether eight latrines in the union, six (of mud and two of stone slabs), the latter were erected this year at Chitwadgi. All are solely intended for the use of women, and even these are not sufficient for them. As for latrines for men they are a necessity which will be supplied as quickly as possible.
		Recommendations.—(1) An increase in number of latrines and conservancy establishment, (2) construction of a slaughter-house, (3) parapet walls and drains for all wells, (4) the filling up of pits and hollows in the town.	(1) Attention will be paid to this point as well as increase in the conservancy establishment as soon as funds are available from the next year. (2) The union is too poor to build a slaughter-house, and unless a special grant is made from the Taluk Board (which at present is unable to do), this will have to be postponed for some time to come. (3) Parapet walls to wells are being constructed and every year work of this sort will be done. The filling up of pits and hollows in the town is also being gradually carried out.
	Kampli (Hospet Taluk). Inspected 12th March 1894.	*Recommendations.*—Increase on the number of latrines, extension of village sites, preservation of principal river channels, construction of a new market enclosure and increase of Sanitary establishment.	One additional latrine of upright stone slabs has been constructed. The construction of another will be considered when funds permit. The subject of extending the village site is pending with the revenue authorities. It is proposed to arrange for a new market place in the above site when acquired. A small revetment on the bank of the Tungabudra has almost been completed. This is intended to prevent people committing nuisance on the bank of the river. The increase in the scavengering establishment is under contemplation.
	Daroji (Hospet Taluk). Inspected 14th March 1894.	*Water-supply.*—This well (Government step well) is reported to contain the best water in the village, but it is dangerous in its present state. Another well, much used and known as Narasinga Rao's, should be provided with protecting parapet walls. These recommendations were made in 1891.	An estimate of Rs. 300 for dismantling and rebuilding the revetment of the well was made last year, but for want of funds the work was postponed. It will be taken up this year and completed as the villagers have also promised to contribute a sum of Rs. 200 towards its repair. An estimate for providing the other well with parapet wall has been called for and will be placed before the Board for its consideration as soon as it is received.

District.	Name of village.	Remarks by the District Medical and Sanitary Officer.	Action taken by the authorities concerned.
Chingleput.	Darajee (Hospet Taluk). Inspected 14th March 1894.	*Recommendations.*—It would be desirable to convert Daroji into a minor union.	With reference to the question of making Daroji a minor union it may be pointed out that the District Board did not approve of the proposal to make unions of Oojini, Magalam and Uchangidurg places of no less importance than Daroji on the ground that there is a sufficient number of unions already under the Taluk Board and it is inadvisable to create more till those already existing are worked satisfactorily.
	Poonamallee. (Saidapet Taluk). Population 3,839. Inspected 19th Sept. 1893.	*Water-supply.*—Most of them (private wells) are pot wells. Surroundings fairly good. A few wells require parapet walls and nearly all require platforms.	The Deputy Tahsildar of Poonamallee has advised the owners of the wells (93) in number to erect parapet walls and provide them with platforms.
	Tiruvattiyur. (Saidapet Taluk). Population 9,098. Inspected 22nd Sept. 1893.	*Backyards—Condition of, &c.*—Backyards filthy and used also as private latrines. House drains are let into backyards. *Conservancy.*—Backyards are used as latrines, and no private scavengering is in force. There ought to be. *Recommendations.*—Increase in the conservancy establishment; construction of two public latrines and some more dust-bins; construction of drains and side cuttings; improving the fresh water-supply; inspection of animals before slaughter; all backyards and cattle should be kept clean.	Provision has been made for opening two temporary latrines as experiment. Provision has been made for an additional cart and 2 scavengers besides 2 wells in the ensuing year's budget; 24 dust-bins are now under construction. Side cuttings are attended to. Inspection of animals before slaughter is not practicable under the law in force. The Chairman reports that he has been advising people to keep backyards and cattle clean.
	Madurantakam. (Madurantakam Taluk). Population 1,143. Inspected 5th Mar. 1894.	*Public latrines.*—Nil. *Recommendations.*—Two public latrines be constructed. Some movable dust-bins be introduced.	The Chingleput Taluk Board has called for estimates for two public latrines.
	Tirupporur. (Chingleput Taluk). Population 2,186. Inspected 24th April 1894.	*Recommendations.*—The place should be supplied with at least two public latrines, one for males and one for females with an adequate conservancy staff. There should also be, say, two night-soil carts. Two more public wells should be dug in suitable localities.	The Chingleput Taluk Board has called for estimates for two public latrines as also for two wells.
Coimbatore.	Satyamangalam. Population 5,842. Inspected 7th November 1893.	*Water-supply.*—There are a few private wells, the water is reported to be brackish. The banks of the river are used as latrines. Private wells, surroundings and conditions are unsatisfactory.	The local Magistrate and the Police were requested to charge those that commit nuisance on the banks of the river. Surroundings of the private wells are now satisfactory. The mouths of the wells are protected by a parapet and an impermeable platform sloping from its base and provided with a drain so that spilled water may not return to the well.
	Vellalore. (Coimbatore Taluk). Population 5,881. Inspected 16th March 1894.	*Surface Cleanliness.*—The village was dirty. House refuse was carelessly thrown. Corners and open spaces are used as latrines. *Remarks by the President, District Board.*—The District Medical and Sanitary officer's remarks apply with equal force to almost every village and town in the district. *Water-supply.*—The principal source of water-supply is from the river that runs through the town, which is contaminated in many ways. Some houses have their own wells; surroundings are not good. *Remarks by the President, District Board.*—The Police not unfrequently run in some people for polluting the river banks.	Strict and stringent orders have been issued to the village officers to keep the village and its hamlets clean. The Superintendent of Police should be asked to post constables to advise persons against polluting the river. The owners of the private wells will be advised to keep the surroundings clean.
	Chickadsampalayam Kariampalayam Odanthorai, (Méttupálayam Taluk). Inspected 20th March 1894.	*Surface Cleanliness.*—The smell of urine, cow-dung and human fæcal matter pervaded the whole place; the stench was overpowering along the Nellathorai road; the recent rains on the 18th and 19th, no doubt, brought out many disagreeable odours. I, however, feel certain that the Sanitary establishment comprised of 15 sweepers, 9 toties and 1 maistry kept up at a cost of Rs. 145 per mensem could do much more in keeping the place clean if properly supervised. Judging from the appearance now the work done must be of a very limited nature. There has been no improvement made in a sanitary way since my last inspection in December 1893.	Steps will be taken to introduce private scavenging system; steps have been taken for a more systematic supervision of the work of scavengers, and 10 dust-bins will be supplied in order to allow people to deposit the sweepings in them. When these have been supplied the Police may be asked to prosecute house-owners depositing rubbish in public streets.

District.	Name of village.	Remarks by the District Medical and Sanitary Officer.	Action taken by the authorities concerned.
Coimbatore—*continued.*	Bhawani. Population 7,341. Inspected 26th May 1894.	*Latrines.*—The latrines are in a dilapidated condition, and some of them are not in a fit state to be used. *Remarks by the President, District Board.*—The subject should be disposed of without delay.	The Chairman has been asked to send estimates for the repair of the latrines, and steps will be taken to provide funds.
		Recommendations.—I recommend that the Sanitary establishment be placed under the Medical subordinate as a trial for six months. *Remarks by the President, District Board.*—The experiment of putting the conservancy under the Medical officer has proved a failure when he had legal powers. Now that he has none it would be worse than useless. The Chairman should be warned to see that the sweepers work properly.	Similar remarks on the insanitary condition of Méttupálayam Union were made by Dr. Fitzpatrick during his inspection in 1889, when the Sanitary establishment was under the supervision of the present civil apothecary who was then Chairman also. On the above report of the District Medical and Sanitary Officer, the District Board, in their resolution No. 2, dated 30th September 1890, resolved that the civil apothecary should resign his Chairmanship and that a non-official member be recommended as Chairman. I consider that matters may only go from bad to worse if the establishment is placed under the Medical officer, and there is, besides, no provision in the Act for such a course, and the proposal seems to be an anomaly.
	Kollegal. Population 9,946. Inspected 19th May 1894.	*Water-supply.*—The channel that feeds the tank in the centre of the town remains in the same insanitary state; has a watchman. A large public draw-well should be dug up; there is a central site for it in a disused pond.	In its resolution VI, dated 20th August 1894, the Taluk Board has decided to request the Local Fund Engineer, to frame an estimate for remedying the insanitary state of the feeder channel and for the conversion of a small tank in the town into a draw-well. The Engineer has been requested to treat the above request as urgent, so that, if possible, the work may be done within the current year.
		Recommendations.—The banks of the rivers should not be allowed to be used as latrines, the slaughter shed should be removed to a distance outside the town, the backyards should be kept clean. Two or three big wells should be sunk in convenient sites.	The attention of the Magistracy and the Police has been drawn to this, and they have been requested to take necessary steps to prevent the commission of nuisances. Notice by tom-tom and in writing has been issued directing slaughtering of sheep outside the town in a proper place. Notices have been given to the owners of houses to keep the backyards clean. Further steps will be taken in this respect. The Taluk Board has resolved to introduce private scavengering system in the union. The Taluk Board thinks the expenditure of money unnecessary in this respect, since the drinking water is obtained from the Cauvery river by all classes of people. The water does not stagnate in the river in any season. The water of the existing drinking wells is brackish and is not likely to be better in new wells.
Cuddapah.	Chitvel. (Pullampet Taluk). Inspected 6th September 1893.	*Recommendations.*—The present arrangement by which the dung heaps are allowed to accumulate for days near the houses is an objectionable one and steps should be taken to procure a site at some distance from the town where they might be deposited. There appears to be some difficulty about this at present. *Remarks by the Sanitary Commissioner.*—This method has been, for many years, successfully pursued in the neighbouring district of Kurnool: land being bought by the District Board and placed at disposal of the villagers. The measure is of the first importance for the protection of the life of both man and beast. The drains on the sides of the principal streets are neglected and should be attended to. The entrance to the public latrines should be made so as to prevent cattle from straying into them as they do at present.	The Tahsildar and Vice-President have been requested to select a site for the purpose in consultation with the Medical subordinate in charge of the dispensary. If the District Board is in a position to buy land for the purpose as in Kurnool, proposals will be submitted for its acquisition. But other villages stand in more urgent need of this improvement. The Chairman of the Union has been requested to carry out these suggestions.
	Sidhout. Inspected 5th Sept. 1893.	*Recommendations.*—The work of the conservancy establishment, in regard to the proper cleanliness and sanitary condition of the town, wants better supervision, the contract system, as a rule, does not appear to work	The attention of the Chairman concerned has been drawn to this subject, and he has been requested to carefully supervise the work connected with sanitation. We had the "amáni" system, *i.e.*, the system under which

District.	Name of village.	Remarks by the District Medical and Sanitary Officer.	Action taken by the authorities concerned.
Ganjám—*continued.* Cuddapah—*continued.*		well. Some one directly responsible to the Taluk Board should be appointed to look after the working of the sweepers.	the scavengering work was managed departmentally without being given on contract in some places. There were then local complaints that the services of the scavengers were utilized for private work to the detriment of their legitimate work. The contract system was then resorted to in all the places where it could be introduced. Whenever instances of neglect of work on the part of the scavengers were brought to notice the contractors were heavily fined. As, however, the District Medical and Sanitary Officer seems to take objection to the system, the question of resorting to the 'amáni' system will be considered by the Taluk Board after the contract for the current year expires.
	Filér. Population 1,782. Inspected 27th May 1894.	*Recommendations.*—The latrine in the fort, being near the chief drinking water-supply of the village, should be closed and a new one erected on the site pointed out by the District Sanitary officer.	It has been decided that the existing latrine in the fort at Filér cannot be kept where it is. The Tahsildar of Voyalpád has been requested to select a suitable spot for the construction of another latrine.
	Municipal Town, Chicacole. Population 18,241. Inspected 14th October 1893.	*Conservancy.*—The rubbish in the depôts ought to be more together and not here and there, and properly stocked. *Lighting.*—Not sufficient for such a large and scattered town and from the smoky condition of the chimneys, the lamps appear to burn very unsatisfactorily.	Steps are being taken to have the rubbish properly stocked. Fifteen more latrines will be put up in the next year and improvement is expected next year as to the quality of the lights when the lighting will be under the departmental agency.
	Parlákimedi. Population 16,470. Inspected 18th October 1893.	*Conservancy.*—Contents of latrines carted outside the town and buried; no special depôt for the night-soil. *Remarks by the Sanitary Commissioner.*—It should be arranged to bury the fæces systematically in trenches, and cultivate the ground subsequently either for municipal or private benefit if no ryot will buy the material.	No change has been made pending selection of a site by the Medical officer. Such site has been suggested by Dr. Bannerman and the change will be made as soon as possible.
	Surada. (Gumsúr Taluk). Population 3,500. Inspected 16th Nov. 1893.	*Recommendations.*—There is a large tank in the middle of the town which is recommended to be abolished, as it is on a high level and the houses all round are much below the level, so that the water from the tank oozing makes these houses in a damp and swampy condition. Prevailing disease is malaria.	I have noticed the tank and it is under contemplation to fill this up. This will be done during the current year, if funds permit.
Gódávari.	Peddápuram. (Peddápuram Taluk). Population 13,658. Inspected 26th April 1893.	*Water-supply.*—One tank has a watcher but not strictly conserved. I saw people washing their feet and their vessels in the tank. *Public latrines.*—None. *Private latrines.*—People resort to unoccupied compounds and open spaces. *Burial grounds.*—Two burial and three burning grounds near tanks which are used for drinking purposes. *Remarks by the Sanitary Commissioner.*—Burial grounds within the sub-soil water flow should be closed.	The two drinking-water tanks were subsequently conserved dated 12th May 1894, and the Chairman has already been requested to entertain an additional tank watcher. The Chairman has already been requested to select sites for constructing four latrines and report the same at an early date. They will be constructed soon. The Tahsildar of the Peddápuram taluk has already been requested to send proposals for the removal of the burial grounds in question.
	Yeleswaram. (Peddápuram Taluk). Population 4,472. Inspected 28th April 1894.	*Water-supply.*—The river, the water of which is used largely for drinking purposes, is open to pollution everywhere. One well is set apart for drinking and it is badly out of repair and it is not properly conserved. *Remarks by the Sanitary Commissioner.*—I would advise the setting apart of a selected portion of the river for drinking purposes. *Drainage.*—All the refuse from the streets is carried into the river when it rains. *Remarks by the Sanitary Commissioner.*—Possibly the making of a catch drain might interrupt the filth from entering the portion conserved for drinking purposes.	Dr. Prathpad has already been requested to put an end to the objectionable practices noted by the District Surgeon. The place is going to be made a union soon, and steps will be taken to conserve a portion of the river for drinking purposes and to construct a catch drain so as to carry the water to a place lower than the part set apart for drinking purposes.

District.	Name of village.	Remarks by the District Medical and Sanitary Officer.	Action taken by the authorities concerned.
Gódávari—*cont.*	Yeleswaram. (Peddápuram Taluk). Population 4,472. Inspected, 28th April 1894.	*Situation of burial ground.*—On the banks and in the beds of the river which is the chief source of drinking water. *Remarks by the Sanitary Commissioner.*—Burning in the bed of the river should certainly be stopped.	The Second-class Magistrate, in charge of the Prathapad Division, will be requested to see that the dead are burnt at a place sufficiently remote from the river and the village.
		Cess-pools.—There are two cess-pools and when they are emptied once a week the dirty water is baled into the streets. *Recommendations.*—There should be at least two public latrines and 2 toties on Rs. 5 each.	This will be considered as soon as the place is constituted a union.
Kistna.	Jaggiapet (Union Villages). Population 9,717. Inspected, 27th January 1894.	*Recommendations and General Remarks.*—Private scavengering should be introduced but for this a certain number of the toty caste should be imported. People should be forbidden from burning and burying on the banks of the river and washing clothes above the part where water is drawn for drinking purposes. The channel leading to the tank should be protected and the stand for carts should be removed to another portion of the village, at present it is situated just above the tank. The Woddars live on the edge of the tank which when full comes into their houses, they should be removed elsewhere; they keep a large number of pigs which make the ground very dirty. On the village side of the tank, the ground is used as a latrine. The village covers a good deal of ground and the present staff of sweepers are not sufficient. There is plenty of waste land in the neighbourhood of the villages and refuse and cattle could be kept there.	The local scavengers would not do private scavengering. A number of toties, who could do private scavengering, were indented for from Vizianagaram, Bezwada, and Masulipatam, &c., but none could be got. The present burning and burial ground will be abandoned as soon as other suitable site is got. Orders have been issued prohibiting the washing of clothes above the part of the river where water is drawn for drinking purposes. As for the protection of the channel leading to the tank which is an irrigation one, revenue authorities will be requested to raise an embankment on the other side also. As there is no better site for a cart stand, the present one will be improved by raising a wall around it in the course of this year. The Woddars (tank diggers), who now live on the edge of the tank, will soon be ordered to remove somewhere else and some of them have already built their huts in another part of the town. The owners of the pigs have often been ordered to take care of their pigs, and were also fined at times. When they are removed to another part of the town there will of course be no fear of contaminating the tank water by these pigs. People who use the village side of the tank are also now and then arrested and prosecuted, and more attention will be given to this matter in future. As regards the scavengering establishment we have at present a Sanitary Inspector, 10 scavengering bandies and 20 scavengers. This will be increased as soon as funds, at our disposal, will permit.
	Nandigama. Population 2,668. Inspected, 24th January 1894.	*Recommendations.*—Two wells used by caste people require attention, especially the one on the east of the village which has no platform or parapet. The one on the west has no steining and is thus liable to pollution. The Pariah well is flush with the ground. It should be provided with platform and parapet. There are many disused houses, the walls of which should be raised. In this place rubbish could be easily kept outside the backyards on a site chosen outside the village. The backyards are kept very dirty and the sweepers are not allowed to go in and remove refuse. There appears to be a good many Woddars who keep pigs which make the ground very dirty.	The Local Fund Overseer has been requested to estimate for the improvement suggested to be made for the two drinking-water wells of the caste people. The Pariah well being a private one under the control of one Dula Latchigadu, a notice has been given him to appear and state whether he wishes to provide well with platform and parapet wall, or wishes to give it up to the Local Fund Department. He has elected the former of the two proposals and promises to erect a mud wall round the well. The Tahsildar has been authorised to issue notices to the owners of disused houses under Section 101 of Local Boards Act to repair them. The Woddars owning pigs have been served with notices that they will be prosecuted under Section 26 of the Cattle Trespass Act I of 1871, if they allow their pigs to stray and damage public roads.

District.	Name of village.	Remarks by the District Medical and Sanitary Officer.	Action taken by the authorities concerned.
Madura.	Mélúr Taluk. Nattam. Population 4,017. Inspected, 18th November 1893.	*Recommendations.*—I would recommend that a union be formed to look after sanitation. Two sweepers, a hand cart and a few dust-bins to begin with would be useful.	The locality has been personally inspected by the undersigned, and the village officers ordered to remove the heaps of filth and rubbish lying on the eastern side of the village. The Tahsildar of Mélúr has been requested to take necessary steps to form the village of Kottampatty into a union and to report certain informations regarding the same for recommendation to obtain sanction of Government.
	Kottampatti. Population 1,977. Inspected, 17th November 1893.	*Recommendations.*—A pucca well to the right of the hospital is surrounded by sunken ground. Here water collects when it rains and the place is much polluted. Recommend that this hollow be filled up. The drinking-water tank is polluted both by men and animals—so the people complain. Recommend that it be properly fenced in. The above is about as much as the union can afford for the year.	The Chairman, Nattam Union, has promised in his L. No. 23, dated 3rd February 1894, that the sunken ground referred to will be filled up in April or so after obtaining sanction of the necessary estimate. As regards the fencing of the tank, the Chairman proposes to use the wires and stones surrounding the weekly market in place of which compound wall is to be raised.
	Tirumangalam taluk. Usilampatti. Population 4,500 with hamlets. Inspected, 9th Dec. 1893.	*Recommendations.*— 1. Heaps of rubbish are allowed to collect in the town; the sweepers should be punished. 2. There is no system of night-soil removal, consequently the town is very stinking. Trenches should be dug 2 feet wide and a foot deep to which the night-soil should be conveyed; also those who go to the fields for defœcation should use these or other trenches. 3. In the Local Fund pettah is a large well having a parapet about a foot high and in a most dangerous condition. This parapet should be raised to the height of 4 feet. *Remarks by the Sanitary Commissioner.*— Three feet 6 inches is as high as desirable with reference to the physique of native women and children who draw water. 5. The Chairman of the Union takes little or no interest in sanitation.	(1) Orders have been issued to the Chairman to get the rubbish removed and to punish the sweepers for their neglect. (2) Chairman has been asked to attend to this. (3) The District Board Engineer is requested to submit an estimate for making the improvement suggested. (4) The Union Chairman's attention is drawn to the remarks.
	Tirumangalam taluk. Sáptúr. Population 3,169. Inspected, 11th Dec. 1893.	*Recommendations.*—Two more sweepers and 3 more hand carts required. All the wells except 2 have no parapets or platforms, and drainage flows back into them. It would be worth while to protect them properly.	The Taluk Board has passed a resolution in its No. 8, dated 29th January 1894, to provide only 1 hand cart, and called on the Manager of the Sáptúr estate to submit estimates for such of the wells as require repair and parapet walls.
	Tirumangalam. Population 7,000. 12th Dec. 1893.	*Recommendations.*—A large public well in East Weavers' street, which gives good water, is much out of repair, parapet wants mending; a new platform required and a pulley supplied. Three or four good latrines wanted.	The Union Panchayet has already taken steps to repair the well in question, and to provide good latrine as early as possible, and has passed a resolution to that effect in its No. 86, dated 18th January 1894.
	Sivaganga Taluk. Tiruppattúr. Population 4,628. Inspected, 21st August 1894.	*General Remarks and Recommendations.*—The burial and burning ground on the Nattam road is too near the town. The new site chosen for burning and burial ground is too near the road. The tank on the east side of the town is a good one, but people ought not to be allowed to walk into the water as every one does. The side, where water is drawn, should be deepened and a platform used if necessary. The other tank on the western side, not nearly so much frequented, is also polluted. Crowds walk into it to wash themselves as well as to draw water. The refuse of the town is thrown anywhere. A depôt should be established.	Correspondence is going on between the Deputy Tahsildar of Tiruppattúr and the President, Taluk Board, Sivaganga. Orders have been issued not to allow the people to walk into the water. The practice of washing themselves in it has been put a stop to. Two sites have been selected, one on the eastern and another on the northern sides of the town. The refuse is deposited and removed by the contractor then and there.

District.	Name of village.	Remarks by the District Medical and Sanitary Officer.	Action taken by the authorities concerned.
Malabar.	Tamarancheri. Calicut taluk. Inspected, 2nd and 3rd February 1894.	*Water-supply.*—There is a fine public well. I would suggest that a chain passing over the pulley should be supplied, one end being rivetted into the masonry and the other provided with a bucket. The people use their own ropes and buckets of leaves, &c., and the water gets damaged. The Police station is next door and there should be no risk of the appliance being stolen. *Remarks by the Sanitary Commissioner.*—This is a very desirable method, care should be taken that the chain is light and sufficiently flexible to readily take the shape of the wheel.	The Taluk Board has resolved to provide another yoke and pulley and two buckets. Arrangements have been made to issue a notice prohibiting the use of any private buckets in drawing water.
		Recommendations.—The Board has recently purchased a house as a chattram; and adjacent to it is a well used by travellers and by the D.P.W. people whose shed is next door. The well has no parapet or platform. Its surroundings are uncared for, and it cannot fail to be a source of danger in every way. It should be attended to at once.	An estimate has been called for and this will be attended to as soon as the monsoon is over.
	Ponnáni. Population 13,143. Inspected, 30th Nov. 1894.	*Conservancy.*—The rubbish is said to be buried, but there is no regular depôt. A site for one has been suggested on the shore near the bungalow. It is objectionable from every point of view.	No suitable sites, convenient for cartage, are available for a regular depôt for storing the rubbish. At present, the sweepings are buried in a paramba allowed for the purpose as a matter of grace by a private individual in the close vicinity of which there are no dwelling houses, and afterwards sold in auction occasionally. There seems to be no serious objection to the present practice.
	Álattúr (Kattassari) Palghat Taluk. Population 3,924. Inspected, 9th Dec. 1894.	*Water-supply.*—The one (well) in front of the Kutcherry runs dry in the hot weather and should be deepened. *Disposal of dead.*—Bodies of those dying from cholera or small-pox are, for choice, buried in the bed of the river. *Recommendation.*—Toties are required, and then steps might be taken to start latrines. The sweepers should be placed under the Medical subordinate, who is a decent man and he should have power to fine them for bad work.	The well is full of hard rocks. These were blasted to a good depth by dynamite and yet there is no chance of any spring coming up; so the project of deepening further had to be given up. There is no provision in the Local Fund Act empowering the Taluk Board to stop the practice. It appears that a scheme by Sanitary Commissioner was under contemplation some-time ago for the importation of toties from Coimbatore and nothing is yet known about its final result. The sweepers at the place have been placed under the Medical subordinate as recommended.
	Kollengode (Kizaka-thara) Palghat Taluk. Population 8,983. Inspected, 10th Dec. 1894.	*Water-supply.*—There is an amazingly filthy tank. It is the property of the Vengeonath Nambity and its state has been brought to notice before, but no steps appear to have been taken to compel him to have it thoroughly cleaned.	The Nambity was addressed, and he promises to have the tank thoroughly cleaned at the next hot weather, owing to the scarcity of water this year. This is apparently the only tank with some water in it now available for the people at the place to bathe in.
Nilgiri.	Nellacotta. Gúdalúr. Population 377. Inspected, 28th January 1894.	*Water-supply.*—The water-supply is from a spring conveyed by an open channel, which is open to pollution especially for the 100 yards or so that it runs along the road side; it would be very desirable to convey the water in iron pipes in this situation and store it in a tapped cistern. The Inspector-General of Police has signified his willingness to contribute to this object for the sake of the Police, as this is the only source of drinking water of the place. *Remarks by the Collector.*—The Inspector-General of Police has been addressed in the matter of erecting a latrine for the Police and entertaining a sweeper therefor, and also in the matter of piping the drinking water-supply. His reply is awaited.	

District.	Name of village.	Remarks by the District Medical and Sanitary Officer.	Action taken by the authorities concerned.
Nilgiri—*continued.*	Gúdalúr. Population 2,549. Inspected, 24th and 29th January 1894.	*Conservancy.*—There are 5 street sweepers and toties on Rs. 9 each; they were not at work on either of the two evenings of my inspection of the town. I am informed they only work in the morning. They neglect the latrines in a shameful way; the streets also are untidy, there does not appear to be proper supervision. There should be a maistry on a higher rate of pay to supervise them; he should be a man of a better class. I believe at present these sweepers take private jobs, and neglect their legitimate work. They ought to work from 7 to 10 A.M. and from 3 to 6 P.M. *Remarks by the Collector.*—A sanitary maistry on Rs. 12 per mensem has been entertained with the sanction of Government for the better supervision of the work of the Gúdalúr sweepers. The supervision of the whole stall, at present, devolves upon the apothecary, upon whom I impressed the importance of the duty. *Water-supply.*— 1. A spring which rises in a coffee garden a short distance above the hospital, this is conveyed by pipes from a cistern about 30 yards from its source into a masonry reservoir in the hospital compound, where it supplies the hospital and Police lines, and is conveyed by pipes to the upper town; the water is pure at its source, but is polluted by human excreta as well as cattle manure along the unprotected 30 yards or so near its source; this portion might be protected cheaply, by extending the piping up to the spring, which should be walled around. 2. A spring from the Hullalah coffee estate supplies the lower town and the Post office; it receives the drainage of the coffee gardens through which it passes and runs along the open gutters of Gúdalúr for about a mile along the road side receiving every possible pollution *en route*. 3. To the west of the town is another drinking stream which is much polluted on its way through coffee garden.	(1) The extension of the Gúdalúr water-supply piping towards the source of the spring is being carried out, an estimate for Rs. 170 having been sanctioned for the purpose. (2 and 3) Nothing has been done, for nothing could be done, as the streams run through private coffee estates, the acquisition of which under the land acquisition Act would cost a sum far beyond the resources of this District Board.
North Arcot.	Venkatagirikotah (Palmanér taluk). Population 639. Inspected 12th Dec. 1893.	*Recommendation.*—There is a forest reserve in the village and next the Post office, and on the side of the main street. It is a serious nuisance to the people. It is closely planted and full of rank growth. This matter should be referred to the Collector for favour of action.	In his letter No. 1874, dated 16th June 1894, the District Forest officer reports that the Collector's orders to thin out the tope in the vicinity of Venkatagirikotah were duly carried out.
	Punganúru Zamíndari (Palmanér taluk). Population 6,900. Inspected 30th May 1894.	*Backyards.*—Almost every house has an old cess-pit in its backyard. Such a pit takes years to fill when another is excavated close by. It would be impossible to concert a more dangerous condition of an inhabited site.	Steps will be taken to minimise the nuisance by opening more latrines and inducing people to close the cess-pools.
	Arkonam (Wallajah taluk). Population 4,150. Inspected 25th June 1894.	*Streets and roads* are in good order, some have drains but without any proper mode of discharge. One of the main bazaar-road drains terminates in a kind of *cul-de-sac* in front of the dispensary. No attention seems to have been paid to the necessity of having proper gradients and outfalls. It should not be difficult to launch the sewage upon ground under cultivation, and thus safely dispose of it.	Estimate has been called for by the Chairman. Steps will be taken on receipt of the same from the Local Fund Engineer.

District.	Town or Village.	Remarks by the District Medical and Sanitary Officer.	Action taken by the authorities concerned.
North Arcot—*continued.*	Chittoor (Chittoor Taluk). Population 10,395. Inspected 6th and 7th June 1894.	*Recommendations.*—The new slaughter-house should be placed at some distance from dwellings and away from the place where animals are now slaughtered, and which is surrounded by houses.	It will be attended to. The present site selected by the doctor is not very far from dwelling houses. Another site will be selected in consultation of the doctor, and the work begun shortly.
		In the vegetable market I noticed several encroachments over the side drains and even beyond them, a practice which should be promptly checked.	Notices have been issued to remove the encroachments.
		Remarks by the Sanitary Commissioner.—I think discipline on the subject of encroachments should be carefully and rigorously enforced. An encroachment cannot occur without the village Reddi being a consenting party.	
		Several street drains and culverts are choked with silt.	The Chairman has taken steps to remove the silt.
	Palmanér (Palmanér Taluk). Population 5,041. Inspected 21st May 1894.	*Recommendations.*—More public latrines are required and more dust-bins. The house drains of some Komatis in the new pettah discharge into a large pit which is full of semi-liquid filth emitting a foul odour. This should not be allowed.	Provision will be made in the next year's budget for the construction of latrines and dust-bins. Notices have been issued to the Komatis concerned to close the pit and allow the house drains to discharge into a closed drain.
Salem.	Sankaridrug (Tiruchengódu Taluk). Inspected 27th and 28th August 1893.	*Conservancy.*—The roads are in fair order, but the drains in places are silted up. There are a few cess-pools which are holes in the ground covered with stones and seldom cleaned out. Street sweepings, refuse, &c., are removed in carts and deposited in a pit a short distance from the villages on the Edapadi road, but the accumulations are very small. Two mud-wall latrines in fair condition, but not much used. These are said to be cleaned by a toti morning and evening, but the pigs save much trouble in this matter. Contents of latrines are removed in baskets and buried in a hole a short distance from the village towards the drug. *Recommendations.*—Another rubbish depôt is wanted on the south side of the village, and the Nuisance Act might be enforced.	1. Communicated to the Deputy Tahsildar of Sankaridrug for suggestions and careful attention. 2. Copy has been communicated to the Inspector of Police for enforcing the provision of the Nuisance Act.
	Tiruchengódu. Inspected 29th August 1893.	*Conservancy.*—There is a good deal of ordure about the side streets and vacant spaces; the roads are in bad order and the drains silted up. There are several cess-pools, which are mere holes in the ground, covered by a stone, but they are seldom cleaned out. *Disposal of dead.*—The chief burning ground is objectionably near the town, and the top where the weekly shandy is held. *Recommendations.*—Rubbish should be deposited at the selected depôts and not allowed to be put in unauthorized places or removed by ryots when it suits their purpose. The night-soil trenches should not exceed $1\frac{1}{2}' \times 1\frac{1}{2}'$, and should be covered when filled up. The pigs should be kept out of the latrines and the Nuisance Act enforced. The burning ground is objectionably close to shandy place and might be removed. As the Pariah's well is always dry, they have much difficulty in getting water, and I think another draw-well should be dug for them near Chinnan's well. The town was fairly clean at the time of inspection, but it is very evident the conservancy establishment is in want of better supervision.	1. Communicated to the Chairman, Union Panchayet, Tiruchengódu, for information and necessary action. The roads should be repaired shortly, and necessary arrangements should be made to rectify the defects pointed out in paragraph 1. The recommendation of the District Surgeon in paragraph 3 should be strictly carried out. An estimate for the construction of a Pariah well should be prepared and sent at an early date. The Chairman is requested to see that the conservancy establishment is worked properly. 2. Extracts communicated to the Tahsildar of Tiruchengódu for information and guidance. He is requested (1) to report if the burial ground can be removed to a less objectionable place, (2) to see that the Nuisance Act is strictly enforced. 3. Extracts communicated to the Inspector of Police for information and guidance. The Nuisance Act should be strictly enforced.

District.	Town or Village.	Remarks by the District Medical and Sanitary Officer.	Action taken by the authorities concerned.
Salem—*continued.*	Námakkal (Námakkal Taluk). Population 5,393. Inspected 5th May 1894.	*Contents of latrines* are removed in two iron-covered carts to any distant place. A system of trench latrines should be formed.	The Chairman, Union Panchayet, Námakkal, has been requested to submit proposals for giving effect to the proposal.
	Mallikarai (Atur Taluk). Population 1,451. Inspected 12th May 1894.	Wells, &c., set apart for drinking purposes only. There are four wells used by the public, but the parapets of two are in bad condition, and the platforms badly drained and surrounded by rubbish. *Recommendations.*—The inhabitants should be required to keep their house yards free from rubbish and manure heaps, and to sweep the street adjoining their premises.	1. The Tahsildar of Atur has submitted estimates for the necessary repairs to the wells and they will be sanctioned in due course. 2. The Tahsildar has warned the villagers to keep their premises clean, and has issued instructions to the village munsif to take proper care to report the persons who commit nuisance for being prosecuted.
South Arcot.	Cuddalore Taluk, Nellikuppam. Population 10,575. Inspected 26th May 1894.	*Water-supply.*—From two public wells and the Gudilam river by means of channels, also from private wells. The two public wells require platforms and their parapet walls repaired. *Recommendations.*—This town was constituted union since January of the present year, and, as funds will now be available, I would recommend the erection of 4 latrines (2 male and 2 female) 40 dust-bins, the entertainment of a night-soil cart and the purchase of two new single bullock carts instead of the double-bullock cart, which is now hired. Two of the present carts are out of repair and useless. I would recommend their being replaced by four single-bullock carts. The introduction of the Towns Nuisance Act would also be beneficial. *Remarks by the President, District Board.*—The taluk board has done all that is possible, having regard to its financial position. The district board will be moved, at its next meeting, to make a special grant to still further improve the sanitation of this place. As soon as a special magistrate can be found for the place, I shall ask Government to allow the Towns Nuisance Act to be introduced.	Estimates are under preparation for renewing the parapet walls and platforms. Necessary additional allotments were already made by the taluk board for additional scavengers, toties, single-bullock carts, bullocks and night-soil carts. Single-bullock carts are now at work; some more carts are being got ready. Application has been made to the President, district board, for necessary funds required for the construction of 8 latrines (4 for males and 4 for females) and for dust-bins, as the taluk board has no funds to spare this year. The introduction of Towns Nuisance Act will now be a hardship in the absence of a special magistrate at the spot. The union chairman, who is the sub-registrar, cannot be vested with magisterial power. The question of introducing Towns Nuisance Act will be considered when one in Nellikuppum itself could be vested with powers.
	Chidambaram Taluk, Porto Novo. Population 8,869. Inspected 28th May 1894.	*Recommendations.*—Two additional scavengers and another cart are wanted. There is a good deal of prickly-pear, which should be removed. The roads are not made, but are mere sandy tracks. If some of them are metalled it would be a great improvement. *Remarks by the President, District Board.*—House-tax at full rates will, I hope, be sanctioned next year.	Two scavengers were provided for in the budget of the present year on the assumption that house-tax at full rates would be levied. The tax has been fixed at only half the full rates meanwhile and the registers are not yet complete. As the union will not of itself be able to purchase carts this year, I shall endeavour, if funds are available, to have one or two carts supplied, to have one sweeper replaced by a toty and another toty entertained. The roads will, I hope, receive attention next year. There is a provision of Rs. 100 for village site improvements which will be utilized for removal of prickly-pear, &c., as soon as the tax is collected.
	Chidambaram Taluk, Mannárgudi. Population 2,069. Inspected 29th May 1894.	*Water-supply.*—The two tanks are said to be reserved for drinking purposes, and have each a watchman, but bathing is allowed. *Remarks by the President, District Board.*—A few exemplary punishments will be necessary. The sub-magistrates of the district have been frequently urged to inflict such sentences, and they are improving.	A stringent order has been issued to the union chairman for publication in the union, reserving the drinking-water ponds for drinking purposes only, and directing a rigorous prosecution of all cases of disobedience under the Indian Penal Code, section 188.

District.	Town or Village.	Remarks by the District Medical and Sanitary Officer.	Action taken by the authorities concerned.
South Arcot—*continued.*	Srímushnam, Chidambaram Taluk. Population 2,810. Inspected 30th May 1894.	*Recommendations.*—The employment of men of toty class instead of the present scavengers. These only clear away dry leaves and inoffensive rubbish, but will have nothing to do with excreta. There is considerable difficulty in obtaining real scavengers to remove filth.	I have addressed the Tahsildar of Chidambaram as to the advisability of forming a union of this and the adjoining villages—Vakkaramari and Alluvarahavellúr—the total population of which amounts to 5,479. Meanwhile I hope the taluk board will see its way to replace two of the toties by scavengers, and purchase one or more night-soil carts within a month or two.
	Cuddalore Taluk. Kurinjipádi. Population 4,597. Inspected 12th June 1894.	*Public latrines.*—None ... ... *Recommendations.*—The removal of prickly-pear; the sinking of a few public wells; the employment of toties to remove night-soil from the streets; the metalling of some of the roads, which are mere sandy tracks; the formation of a union for this town. *Remarks by the Sanitary Commissioner.*—The absence of latrines in the several villages of large populations noted is a matter that it is desirable should receive early consideration by the local authorities concerned. Such a state of affairs is dangerous. *Remarks by the President, District Board.*—The question of constituting Kurinjipádi a union will again be raised. For the improvement of sanitation additional funds are necessary, and these must be gradually raised. A good deal has been done, but much more remains to be done. The Sanitary Commissioner may depend upon his suggestions being carried out as far as possible. Personally I should like to see the educational grants reduced by half and that half transferred to sanitation.	The question of introducing unions at Nellikuppam and at Kurinjipádi was placed at the Taluk Board. The Board resolved to introduce a union only at Nellikuppam, as the adjoining villages are scattered and Kurinjipádi itself is not sufficiently important to be constituted a union. Arrangements are made for the removal of prickly-pear. The people do not seem to feel much necessity for public wells. Necessary provision will be made in the budget for 1895–96 for the entertainment of toties and additional scavengers. The Taluk Board cannot afford to metal the streets of Kurinjipádi. There are several pressing demands on the funds of the Board. Public latrines are not likely to be resorted to, as there are waste grounds and open fields near the villages.
	Cuddalore Taluk, Panruti. Population 8,956. Inspected 20th June 1894.	*Recommendations.*—The prickly-pear should be removed from the side-cuttings along the main road and from the vicinity of the latrines. The accumulation of manure should be carted away from the piece of ground behind the bandy-stand and should in future be removed daily. The flooring of the slaughter-house should be made of some non-porous material and sloped to allow of drainage.	1. The prickly-pear is being removed. 2. Notice has been given to owners of cart-stands to see that the *manure* is removed daily to a distance. 3. The flooring of the slaughter-house is tarred, but it is not well sloped. Arrangements will be made to have it well sloped and a bucket placed outside to receive the washings which will be removed and cleaned daily.
	Cuddalore Taluk, Panruti. Population 8,956. Inspected 20th June 1894.	*Remarks by the President, District Board.*—On this subject I have issued a general notice throughout the district based on the Sanitary Commissioner's remarks. Divisional officers are beginning to wake up to the necessity of insisting upon sanitation in villages.	
South Canara.	Coondapoor Taluk. Population 3,617. Inspected 15th February 1894.	*Recommendations.*—That the dung heaps be not allowed to accumulate; that two or three more public latrines be erected; a new well at the south end of town; that the public well be set apart exclusively for drinking purposes.	Funds are provided in the current year's budget for the construction of two more latrines. Funds are not available for sinking a new well in the town. As much money as can be spared for water-supply this year is being used in other parts of the taluk, where it is much more needed. The public well is exclusively used for drinking purposes.
	Udipi Taluk, Udipi. Population 7,220. Inspected 10th February 1894.	*Recommendations.*—The filthy tank near the cow-shed in the temple should be cleaned, a latrine should be erected near the temple; more latrines should be erected. *Remarks by the President, District Board.*—If the moktessars have not obeyed the orders issued to them, they should be prosecuted.	The moktessars of the temple have been threatened with prosecution for public nuisance. The taluk board has no power to interfere otherwise. One more latrine has been sanctioned and funds allotted.

District.	Town or Village.	Remarks by the District Medical and Sanitary Officer.	Action taken by the authorities concerned.
Tanjore.	Velangiman (Kumbakónam Taluk). Population 7,244. Inspected 16th August 1894.	*Conservancy, Drainage, Latrines.*—Six sweepers, three dust carts and one maistry. There is no attempt made to remove night-soil, which is deposited in the backyards and left to accumulate there. I inspected a couple of the yards; they were in a terrible state of filth and dirt. Night-soil carts should be obtained and the night-soil removed from the neighbourhood of the village. There are no latrines; two should be erected, one at each end of the village. *Remarks by the Sanitary Commissioner.*—It is absurd to spend much on collection of rubbish before the more important matter of night-soil is attended to. *General Remarks.*—Two latrines should be erected and night-soil carts obtained.	Provision is made in the next year's budget for a night-soil cart and a toti for this village. No steps have been taken for the erection of latrines for want of funds and for the reason that they would not be used.
	Nannilam (Nannilam Taluk). Population 2,758. Inspected 21st August 1894.	*Conservancy, Latrines, &c.*—. . . . There are no night-soil carts and no public arrangements for removing the night-soil. Two latrines should be erected, one at the south-east and one at the north-west corner of the village. I pointed out the places I considered suitable to the Hospital Assistant who is Chairman of the union.	The subject of constructing latrines was considered by the Taluk Board, and the Tahsildar of Nannilam was also consulted in the matter. He proposed to erect two bamboo tatty latrines which the District Surgeon, Tanjore, has approved. The Tahsildar has since been asked to select two sites and submit an estimate for the same. 2. There is no private scavenging system in the union. The people generally resort to open places available there and do not use their backyards as latrines. Hence there appears to be no necessity at present for night-soil carts till the latrines are in use.
	Porayar (Máyavaram Taluk). Population 5,725. Inspected 31st August 1894.	*Conservancy, Drainage, Latrines.*—. . There are no night-soil carts and no method in force for getting rid of night-soil; at least two night-soil carts should be provided and six totis. . . . At least eight latrines should be constructed and the people encouraged to make use of them. *Remarks by the Sanitary Commissioner.*—The expenditure upon the collection of rubbish and the ignoring of night-soil shows a complete want of appreciation of the fact that the latter is infinitely more to be feared as a factor for mischief than the former.	Provision is made for a night-soil cart and a toti for this union in the next year's budget to remedy the evils complained of by the Sanitary Officer. The Board has, for want of funds, made no arrangements for the construction of latrines in the place, and I don't consider them of any use in these villages.
	Velippálayam (Máyavaram Taluk). Population of this & surrounding villages 4,947. Inspected 1st Sep. 1894.	*Water-supply.*—. . . . No platforms constructed round the wells. This ought to be attended to, and the wells used for drinking properly protected by parapets platforms and cover with pulleys, &c.	The wells have been repaired. Platforms, &c., will be provided hereafter. The Union Chairman will be addressed.
Tinnevelly.	Puliangudi (Union) including Sinthámani (Sankaranayinárkóyil Taluk). Population 7,233. Inspected 9th March 1894.	*Water-supply.*—None (*i.e.*, tanks or wells) are set apart for drinking purposes, all being indiscriminately used for drinking and washing purposes. No measures are adopted to prevent pollution.	The Chairman has been instructed to conserve all suitable wells for drinking purposes only. This will be done either by prosecuting those who pollute the water or by appointment of watchmen.
		Conservancy.—Street sweepings are removed in eight wheelbarrows to eight different places outside the town. At Sinthámani village the two places, where rubbish and sweepings are heaped up, are too close to the Brahmin street.	The rubbish heaps in Sinthámani have been removed, and the sweepings are now taken to a more distant place.
		No night-soil depôt ... ... *Recommendations.*—The wells, especially those used by weavers and shepherds at Sinthámani, should be supplied with platforms and drains to carry away spilt water which at present soaks into the well. Some wells should be conserved for drinking and be detailed. Latrines should be erected. The two rubbish depôts at Sinthámani should be removed out of the village limits.	Will be provided when latrines are introduced. Platforms and drains to these wells are under construction and will be completed shortly. The Chairman has been instructed to conserve suitable wells for drinking purposes. One latrine will be provided this year and more when funds are available. The two rubbish depôts have already been removed.

District.	Town or Village.	Remarks by the District Medical and Sanitary Officer.	Action taken by the authorities concerned.
Tinnevelly—*continued.*	Sivagiri, a Union (Sankaranayinárkóyil Taluk). Population 8,987. Inspected 10th March 1894. Sankaranayinárkóyil (Sankaranayinárkóyil Taluk). Population 8,566. Inspected 12th March 1894.	No night-soil depôt. *Recommendations.*—Drinking-water wells should have proper parapet walls, platforms and drains. Their surroundings should be improved. It (the town) is indeed in a very insanitary state. The Chairman does not seem to take any interest in his work and the Union clerk, who does not care for his post is entrusted with the supervision over the conservancy staff, which he exercises in a very perfunctory manner. Hence it is very desirable that both these officials be changed and others who are more likely to interest themselves in the sanitation of the town be appointed. *Recommendations.*—The water in the Nagasunai Teppakulam stinks awfully and its water is said to be even drunk when it is full. People bathe in the Teppakulams which are used for drinking purposes. The Pullars' street should be provided with two latrines; their (Pullars) well has not yet been repaired although an amount of Rs. 48 is sanctioned. The slaughter-house has not yet been erected. The rubbish and night-soil depôt have not yet been removed further from the town.	As there were no public latrines, no night-soil depôt was provided. The Chairman is selecting sites for latrines and they will be constructed as soon as funds are available. Night-soil depôt will be provided then. As for water-supply, estimates for the construction of platforms and parapet walls to several public wells have been sanctioned and they are under progress. The Chairman will be instructed to provide the wells (such of them as have no drains) with drains as soon as funds are available. The Chairman and the clerk referred to by the District Sanitary Officer have now been replaced. An estimate for the construction of an outlet for the Nagasunai tank is under preparation by the Local Fund Engineer who has promised to submit it soon. When the estimate is ready the work will be done at the cost of the temple within whose premises it is situated, and the water drained and tank cleaned thoroughly. The people will be advised not to drink the water of tanks used for bathing purposes. Two movable tatti latrines have been provided. The Pullars' well has been repaired at a cost of Rs. 48. According to the report of the District Medical and Sanitary Officer, animals were slaughtered in open places near butcher shops (in the bazaar street). The shops have now been removed out of the town. The necessity now for the construction of slaughter-houses will be ascertained and necessary steps taken. The Chairman has been instructed to remove the rubbish and night-soil depôts further from the town at an early date.

Abstract of Sanitary Reports of Local Fund Circles.

Number.	District.	Population.	Death-rate.	Drainage.	Water-supply.	Domestic cleansing and conservancy.	Sanitary works.	General health.
1	Anantapur.	701,170	18·1	No system. Main streets in a few instances have side drains to carry off storm water. Houses have no drains. Cess-pools exist, but they are all covered and are hardly ever cleaned.	People depend upon wells, tanks and rivers which are generally much contaminated by men and animals. A few wells are set apart for drinking purposes, but their surroundings are filthy.	Refuse is allowed to lie either in the middle of streets or is thrown in open spaces, ruined houses or in any convenient place and removed when required as manure. In some of the union villages the duty of removing rubbish is imperfectly carried out, while in one, it is thrown in every convenient place in the town itself. There are 59 latrines. The contents of these are generally removed in hand carts and buried in pits dug for the purpose. Male population resort more to fields than to latrines.	A well was sunk and a few others repaired (Rs. 317); a few dust-bins and 3 markets were constructed (Rs. 46 and Rs. 625 respectively). A few public latrines, dust-bins and markets were repaired (Rs. 282).	Fairly good.
2	Arcot, North.	2,091,393	16·5	There are no drains properly so called. Drainage of houses either flows into side-cuttings or runs along backyards, sometimes forming dirty gutters meandering through the town. Almost every house has a cess-pool. They are seldom or never cleaned.	Is obtained from wells, tanks and rivers. Well water is generally brackish and unfit for use on account of soakage of sewage. People are allowed to bathe and wash their clothes in the tanks. Burning and burying of dead bodies take place in river beds and on their banks. Channels are cut in the hot weather in the sandy beds of streams, and thus water is consumed which has not recently percolated through areas containing dead bodies.	In some of the larger towns refuse is removed in carts to the outskirts where it is sold and used as manure, while in smaller villages and other towns it is allowed to accumulate in backyards of houses and removed to fields when required for manure. There are 41 latrines. People do not resort to latrines where they exist; streets, river beds and banks, open spaces, paddy fields and the surroundings of latrines being used for the purpose.	A public latrine, some dust-bins, and a slaughter-house were constructed (Rs. 211); a public latrine and a few markets were repaired (Rs. 145). Some tanks and wells were repaired (Rs. 332).	Fair.
3	Arcot, South.	2,096,677	23·1	Drainage is by natural gravitation aided to some extent by side channels. Cess-pools exist in some places, which are cleaned out at uncertain intervals.	Sufficient in quantity. Is obtained from wells, tanks and rivers. Some of the tanks are reserved for drinking purposes and a watchman is placed over each.	Refuse is generally allowed to accumulate in backyards and is periodically removed to fields for agricultural purposes. Street sweepings are carted to rubbish depôts and annually sold by public auction. There are 14 latrines on the dry-earth system and all of these are freely used and kept clean.	A few wells were sunk (Rs. 2,142) and some wells and tanks repaired (Rs. 869 and Rs. 9,033 respectively), a few public latrines and dust-bins were constructed (Rs. 189 and Rs. 118 respectively). A few drains were repaired (Rs. 28).	But for the prevalence of cholera general health might be said to have been fair.

Number.	District.	Population.	Death-rate.	Drainage.	Water-supply.	Domestic cleansing and conservancy.	Sanitary works.	General health.
4	Bellary.	825,665	23·1	No system of drainage except surface drains for removal of flood-water. Cess-pools exist in many villages.	The chief sources of water-supply are the rivers, tanks and sandy beds of nullahs. In most of the villages, certain tanks are set apart with watchmen over them in several instances to prevent pollution.	The refuse is usually removed beyond the village limits, and there sold by public auction. There are 65 latrines, which are freely resorted to. The number is short of requirements.	A few wells were repaired (Rs. 403). A drain was made (Rs. 49) and some markets constructed (Rs. 1,234). Six public latrines, a drain and a dust-bin repaired (Rs. 465).	Good, and compares favourably with past year.
5	Canara, South.	1,011,382	21·2	Defective. Public streets and roads are provided with side surface drains. Houses have no drains. Cess-pools, *nil*.	Good and abundant. Wells and tanks are the sources of supply. Some of the wells run dry during the hot months when tank or river water is resorted to. Public wells are provided with parapet walls and platforms and they are set apart for drinking purposes only.	The sweepings of towns are removed to depôts where they are burnt and sold by auction. Night soil is removed to places provided for the purpose. There are 8 latrines all of which with one exception are freely resorted to.	Three markets were constructed (Rs. 361). A few public latrines and markets repaired (Rs. 154). A few wells were sunk and others repaired (Rs. 1,090).	The year has been somewhat unhealthy, there having been an increase in the death-rate from fevers, dysentery and diarrhœa, &c.
6	Chingleput.	1,021,358	20·3	Side-cuttings exist on either sides of the roads, streets and lanes. Drainage of houses escapes into public streets and lanes.	Is obtained (1) from tanks and (2) from wells—the former being rain water is soft but contains a large quantity of organic impurities; the latter is harder, but comparatively free from them. A few tanks and wells are reserved for drinking, but as no watchmen are continually placed over them, the precautions are doubtful in their efficacy.	Rubbish and sweepings are carted away daily outside the towns, and deposited in suitable places to be eventually sold to ryots for manure. Latrines of which there are 11 are in good condition and resorted to freely by the people.	A few wells were sunk (Rs. 570) and some tanks and wells repaired (Rs. 294). Some dust-bins were constructed and latrines repaired (Rs. 117 and Rs. 7 respectively).	Satisfactory on the whole.
7	Coimbatore.	1,934,926	16·6	No system. The existing drains are side ditches into which house drains flow and stagnate, hence they are generally in a filthy condition. Cess-pits exist in some villages, but they are never cleaned.	Obtained from rivers, jungle streams, irrigation channels and wells. When the rivers run dry, wells sunk in their beds are used. Most of the wells are provided with parapets and platforms, but the quality of water is brackish and their surroundings are usually filthy.	Refuse is daily removed in hand-carts to waste lands outside the villages where it is either sold or burnt. Main streets are generally clean, but lanes and open spaces and village sites are used as latrines. Village sites being overgrown with prickly-pear afford shelter for the commission of nuisance. Latrines exist in some of the union villages, but they are not used as people prefer to resort to village sites.	A few wells were sunk and others repaired (Rs. 1,412). Five public latrines, a few dust-bins and 4 markets were constructed (Rs. 14,982). A few latrines and markets were repaired (Rs. 602).	Fair.

Abstract of Sanitary Reports of Local Fund Circles—continued.

Number.	District.	Population.	Death-rate.	Drainage.	Water-supply.	Domestic cleansing and conservancy.	Sanitary works.	General health.
8	Cuddapah.	1,254,510	21·8	No system except in the sub-division, where some of the streets have V and ⊔ shaped drains. Each house has a cess-pool to receive the sewage from it. The cess-pools are filled with shingles and sand and covered over with stone slabs and are cleaned by the owners themselves when full.	Good in quality and sufficient in quantity, the sources being wells, rivers, tanks and channels. Most of the wells and tanks are set apart for drinking and their surroundings kept clean. They are guarded from pollution either by watchmen specially appointed or by village servants.	The conservancy of towns and villages is managed partly by contract, and partly by amáni system. The contents of latrines in the sub-division are buried in trenches outside the town at a distance from water-supply sources. There are 125 latrines which are freely resorted to, especially by the female population.	Five dust-bins and a market were constructed (Rs. 434). A few public latrines and some markets were repaired (Rs. 676). Some wells were repaired (Rs. 146).	Fairly satisfactory on the whole.
9	Ganjám.	1,836,324	12·3	In some places it is natural, and in others it is conducted by side cuttings made along the streets. Cess-pools exist in some taluks and are cleaned daily.	Supply abundant. A few tanks in some of the taluks are guarded by watchmen.	Refuse in conserved villages is carried out of the village limits and sold by public auction. Most of the unions are provided with public latrines which are used freely by the people.	Two wells were sunk and a tank and 4 wells repaired (Rs. 133). Rs. 45 were spent in constructing a few dust-bins, &c.	On the whole satisfactory.
10	Gódávari.	1,980,215	16·7	No regular system. Houses have badly constructed. Brick drains or surface channels, which either empty into filthy cess-pools or run into the streets, or sink into the soil. Cess-pools are numerous and are filthy.	River Gódávari, canals, wells and tanks supply water. The river water is freely polluted. Wells are badly drained, and washing is allowed in the pavement round the base. Some tanks and wells are said to be set apart for drinking, but their surroundings are filthy; watchmen are employed in a few instances.	The sweepings of the town are either burnt or taken outside the villages and sold periodically as manure. Cattle ordure and litter are stored in backyards to be used as manure. There are 26 latrines which are not freely used. People resort to nearest open ground—often to the canal or river banks. Pigs do the work of scavengering.	Four wells were sunk (Rs. 535) and some tanks and wells repaired (Rs. 4,414). Rs. 5,812 were spent towards the construction and repair of a few latrines, dust-bins, markets and drains.	Good as compared with the previous years.
11	Kistna.	1,772,479	19·5	No regular system anywhere. Side cuttings exist. Some houses have no drains whatever, others have drains opening into public streets. A large number of cess-pools exist, but most of them are kept in a filthy state.	Quality of water on the whole fair. Is obtained from river Kistna, canals, tanks and wells. The unions do not set apart tanks or wells for drinking purposes. There are only two tanks having watchmen. Water as a general rule polluted on all sides by the filthy habits of natives.	The refuse is collected by sweepers, placed in conservancy carts and carried away to rubbish depôts outside the village and then ultimately disposed of by auction as manure. There are four latrines constructed of corrugated zinc. They are kept clean, but are not freely used by people.	A few wells were sunk and some tanks and wells repaired (Rs. 1,651). Rs. 20 were spent in the construction of dust-bins.	On the whole fair.
12	Kurnool.	793,354	26·0	There is absolutely no drainage. Pools of stagnant water may be seen behind houses; backyards are sodden with dirty water and house refuse; rubbish and vegetable matter are found soaking in ditches and cess-pools giving rise to Malaria.	Good and ample from wells, rivers, springs and tanks. Some of the wells are provided with parapets and platforms.	In some of the properly conserved villages, rubbish is carted to certain localities outside the village, where it is allowed to accumulate and eventually utilized for manuring the fields, while in others it is stored in backyards, streets, lanes, and every available open space and removed to fields when required for manure. In some of the important towns latrines are constructed for females. More are required especially for males.	A tank was repaired, and a few wells were sunk (Rs. 217), three latrines, some dust-bins and a market were constructed (Rs. 673). A market and a few latrines were repaired (Rs. 527).	Malarial fevers, cholera and small-pox prevailed to some extent.
13	Madura.	1,432,779	20·2	Is natural. In some places side channels are cut. Some people allow the drainage of their houses to run into streets.	The chief sources of supply are tanks, wells and springs. Some of the tanks contain muddy water but it is cleared by the *strychnos potatorum* nut before use. River water undergoes pollution. Wells in some instances are not provided with parapet walls or platforms.	In some of the union villages, the sweepings are stored in selected places and sold in auction periodicaliy, while in others they are used in filling up pits and repairing roads. There are 22 latrines and they are freely resorted to. More are required.	A few wells were sunk (Rs. 247). Some tanks and wells were repaired (Rs. 552). Seventeen markets were constructed and a few others repaired (Rs. 4,294).	Unsatisfactory.
14	Malabar.	2,463,078	14·6	No regular system as the peculiar circumstances of the rural parts of the District render its formation difficult. Temporary drains are cut along both sides of the road to carry off storm water. Drainage of houses flows into backyards, where it soaks or is received into cess-pools.	Is obtained as usual from wells, tanks and rivers. Wells, of which there is one in the compound of each house, supply drinking water, but most of them are polluted as filth drains into them. They have no parapet walls and platforms. A tank is set apart for drinking with a watchman placed over it.	The sweepings and refuse of the conserved villages are carried to selected spots outside villages, where they are either sold, burnt or used for filling up hollows in low lying grounds, while those of the non-conserved are allowed to accumulate in the compounds of houses for eventual use as manure. There are 14 latrines which are to some extent resorted to and kept in good condition.	Some tanks and wells were repaired (Rs. 199); three markets were constructed (Rs. 1,905). A few public latrines. Dust-bins and markets were repaired (Rs. 702).	May be said to be satisfactory as compared with last years.
15	Nellore.	1,423,397	16·5	No system. In larger towns there are superficial drains cut in the soil at the sides of main street, into which drainage of houses also in some cases flows. In other places, sewage escapes either into lanes or flows into chatties which are regularly emptied. The drains are flushed only in union villages.	Is obtained from rivers, irrigation channels, tanks and wells. Quality good. In most places, no wells are set apart for drinking, nor is any care taken to prevent their pollution. A watchman is placed to prevent pollution of the drinking water reservoir in one place (!).	Refuse of all kinds is stored in backyards, and removed when required to the fields for manure. In union villages, the sweepings are collected in small depôts and sold by auction as manure for several months. Latrines were tried in some of the towns, but they were not much used, probably because they were not very well conserved.	Two wells where sunk and a tank and a few wells repaired (Rs. 1,158), and a drain was made (Rs. 30). Some wells were repaired (Rs. 935).	Good. Malarial fever and cholera prevailed to some extent.

Abstract of Sanitary Reports of Local Fund Circles—continued.

Number.	District.	Population.	Death-rate.	Drainage.	Water-supply.	Domestic cleansing and conservancy.	Sanitary works.	General health.
16	Nilgiris.	77,188	22·8	Drainage in Badaga villages of Nilgiri plateau and South-East Wynaad is natural. In Kotagiri and Gudalur, there are drains. In the former pucka road side drains exist which empty in the river, while in Gudalur, road-side drains are cleaned by the conservancy staff.	In the Nilgiri plateau, water of good quality is obtained from streams, springs and wells, while in the South-East Wynaad it is unsatisfactory, the sources being subject to pollution. Public wells in both circles are protected with platforms.	The sweepings of some of the villages in the Nilgiri plateau and South-East Wynaad are either burnt or used as manure for coffee estates. Cattle manure in Badaga villages is stored outside villages and periodically carted off to fields. In one place, night-soil is mixed with sweepings and used as manure, while in another it is buried in pits. There are five latrines—one in Kotagiri and four in Gudalur. They are freely resorted to. More are required for Kotagiri.	One well was sunk (Rs. 25) and a few others were repaired (Rs. 151). A public latrine was constructed and another repaired (Rs. 40).	General health on the Nilgiri plateau was good; while that of South-East Wynaad unsatisfactory, owing to the prevalence of malarious fevers which caused 7/9ths of the deaths.
17	Salem.	1,861,843	17·2	The usual street drains are either mere trenches, or trenches roughly lined with stone blocks. In the main bazaar they are sometimes covered in for long distances by slabs of stone. V-shaped drains also exist in one place. Proper house drains are very rare. Cess-pools are common, but they are not properly constructed; hence, house sewage soaks in the soil.	Is obtained from tanks, draw and step-wells, and occasionally from rivers. Quality good but liable to run short. In almost every town or village, tanks or wells are set apart for drinking and, in some instances, they are guarded. The surroundings of these are fairly satisfactory. Step wells are from their nature liable to pollution.	Refuse is removed in hand carts or buckets to selected depôts, where it is sold once or twice a year as manure. In a few instances, it is removed straight to fields or used in filling up hollows. There are 35 latrines, most of which are for females. With a few exception they are kept in good condition. Most of the scavengering is done by pigs.	Three wells were sunk (Rs. 104) and a few others repaired (Rs. 251). A tank was repaired (Rs. 161). Rs. 541 were spent in the construction of latrines, dust-bins and markets and making a drain. Two public latrines were repaired (Rs. 10).	Good on the whole.
18	Tanjore.	2,015,850	26·0	No system. Most of the villages are provided with either masonry drains or side cuttings and, except in very rare instances, there is not a sufficient fall to allow of water flowing along even in masonry drains.	Is obtained from the river Cauvery and its branches, and numerous tanks fed by the river and wells. In some of the taluks, tanks and wells are set apart for drinking, but they cannot be said to be of good quality as the tanks receive surface drainage, and the rivers are liable to pollution of various kinds.	In the conserved villages the street sweepings are carted to rubbish depôts where they are stored and sold by auction as manure. In others, they are either given on contract or burnt to be used as manure. In some they are not removed at all. Very little use is made of the latrines that exist, banks of irrigation channels and tanks being employed for the purpose. In no place in the district, is any arrangement made to trench in night-soil.	Some dust-bins were made (Rs. 196), and a few others repaired (Rs. 100). Two latrines were constructed (Rs. 127).	Except for cholera the health of the district might be said to have been about the same as in former years.
19	Tinnevelly.	1,847,370	26·7	In only large towns and villages the main streets have side cuttings. There being none in others, water collects in pools and stagnates. Drainage of houses either soaks into the soil of backyards or runs out in streets and lanes, or is received into cess-pools which are mere shallow pits not properly paved, or regularly cleaned.	Is obtained from the Tambraparni and its channels, wells and rain fed tanks. In union villages, a certain number of wells and teppakolam are set apart, while in others well-water is used for drinking and bathing. Very few of the wells have platforms and drains for the removal of spilt-water. Rivers, channels, and tanks undergo pollution of all sorts.	In union villages the sweepings are deposited outside town limits, and sold by auction once or twice a year for purposes of manure. Elsewhere, even in conserved villages they are either removed outside villages or thrown in open spaces, corners, &c. Refuse from houses is heaped up in backyards with cow-dung and ashes to be used eventually as manure. There are 86 pucka built latrines mostly in union towns. They are generally kept clean.	Nine wells were sunk (Rs. 671) and ten tanks and many wells repaired (Rs. 4,106). Some public latrines, dust-bins and a slaughter-house were constructed (Rs. 1,291). Six public latrines were repaired (Rs. 128) and a drain was made (Rs. 7).	Not satisfactory. Cholera prevailed in certain taluks and caused many deaths.
20	Trichinopoly.	1,200,428	22·2	No system. The principal streets are provided with side drains for removal of storm water. House drains frequently run into streets and empty themselves into cess-pools, or form open stagnant pools. Cess-pools are cleared irregularly and at long intervals.	Chiefly obtained from Cauvery and Coleroon rivers and channels. Tanks and wells are also resorted to. All open channels are liable to pollution. Rain-fed tanks suffer from surface contamination.	The rubbish is collected in dust-bins and removed to fields where it is either burnt or stacked for manure. Night-soil is removed in buckets or carts and buried in depôts outside the villages. There are 40 latrines, but the number being insufficient, fields and open spaces in the neighbourhood of villages are made use of. Most of the villages are over-grown with prickly-pear, which affords cover for the commission of nuisances. Cattle manure is generally stored in backyards and periodically removed to fields.	A few markets were constructed (Rs. 2,568), some latrines, dust-bins, markets and slaughter-houses repaired (Rs. 492), a few wells were sunk and some tanks and wells repaired (Rs. 683).	Good.
21	Vizagapatam.	1,850,802	16·1	In the union villages there are some stone drains, but generally only side-cuttings. There are a few cess-pools, but they are not daily cleaned.	Is obtained from rivers, tanks and wells. In some of the taluks some tanks and wells are reserved.	In conserved villages rubbish is carried outside and burnt. The ashes are sold. There are 79 latrines which are not much used except when crops are on the ground. Pigs appear to do more in the way of cleaning than toties.	Five wells were sunk and two tanks repaired (Rs. 457). A few public latrines and dust-bins were constructed (Rs. 80). Four latrines were repaired (Rs. 57).	Satisfactory.

Abstract of the Sanitary Estimate of Villages in each of the Registration Circles from which Reports have been received.

Districts.	Taluks or Registration Circles.	Water-supply.	Drainage.	Conservancy and Domestic Cleansing.	Death-rate.
Anantapur.	Anantapur ..	From wells, tanks and rivers ; almost all the drinking-water wells are reserved. Some of them have parapet-walls and a few platforms. Madigas and Malas found difficulty to get drinking water, there being no separate wells for their use.	No regular system. Rain water in houses and backyards generally flows into streets and lanes. Sewage water is allowed to stagnate in backyards and streets, while in others it is passed into sink-pits emptied occasionally.	The sweepings and refuse are deposited in backyards and removed to fields in the cultivation season. In certain villages sweepers are employed to sweep the streets. Public latrines have been constructed in three villages. Private latrines exist to a certain extent. People generally resort to fields and waste lands for purposes of nature.	19·7
	Gooty and Tadpatri.	River Pennéru and its channels are the chief sources of drinking water. Well water is used in villages not close to the river. Scarcity for water was much felt in two villages of Tadpatri taluk. The wells in the division are generally free from pollution except those provided with steps. Tank water is also used where available.	Natural except in the main streets of Gooty, Tadpatri and Tiranakonda towns where drains have more or less been constructed ; storm water flows into streams and channels or into ponds and tanks. Cess-pools exist and they are occasionally cleansed.	Conservancy establishments are maintained in seven villages. The street sweepings and rubbish are removed by Taluk Board sweepers to a distance and sold by auction. In Gooty and two other villages, however, the rubbish is removed from the dust-bins by the ryots themselves and used as manure for fields. Public latrines exist in six towns and their contents are removed by the scavengering establishment to a distance and buried in pits. Private latrines exist in a few villages and they are cleaned by private agency.	Gooty .. 20·8 Tadpatri .. 21·6
	Penukonda, Dharmavaram, Hindúpur and Madakasíra.	Tanks and wells form the chief sources. Scarcity for water was felt in some places. Tanks in two places were guarded by watchmen. The water of Bhogasamudram tank in Penukonda taluk has been reserved entirely from drinking purposes.	Streets in cusba towns have side drains. Cess-pools exist and they are cleaned occasionally.	Scavengering establishments are employed in Union towns. The sweepings are accumulated near the villages and removed to fields during the ploughing season. Public latrines exist in cusba towns. Private latrines, where they exist, are cleaned by private agency.	Penukonda.. 17·3 Dharmavaram 15·8 Hindupur .. 15·1 Madakasíra . 12·5
	Bellary ..	Probably from wells. Good drinking water is procurable in every village. In the black soil villages the water is brackish. Dip-wells are used both for drinking and washing clothes, but this is now being put a stop to.	....	Sweepers are employed only in the Union villages. Manure heaps abound, but separate plots of land are now being allotted for the storage of manure.	26·1
	Alár	From wells and springs dug in the beds of channels. Scarcity of water was felt.	In some villages refuse water is conducted into sink-pits, while in others it is let into tubs used for watering cattle.	The villagers keep their houses, &c., clean, but cattle are housed with human beings.	21·6
	Hospet ..	From irrigation channels and wells. The channels are subject to pollution. Drinking-water wells are not properly guarded against pollution.	....	....	30·6
	Ádóni	From the river Tungabhadra and its channels and wells ..	No system. House sewage is let into sink-pits which are pervious.	Conservancy establishments were maintained only in the three Union towns. The other villages were kept fairly clean. Manure is deposited close to houses. Domestic cleansing unsatisfactory, the people and their cattle living together under the same roof.	24·4

Districts.	Taluks or Registration Circles.	Water-supply.	Drainage.	Conservancy and Domestic Cleansing.	Death-rate.
Bellary.	Kúdligi ..	From tanks and wells	The villages are built in low places without any consideration for drainage of rain water.	Conservancy establishments are maintained in the two unions. The condition of the other villages is unsatisfactory.	25·8
	Harpanahalli..	From the river Tungabhadra, tanks, ponds and wells. Sufficient. Ponds and wells are set apart for drinking purposes and looked after by village officers. In Harpanahalli Union a watchman is employed to guard drinking-water wells, but the watching appears to be indifferently done, as the number of wells to be looked after by this man is too large.	Some of the streets in Harpanahalli are provided with side drains. No system in the villages, storm water being carried off by natural drains.	Sweepers and scavengers are employed only in Harpanahalli Union who keep the village clean. In no other villages are sweepers employed, but arrangements are made to keep them clean by vettis.	19·8
	Hadagalli ..	From the Tungabhadra in villages through which this river passes. In other villages wells are set apart for drinking purposes and kept clean under the supervision of village officers.	No information	Two villages (unions) were conserved. No sweepers are employed in the other villages. Information meagre.	17·1
	Rayadrug ..	From the river Hagari, wells, springs and ditches. Scarcity is felt in the hot weather months Water from ditches is not fit for drinking purposes. Watchmen are appointed over two wells in Rayadrug cusbah. Village officers are enjoined to see that other wells are not polluted. Most wells have parapet walls.	No system. Refuse water is let into closed cess-pools in the two conserved villages. In the other villages sewage is received in pots which are emptied when full and the contents removed to a distance.	No system. In two villages (unions), conservancy establishments are employed. Houses of ryots are filthy, cattle being housed with human beings. Manure is stored near villages and houses, and the general sanitary condition is unsatisfactory. Except in the conserved villages, there are no public latrines.	19·5
	Sandúru State.	From wells, river and jungle streams. Pits dug in the beds of streams are used when the wells run low or dry. Draw-wells are set apart for drinking purposes. Wells generally have no parapet walls, but a few have stone platforms and drains.	Natural and good. Drainage of houses flows into streets or cess-pools. Cess-pools abound, but they are not of proper dimension and are emptied once or twice a year. Night-soil is not received in cess-pools.	Conservancy arrangements are made only in Sandúru. No public latrines, people resorting to fields for purposes of nature. Private scavengering is conducted on a small scale in Sandúru. Cess privies exist in two villages. Sanitary condition fair on the whole, cow-dung and stable litter being carefully stored and used as manure.	Zemindaries 39·3
Chingleput.	Tiruvallúr ..	Obtained from tanks, ponds, wells and river channels. Reported to be good and sufficient. Watchmen are employed in three places to protect the drinking-water ponds from pollution, and in other places village officers are enjoined to look after the drinking-water ponds. Wells are provided with parapet walls, platforms and drains in important villages. Masonry tanks exist in three villages. Tanks are surface-fed and surrounded by cultivated lands.	No system. Natural. Cess-pools exist in Tiruvallúr and they are emptied twice or thrice a week.	Four villages were conserved, and the rubbish, &c., from these are stored outside the villages. Elsewhere the inhabitants themselves attend to conservancy and use the refuse on their fields. Public latrines cleaned by union toties exist in Tiruvallúr. There are also private privies, the owners making private arrangements for cleaning them. People generally resort to fields for purposes of nature. Rs. 400 were spent in improving water-supply and village site.	19·7
	Ponnéri ..	Rivers, tanks, ponds and wells are the chief sources. Sufficient but of indifferent quality. The ponds used for drinking purposes in six villages are guarded by watchmen. Most wells have parapet walls and a few platforms and drains. Tanks and ponds are mostly surface-fed and subject to pollution.	Natural generally. In five villages however side channels exist to carry off storm water. House sewage flows into backyards and streets. Pits are dug in some places for receipt of sewage.	In three towns conservancy staffs are employed and the sweepings of streets and houses deposited beyond town limits and sold. In the other villages the people themselves attend to this, using the sweepings and rubbish as manure in their fields. No public latrines. Private privies exist at Ponnéri and Pulicat, and they are cleaned by private toties. Water-supply and village site were improved (Rs. 380).	20·1
	Saidapet ..	Obtained from rivers, tanks, ponds, springs, channels and wells. Sufficient. A watchman is employed for the tank at Ávadi, whilst elsewhere the protection of ponds and wells is left to the people themselves. Most wells have parapet walls, but some of the more important ones are provided with platforms and drains also. Most of the ponds (tanks) are masonry built and surface-fed.	Masonry drains exist only in the cantonment of Saint Thomas' Mount, Poonamallee and Pallávaram. Side channels cut by the Taluk Board exist in six villages, whilst in others the people themselves cut channels to carry off water from their houses and streets during the monsoon.	Conservancy establishments are maintained in six towns and villages. Public latrines exist in Saidapet only. In the conserved villages the street and house refuse and the contents of latrines are deposited outside the villages and sold annually by auction. In the others the Village Munsifs are strictly enjoined to look after conservancy. Rs. 490 were spent on the improvement of water-supply and village site.	20·8

Abstract of the Sanitary Estimate of Villages in each of the Registration Circles from which Reports have been received—continued.

Districts.	Taluks or Registration Circles.	Water-supply.	Drainage.	Conservancy and Domestic Cleansing.	Death-rate.
Chingleput—*continued.*	Chingleput ..	Obtained from the river Pálár and its channels, tanks, ponds and wells. Reported to be good and sufficient. At Chingleput and Tiruppórúr the drinking sources are guarded by watchmen employed by the union, whilst elsewhere the village servants look to the conservancy of water-supply. Parapet walls, platforms and drains are provided to wells in Chingleput and other important villages. Some of the ponds are masonry-built and occasionally cleaned. They are generally rain-fed and surrounded by cultivated lands.	Natural. Masonry drains are provided to some of the streets in Chingleput, while other streets as well as those in Tiruppórúr have side channels. Sewage water from houses flows into backyards. A cess-pool exists at Chingleput which is daily emptied.	Conservancy arrangements exist in Chingleput, Tiruppórúr and Tirukkazhikkunram. Here the rubbish from streets and houses is deposited outside the towns and sold by auction. In the non-conserved villages the inhabitants themselves clean the streets and houses and use the rubbish, &c., as manure. Public latrines exist n Chingleput. Some improvements were effected to water-supply and village site.	21·2
	Madurántakam.	Rivers, channels, tanks, ponds and wells are the chief sources. Said to be good and sufficient. Most wells have parapet walls and a few platforms and drains. Tanks and ponds are not set apart exclusively for drinking purposes. Most of the tanks and ponds have stone revetments. They are rain-fed and surrounded by cultivation.	Natural. In three of the cusbah villages the side channels have stone revetments.	In four villages conservancy establishments are maintained. System same as in the other taluks. No public latrines. Rs. 300 were spent in improvements to water-supply and village site.	19·5
	Conjeeveram ..	From tanks, ponds, wells and channels. Quality indifferent, quantity sufficient, except in the hot weather months. Except wells sources are not specially reserved for drinking. Wells are generally provided with parapet walls and platforms, but drains are rare. Most tanks are surface-fed.	Natural. Pits are dug in some villages, and the sewage is allowed to run into them. House drainage is generally neglected.	Conservancy staffs are employed in three towns, and the house and street sweepings are deposited in outlying vacant spots and thence removed to the fields for manure. No public latrines ; people resort to fields for purposes of nature. Dust-bins are provided in two unions. Improvements were effected to water-supply and village site.	21·7
Coimbatore.	Coimbatore ..	From wells, tanks, ponds, rivers, channels and jungle streams. In almost all parts of the taluk wells are set apart for drinking purposes and are provided with parapet walls. Owing to the failure of the monsoons the tanks and ponds did not get their usual supply.	Natural. In some large villages, where side drains exist, the drainage flows into adjacent jungle streams or ditches. House sewage is let into backyards or low-lying places.	In minor villages the sweepings, cow-dung, &c., are accumulated in backyards and removed to fields as manure after some time, while in large villages they are removed daily by the scavengering establishments employed. Latrines exist in Méttupálaiyam, but generally people resort to waste lands for purposes of nature.	17·9
	Erode ..	From rivers, wells, tanks, jungle stream and channel. The water of the channel only is said to be unwholesome. Quantity sufficient, except in certain places in the hot weather when springs are dug in the streams. Wells in villages are set apart for drinking purposes ; they are protected by parapet walls or hedges. The tanks are not masonry-built and are not cleaned out. Their surroundings are in fairly clean condition.	Natural. No cess-pools	Sweepers are employed in four villages to remove the street sweepings as well as rubbish and refuse thrown out from houses. In the other villages the Munsif Monigars are held responsible that the villages are cleaned by village servants and ryots. Sweepings, refuse, &c., are collected in backyards and eventually removed to fields as manure. There are no public latrines ; the people generally go to fields to answer the calls of nature.	16·2
	Satyamangalam.	The Bhavání river and its channels are the main sources of water-supply. In places far away from the river and its channels wells are resorted to. Tanks and streams are used in the hills. Quantity sufficient, quality good on the whole.	No information given	In the four unions and six other villages conservancy establishments were employed. Prickly-pear in certain villages was removed.	16·7

Coimbatore.	Pollachi ..	From wells chiefly. In some villages people resort to jungle streams close by. Scarcity of water was felt. The water-supply of Cusba Pollachi is far from satisfactory. A well was sunk at Senguttampalayam hamlet for Chucklers.	Natural. In some villages artificial drains exist.	Scavengering establishments are employed in three villages, and the sweepings of streets and refuse from houses are deposited at a distance from the villages and occasionally burnt or sold in auction. In other villages the Munsifs are held responsible for their cleanliness. The sweepings, &c., are stored in backyards and used as manure. Both public and private latrines exist in Pollachi town ; the night-soil is removed to a distance and buried. The village sites in many places are overgrown with prickly-pear.	18·5
	Palladam ..	Wells are resorted to for drinking-water in almost all the villages. Water from the river Noyel and its channels and hill streams is also used in some villages. At one village (Súlúr) tank water is used when available. In several villages wells are set apart for drinking purposes.	Natural. There are no cess-pools ..	In four villages the sweepings and the refuse from houses are collected and removed by scavengers employed. In most villages house refuse and rubbish are stored and ultimately utilized as manure. In three places public latrines exist and toties are employed to clean them. The villagers generally resort to fields for purposes of nature.	17·0
	Bhavání ..	From the Cauvery and Bhavání rivers, jungle streams, wells and tanks. Sufficient and good on the whole. Wells are set apart in villages for drinking purposes and the majority of them have parapet walls.	Natural. There are no cess-pools ..	Sweepers are employed in Bhavání and Andiyur villages to sweep the streets and remove the rubbish and refuse thrown out from houses. In the other villages generally the Munsif Monigars are held responsible, that this work is done by village servants and ryots. There are no public latrines except in Bhavání. People generally resort to fields for answering the calls of nature. Refuse from houses is generally stored in backyards and eventually carried to fields for manuring.	16·5
	Kollegal ..	From rivers, wells, tanks and jungle streams. Sufficient except in hilly tracts where pits have to be dug in the bed of jungle streams. No special measures are taken to preserve these sources from pollution, but in times of general outbreaks of epidemics village officers are instructed to see that they are not polluted. One tank at Kollegal is set apart for drinking purposes only and is provided with parapet walls. A watchman is employed to guard it. Except the Cauvery and some wells, the water of the taluk is not of good quality.	Natural. There are some cess-pools which are seldom or never cleaned.	In Kollegal Union the streets and latrines are cleaned by an establishment employed. The street sweepings are carried to a distance and burnt. The night-soil is buried.	15·5
	Udamalpet ..	From wells chiefly. The Amarávati river and its channels are also resorted to by the people who live in villages close by. Two or three wells are set apart in each village for drinking purposes and the Munsif Monigar is held responsible that the drinking-water wells are kept clean and the river and channel water is not contaminated. There is a large masonry tank in Udamalpet which receives its supply from another tank through a channel ; the latter is much defiled though guarded.	No system. Side-cuttings exist in some villages.	A scavengering establishment is maintained in Udamalpet to keep the place clean. Rubbish is stored in a selected place for sale. There is difficulty to procure buyers. There is only one public latrine here. The night-soil is removed to a distance and buried. The Village Magistrates are instructed to look after the sanitation of the other villages. Places remote from the villages are resorted to for purposes of nature. Prickly-pear abounds, but much progress is made in clearing villages of it.	16·7
	Karúr ..	The chief sources are rivers and streams. The people living in the western side of the taluk generally prefer well water. Sufficient though in the beginning of the year scarcity was felt.	In three places which are unions some system or other for street drainage has been adopted and necessary improvements are being made gradually. In the other villages drainage water finds its way into fields. Refuse water from houses sinks in backyards. There are no cess-pools.	Domestic cleansing is fairly well conducted by the people themselves who collect and remove the sweepings to the fields. In the three unions arrangements have been made for the upkeep of latrines and dust-bins and for the regular removal of the rubbish to a distance. One sweeper is employed in another village to keep it clean. Prickly-pear was removed to a great extent in certain villages.	14·2

Abstract of the Sanitary Estimate of Villages in each of the Registration Circles from which Reports have been received—continued.

Districts.	Taluks or Registration Circles.	Water-supply.	Drainage.	Conservancy and Domestic Cleansing.	Death-rate.
Coimbatore—*continued.*	Dhárápuram ..	From the river Amarávati and its channels. Wells also supply drinking water in many villages. They are well fenced in, some walled and others hedged. Six new wells were sunk and five others repaired during the year.	No system	Scavengering establishments are maintained in Dhárápuram and Kángayam Unions and two other villages to keep them clean. The sweepings are sold by auction. Public and private latrines exist in the two unions. Dust-bins are used in the unions.	15·6
	Siddhavattam	From rivers and wells. Said to be good and sufficient. Sources are not specially watched over. The people themselves see that they are not polluted. Most wells have parapet walls, but only a few have drains and rough stone aprons.	Bad and without system Side-cuttings exist in the head-quarters. Drainage of houses flows into backyards which get saturated with sewage becoming offensive to sight and smell.	No system. Unsatisfactory in the rural tracts. The house sweepings are thrown into pits dug for the purpose outside the village and removed to fields in the cultivation season. In the conserved villages, of which there are seven, the sweepings and house refuse collected in the streets and dust-bins are removed by scavengers. The contents of public and private latrines are removed daily in Siddhavattam and once a week in other villages, to a distance, where they are stored and sold annually. Dust-bins exist in Siddhavattam and Vontimitta. An itinerating establishment was also employed for clearing prickly-pear.	23·8
	Pullampet ..	Obtained from wells, rivers, river channels and tanks. Sufficient, but open to pollution. Wells in villages are set apart solely for drinking. Most wells have no parapet walls or platforms. Tanks are rain and surface-fed.	Defective and without system. The side channels cut by the Local Fund and Public Works Departments in Rajampet get easily silted up. Drainage of houses flows into cess-pools in the backyard. These cess-pools are emptied in the rainy season, and their contents are washed into nullahs and rivers.	Sweepers are employed in eight villages to clean the public streets and latrines. The street sweepings, rubbish, &c., are stored outside village limits and sold annually. An itinerating staff was employed during the year by the Siddhavattam Taluk Board which did good work.	17·9
	Cuddapah ..	From wells, rivers, streams, channels and springs. Quality is reported to be generally good. Water has not been analysed, nor are sources reserved for drinking purposes or protected from pollution. Tank water is not used for drinking.	No system of drainage. By side channels in some villages. Storm water flows into rivers and streams. Cess-pools are rare. House sewage flows into pits in the backyards or into streets.	No conservancy system except in the unions and a few other villages. The street sweepings and contents of public latrines where they exist are removed to a distance, and stored for sale by auction. In the other villages the rubbish is stored outside the village to be eventually used on fields. Pigs and buffaloes perform the function of scavengers.	23·0
	Jammalamadugu.	From rivers and wells chiefly. Where there are no wells or rivers and scarcity is felt, small tanks and ponds are dug. River water is good and sufficient. Wells are set apart for drinking and cooking and protected from contamination and such wells are enclosed by walls. Well water in many villages is brackish. When rivers run dry, springs are dug in their beds. Wells in Jammalamadugu have platforms and drains.	Artificial drains exist only in the main streets of Jammalamadugu and surface drainage flows through them into the Penner. Elsewhere drainage is natural. In Jammalamadugu house drainage flows into cess-pools which are cleaned now and then. In villages it is let into open shallow pits and allowed to evaporate.	Scavengering establishment is maintained in Jammalamadugu Union. The house and street sweepings and the contents of dust-bins are removed by union sweepers and stored outside for sale. In villages other than those comprised in the union, the streets are not cleaned. The houses of high caste people are generally clean, but those of the agricultural classes are dirty. In villages house sweepings are thrown on dung heaps and used as manure. The contents of public latrines in Jammalamadugu and other villages where latrines exist are not properly removed, and pigs and buffaloes are allowed to feed on the night-soil.	26·5

Districts.	Taluks or Registration Circles.	Water-supply.	Drainage.	Conservancy and Domestic Cleansing.	Death-rate.
Cuddapah.	Ráyachóti ..	From wells and rivers. Sufficient and fair in quality. Measures are adopted to protect drinking-water wells from pollution where necessary. River water is used for drinking and is reported to be wholesome, but is not conserved.	Natural, except in Ráyachóti Union, where side drains are provided to streets. No system of house drainage. Refuse is allowed to soak into the ground.	In Ráyachóti Union scavengers sweep the streets and the refuse is deposited at a distance and sold. The night-soil from public and private latrines is removed to a distance and buried in pits. In villages the conservancy of streets and houses devolves on the people themselves. The refuse is removed to the manure heaps. Where no latrines exist, fields and the vicinity of houses and backyards are used. Sweepers have been sanctioned for four other villages.	22·2
	Pulivendla ..	Draw-wells, river channels and springs dug in beds of rivers and streams. Sufficient and wholesome except in Pulivendla and two other villages where the water is said to be unhealthy. Draw-wells are used for drinking purposes. The Malas and other low caste people have been provided with draw-wells where necessary. Wells generally have parapet walls. The private ones have neither pulleys nor platforms as a rule.	No system. Drains exist in two villages. Elsewhere storm water flows into adjacent fields, and in some villages it is allowed to soak into the backyards. Rain water stagnates and makes the streets filthy owing to defective drainage.	Conservancy establishments are employed only in two unions, where the street sweepings and contents of public latrines are removed to a distance. In villages each house-owner sweeps the portion of street in front of his house, while buffaloes and pigs do the scavengering. Sanitary condition on the whole is unsatisfactory, but attempts are being made to improve matters.	24·6
	Kadiri ..	From wells. Each village has a well which is used for drinking purposes; and village servants are ordered to see that drinking-water wells are not polluted. In Kadiri draw-wells are set apart for drinking purposes and these are provided with parapet walls. A paid watchman is appointed for a reservoir, but the water is not used for drinking purposes.	Side channels exist in Kadiri. House drainage flows into these and into cess-pools and eventually finds its way into an irrigation channel. Elsewhere the drainage is natural. Cess-pools exist, which are occasionally cleaned.	In the conserved villages the street sweepings are stored at a distance and sold, while the night-soil from public latrines is buried in pits. In the other villages there is no system.	23·2
	Madanapalle ..	Wells, vanka or jungle streams, brooks or irrigation tanks. Draw-wells are generally used for drinking purposes and they are said to be free from contamination, but the step-wells used in some villages are contaminated by bathing. Wells close to villages have parapet walls and steps have been taken to construct walls to other wells also. Quality good, but water never analysed. Scarcity was felt in a few villages.	Except in the cusba town where side-channels exist, there is no system of artificial drains in the other villages. House drainage flows into cess-pools in some villages and into streets in others. Cess-pools are emptied then and there.	Conservancy arrangements exist in twelve villages. In Madanapalle the street and house refuse collected in dust-bins is stored outside the village and sold periodically. Night-soil from private latrines are removed only in a few cases, as the pit system is in force. In other villages the house refuse is thrown on manure heaps. Houses and backyards are swept daily and kept clean by the owners.	18·8
	Proddatur ..	River channels, wells and reservoirs are the chief sources of drinking water. Many of the wells have no parapet walls. Channel water is subject to pollution. A new reservoir is supplied with water from the river Pennair.	Street drainage flows into adjacent fields and channels. In Proddatur, side channels have been made in some streets at the expense of house-owners, but they get silted up. In Proddatur house sewage flows into cess-pools, while in the other villages it is allowed to sink into backyards or escape into lanes.	Conservancy establishments exist in Proddatur Union. The rubbish, &c., collected in dust-bins is removed by scavengers and stored outside the town. Houses and backyards are kept clean by the owners. The houses of cattle-owners are generally filthy. Sweepings, &c., are stored in backyards or in the vicinity of houses and removed to the fields in the cultivation season. Public latrines exist in Proddatur and a few other villages. Scavengers are employed to clean them in Proddatur, but in the villages pigs and buffaloes do the work. A few villages have private latrines.	22·2
	Badvel ..	Obtained from rivers, channels, wells and tanks. Sufficient. Sources are not set apart for drinking. Tanks are not much resorted to for drinking purposes, wells being chiefly used.	No system. Storm water flows through streets. Side drains are provided in only one village. Refuse water of houses flows through small drains into streets or is let into cess-pools.	No arrangements are made for the conservancy of streets except in five villages where scavengering establishments are employed. The sweepings and contents of public latrines are removed outside the village and sold during the cultivation season. Dust-bins are provided in four villages. Refuse of houses and backyards are thrown into these and removed by scavengers along with the street sweepings. The scavengering of two villages is let on contract. There are two public latrines in one village (Kavalakuntla).	22·8

Abstract of the Sanitary Estimate of Villages in each of the Registration Circles from which Reports have been received—continued.

Districts.	Taluks or Registration Circles.	Water-supply.	Drainage.	Conservancy and Domestic Cleansing.	Death-rate.
Gódávari. Cuddapah—*cont.* Ganjám.	Vóyalpád ..	From wells, tanks, konerus and river. Good and sufficient on the whole, though in Vóyalpad itself the supply was scanty. Some of the sources are set apart for drinking and protected. Where the river is used it is portioned off for drinking and other purposes. Some masonry and stone built wells exist.	By side-cuttings in the taluk generally. Drains are reported to exist in some parts of Vóyalpad and to be in good condition. Houses generally have no drains, the sewage water flowing into backyards and sinking there or into cess-pools.	Where sweepers and scavengers are employed the sweepings are removed outside, stored and sold. In Vóyalpad the rubbish and the contents of dust-bins are removed by the union sweepers to the manure depôt. In some villages the sweepings are stored in backyards or vacant places and used as manure. There are no latrines generally, but in Vóyalpad there are three public latrines and a few private ones.	18·5
	Chicacole ..	No change. From tanks, wells and rivers. Quantity abundant, but quality indifferent. Tanks are reserved for drinking purposes in three places. Many wells have parapet walls and platforms.	No system. Rain water finds its own course.	No change. Eight villages were conserved and the sweepings removed to the outskirts and either sold or burnt. The sweepings, &c., from the other villages are removed to the fields and used as manure. No public latrines. In some places private privies exist in backyards of houses, and private arrangements are made for cleansing them. The night-soil is generally thrown on waste ground.	21·2
	Berhampúr ..	No change. From tanks and rivers in some places and from wells in others. In some villages during the hot weather scarcity of water was felt. In six large villages tanks are reserved, and in another a well, for drinking purposes. Wells used for drinking are fenced and have platforms.	No change. No regular drains except in certain portions of Ichchhápuram and Chatrapur. Rain water finds its own course.	Fourteen villages are conserved. In other respects same as Chicacole.	15·0
	Goomsúr ..	No change. From tanks, wells and streams. Except in the vicinity of streams scarcity of water is sometimes felt. Quality indifferent. Most of the wells are fenced, but arrangements have not been made to prevent percolation of waste water into them. River ghâts in three places had been reserved for drinking purposes.	No change. No regular drains in any place except Russellkonda.	No change. Five villages were conserved. Rubbish, as a rule, is stored up near houses and removed to fields during the cultivation season to be used as manure. Latrines exist in two places. In all others people take to fields for purposes of nature.	16·4
	Parlákimedi and Tekkali (zemindaries).	No change. Same as in Chicacole taluk	No change. No regular drains in any place except Russellkonda.	No change. Five villages were conserved. Rubbish, as a rule, is stored up near houses and removed to fields during the cultivation season to be used as manure. Latrines exist in two places. In all others people take to fields for purposes of nature.	Zamindaries .. 12·3
	....	The sources of supply of water are the Gódávari and Kistna canals, hill streams, rain-fed tanks and wells. Certain tanks in the unions are set apart for drinking purposes and special watchers employed to prevent their pollution. In the upland taluks the tanks fed by surface drainage dry up during the hot season and the people then dig small ponds in the tank-beds and in the vagus (streamlets). But the supply is very inadequate and precarious. In the interior of the upland taluks and in the Agency tracts, during summer, people have to go a long distance for a single pot of water.	The system of drainage is natural in all parts except in a few of the Local Fund Unions which have masonry drains; where such drains do not exist side channels are cut in important towns and villages during the rainy season.	Domestic cleaning is gradually improving and village sanitation is receiving greater attention since the establishment of Taluk Boards and unions. The streets in the Local Fund Unions are swept by paid scavengers, and the sweepings are thrown at a distance from the villages. It is to be noted with satisfaction that in the villages of the Delta taluks the Agricultural classes are replacing their low thatched huts by decent houses built on a higher level, with brick walls.	Rámachandrapuram .. 17·7 Narsapur .. 12·8 Amalápuram. 13·7 Tanuku .. 16·8 Bhímavaram. 15·8 Ellore .. 15·0 Yernagudem. 17·0 Rajahmundry. 19·4 Peddápuram. 24·7 Bhadráchalam. 21·9 Zemindaries .. 14·2

Districts.	Taluks or Registration Circles.	Water-supply.	Drainage.	Conservancy and Domestic Cleansing.	Death-rate.
Kistna.	Répalle ..	The river Kistna and its channels, tanks and wells. Generally good. Sources are not exclusively set apart for drinking purposes, nor are arrangements made for conserving them. Taluk Board wells have parapet walls. Some wells have drains. Tanks are rain and river fed and are not of masonry.	Natural for the most part. Artificial drains exist in some streets. Houses have no drains. Cess-pools exist in three villages and they are often emptied.	In the six conserved villages the streets are swept by Local Fund establishments, and the refuse, &c., collected in dust-bins is stored outside the villages and sold. In other villages the sweepings are heaped and used as manure. Conservancy of private houses is attended to by the owners themselves. Houses of the well-to-do are generally clean. No public latrines, but proposals have been made to construct some.	20·0
	Bápatla ..	Wells and tanks are the sources of supply. Well supply is constant, but that of tanks fails. Tanks are not reserved for drinking purposes. They are fed by jungle streams and are not masonry-built. Two tanks are provided with stone steps. Parapet walls., &c., are provided to wells in the two unions and to a few in some other villages.	Natural, both of streets and houses. Drainage flows into low lands, swamps or jungle streams. No cess-pools. Natural drainage not good.	Number of conserved villages same as last reported, viz., four. In these, the streets are cleaned by the establishments employed for the purpose, and the street sweepings and refuse from houses and backyards are taken outside the villages and sold. No public or private latrines.	20·2
	Guntúr ..	The river Kistna and its channels and tanks and wells. The two latter form the chief sources of supply. River, channel and tank water is good. In some cases, well water falls short. Tanks are reserved for drinking in most villages, and village officers see that tanks and wells are kept free from pollution. Some wells have parapet walls and platforms, and some drains. Tanks are stream-fed and are not masonry.	Natural, except in Mangalagiri and Tadikonda where artificial drains exist. Drainage flows into hill streams, the Kistna and its channels.	Street sweepings and the refuse from houses and backyards are collected by ryots and occasionally removed to fields. Private houses and streets adjoining are kept fairly clean. No public or private latrines. Two villages were conserved during the year.	20·0
	Palnad ..	Wells, tanks, streams and channels. Sources are reserved for drinking only and protected from pollution. Most wells have parapet walls, but not platforms or drains. Two wells have parapet walls and platforms and drains. Tanks are stream-fed.	Natural. House sewage flows into streets. Cess-pools exist in backyards and outside houses. Those outside are occasionally cleaned.	No change. Conservancy arrangements exist in four villages where the streets are cleaned by the establishments employed, and the sweepings and refuse from houses and backyards are removed and deposited outside village limits. In other villages the rubbish is stored in backyards and converted into manure. No public latrines. A few private ones exist.	23·0
	Narasaraopet ..	Obtained from tanks, wells and streams. Good with a few exceptions. Sources are not set apart for drinking, but village officers are instructed to see that the water is not polluted. Wells have no parapet walls, platforms or drains.	Natural. Drainage of houses flows into streets or into backyards where it soaks into the soil. A few cess-pools exist and they are emptied when full.	Two villages are conserved. In these the street sweepings and refuse from houses and backyards are removed and sold annually. No public latrines; a few private privies exist and they are cleaned by private scavengers, the contents being removed to a distance outside the village. Two itinerating scavengers are also employed. In the unconserved villages the people themselves clean the houses and the portion of the street in front.	16·8
	Gudiváda ..	From wells, tanks and canals from the Kistna. Wells and tanks are set apart for drinking purposes and are protected from pollution. Local Fund wells have parapet walls and drains. There is only one masonry tank.	Natural in the taluk generally. Artificial drains exist in two villages. Steps are being taken to provide proper drains for the escape of sewage in Gudiváda. Drainage flows outside the village. No cess-pools.	Conservancy arrangements exist in the Unions of Gudiváda and Pamarru and two other villages. The street sweepings and contents of dust-bins where such exist are removed in carts by the establishment employed, deposited outside the village and burnt occasionally. The sweepings and rubbish in the unconserved villages are thrown into pits in backyards and other places. A public latrine exists in Gudiváda.	21·4
	Sattenapalle ..	From the river Kistna, wells, tanks and streams. Tanks are generally not used for drinking purposes. In villages bordering on the river difficulty is felt in the hot weather. Tanks are not masonry. Wells have no parapet walls, &c.	Natural. Artificial drains exist in three villages. No cess-pools.	Four villages are conserved. The sweepings are used to fill up low-lying places outside the village. Rubbish from houses in unconserved villages is stored in backyards and carted to the fields. Houses are cleaned by the owners themselves.	20·6

Abstract of the Sanitary Estimate of Villages in each of the Registration Circles from which Reports have been received—continued.

Districts.	Taluks or Registration Circles.	Water-supply.	Drainage.	Conservancy and Domestic Cleansing.	Death-rate.
Kistna—*cont.*	Bandar ..	From wells and tanks. Persons seen fouling the sources are prosecuted. All Local Fund wells have parapet walls and some have platforms, but none are provided with drains.	Natural for the most part. Side-cuttings exist in unions and big villages. Sewage and storm water from houses are generally let out by means of earthern pipes through the compound walls. The well-to-do drain their houses by means of masonry sluices. No cess-pools.	Four villages are conserved. The sweepings and rubbish are collected and stored in selected places outside the village and sold as manure. Contents of public and private latrines are thrown into pits outside the villages. In the unconserved villages the rubbish is deposited in the backyards and used as manure.	17·0
	Nandigáma ..	From river, tanks, wells, and hill streams. When the river runs dry wells dug in the bed are used. Tanks, &c., are protected from pollution by local officers. Most wells have parapet walls; and some have parapet walls, platforms and drains.	Natural in the taluk as a whole. Artificial drains (side channels) are to be seen in two villages where they discharge into streams. A few houses are provided with drains. House sewage flows into streets. In Jaggayypéta almost every house has a cess-pool which is emptied once a week.	Two villages are conserved; in one (Jaggayapéta) the street sweepings, &c., collected in dust-bins are removed to selected yards and sold in auction; in the other (Nandigáma) the rubbish is thrown into pits, and sold after some time. Where no conservancy arrangements exist, the people themselves clean the houses and backyards and use the refuse as manure. No public latrines except those attached to the travellers' bungalows. Private latrines exist in a few villages and they are cleaned by private agency.	21·2
	Bezwada ..	Obtained from a hill stream, wells, tanks, the Kistna and its canals. Quality good. Wells dug in the bed of the canals and the hill stream are used when these run dry. Some wells have parapet walls, but no platforms or drains.	Natural. Artificial drains exist in some villages. Some houses have drains, whilst others have none. Drainage is defective.	In union villages where conservancy establishments are employed, the streets and latrines are cleaned by the scavengering staff, whilst in other villages the people themselves attend to conservancy. In the conserved villages the street sweepings and contents of public and private latrines are removed to the outskirts, stored and sold. In other villages the rubbish is stored in pits in the backyards and eventually removed to fields. Vacant sites are used as latrines in the unconserved villages, and pigs perform the function of the scavenger. Three villages were conserved.	21·9
	Vinukonda ..	Wells, tanks, streams and rivulets form the chief sources. Generally sufficient. Wells are set apart for drinking purposes and protected from pollution. Some wells have parapet walls.	Natural for the most part. Cess-pools exist in Vinukonda which are emptied thrice a week. Rain water from houses is let out by drains into the streets.	Vinukonda alone is conserved. The street sweepings are thrown outside the village and sold as manure. No arrangement has been made by the union for private scavengering.	18·3
	Vissannapet division.	From wells and tanks. Quality good. Sources protected from pollution by police and village officers. A few wells have parapet walls and some have platforms. Tank water is more extensively used than well water.	Generally natural. Artificial drains exist in one village. Existing drains are in good condition and discharge into low-lying places. House drainage is fair. No cess-pools.	Two villages are conserved, and the sweepings of streets and houses are removed outside the village and used as manure. House conservancy is attended to by the owners and their servants.	Zemindaries. 16·2
	Nuzvíd division.	From tanks, wells, the Kistna and its canals and streams. Sources are not specially protected from pollution. Most wells have parapet walls, platforms and drains.	Natural. Side channels exist in Nuzvid. No coss-pools.	Conservancy arrangements exist in four villages. In Nuzvid the sweepings, &c., are sold in auction, whilst in others they are removed to fields as manure.	
Kurnool.	Pattikonda ..	From the river Handri, wells and tanks; reported to be good and sufficient. Wells are set apart for drinking purposes in a few villages and guarded against pollution by village watchmen. The water of one well in Pattikonda was analysed and pronounced to be bad. Scarcity is felt in some villages in the hot weather.	No system. Natural. House drains flow into covered cess-pools which are emptied occasionally.	Conservancy arrangements exist in four villages where the street sweepings and contents of latrines are removed by Local Fund sweepers and toties outside village limits, stored and sold as manure. In the unconserved villages the street rubbish is stored in front of houses and the house sweepings in the backyards are carried to fields and used as manure.	29·2
	Ramallakot ..	Rivers, wells, streams, spring channels and the Kurnool-Cuddapah canal form the chief sources of water-supply. Sufficient on the whole. Supply runs short in some of the villages. Wells are guarded by villagers, but are subject to pollution in the absence of parapet walls. Parapet walls were provided to two wells.	No system of artificial drains. Street drainage is natural, that of houses flows into streets or into cess-pools which are emptied occasionally.	Where conservancy establishments exist, the streets are swept by them, and the rubbish is removed outside the village and sold. In the other villages, the people themselves sweep the streets and houses and utilize the sweepings on their fields. Public latrines are provided in the conserved villages, and the night-soil is removed by toties to a distance and buried in pits. In other villages fields and waste lands are used for purposes of nature. Four villages were conserved during the year.	23·1
	Nandikotkúr ..	From rivers, tanks, wells, vagus and the Kurnool-Cuddapah canal. Good and sufficient. Drinking-water wells are guarded by villagers and village servants. About 150 wells have parapet walls, but not platforms or drains.	Artificial drains exist only in Nandikotkur and they are in good order. House sewage in villages is collected in covered cess-pools which are emptied when full.	In the four villages, where sweepers and scavengers are employed, the streets and public latrines are cleaned by the conservancy staff and the sweepings and night-soil are stored outside the village and sold as manure. In the other villages no arrangements exist. The people themselves clean their houses and the portion of street in front and utilize the refuse on their fields. Fields and waste lands are used for purposes of nature where no public latrines are provided.	30·3
	Nandyal ..	Wells, tanks, spring channels, river, streams and the Kurnool-Cuddapah canal. Sufficient except in a few villages in the Yerramalai plateau where supply runs short. Tanks and wells are not set apart for drinking purposes. Wells in Nandyal town are draw-wells and are provided with parapet walls and platforms. With the exception of one well, the water of all others is reported to be unwholesome. One tank in Nandyal is stone-built and is fed by a river and the canal; all other tanks are surface-fed and hence subject to pollution. The water of one of the rivers is reported to be polluted by the drainage from the indigo vats on its banks.	Natural, except in Nandyal and Panem where artificial drains exist. The drainage of houses flows into cess-pools or into streets where it soaks into the ground or dries up. The drains in Nandyal empty into a river which is a source of water-supply.	Where conservancy establishments are employed, the streets and public latrines are cleaned by sweepers and scavengers. In other villages the system is the same as in other taluks. In the conserved villages the street sweepings are removed and stored outside the village and sold as manure, while the night-soil is buried in trenches at a distance and covered with dry-earth. Where no latrines exist, people resort to fields and waste lands. Six villages were conserved during the year.	29·3
	Koilkuntla ..	Wells, tanks and rivers are the chief sources. Quality on the whole good. The supply in wells and rivers is constant, but that in tanks fails in the hot weather. Villagers and village watchmen are employed to guard wells. Except a few wells in Koilkuntla which are masonry-built; the others have no parapet walls, platforms or drains.	Natural generally. Artificial drains exist in two villages. House drainage is disposed of in the same manner as in other taluks.	Two villages are conserved, and the system of disposal of rubbish and night-soil in the conserved and unconserved villages is the same as that obtaining in other taluks.	28·9
	Sirvel ..	Wells are chiefly used for drinking purposes. River water is used in a few villages. Wells are guarded by villagers, but they have neither parapet walls nor drains.	Natural. Disposal of storm and sewage water is the same as in other taluks	Conservancy arrangements are made in three villages, and the street sweepings and contents of latrines are removed to a distance and disposed of as manure. In unconserved villages the system followed is probably the same as in other taluks.	33·0

Abstract of the Sanitary Estimate of Villages in each of the Registration Circles from which Reports have been received—continued.

Districts.	Taluks or Registration Circles.	Water-supply.	Drainage.	Conservancy and Domestic Cleansing.	Death-rate.
Kurnool—*cont.*	Cumbum ..	From rivers, wells and the Cumbum tank. River and well water is generally good and the supply is sufficient except during drought. Wells have neither parapet walls nor platforms. The Cumbum tank water has been pronounced unwholesome.	Natural, except in two villages where side-cuttings exist, emptying into rivers. Houses generally have no drains. Sewage flows into cess-pools which are emptied when full.	Sweepers and toties are employed in four villages where the street and house sweepings are removed outside village limits, stored and sold periodically as manure. Where no conservancy arrangements exist, the people themselves clean the houses and the street in front of them and utilize the rubbish on fields. Three public latrines were constructed in one of the villages.	19·1
	Markapur ..	Wells form the chief source of supply. Villages on the banks of rivers use river water. Quality said to be generally good. Two wells are reserved for drinking and are provided with parapet walls and pulleys. Tank water is rarely used.	Natural. Drainage same as in other taluks.	Two villages are conserved, and in these the streets and public latrines are cleaned by sweepers and scavengers. The street sweepings and night-soil are deposited at a distance and sold. In the rest of the villages the system in force is the same as in other taluks.	19·7
	Madura ..	From the river Vaigai and tanks and wells. Said to be generally good. Tanks are not reserved for drinking purposes, but some wells are. Most wells have parapet walls.	No system in the taluk generally. Drainage of streets in Sólavandán Union is reported to be fair, but that of houses unsatisfactory.	Conservancy arrangements exist in the Union of Sólavandán and in Tiruppárangundram. In these the rubbish is stored in depôts and sold. In the other villages it is deposited in the village common or in the private compound of the villagers and eventually removed to fields.	21·2
	Tirumangalam.	From wells, tanks and uranies. Well water is used for drinking and cooking purposes. Supply insufficient. Drinking-water wells are well looked after in all the villages.	Well-constructed drains exist in the large and bazaar streets of Peraiyúr and the western part of Usilampatti. In some parts of the taluk pucka drains constructed by the ryots exist. Elsewhere the drainage is by side-cuttings in towns, and in villages the sewage is let into cess-pools and removed in pots to a distance.	Conservancy establishments are maintained in three of the unions. The sweepings are collected and sold. In the other villages the refuse is stored in remote places and eventually used as manure. Efforts are being made to allot a selected locality in each village for the storage of refuse. There are no pucka latrines. A mud wall enclosure exists in Tirumangalam. Steps are being taken to introduce the trench latrine system.	18·2
	Dindigul ..	From wells and rivers. Reported to be good and sufficient. Special arrangements are made by the unions for the conservancy of drinking-water sources, and Revenue officers are enjoined to pay attention to this matter. Some wells have parapet walls and platforms.	No system. Mere side-cuttings are made in the unions and some of the villages to carry off storm water.	System same as in the other taluks, conservancy establishments being employed in the unions alone.	18·0
	Palni ..	From rivers, a river channel and wells. Kavalgars are appointed in unions to watch these sources generally. A well is set apart for drinking and watched in the Union of Áyakkudi. Wells have no parapet walls in villages.	No system. Side-cuttings exist in the unions. Drainage of houses flows into streets and soaks into the soil.	In the unions the rubbish is removed in carts to a distance stored and sold. In the non-union villages the rubbish is removed by the people themselves. Special scavengers have been appointed to four villages. Public latrines exist in Áyakkudi Union.	22·4
Madura	Periyakulam.	Rivers and channels form the chief source in most of the villages. In some villages wells are the only source. Scarcity was felt in some villages where there are no proper sources of supply. Some improvements to water-supply were effected during the year. A watchman was appointed to guard the channel at Bódináyakkanúr, and during the cholera epidemic a watchman was appointed for two months by the Uttamapálaiyam Union to guard the river	No system. In the unions side-cuttings are made near houses to carry off rain water.	Scavengering establishments are maintained only in the seven unions and the Sanitary Association at Gúdalúr where the refuse and sweepings are removed by union sweepers to a selected locality, stored and sold periodically. In the other villages the house rubbish, &c., is removed by the villagers themselves and used as manure. Public latrines exist only in Kodaikánal fields and open grounds being used in the villages. Little interest is evinced by village officials in sanitation.	25·3
	Mélúr ..	From wells and uranies. Said to be good in quality. One well and six uranies are reserved for drinking purposes and are watched over. The water of one of the reserved uranies has been reported to be bad and its use prohibited.	No system. In the unions side-cuttings are made for the passage of storm water and sewage.	Five villages are conserved and in these the refuse is removed by union sweepers to a distance where it is stored and sold by auction. In non-union villages, where conservancy establishments do not exist, the sweepings are stored by the ryots within village limits and eventually used on their fields as manure. The experiment of depositing rubbish in selected spots and the trenching in of night-soil is to be tried.	18·1
	Head Assistant Collector's division.	From rivers, wells, tanks and uranies. Good and sufficient on the whole. Sources are set apart for drinking and guarded by kavalgars. When tanks and uranies run dry, wells dug in their beds are used.	No system in the division as a whole. Mostly natural. In some places side-cuttings exist. In the main street of Ramnad drains have been constructed. In some instances houses and backyards are provided with drains. House sewage flows into backyards and streets or into pits and pots fitted up for the purpose. In Sivaganga the sewage is removed in special carts and discharged on vacant lands.	No system. Generally the rubbish and street sweepings are either stored in the streets and waste lands and used as manure or used for filling up pits and hollows. Where unions exist special establishments cart the sweepings to a distance where they are stored and sold. Dust-bins have been provided in some unions. No public latrines except at Kilakarai where four have been erected by the Muhammadans for their females.	Zemindaries. 32·7
Malabar.	....	From wells. A copious rainfall for six months in the year supplies abundance of pure drinking water. Wells are almost universally provided with parapet walls and they are mostly private property.	Natural. The water is readily absorbed, the soil being porous.	Scavengering establishments are maintained to a limited extent. The population of the district do not, as a rule, congregate in villages, but dwell in detached houses. Filth does not therefore accumulate in large masses; but, being spread in small quantities over an immense surface, it is rapidly baked by the sun or becomes assimilated with the soil under the combined influence of rain, vegetation and dung beetle. No public latrines; the people in the villages on the coast resort to the sea beach for purposes of nature.	Chirakkal. 16·1 Kóttayam. 14·9 Kurumbranat 11·4 Calicut .. 12·4 Ernad .. 15·0 Ponnáni .. 15·1 Walavanad. 15·3 Palghát .. 13·9 Wynaad .. 18·9 Cochin .. 21·3
Nellore.	Nellore ..	Obtained from wells, channels, tanks, ponds, and the river Pennéru. Good in some villages. Some ponds and wells need repair.	Natural for the most part. Side channels exist in a few villages. In some villages drainage is bad.	Unsatisfactory. Most of the streets are not clean, and rubbish is heaped in streets and in the vicinity of houses. Conservancy arrangements exist in a few villages and the streets are kept clean. Prickly-pear abounds as in other taluks.	13·8
	Átmakúru ..	From rivers, wells, tanks and ponds. Said to be good and sufficient on the whole. Scarcity is felt in a few villages in the hot season.	No system. Natural. Drainage water flows freely.	No system. In almost all villages cattle are housed with human beings, and cow-dung and house refuse are stored in backyards and removed in bandies to the fields. Houses generally are not kept clean.	20·1
	Gudur ..	From wells and ponds. Fair in quality and sufficient. Scarcity is felt in some villages in the hot season.	Drainage water passes through streets. Side channels exist in the main streets of Gudur. They are, however, insufficient.	Sweepers are employed to clean the streets in Gudur and Chennur. Elsewhere no system. House and street refuse is removed to the fields as manure.	12·7

Abstract of the Sanitary Estimate of Villages in each of the Registration Circles from which Reports have been received—continued.

Districts.	Taluks or Registration Circles.	Water-supply.	Drainage.	Conservancy and Domestic Cleansing.	Death-rate.
Nellore—*cont.*	Ongole ..	Rivers, ponds, wells and tanks. River water is generally wholesome. Well water is mostly used for drinking purposes, and wells so used are provided with parapet walls and special care is taken of them. Step-wells are subject to pollution. Ponds are rain-fed and those used for drinking purposes are not provided with revetments. Scarcity is felt in some villages.	Natural. Storm water passes through vagus, &c. No arrangements exist for house drainage.	Conservancy arrangements are made in four villages and in the Unions of Addanki and Kottapatnam. The house sweepings and ordure of cattle are thrown into pits in the vicinity of houses and removed to the fields after some time.	18·0
	Kanigiri ..	Rivers, wells, vagus and tanks	No system. Natural. Storm water in many villages stagnates in the streets and causes nuisance. House sewage soaks into backyards.	Houses are not generally clean. Rubbish and cow-dung are heaped in the vicinity of houses. The houses in Kanigiri are clean.	15·9
	Rapur ..	From wells, tanks, ponds and vagus. Rivers are probably used to some extent. Four wells are reserved in Rapur for drinking and they are provided with parapet walls and platforms. In some other villages wells and ponds are used for drinking. A few wells have parapet walls and platforms. Quality good and sufficient on the whole, though in some villages the supply runs short.	No system. Natural. House sewage flows into backyards and sinks into the soil. Storm water flows into low-lying lands. No drains or cess-pools.	No system. The sweepings, &c., are stored in backyards of houses, streets and vacant lands and removed to the fields in the cultivation season. Streets are generally kept clean. A conservancy staff is employed in Rapur and the street garbage is removed by this staff and sold by auction. No public or private latrines. There is much prickly-pear.	21·2
	Kandukur ..	From wells, tanks, ponds and rivers	No system. Storm water passes through streets. Side drains are provided to certain streets.	The villages are reported to be generally clean. Scavengers are employed in some villages to sweep the streets. Information under this head very meagre.	19·7
	Kávali .. / Udayagiri ..	Sufficient. Information meagre	No system. Most existing side-cuttings are choked.	Houses generally clean. Cattle are housed with human beings.	Kávali 16·7 / Udayagiri 19·2
	Venkatagiri division.	From wells, tanks, ponds, channels, guntas and rivers. Wells and tanks appear to be the favourite sources.	No system. Side drains exist in Venkatagiri. House sewage flows into backyards. Storm water finds its way to fields.	No system in the villages. Rubbish is stored in backyards or outside the village and removed to the fields. Houses are generally clean. Conservancy arrangements exist in Venkatagiri, where the street sweepings collected in dust-bins are removed by scavengers and stored in selected places.	Zemindaries 16·6
Nilgiris.	....	Most of the villages in Ooty and Coonoor are dependent for water-supply on natural streams and springs; in some, pits or small wells are dug in swamps and other suitable places. In Gúdalúr division there are Local Fund wells at Gúdalúr, Devala and Chérambádi, and certain private wells, in the rural parts, are being maintained in good order. In the rural parts of this district water for domestic purposes is obtained from artificial fountains near swamps or paddy flats.	Most of the Badaga villages in Ooty and Coonoor are situated on the Hill slopes and are consequently naturally drained. As regards some others drains are constructed in front and at the back of houses. In Gúdalúr division, drains have been provided in the shape of side channels on both sides of the road, running through the towns of Gúdalúr, Devala, Pundalur and Chérambádi, while the scattered houses in the interior are situated on slopes and have natural drainage.	The Badaga and Chittas' houses are generally kept clean. The Badagas are in the habit of washing their hands and feet in front of their houses and the water dries up in the sun. Deputy Tahsildars and Revenue Inspectors are held responsible for the villages being kept clean.	Nilgiris .. 23·5 / S.-E. Wynaad 21·4

North Arcot.	Chittoor ..	From wells, river-springs and tanks; sufficient and generally of good quality. Watchmen are employed in Chittoor town and in large villages to prevent sources from pollution. Wells generally have parapet walls and platforms, but no drains. The tanks are generally masonry-built and they are occasionally cleaned out. The water of Chittoor town was once analysed and pronounced to be good.	Drainage of streets natural, except in Chittoor town where artificial drains exist in important streets which discharge their contents into fields. Drainage of houses is, as a rule, artificial, that of backyards natural, except Chittoor town where the backyards have in most cases artificial drains. House drains generally empty themselves into street drains. A good many cess-pools exist in Chittoor town which are occasionally cleaned. None elsewhere.	No proper conservancy arrangements exist in villages In Chittoor town private dwellings are conserved by scavengers employed by the inmates and the streets by the union scavengers, the street sweepings, rubbish and refuse from houses being removed in carts and used as manure. The contents of the public latrines (twelve in number) and of private privies are likewise removed in carts and buried at a distance from the town. In the villages house refuse is removed to the fields and used as manure. Three villages were conserved.	14·8
	Chandragiri ..	From wells, river-springs and tanks; sufficient and good. In large villages and towns sources are guarded by watchmen. In villages generally, wells have only parapet walls, but those in Chandragiri town are provided with parapet walls, platforms and drains. The tanks are generally masonry-built; they are periodically cleaned. The surrounding grounds are kept clean.	Drainage of streets natural except in towns, such as Renigunta, Tirupati and Chandragiri. Side-cuttings exist in some villages. Drainage of houses is, as a rule, artificial, and that of backyards natural. House drains discharge into cess-pools in streets or backyards. They are never emptied, the contents being allowed to soak into the soil.	No arrangement exists for the conservancy of private dwellings. Five towns are conserved, the streets being swept by Taluk Board scavengers, and the sweepings sold as manure; no regular system elsewhere. Rubbish and house refuse are used for the same purpose. A few private privies exist in Chandragiri town, the contents of which are removed at the cost of the owner and thrown away at a distance. There are no public latrines in the taluk.	13·6
	Palmanér ..	From wells, river-springs and tanks; sufficient and good. In Palmanér the principal guntas have watchmen employed to guard them from pollution. In the other villages the people themselves see that the drinking-water sources are not polluted. Wells have generally only parapet walls, but in Palmanér they have platforms and drains also Only a few tanks are masonry-built and they are occasionally cleaned out. The surrounding grounds are clean.	Drainage of streets natural, except in two places where side drains have been constructed. Drainage water flows into tanks. Drains of houses are of masonry. In some villages cess-pools exist, which are emptied as often as necessary.	No arrangement exists for the conservancy of private dwellings. In Palmanér town and another village the streets are swept by scavengers employed for the purpose. Street sweepings, rubbish and refuse of houses and backyards and the contents of public and private latrines are used as manure.	13·1
	Gudiyáttam ..	From wells, river-springs and tanks; good and sufficient. Watchmen are employed in towns and important villages to guard the sources of drinking-water supply. Some of the wells have parapet walls, platforms and drains. The tanks are masonry-built and are occasionally cleaned out. The surroundings are kept clean.	Drainage of streets natural, except in two villages where side channels have been cut. Drainage of houses, as a rule, artificial; that of backyards natural. The drains of houses and backyards discharge into streets, rivers and river channels. In some villages cess-pools exist which are emptied as often as necessary.	Conservancy establishments are employed in three villages. The other villages are looked after by the people themselves. Street sweepings, refuse from houses, &c., are used as manure. There are no public or private latrines in the taluk.	15·8
	Vellore ..	From river, river channels, ponds and wells; sufficient and good. Some ponds and wells are reserved for drinking purposes and are protected by the villagers themselves at their own cost. In some villages wells have parapet walls, platforms and drains. Ponds generally are masonry-built and are occasionally cleaned out. The surroundings are kept clean.	Drainage of streets natural, except in one place, Pallikondai, where drains have been constructed and in large villages where side channels have been cut. Drainage of houses and backyards is the same as in Chendragiri taluk. There are no cess-pools.	Two villages were conserved. In other respects the system is the same as in Chittoor taluk.	16·3

Abstract of the Sanitary Estimate of Villages in each of the Registration Circles from which Reports have been received—continued.

Districts.	Taluks or Registration Circles.	Water-supply.	Drainage.	Conservancy and Domestic Cleansing.	Death-rate.
Arcot—*cont.*	Polúr ..	From wells, river-channels, ponds and hill streams; generally sufficient and of good quality, except in hilly parts where the water is insufficient and unwholesome. In six villages sources of drinking-water supply are guarded by watchmen employed for the purpose; in other villages the village servants see to this. Wells generally have parapet walls, but no platforms and drains. The tanks are revetted, but not masonry-built, and are cleaned out when dry.	Drainage of streets natural, except in two villages where side-channels have been cut. Ditches are dug by villagers themselves for the drainage of houses and backyards. There are no cess-pools.	Two villages were conserved. Disposal of street sweepings and house refuse is the same as in Palmanér taluk. No public latrines. There are private latrines in Polúr town, the contents of which are removed by private agency to a place remote from the town and buried.	18·4
	Wandiwash ..	From wells, tanks, rivers, channels and streams; sufficient and good. Three ponds are reserved in Wandiwash town and are protected by watchmen. In important villages they are taken care of by the village servants. Wells have parapet walls only, and are scarcely resorted to for drinking purposes. Most of the tanks are masonry-built and surface-fed and are occasionally cleaned; surrounding grounds are kept clean.	Drainage of streets natural, except in two places, Wandiwash and Desúr where side-channels exist. Drainage of houses and backyards natural. The drains generally empty themselves into irrigation channels or streams.	Scavengers are employed only in one town, Wandiwash, to keep it clean. The cleanliness of other villages is attended to by the people themselves. Street sweepings, rubbish and refuse of houses and backyards and the contents of latrines are used as manure.	17·5
	Arcot .	From wells, tanks, rivers, channels and streams; generally sufficient and of good quality. A pond in Tiruvathiyur and a spring in Arcot are watched over by men employed for the purpose and in important villages the sources are carefully looked after by the village servants. Some wells have only parapet walls. The tanks are masonry-built; they are never cleaned out. The surrounding grounds are clean.	Drainage of streets natural, except in four villages; that of houses and backyards also natural. The drains generally discharge into rivers, channels or streams. There are very few cess-pools which are cleaned as often as necessary.	No system in the taluk generally. In three towns conservancy establishments were employed. As regards the disposal of sweepings the system followed is the same as in Palmanér. There are a few public latrines in Arcot, which are cleaned by sweepers employed by the union.	17·9
	Walaja ..	From wells, river-springs and tanks. Generally sufficient and of good quality. Watchmen are employed in Walaja town and in large villages to prevent sources from pollution. Some wells have only parapet walls, while others have in addition platforms and drains. Most of the tanks are masonry-built and occasionally cleaned; surrounding grounds are clean.	There are no regular street drains except in three villages. Drainage of houses and backyards natural. The drains empty into irrigation channels or streams. There are very few cess-pools which are cleaned when necessary.	Four towns were conserved. No special arrangement exists in other places. There are public latrines in three towns. Street sweepings, rubbish and refuse from houses and the contents of latrines are made use of as manure.	16·7
	Puttúr division.	From wells, river-springs and tanks. Sufficient and of good quality. Sources are protected by watchmen from pollution in important villages. Wells have generally only parapet walls, but in Puttúr town they have in addition platforms. Tanks are masonry-built. They are never cleaned out.	Drainage of streets natural; of houses and backyards same as in Chendragiri taluk. Drainage water finds its way into the neighbouring fields. There are a few cess-pools which are emptied when necessary.	Scavengers are employed in Puttúr town to sweep the streets. No special arrangements elsewhere. Street sweepings and refuse from houses are used as manure.	

North Arcot.	Kálahasti division.	From wells, tanks, rivers, channels and streams. Sufficient and of good quality. Watchmen are appointed in Kálahasti and in large villages to guard sources from pollution. A few of the wells have parapet walls and platforms, but no drains. Some ponds are masonry-built and occasionally cleaned out.	Drainage of streets natural. In Kálahasti side-channels exist. In large villages houses have masonry drains. Drainage water is allowed to soak in backyards or streets. There are a few cess-pools in Kálahasti town which are emptied as often as necessary.	Scavengers are employed in Kálahasti to sweep the streets. No arrangements elsewhere. Disposal of street sweepings and refuse from houses, &c., is the same as in Tirutani.	
	Tirutani division.	From wells, river-springs, and tanks or guntas. Sufficient; watchmen are employed to see that drinking-water sources are not polluted in Tirutani and other large villages. All wells have parapet walls, and a few of them have platforms as well as drains. Some tanks are masonry-built and surface-fed, and are occasionally cleaned out.	Drainage of streets natural; of houses artificial. The drains empty their contents in backyards. There are a few cess-pools in Tirutani which are emptied occasionally.	Scavengers are employed in the town of Tirutani. No system elsewhere. Street sweepings and rubbish of houses are sold by public auction. Contents of private privies are removed to a great distance from towns. No public latrines.	Zemindaries. 16·6
	Punganúru division.	From wells, tanks, and river-springs. Sufficient and good. Watchmen are employed in Punganúru and in large villages to guard drinking-water sources. Most of the wells have parapet walls, platforms and drains. The tanks are masonry-built and spring-fed.	Drainage of streets natural, except in Punganúru where side drains have been constructed. Drainage of houses and backyards natural. House drains discharge into cess-pools dug in streets or backyards.	Conservancy establishments are employed in four towns. The cleanliness of streets of other villages is looked after by the people themselves. Street sweepings and refuse from houses are used as manure in fields. Two public latrines exist in Punganúru town; the contents are removed to a distance from the town. In Punganúru and other large villages there are pits sunk in backyards which are used as latrines. The contents of these pits are never removed.	
	Kangundi division.	From tanks, wells and rivers. Quantity sufficient, quality not bad. Two tanks in Kuppam are guarded from pollution by watchmen employed for the purpose. Very few wells have parapet walls, platforms, or drains. Tanks are not masonry-built and are not cleaned out. They are surface-fed.	Natural. The drains discharge into tanks or open fields around villages. No cess-pools.	Four towns are conserved. No arrangements elsewhere. Street sweepings and refuse from houses are used as manure in fields.	
	Arni division.	From wells, ponds, rivers and tanks. Sufficient and good. Watchmen are employed in Arni and large villages to guard sources of drinking supply. Wells have parapet walls generally, and in some places have platforms and drains. Some tanks are masonry-built and surface-fed. They are generally cleaned out. Surrounding grounds clean.	Natural. The so-called drains empty into the surrounding fields or tanks. There are a few cess-pools which are emptied when necessary.	In only one town, Arni, scavengers are employed to sweep the streets. No system elsewhere. Street sweepings and rubbish from houses are sold by public auction.	
Salem.	Salem ..	From river, odais, wells and tanks, the two latter being the chief sources. Quantity sufficient and quality good. In some villages wells are exclusively set apart for drinking purposes; one well in Tharam angalam is guarded by a watchman. Some of the wells have parapet walls and platforms. The tanks are both surface-fed and spring-fed.	No system. Side-cuttings exist in Rásipuram union. There are cess-pools in three villages which are said to be emptied once a year. Drainage water finds its way to adjoining fields.	Scavengering establishments are maintained in eight villages. The street sweepings, &c., are stored up at a distance from the villages and sold periodically.	16·3
	Atúr	From draw-wells and rivers. Wells have mostly parapet walls, platforms and drains.	In union villages the system of drainage is artificial and in others natural. Drainage water flows into rivers and fields. There are also cess-pools in some villages which are seldom, if ever, cleaned.	Scavengers are employed in unions. Street sweepings and rubbish are stored up and sold in auction periodically. The system of digging pits for privies is generally in use in this taluk. Pigs act as scavengers.	19·3

Abstract of the Sanitary Estimate of Villages in each of the Registration Circles from which Reports have been received— continued.

Districts.	Taluks or Registration Circles.	Water-supply.	Drainage.	Conservancy and Domestic Cleansing.	Death-rate.
Salem—*continued.*	Námakkal and Tiruchengódu.	From the Cauvery and its channels, other minor rivers, tanks and wells. The quality of the river water is good; the water of the channels is subject to pollution. In two places tanks and in a few other villages wells are reserved for drinking purposes, and watchmen employed over them. In some places, wells are provided with parapet walls, platforms, &c.	Generally natural and good. In the union villages side ditches have been cut where the roads are broad enough. In many villages cess-pools exist which are cleaned out once or twice a year.	In the unions and three other villages scavengering establishments are entertained. The street sweepings are collected at a distance from the villages and periodically sold. In the other villages the people themselves attend to the cleanliness of their houses and the streets, storing the sweepings and refuse in backyards and eventually removing them to the fields to be used as manure. In these villages people resort to fields for purposes of nature.	Námakkal .. 18·7 Tiruchengódu 17·7
	Hosúr subdivision (*i.e.*, Hosúr, Dharmapuri and Krishnagiri Taluks).	From tanks and wells chiefly. River water is used in villages bordering on the rivers (six in number). The water-supply is sufficient in ordinary seasons in all villages except a few. In seven villages tanks and wells are reserved for drinking purposes only and guarded over by watchmen. Only a few wells have parapet walls, platforms and drains, while many of them are provided with parapet walls only. Tanks have stone revetments. They are all surface-fed and seldom cleaned out. Irrigation tanks in many villages are used for drinking purposes.	In the streets of towns and large villages artificial side drains have been constructed. The drainage is natural in other places. In conserved villages the drains are cleaned by the sanitary staff, and generally kept in good order. The drains discharge into adjacent lands. Sewage water from houses stagnates in backyards or flows into street drains.	Domestic cleansing is attended to by the people themselves. Scavengering establishments were maintained in twelve villages and the street sweepings stored outside the villages and sold as manure. The cleaning of the other villages devolves on the village toty, and the people themselves, who generally store up the sweepings in places outside the villages and use the collections as manure in their fields. Public latrines exist in four places. Night-soil from both public and private latrines is stored up in a distant place outside the villages and sold along with the street sweepings as manure.	Hosúr .. 1·53 Dharmapuri. 18·3 Krishnagiri. 14·9
	Tiruppattúr ..	The chief sources of supply are wells and tanks. Rivers are also resorted to by people living in villages close by. Generally good and sufficient. Most of the tanks are rain-fed and they are not cleaned out. A good number of the wells have parapet walls and are revetted. Surrounding grounds are seldom kept clean.	Drainage of streets is natural	Two villages are conserved and the sweepings carted off and collected at a place outside the villages and sold. No system elsewhere, the refuse from houses and street sweepings being used as manure by villagers.	16·6
	Úttangarai ..	Rivers, tanks and wells are the sources of supply in this taluk. In Úttangarai town a spring-fed tank is set apart for drinking purposes. It is guarded by a watchman, but is subject to pollution as, during the rainy season, the water in the adjoining kuttai which is very unclean percolates into this tank. There is also a well here in Atkinson's tope which is also a source of supply to the townsmen in the western part. Private wells are resorted to in Harúr. In some other villages also wells and tanks are set apart for drinking purposes. The wells are generally provided with parapet walls.	Natural. Side ditches carry away rain water in Úttangarai and Harúr.	Conservancy establishments were maintained in six villages. Street sweepings and refuse from houses are daily removed to an open space remote from the town, where from want of demand they are burnt. No public latrines.	17·8

South Arcot.	Cuddalore ..	Wells, tanks, ponds, rivers, channels and springs form the chief sources. Sufficient. Village officers are instructed to see that drinking-water ponds are not polluted.	No system. Drainage water finds its way into ponds, irrigation channels and streams. Side ditches and cess-pools exist in Panruti union. In villages, house drains discharge into backyards and into the streets.	No regular system. Scavengering establishments are employed in important unions and villages. In Panruti union the refuse is stored outside union limits and sold for use as manure. In other villages it is stored in private lands and removed to the fields. Public latrines exist in Panruti union and are freely resorted to.	23·0
	Chidambaram and Vriddhachalam.	Obtained from wells, ponds, tanks, rivers and channels. Supply ample and good except in some of the high level tracts in the west of taluk (Vriddhachalam). Watchmen are employed in six villages to guard the tanks.	No system. Natural drainage good. Side-channels to carry off storm water are said to exist in the main streets of a few villages. House sewage is let into backyards or streets. Cess-pools exist in some of the important villages.	In conserved villages the rubbish is disposed of by public auction. In the other villages it is stored on the outskirts and removed to the fields during the cultivation season.	Chidambaram 27·9 Vriddhachalam 23·4
	Tindivanam, Villupuram, and Tiruvannámalai.	From wells, tanks, rivers and river-channels. Sufficient generally. Quality is good in some villages and bad in others. Except in unions no source is reserved for drinking purposes. In the Tindivanam and Villupuram towns and in two villages in the Tindivanam taluk ponds are reserved for drinking purposes and specially watched by men employed for the purpose. Most wells have parapet walls and platforms, but no drains. The wells are mostly private.	In villages where scavengering establishments are employed, side-cuttings are made to carry off storm water. The drainage of houses flows into backyards where it dries up or soaks into the soil. In some houses the sewage is let into pits.	The house and street refuse in the conserved villages is collected in dust-bins where they exist or thrown into streets whence it is removed by union scavengers and eventually sold. In the other villages the refuse is stored in backyards or vacant house sites for use as manure. No public latrines. A few private latrines exist, and their contents are removed to a distance and sold.	Tindivanam .. 21·1 Villupuram .. 25·2 Tiruvannámalai .. 18·1
	Tirukkóyilúr and Kallakurchi.	From rivers, wells, tanks and ponds. Pits dug in the river-bed when the rivers run dry are also used. Pond water is preferred to well water for drinking purposes. In some villages ponds are reserved for drinking and watched at the expense of the Local Board. In the Tirukkóyilúr union springs are opened in the Pennar during the hot season and watched over. In others village servants look after their conservancy.	No system. Side channels exist in important stations and they are cleaned and repaired annually. House sewage flows into backyards and dries up or soaks into the ground. No cess-pools.	In the conserved villages the streets are swept by Taluk Board scavengers and the rubbish is stored outside the village and sold. In the other villages the rubbish is taken by the villagers to the fields. House refuse is generally stored in backyards and eventually removed to the fields. The number of villages in which the system of storing refuse in selected places outside the villages is in vogue has been increased. Sanitary condition on the whole good, but prickly-pear still abounds.	Tirukkóyilúr. 26·8 Kallakurchi .. 18·8
South Canara.	Udipi and Coondapoor.	From wells. Supply ample, each house or garden having a well of its own.	Natural. The necessity for artificial drains does not exist.	No special arrangements are necessary. In towns and large villages and places where markets are held, conservancy establishments are maintained.	Udipi .. 21·1 Coondapoor .. 27·1
	Mangalore ..	From wells chiefly; sufficient on the whole. Rivers and streams are resorted to when wells dry up in the hot weather.	Natural. Artificial drains are not required.	Conservancy establishments are maintained in some populated places to keep the streets and public latrines, where they exist, clean. Domestic cleansing not attended to, to the extent desired. In the rural parts people generally resort to waste grounds for purposes of nature.	18·6
	Kasaragód and Uppinangadi.	From public and private wells. Good and sufficient ..	Natural	In important centres of population scavengering establishments are employed to sweep the roads and streets and clean the latrines. No special arrangement is necessary in other parts.	Kasaragod .. 17·0 Uppinangadi. 31·0

Abstract of the Sanitary Estimate of Villages in each of the Registration Circles from which Reports have been received—continued.

Districts.	Taluks or Registration Circles.	Water-supply.	Drainage.	Conservancy and Domestic Cleansing.	Death-rate.
Tanjore.	..	From the Cauvery and its branches and from numerous tanks. It is only in the unions and conserved villages that tanks are set apart specially for drinking purposes; in all other villages tank water is used both for drinking and bathing. In Vallam four wells are specially reserved. When rivers run dry, wells in the river-bed are dug.	No regular system in any town or village in the district. In three towns some of the streets are provided with masonry drains which carry the sewage water to outlying fields and gardens. In most of the unions and conserved villages, side cuttings exist. There are numerous small cess-pools; they permit of soakage.	Thirty-eight villages are conserved and the street sweepings, &c., are carted outside the villages and deposited in a rubbish depôt where periodical auctions are held for their sale as manure. In some places the rubbish is given in part payment to the contractor who supplies the carts. In Tiruvádi in Tanjore taluk all rubbish is burnt in an incinerator and the ashes are sold as manure. In the villages the people sweep the streets in front of their houses, but make no attempt to remove the sweepings from the village. Very little use is made of the latrines where they exist, people preferring to use the banks of irrigation channels and tanks as such. In some places private toties are employed by a few people to remove night-soil from backyards. They are generally in a deplorably filthy insanitary condition.	Tanjore .. 24·8 Kumbakónam 31·5 Mayavaram .. 29·0 Shiyali .. 27·5 Nannilam .. 30·5 Negapatam .. 30·2 Mannargudi .. 23·9 Tiruturaippúndi .. 22·8 Pattukóttai .. 15·2
	Ottappidáram ..	From wells, tanks, springs and jungle stream. Good and sufficient on the whole. Wells and a square tank are set apart for drinking purposes, the latter being guarded by watchman. Some of the uranies are watched over by kavalgars. Wells have parapet walls, platforms and drains. Square tanks are masonry-built.	Side drains exist and they discharge into the nearest odai or jungle streams.	Scavengers are employed in the two unions and six other villages, and conservancy is attended to by them. In other villages the people themselves do the work. Rubbish is used as manure.	24·8
	Tenkarai ..	From rivers, channels, tanks and wells; good and sufficient. Wells are generally set apart for drinking, but no special arrangements are made to guard against pollution, except in one union where a watchman was employed to guard drinking wells and a tank. Many wells have parapet walls, platforms and drains.	Natural. Artificial drains exist in some streets. Drainage flows into cess-pools in the streets or into the sea.	Street sweepings in villages where scavengers are employed are removed to a distance and burnt or sold as manure. Domestic cleansing is attended to by the people themselves and the refuse, &c., used as manure. In one union the sweepings are used to fill up pits.	26·8
	Sankaranayinárkóyil.	From wells, tanks, rivers, pools, &c. Generally of fair quality and on the whole sufficient. Most of the wells are provided with parapet walls, platforms and drains. Wells, tanks and pools are set apart for drinking purposes. The square tanks are masonry-built and surface-fed. Their surroundings are in a fairly clean condition.	Natural and artificial. Some houses are provided with drains and others not. House drains empty into streets and backyards. Drainage water finds its way to irrigation tanks and wet lands. There are a few cess-pools in Sankaranayinárkóyil union which are emptied daily.	In the three unions and two other villages sweepers are employed to clean the streets and the sweepings collected at a distance from the villages and sold. Dust-bins are provided in some places. In the other villages the people themselves attend to street and domestic conservancy, the sweepings, refuse, &c., from houses being stored in backyards and carried to fields for manuring purposes. Public latrines exist. The night-soil is buried in deep pits at a distance.	22·5
	Tinnevelly ..	From rivers, river channels, tanks, wells and springs. Good and sufficient. Most of the wells have parapet walls, platforms and drains. Sources are not specially set apart for drinking purposes except in Melaviraraghavapuram union where the river Tambraparni is guarded from pollution by a watchman employed. The Tamarakulam in Pettai union was also watched during the hot season. Some tanks are masonry-built.	Natural. Some streets in Melaviraraghavapuram union have masonry drains. In two other unions side channels have been cut. Drainage water finds its way into rivers, channels and tanks. Generally houses are provided with drains which discharge sewage into streets or backyards where it soaks in the ground. Cess-pools exist in the unions; they are emptied daily.	Sweepers are employed in all the unions and in about a dozen other villages, and the sweepings are stored in pits outside the villages. In one union, Melaviraraghavapuram, the system of private scavengering has been introduced and bids fair to work satisfactorily. The sweepings are given out on contract. The refuse from houses and the contents of public and private latrines are removed in covered tins and buried at a distance from the town. In two other unions the sweepings &c., are stored outside the towns and burnt and sold as manure. In the other villages the houses and the portion of street opposite are cleaned by the people themselves, who store the refuse in manure pits in their backyards and use it as manure in fields.	30·6
Tinnevelly.	Srívilliputtúr ..	From tanks and wells. Quantity sufficient and quality good. Sources are set apart for drinking purposes. The wells are provided with parapet walls and platforms and some have drains also. The surroundings of tanks are kept in clean condition. Many of them are masonry-built. Two tanks in Srívilliputtúr, which are used for drinking, are guarded by watchers.	Natural and artificial. Drainage water finds its way to adjoining jungle streams or channels which feed irrigation tanks. Houses in some places have drains. Sewage water from houses flows into streets. Cess-pools exist.	Scavengering establishments are employed in the unions and one other village, and the sweepings stored at a distance and sold as manure. There is also an itinerating conservancy staff for the whole taluk. People themselves look to the cleanliness of the other villages, the sweepings and house refuse being used by them as manure. In Srívilliputtúr union, the sweepings are carted to the rubbish depôt there burnt and sold as manure. Private scavengering is in force in Srívilliputtúr union. Night-soil is buried in pits far away.	23·2
	Nángunéri ..	Wells are the chief source. Streams, channels and tanks are also resorted to. Generally good and, on the whole, sufficient. In the hot weather in some places wells and tanks get dry, when springs have to be dug in adjoining streams and channels. In the cusbah town a square tank which is masonry-built and wells in the tank-bed are reserved when water fails in the large tank, but the tank is used for bathing also. In other parts tanks, streams and some wells are used for drinking. The surroundings of tanks are generally kept clean. Some are masonry-built and cleaned out at times. Tanks receive their supply from streams and channels or surface drainage.	Natural. Side-cuttings exist in a few large villages. One street in the cusbah town is provided with a pucka drain. House sewage flows into streets, backyards or into the side drains of streets. A masonry cess-pool exists in the union.	Sweepers are employed in the union and ten other villages. The sweepings are removed outside the village and either burnt or sold. Private dwellings are kept clean by the occupiers, and the refuse and contents of private privies are stored in backyards and vacant places and made use of as manure. Public latrines exist in Nángunéri union.	25·3
	Ambásamudram	From rivers, channels, tanks and wells. Sufficient and good. In the unions and some other villages square tanks and wells are set apart for drinking purposes and watched over. In the other villages the people themselves see that sources are not polluted. Many of the wells have parapet walls, platforms and drains. The square tanks are masonry-built. They receive their supply from channel and, in some cases, from tanks at a distance. They are cleaned out occasionally, and their surroundings are kept clean.	Natural. In three villages artificial drains have been constructed in some of the streets. The drainage of streets flows into rivers, canals and tanks. House drains empty themselves into street drains. Cess-pools of defective pattern exist in important villages.	The streets of the unions and twelve other villages are swept by scavengers employed and the sweepings collected outside the village and sold as manure. Domestic cleansing is attended to by the people themselves. The refuse is stored in backyards and removed to fields. Public latrines in the unions are cleaned daily and the night-soil is removed to a distance and buried in deep pits. The contents of private privies are disposed of by the house-owners as manure.	30·5
	Sáttúr ..	From wells, tanks and rivers. With a few exceptions sufficient and of fair quality. Most of the wells are provided with parapet walls, platforms and drains. Some wells are set apart for drinking purposes. Tank water is not used for drinking. Tanks are generally surface-fed and not masonry-built. There are however some masonry tanks. Their surroundings are generally not kept clean.	Natural, except in some places where artificial drains exist. There are pucka-built drains in Virudupatti and Sivakási. In three villages cess-pools exist, which are cleaned once daily. House drains where such exist empty into cess-pools and street drains.	The streets are daily swept in the unions and three villages and occasionally in the other villages. Sweepings and refuse are heaped at a distance from the villages and sold in auction. Night-soil is buried in pits. Private privies are cleaned at the expense of the owners of houses.	27·3
	Tenkási ..	From wells, tanks, rivers, streams and channels. Quality good. Many wells are set apart for drinking purposes and watchers engaged to protect the water from pollution when the supply in the other sources runs short. Drinking-water wells have parapet walls, platforms and drains. There are a few masonry-built tanks.	Natural and by side-cuttings in the taluk as a whole. Some artificial drains are said to exist in Tenkasi union. House sewage in Tenkási flows, into streets while the masonry street drains empty into the river.	Conservancy establishments are employed in the unions and some other villages. Refuse from private dwellings is thrown into dust-bins which are emptied by scavengers. Street sweepings are collected and burnt at a distance. Night-soil from private privies is used as manure. In the unions the contents of latrines are removed to a distance and buried in pits.	30·4

Abstract of the Sanitary Estimate of Villages in each of the Registration Circles from which Reports have been received—continued.

Districts.	Taluks or Registration Circles.	Water-supply.	Drainage.	Conservancy and Domestic Cleansing.	Death-rate.
Trichinopoly.	Trichinopoly ..	From the rivers Cauvery and Coleroon and channels branching from them, and also from tanks and wells. Good and sufficient. Drinking-water tanks in some places and a portion of Peruvalai channel are reserved for drinking purposes and watchmen are employed to keep the water from pollution. The tanks are not masonry-built, and, as a rule, they are not cleaned out. They are all surface-fed. The surroundings of some of these are filthy. Wells used for drinking purposes have generally parapet walls and platforms.	Natural. In the unions of Puvalur and Lalgudi side channels have been cut. There is no systematic house drainage anywhere. House sewage is let into backyards, streets or into some low land.	Conservancy establishments are maintained in three unions and twelve other villages. Street sweepings are deposited at some distance from the village. In other villages rubbish, cow-dung, &c., are heaped in backyards and eventually used as manure ; streets and houses in other places are cleaned by the people themselves. There are public and private latrines in Lalgudi. The public latrines are regularly cleaned, but not the private ones. Night-soil is buried and not made use of.	23·9
	Musiri ..	From rivers and channels branching from them, tanks and wells. Sufficient and good on the whole. Only in three places tanks are set apart for drinking purposes and watchmen employed over them. Only a few tanks are masonry-built. They are cleaned out occasionally. A few wells have parapet walls and platforms, some only parapet walls and some only platforms.	Generally natural. In some villages side-cuttings exist. Drainage water finds its way to channels or jungle streams. House sewage runs into backyards and is allowed to soak in the soil.	Three towns have conservancy establishments to sweep the streets and clean the latrines ; the street sweepings of two of them are deposited at a distance and sold in auction. In the other villages the people themselves clean the streets and places adjoining their houses, heaping up the refuse, &c., near houses and sometimes in open places and eventually carrying it during the cultivating season to fields to be used as manure.	23·6
	Kulittalai ..	From the Cauvery and its branch channels, tanks, wells and uranies. Quantity sufficient and quality good on the whole. In some villages the wells and tanks run dry in the hot season when sources in adjacent villages have to be resorted to. Tanks and wells are set apart for drinking purposes, and watchmen employed over them. Only Local Fund wells have parapet walls, platforms and drains. There are no masonry-built tanks except in one place. The silt from them is generally removed when they get dry. Tanks are rain-fed.	Mostly natural. In three villages side-drains have been cut. The surface drainage finds its way to jungle streams and river channels. House sewage either soaks in backyards or is allowed to run into streets.	Sweepers are employed by the Taluk Boards in some of the important towns to keep the streets clean ; the sweepings are burnt or sold as manure. In the other villages the houses and the streets in front of them are kept clean by the people themselves, the refuse being burnt or stored in backyards to be used in their fields as manure. Public latrines exist in the conserved towns and their contents are buried at a distance. The public generally resort to fields for purposes of nature.	14·7
	Perambalúr ..	From the Vellár and its branches, jungle streams, wells and tanks. Sufficient except in some parts of the taluk ; water is scanty in the hot season. Quality generally good. In some places tanks are set apart for drinking purposes and watchmen are specially employed to look after them. There are very few masonry-built tanks which are seldom cleaned out. They are surface-fed and their surrounding grounds well kept. A few wells have parapet walls.	Natural. House sewage flows into backyards or into streets.	Scavengering establishments are employed in three villages and the rubbish, &c., conveyed in carts and thrown at a distance and sold in auction. House and street conservancy in the other villages is attended to by the people themselves, the refuse being stored in backyards and used as manure. Public latrines exist in two places ; the night-soil is removed by toties and buried in trenches. There are also private privies in one of these places, Perambalúr, used by the officials, who see to their cleansing daily by private toties.	22·6
Vizagapatam.	Udaiyárpálaiyam.	Tanks and wells for the most part and the Coleroon and its branches in the southern portion of the taluk. Sufficient and good. A few tanks and wells are set apart for drinking purposes and watchmen appointed over them. Drinking-water wells have parapet walls, platforms and drains. A few tanks are masonry-built. They are seldom cleaned out. They are mostly surface-fed and their surroundings are not in all cases clean.	Natural. In towns side drains have been cut. Surface drainage is satisfactory on the whole and flows into tanks, odais or rivers. House sewage flows into backyards where it soaks into the ground.	Private dwellings and the portion of street in front of them are swept and kept clean by the people themselves. In the town (four in number) conservancy establishments are employed and the sweepings sold in auction. House refuse is stored and used as manure. In the conserved towns public latrines exist which are cleaned by toties employed by the Taluk Board. Private latrines are few in number and cleaned by private toties. Night-soil is removed to a distance. In villages fields are resorted to for purposes of nature.	27·9
	Vizianagram Taluk Board.	From wells, tanks, rivers, streams and channels. Sufficient and generally of fair quality. Many tanks are reserved for drinking purposes only and watchmen employed over them to see they are not defiled. The wells in the unions have parapet walls, platforms and drains; those in the other villages have only parapet walls.	The drainage of streets and houses is generally natural. In many villages and in the unions there are artificial drains. Drainage water flows into paddy-fields or irrigation tanks. There are cess-pools only in Palkonda and Gajapatinagram Unions which are emptied daily.	Conservancy establishments are employed in the unions and a few other villages to clean the streets and private latrines. In the unions the sweepings are deposited outside the villages in rubbish depôts and sold by auction. In Palkonda they are burnt. In the non-union villages they are thrown at fixed places outside the village. The sweepings of the other villages are either removed outside the villages or stored in backyards and removed to fields to be utilized as manure. An itinerating conservancy staff is also employed.	Palkonda .. 19·6 Chipurupalle..13·7 Bimlipatam ..16·0 Vizianagram ..13·1 Gajapatinagaram ..19·7
	Vizagapatam Taluk Board.	The principal sources are tanks and wells. Water from rivers and streams is also used, and in the dry weather pits are dug in them. Quantity sufficient and generally good. The water in the coast and for about 14 miles inland is not very good, being brackish. Many tanks have been set apart for drinking purposes and are guarded by village servants. All the tanks are surface-fed except one at Porlupalam which is fed by sub-soil springs. The surrounding grounds are generally cultivated paddy-fields. A large number of the wells are provided with parapet walls and many others with platforms and drains also.	Drainage water finds its way into low-lying lands outside the villages or into irrigation tanks or nullahs. Side channels exist in some villages and in one, Srungavarapukota, masonry drains are being built. Sewage water from houses flows into backyards and streets and thence into low-lying places. There are no cess-pools.	Domestic cleansing is attended to by the people themselves. Three villages were conserved. For all the other villages an itinerating conservancy staff is employed. The sweepings of streets and house refuse are either burnt or used as manure. People generally resort to fields for purposes of nature. There are both public and private latrines at Srungavarapukota. Night-soil from public latrines is burnt. The private latrines are cleaned at the expense of the owners.	Vizagapatam..17·1 Srungavarapukóta .. ..16·7
	Narasapatnam Taluk Board.	From rivers, channels, tanks and wells. In the beginning of the year there was a drought and almost all the tanks got dry. In large villages tanks are set apart for drinking purposes and looked after by village servants. Watchers are employed to guard certain tanks. All the tanks receive their supply from surface drainage or from river channels. The surrounding ground is generally paddy-fields or waste lands. Almost all the wells in the large villages have parapet walls and platforms.	In all the unions and some villages side drains exist in the streets. There is no system as regards drainage of houses. Drainage water freely finds its way to adjoining fields or irrigation tanks.	There is a conservancy establishment in each of the unions. There is also an itinerating conservancy establishment employed in each of the four taluks. These establishments are employed in removing prickly-pear, in digging side drains and in cleaning streets in large villages. The ryots collect the sweepings and remove them to their fields.	Golgonda .. 13·6 Sarvasiddhi.. 14·9 Víravilli .. 13·2 Anakápalle .. 14·2
	Párvatípuram Taluk Board.	The principal sources are rivers, tanks and wells. Quantity sufficient and good except in some places. Four tanks, two in Bobbili Union and one in each of Párvatipuram and Sálúru Unions, are set apart exclusively for drinking purposes and are guarded by watchmen from pollution ; many of the wells have parapet walls and platforms. No tanks are masonry-built except a few here and there. They are all generally surface-fed, and are cleaned at distant intervals. The surrounding grounds are generally paddy-fields, and they are not in many places free from pollution.	The drainage of streets is natural, except in the taluk head-quarters and unions where there are side channels. Sewage water from houses flows into street drains and streets or is allowed to soak in backyards. The condition of drains where they exist is generally good. They discharge into fields and vacant places. Ten cess-pools exist in Sálúru village, which are cleaned out once a day. Drainage of Párvatípuram itself is defective.	No special arrangements exist for the cleansing of private dwellings. The inmates of the houses look to this. Streets in the unions are kept clean by conservancy establishments employed and the sweepings burnt outside the villages in cinerators. An itinerating conservancy establishment is employed for the other villages. This gang moves from village to village. The sweepings are stored in streets and backyards and used as manure. Public latrines exist in three unions and their contents are thrown at a distance. The contents of private privies are removed by toties paid by the owners.	Bobbili .. 18·0 Sálúru .. .. 18·6 Párvatípuram 19·2

THE MECCA PILGRIMAGE.

100. In accordance with G.O., No. 698, Public, dated 20th September 1894, directing that enquiries be made and the results be recorded as to facts brought to light concerning the sanitary aspects of the pilgrimage of Muhammadans to Mecca, I placed myself in communication with sixteen officers in charge of ports in the Presidency and furnished them with questions bearing on the sanitary aspects of the matter. With the exception of the district of Malabar, however, no reports of embarkations have been furnished, it being evident that it is customary for pilgrims to proceed to Bombay to join the pilgrim ships at that port, none sailing direct from the Madras Presidency. In the solitary instance in which information was procured, resort has been had to obtaining accounts before officials of the experience of certain pilgrims. Several statements made demanded corroboration; for example, it was declared that no formal examination of pilgrims, before embarkation, took place. The amount of superficial space per pilgrim allowed would also appear to have been below regulations. On referring these points to the Collector of Land Revenue, Customs and Opium, Bombay, I find that they cannot be substantiated.

101. One matter however elicited by my queries does, I think, merit attention, namely, that no regulation exists demanding vaccination before embarkation. It is not likely, if vaccination or re-vaccination, as the case might demand, of all in a sufficiently good state to stand the operation were made, as a condition of granting a passage by special steamers, that any serious opposition would be forthcoming as to this interference with personal liberty. The desirability of this protection being afforded is obvious.

102. Granting that it is necessary to remember that the statements are made by irresponsible persons, the following replies to queries furnished by this office may be of use in pointing to the direction in which it would be desirable to secure more reliable information in future:—

"*Extract from statement by Pattiyil Ahamed Katti of Mankatapalliprom amsam, Walluvandd taluk, Malabar, before the Tahsildar of Ernad.*

"On the 10 Minam last (22nd March) I went on the pilgrimage to Mecca. "No doctor examined me before I embarked. Others who were with me were "also not examined. I am not able to give the number of men rejected and the "reason for their rejection. I do not know if any have been rejected. I do not "know whether there were any paupers with me. We stayed ten days at Camaron. "It is a very hot place and the water there is bad.

"The pilgrims were not examined as to vaccination, and they were not vaccinated during the voyage.

"Water was measured out to each of us—only once during the day—before "noon. The water was procured by the ship agent from the several ports. Each "of us used to get nearly three 'edangalis' of water (*i.e.*, about six bottles).

"The pilgrims were found to suffer from fever and dysentery, &c.

"Persons that are on board the vessel first take more space than those who come "last. But the authorities in the vessel did not particularize the space each of us "was to occupy.

"There is reason to believe that the pilgrims, owing to poverty, suffered from "deficiency and unwholesomeness of food and want of proper clothing."

"*Information gathered by the District Magistrate, Malabar, through the Tahsildar of Ponnáni, from pilgrims who embarked to witness the last Haj.*

"The pilgrims have no idea of any medical inspection having taken place.

"No one was rejected, as no inspection appears to have taken place.

"When the pilgrims arrived at Camaron, all the pilgrims were taken to one "place. Their clothes were taken away, after being supplied with new clothes. All "the old clothes were fumigated by means of an 'engine.' Then a kind of powder "was thrown on the person of the pilgrims. Afterwards, old clothes were returned "to them and the new clothes were received back. They were then removed "to another place. There they had to stop for ten days. They will be supplied "with water and firewood. If there are any sick persons, they will be removed "to another place for medical treatment. Those who had money had to pay Rs. "12–12–0 each. If any one refused payment owing to his alleged inability, his "bundles were inspected and he was then granted a ticket.

"Pilgrims do not know whence water was supplied. They used to get four or "five bottles a day per head.

"About eighteen square feet for each pilgrim."

SECTION X.

GENERAL REMARKS AND PERSONAL PROCEEDINGS.

103. I continued to act for the incumbent of the office—Surgeon-Lieutenant-Colonel Laing—throughout the year. Surgeon-Captain Bannerman, Deputy Sanitary Commissioner, left on furlough to Europe on the 5th December 1894, when he was succeeded by Surgeon-Major Mallins, D.P.H.

104. I was detained till the 18th January at head-quarters to give evidence before the Royal Commission on Hemp Drugs.

105. On the 9th February I left for Bombay to give evidence before the Opium Commission. With the permission of Government I inspected Bombay, Poona, Berhampur and Aurangabad, with the object of making myself acquainted with works of sanitary interest, and returned to head-quarters on the 28th February. During the year I travelled 9,011 miles by rail, road and sea, and inspected the following 27 municipalities :—

Anantapur.	Madura.	Gudiyáttam.
Adóni	Dindigul.	Tirupati.
Bellary.	Periyakulam.	Vellore.
Conjeevaram.	Calicut.	Walajapet.
Erode.	Cannanore.	Chidambaram.
Cuddapah.	Cochin.	Cuddalore.
Cocanada.	Palghat.	Srírangam.
Ellore.	Tellicherry.	Trichinopoly.
Rajahmundry.	Coonoor.	Madras.

106. Written reports were submitted for consideration of the Municipal Councils and the orders of Government in each case.

107. With reference to works proposed by the Sanitary Board, I also inspected portions of Trichinopoly (on a second occasion), Karúr and Ootacamund. Certain parts of Madras town were also specially inspected and reported upon, either at the desire of Government or the municipality.

The following rural areas were inspected :—

Alipúr.	Yeddapalli.	Kulittalai.
Sholavandan.	Humpi.	Tiruvannámalai.
Tirumangalam.	Samalcot	Yaraka
Chengapadai.	Ránipéttai.	Sembiém.
~~Settypalkanpatty~~.	Upper Tirupati.	Siruvellúr.

108. I inspected twice, with the Collector, Upper Tirupati, and advised as to preparation for the important feast at that place. I was also present at the festivals of Tiruvannámalai, Sholavandan and the Little Mount feast, Saidapet.

109. Surgeon-Captain Bannerman, Deputy Sanitary Commissioner, travelled 6,443 miles by road, rail and sea. He inspected the following municipal towns :—

Coimbatore.	Palni.	Tanjore.
Karúr.	Nellore.	Palamcottah.
Berhampúr.	Ongole.	Tinnevelly.
Chicacole	Ootacamund.	Tuticorin.
Parlákimedi.	Kumbakónam.	Anakápalle.
Bezwada.	Mannárgudi.	Bimlipatam.
Guntúr.	Máyavaram.	Vizagapatam.
Masulipatam.	Negapatam.	Vizianagram.
Kurnool.		

The following rural tracts were also inspected by him :—

Rázampéta.	Madanapalle.	Udamalpet including Kadakampálaiyam.
Utkúr.	Chinna Tippa Samudram.	Kodaikánal.
Pullampet.	Vayalpád.	Vellagavi
Chítvélu with 5 hamlets.	Gopalpúr.	Velapati.
Kódúru and various hamlets.	Ichchhápuram.	Pumbarai.
Settigunta and 14 hamlets.	Haripuram.	Dhone.
Chelamakúr.	Narasannapéta.	Nandikotkúr.
Proddatur.	Pérúr Devastánam.	Nandyál.
	Pérúr Chettipálaiyam.	Cumbum.
	Pollachi.	

110. Surgeon-Major Mallins, who, as it will be observed above, joined his appointment in the last month of the year, inspected the towns of Mangalore, Salem, Tiruppattúr and Vániyambádi.

111. In response to my representation to Government as to this office being in ignorance of proposals as to sanitary works, Government directed that the regulations hitherto affecting the Board should be altered, with the object of enabling the Sanitary Commissioner to secure information and to make proposals or suggestions. The Chief Engineer, Public Works Department, was appointed President of the Sanitary Board. These rules were to be enforced from the 1st January 1895.

112. Surgeon-Captain Bannerman did excellent sanitary work during the year, and rendered special service to the cause of vaccination by his careful inspection of rural parts of the district of Cuddapah, which are well removed from the main lines of traffic.

113. My Manager and Assistant ~~Mr.~~ Balasundra Mudaliár and office staff have worked with their usual assiduity. Government having desired that this report should be submitted a fortnight earlier than hitherto, their powers have been taxed to complete the very varied character of statistics required. It seems to me possible that certain of the forms directed by Government to be used in this report might be usefully abolished, or modified in view of the fact that the same information is repeated in terms that but vary slightly.

114. I have attempted to refrain from dissertations in this report and to curtail its length, in obedience to the directions of Government in paras. 7 and 13 of G.O., dated 2nd July 1894, No. 1210 L. In accordance with further communications, diagrams have been omitted as far as feasible with regard to the requirements of the Army Sanitary Commission as approved by Government.

115. The service books of my office establishment have been maintained up to date. With reference to G.O., dated 18th September 1892, No. 920, Financial, the stock of articles in my possession has been checked.

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

FORT ST. GEORGE,
7th May 1895.

APPENDICES

TO

GENERAL SANITATION REPORT.

APPENDIX A.

Memorandum on Government of India Resolution No. 2, Sanitary, 106-117, communicated with Madras Government Order No. 477, dated 3rd July 1894.

I.—The use of the 'Rate of Increase' in calculating Ratios of Vital Statistics.

Should the 'estimated population' be utilized in calculating ratios of vital statistics in the case of this Presidency? I would unhesitatingly answer this query in the affirmative. In paragraph 8 of the Resolution under reference, it is noted that the Secretary of State for India and the Government of India consider that yet another census should be taken before the introduction of this method. If, upon the figures representing the 'estimated population,' there be not placed a fictitious value, I cannot see the object of thus deferring the very obvious advantages to be secured by their use. It is believed that the census of 1881 was conducted with accuracy in this Presidency. There can be no doubt also that the census for 1891 was undertaken with very great care as to details, as a result of experience gained in the preceding census. But, in the decade—1871–1881—there had been the severe famine of 1876–77, and it is believed that the incidence of mortality was then such as to ensure in the decade 1881-1891 an abnormal proportion of adults at the child-bearing age. The rate of increase between the two decades was, therefore, presumably greater than in periods unaffected by such incidents. But against this are to be balanced the facts that no great famine or epidemic occurred between 1881 and 1891, and, as previously stated, that the census operations on both occasions were conducted carefully. To procrastinate till another census be taken, would imply that the two census operations were conducted inefficiently, or that the disturbing factor as to the child-bearing population was so great as to render the results valueless, and that by waiting for another decade it would be possible to avoid both the disturbing factors of famine and epidemics. In reference to the latter point, I may remind Government that already in the present decade a disturbing element has forced itself upon notice; following a period of food scarcity not amounting to famine there occurred between 1891 and 1893, in accordance with the temporary decline of prosperity of the ryot and the poorer classes, a decrease of marriages and a consequent decrease of births in the Presidency; similarly, in certain of the more severely-affected districts, the death-rate of the very young and the old showed an increase—presumably due not to actual lack of food but to the stinting of luxuries that often approach the character of necessaries where the young and feeble are concerned. In short, I would suggest that there can be no object in deferring the use of the results showing the rate of increase between the last two decades—it being impossible to foresee the passing of any ten years in this country, without very great chance of disturbance of conditions affecting the birth and death rate. To take, therefore, the results of a fairly normal decade, and to apply them with the knowledge gained from other sources which appeals to the exercise of discretion, therefore, seems to me the correct method to follow. But, in doing this, I would caution those who use statistics so calculated that by reason of emigration and immigration and conditions affecting the prosperity of the people, the utmost that can be said in their favour is that they are *estimates*, and, whilst they undoubtedly give a more accurate idea of the truth than if the basis of calculation was the population ascertained at the last census, the possibility of their being erroneous within a certain limit must be admitted. But, to enable the reader to gauge the possibilities himself, I would take two precautions: firstly, side by side with the calculation of ratios upon the estimated population, I would place ratios calculated upon the last census population; and, where small areas, as contrasted with huge districts are concerned, that is to say, in dealing with individual villages or towns, I would take the second precaution of stating whether or not abnormal conditions were in operation at the time of the census, by the use of an appropriate foot-note. This method has now been employed since August 1893 by me in submitting to Government monthly vital statistics of this Presidency: also throughout my Annual Report on the Sanitation of the Madras Presidency for 1893, these combined methods have been employed.

2. Passing to the question of actual utility, I think there is no room for difference of opinion on the subject. Whilst the reader of vital statistics that have been corrected with the above precaution is aware that at least he is obtaining *an approach to the truth*, where simply the census population is dealt with he must perceive that they are misleading, and this too with the knowledge that as years advance the grade of inaccuracy must become wider; whilst on the opposite, he must be aware that for at least the first three years or so, the figures based on the 'estimated population' must approach very closely to accuracy. The latter fact points to the necessity for Government not to be satisfied with a census every ten years. Whilst there can be no necessity for a complete census taking into account the social condition of the population, very little expense and time would be necessary to make a simple enumeration in

the whole Presidency, or at least of selected districts every third or fifth year. In urging the question of utility, I made the following remarks in my letter embodied in G.O., No. 349 L., dated 19th February 1894, in which I sought the permission of Government to adopt this method:—

. . . . In the decade—1881–1891—there was no famine except in Ganjám; consequently the rate of increase during the period ought to be fairly accurate. During 1871–1881, however, there occurred the severe disturbing factor of the famine of 1876–78, and hence the calculations based on the census of 1881 are not likely to be so trustworthy as in the latter decade. I show below the effects of calculating upon the recorded population of 1881 up to February 1891, and then exhibit the results of the correction possible during that period by the use of the estimated population. In a third column I show the actual figures as revealed by the census of 1891:—

Towns.	Actual deaths recorded in the 12 months ending with 29th February 1891.	Population according to the census of 1881.	Estimated population calculated on the rate of increase between the census of 1871 and 1881.	Population according to the census of 1891.	Death-rate per mille reckoned on the population of 1881.	Death-rate per mille reckoned on the estimated population.	Death-rate per mille reckoned on the census population of 1891.
Mannárgudi	549	19,409	21,279	20,395	28·3	25·8	26·9
Ongole	208	9,200	11,450	10,860	22·6	18·2	19·2
Cochin	502	15,698	17,805	17,601	32·0	28·2	28·5
Calicut	3,056	57,085	67,943	66,078	53·5	45·0	46·2
Berhampur	406	23,599	25,700	25,653	17·2	15·8	15·8
Trichinopoly	2,629	84,449	93,187	90,609	31·1	28·2	29·0
Madras	17,204	405,848	431,268	452,518	42·4	39·9	38·0

The examples given above at once afford instances of the utility of the method and of the extent to which it can be misleading; but I think no one can help feeling that to be told that, according to the estimated population, 1 in 22·2 died annually in Calicut and 1 in 25·1 annually in Madras, respectively, is much nearer the actual truth as revealed by the census of 1891, than when, on using the census population of 1881, the rate of death is said to be 1 in 18·7 and 1 in 23·6, respectively.

3. Nor does the utility of employing the 'estimated population' cease, with an attempt at securing a valuable approach to accuracy of vital statistics. If, at the opening of each official year, it were announced to local bodies that it is *estimated* that such and such an amount of vaccination ought to be secured, much better results might be forthcoming and certainly a more accurate mode of gauging the progress of *infantile* vaccination would be obtained than by using the present absolutely futile mode of reckoning upon the *total* census population. As an example of this sphere of utility, I would quote the following letter in which I dealt with the subject of outturn possible by a municipality:—

* * * * *

Taking into consideration the population of your town, as shown by the last census, and the rate of increase then ascertained, there should pass through the vaccinators' hands at the end of two periods of six months 2,099 infants before the end of the year 1894; of whom, allowing for leaving the town and similar causes of disappearance, at least 94 per cent. should be returned as actually vaccinated. Again, it would not be unreasonable, taking into consideration the state of vaccination up to date in your town to suppose that at least 30 per cent. of children between one and five years of age still required vaccination—giving a total of 3,698 primary vaccination cases. Further, if re-vaccination be effected on the very moderate scale of 3 per cent. of persons living between 10 and 15 (4,959) and 2 per cent. of persons between 20 and 25 (4,133) this class of operation should amount to the modest total of 238. In all there should, therefore, be performed at least 3,936 operations this year, or about **328 cases** per month against 120 performed by you.

II.—*Suggestion for improvement of methods of registration of Births and Deaths.*

4. In regard to improving the existing admittedly poor methods of collecting statistics, the matter is almost strictly financial. The population of this Presidency is so well educated, that it would not be difficult to flood the country with B.A.s fully qualified as registrars: the only difficulty would be to find pay for them. As suggested in paragraph 11 of the Resolution under discussion, any improvement must take the form of re-organizing existing elements. In paragraph 3 of my report on the re-organization of the Vaccination Department embodied in G.O., No. 1066 L., dated 9th May 1892, I pointed out that a well-arranged system of registration must form the foundation for any effort towards fully vaccinating the population of this Presidency. I came to the conclusion that kurnams of villages, who at present conduct the duty of registrars, must be retained; as to supplant them by a completely new staff was financially out of the question, and even to offer them the inducement of an increase of pay could not be advised, as the annual cost would be very heavy. Under these circumstances, I proposed that (1) rewards to the total amount of Rs. 5,000 should be distributed annually to kurnams, who for three years have proved the accuracy of their registers to the satisfaction of an inspecting officer—this could always be arranged at jummabandi; (2) that Medical subordinates in charge of out-patient dispensaries in villages, in the employ of local bodies (who are now stationed in 352

villages) should be ordered to revise the kurnam's statement of births and deaths, so as to secure the use of the correct nomenclature of diseases—a matter of very great importance when attempting to gauge the sanitary state of the people, and which is at present out of the power of the Sanitary Department. I pointed out this would necessitate the use of two forms of village registers—one set applicable to villages where no Medical subordinate is stationed, and another where this is the case; (3) that Government should notify that, after the lapse of a certain number of years from date of notification, 'horoscopes' would not be accepted in Courts of Law as sufficient evidence of a person's age, the object being to encourage registration, and the securing of an officially-certified copy of the date of births as well as of deaths. For this purpose, I suggested that (*a*) a small fee might be exacted for a copy of a birth registration entry signed by a kurnam; (*b*) a slightly larger sum for a copy by the Registration of Documents Department; (*c*) and a still larger fee for a copy countersigned by the Collector of the district. This would (*a*) bring home to all the value of registration—as in litigation of which natives are prodigiously fond—and would (*b*) start a system which would in time become lucrative to Government, especially if (*c*) the registration of marriages also were provided for.

5. None of the above measures can, however, be regarded as more than affording aid to an end; the radical improvement required is the complete re-organization of the Vaccination Department to an extent to secure the services of a well-educated, trustworthy and contented class of subordinates, and it is in the entertainment of such a scheme it seems to me lies the cheapest solution of the difficulty. *Registration and vaccination must go hand in hand.* Given a class of subordinates entitled to respect from the kurnams instead of the indifferently-educated and poorly-paid class at present entertained, arm such men with a certain amount of authority over village heads, and support that authority well at the outset, when, if the staff be calculated so as to be able to deal correctly with the areas under their charge, both birth and death registration could be reduced to a state of fair exactitude; but, to get full results for expenditure from this staff, it is essential that both vaccination and registration should be rendered compulsory in rural tracts. Government proposes to make vaccination compulsory in all major unions, and there seems to me no substantial reason why this intention should not be extended throughout the Presidency, except in the Hill tracts. If side by side, with compulsory vaccination, compulsory registration were worked, the existing difficulties would disappear. As to enforcing these measures, the extra work thrown upon the Magistracy would certainly not be great, as it cannot be pleaded by any one that the reporting of a birth or death to the authority appointed for the purpose can be styled a hardship. Stationary Magistrates are now freely scattered throughout the Presidency, and if the work of these officials in connection with compulsory vaccination and registration were aided by Honorary Magistrates, the system ought to work correctly. District Sanitary officers might also usefully be invested with Magisterial powers for this purpose. It seems to me incompatible with the existence of a civilized Code of Criminal Law enforced by an expensive Magistracy and Police, that there should exist any hesitation in Government availing itself of compulsory registration of births and deaths—*one of the most useful methods of checking crime.*

6. Both vaccination and registration being compulsory in Municipalities, it but requires firm pressure from Government to secure better results, and I think the direction of this pressure should be in insisting that Bench Magistrates should inflict more deterrent punishments than at present. Still better results, I think, would be secured by not considering the registration of births and deaths a matter for municipal administration; it should be regarded as part of the duty of the department which I shall describe in the last paragraph of this memorandum.

7. Whilst as regards villages of a small size, the kurnam can, under pressure from the Revenue officer or under promise of reward, effect correct registration; in those having a population of over 5,000 persons, it is beyond the power of this functionary. There must in this case be appointed a special staff. The cost of this staff should be a charge upon Local funds, which might be aided by Government, to whom the proceeds of certificates for registration would form a small contribution This staff, I think, should take the form of Sanitary Inspectors, charged also with registration duties, and subject to the orders in this respect to the department described in the last paragraph.

8. If these various proposals be woven together, it is not difficult to see the type of staff that is required—especially if we look to aid also from another existing class of officers, namely, District Medical and Sanitary officers. I have twice pressed upon Government the desirability of forming District Sanitary Boards to work in communication with the Sanitary Board of the Presidency. This idea has however been negatived. But, I also proposed, as an alternative, the following measure (paragraph 4 of Proceedings of Sanitary Board, embodied in G.O., No. 231, dated 31st January 1891):—

. . . . It is also thought that, to render the position of District Sanitary officers fully effective, they should be ex-officio Vice-Presidents of District Boards for Medical, Sanitary and Vaccination services—there being a second Vice-President for finance and engineering. All sums allotted for sanitary purposes should be spent with the concurrence or supervision of District Sanitary officers in their function of Vice-Presidents—subject to the usual discretion exercised by Presidents. As District Sanitary officers would thus be in a position to advise as to sanitary outlay more fully than at present, and in consideration of the fact that they are in frequent communication with the office of the Sanitary

Commissioner, there would result by a natural evolution a Sanitary department, having for its head the Sanitary Commissioner, that would prove of utility not only in connection with the suppression of cholera, but in dealing with all sanitary questions affecting populations.

Mr. Mullaly, Collector of Kurnool, arguing from the view of the District officer, has made identically the same proposal to Government, but has, with advantage, carried the prime idea (which I need not add he had excogitated for himself without a knowledge of my previous writing on the subject) by suggesting that District Sanitary officers should possess certain powers of control over village heads in respect to sanitation and registration.

9. Having enlisted the aid of officers who would thus have admirable facilities of control, I would suggest welding the remodelled Vaccination and Registration department into a homogeneous whole, *so as to form a Public Health Department.* To understand how I would propose the necessary changes, it must be remembered that I have endeavoured throughout to utilize existing—not to create a new staff, and that the various steps suggested have been as follows.

10. In *rural tracts* (villages below 5,000 inhabitants each) kurnams or headmen of villages to be used as at present for registration purposes, subject to supervision by the Public Health Department.

11. *For villages of over* 5,000 inhabitants, the entertainment of a new class of men—rural Sanitary Inspectors—who, besides their public health functions, should collect vital statistics, and effect vaccination under a compulsory Act in an area embracing, as far as feasible, not less than three such villages—the kurnams being for the latter purpose their assistants: where Medical subordinates are stationed, special forms to be employed; the salaries of these rural Sanitary Inspectors to be paid by a special rate upon houses in all places not classed as unions; where unions exist, the rates to be enhanced sufficiently to pay these men.

12. *All municipalities* to be directed to cease making use of Sanitary Inspectors as bill collectors, and the services of these men to be exclusively devoted to sanitary work; a sufficient number of registrars to be appointed, and their work to be supervised by these urban Sanitary Inspectors, who should also fulfil the functions of public vaccinator in the town to which they are attached.

13. The work of the Public Health Department, whose duties would thus include the supervision of Sanitation, Vaccination and Registration, would be supervised by Superintendents of Vaccination (Scheme No. 1 detailed in my report embodied in G.O., No. 1666 L., dated 9th May 1892) or by Deputy Sanitary Commissioners as originally proposed by Surgeon-General Cornish (G.O., No. 1537, dated 21st October 1879, Public), by District Sanitary officers (*ex-officio* Vice-Presidents of District Boards) and by the Sanitary Commissioner.

14. Of course, this is a very rough statement of requirements; no calculation of expenditure accompanies it, and it may be shown to be financially impossible. Taking these facts into calculation however, and granting that modifications be necessary, I believe the direction to which I point is correct, and that in the complete re-organization of the present poor vaccination department and allying it with Public Health and Registration duties lies *the cheapest solution of the question.* In paragraph 1 of my report just quoted, I have given reasons for exactly the opposite mode of thinking, that is, I have advocated the desirability of separating entirely the Sanitary and Vaccination departments; but when it is obvious that funds cannot be forthcoming for complete and separate staffs for each department as there advocated, the only course open is to suggest the compromise I have made.

(Signed) W. G. KING, M.B., C.M., D.P.H., Surgeon-Lieut.-Colonel,
Acting Sanitary Commissioner.

APPENDIX B.

Extracts from Inspection Notes on the Sanitary condition of the Town of Madras in 1894 *by Surgeon-Lieutenant-Colonel W. G. KING, Acting Sanitary Commissioner for Madras.*

1. *Factors concerned in the sanitation of Madras Town.*—If, then, the various sources of contamination of the soil and sub-soil of Madras above enumerated be considered, in connection with the physical configuration of the site as affecting its surface drainage and sub-soil fluctuation —matters which have been attended to in the preceding paragraphs—it is perceived that we have to deal with a city composed chiefly of a very poor class of dwellings, much crowded in certain parts upon the site, and individually built in defiance of the common principle of securing perflation (*see* paragraph 87); that running almost in its centre but meandering hither and thither is the Cooum, gorged with a mass of land-locked water, chiefly sewage, having two long branches cutting the site at right angles to the direction of sub-soil water flow; one branch—the Buckingham Canal—being between the point of exit of the sub-soil water (the sea) and a large inhabited area; that to the west, above the general level of the whole site, and within the soil of the site itself, is much surface water arrested in tanks, together with extensive wet cultivation and neglected surface drainage of patches, producing at certain seasons water-logging, and that the soil so included has for 2½ centuries been the recipient of enormous increments of organic filth.*

2. *What are the conditions which affect the rate of mortality from year to year and month to month?* I have sufficiently proved in paragraphs 4 to 16 that the soil and sub-soil of Madras are highly charged with organic matter. If further proof be required of my statement, I appeal to the revelations made during the borings by Major Tulloch, and during the work effected in laying pipes by Mr. Woolley. If this be granted, and the peculiar conditions incidental to the sub-soil water be also admitted, it would but remain, in view of the universally acknowledged influence of heat, moisture and organic matter, upon the growth of microbes, to study fluctuations of the water level in connection with rainfall and temperature. The connection between these conditions and disease prevalence in Madras is very marked. Thus, if the question of cholera be considered, it will be found that whilst in other districts chiefly influenced by the north-east monsoon, the greatest period of prevalence of cholera is in the months of December and January, the typical period for Madras is in the months of August and September. Again, whilst in other parts of the southern portion of the Presidency the cold-weather months are those when most deaths from dysentery and diarrhœa occur, in Madras it is not so; here again, the principal months are August and September. The same also is true of fevers. In these months also, the mortality of children between one and five years of age becomes greatest.

* * * * *

3. These remarks would, of course, be greatly strengthened if there could be brought in evidence a period of great fall of sub-soil water synchronous with marked increase of mortality throughout Madras. This evidence, unfortunately in one respect, is easily enough secured.

* * * * *

4. It must be understood in connection with these remarks that I do not regard the food scarcity as the direct cause of increased mortality. The increased prevalence of disease, and especially of fever, must be ascribed to the fluctuation of the sub-soil water acting upon the special causative agents in the soil; the food scarcity could only have acted indirectly, in that persons affected had fewer luxuries during their illness, and, perhaps, were more readily infected, owing to the normal resistance being lowered by less perfect nutrition.

5. Granted it is shown there was diminished rainfall, can it also be shown that the sub-soil water exhibited any marked sympathy with it? I have ascertained that a careful record has been maintained of the level of the 'Seven wells' water. The level of the wells out of use has been utilized. It is probable (as there is a steady withdrawal of water from the wells in their neighbourhood) that conditions may be exaggerated, but the result must represent sufficiently correctly the conditions of the sub-soil water level during the period mentioned. The information thus gained has been utilized so as to frame diagram J, which indicates the connection between the sub-soil water level,† rainfall, price of food, and mortality during a series of years. The results seem to me to illustrate my contentions in a complete manner.

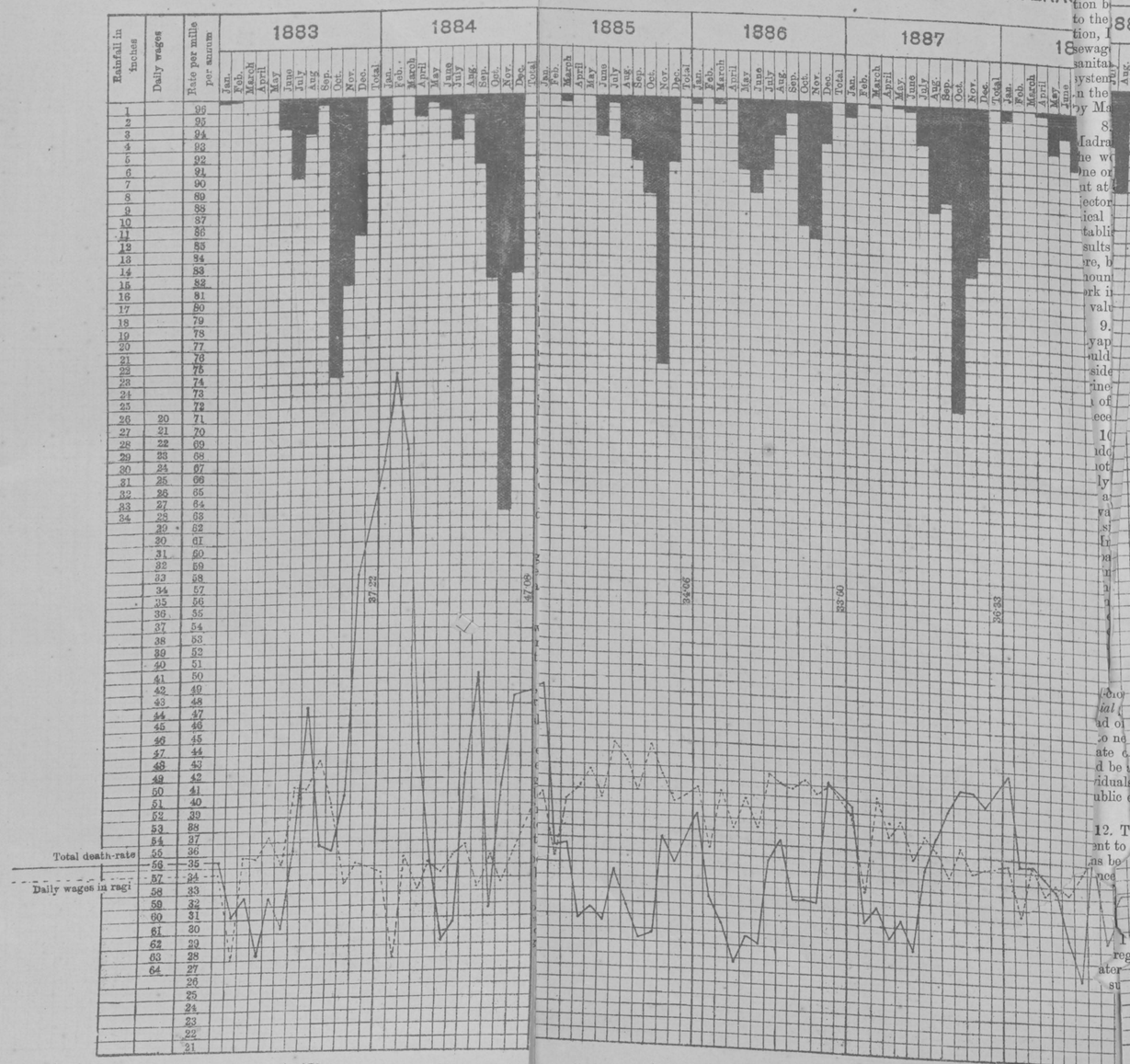
6. *The improvement of sewerage.*—The appointment of the expert, Mr. Cousins, to report upon the drainage scheme, is an earnest of an effort being made by the municipality in this direction.

* Irrespective of the contamination of the soil due to absence of a severage system in the majority of the town and the presence of the leaky sewers in others, it is calculated that 1364 cubic feet of night-soil and 1487 cubic feet of rubbish cannot under existing management of conservancy be removed from the Town site *daily*.

† The general accuracy of this statement was strengthened in the original report by comparison with measurements obtained officially in 1880.—W.G.K.

J

DIAGRAM SHOWING THE DEATH RATE FROM ALL CAUSES CALCULATED UP
FOR ELEVEN YEARS ENDNG 1893 & THE AVERA



Reg. No. 1835—Copies 150

ON ESTIMATED POPULATION WITH RAIN FALL & DAILY WAGES IN RAGI
OIL WATER LEVEL FOR FIVE YEARS ENDING 1893

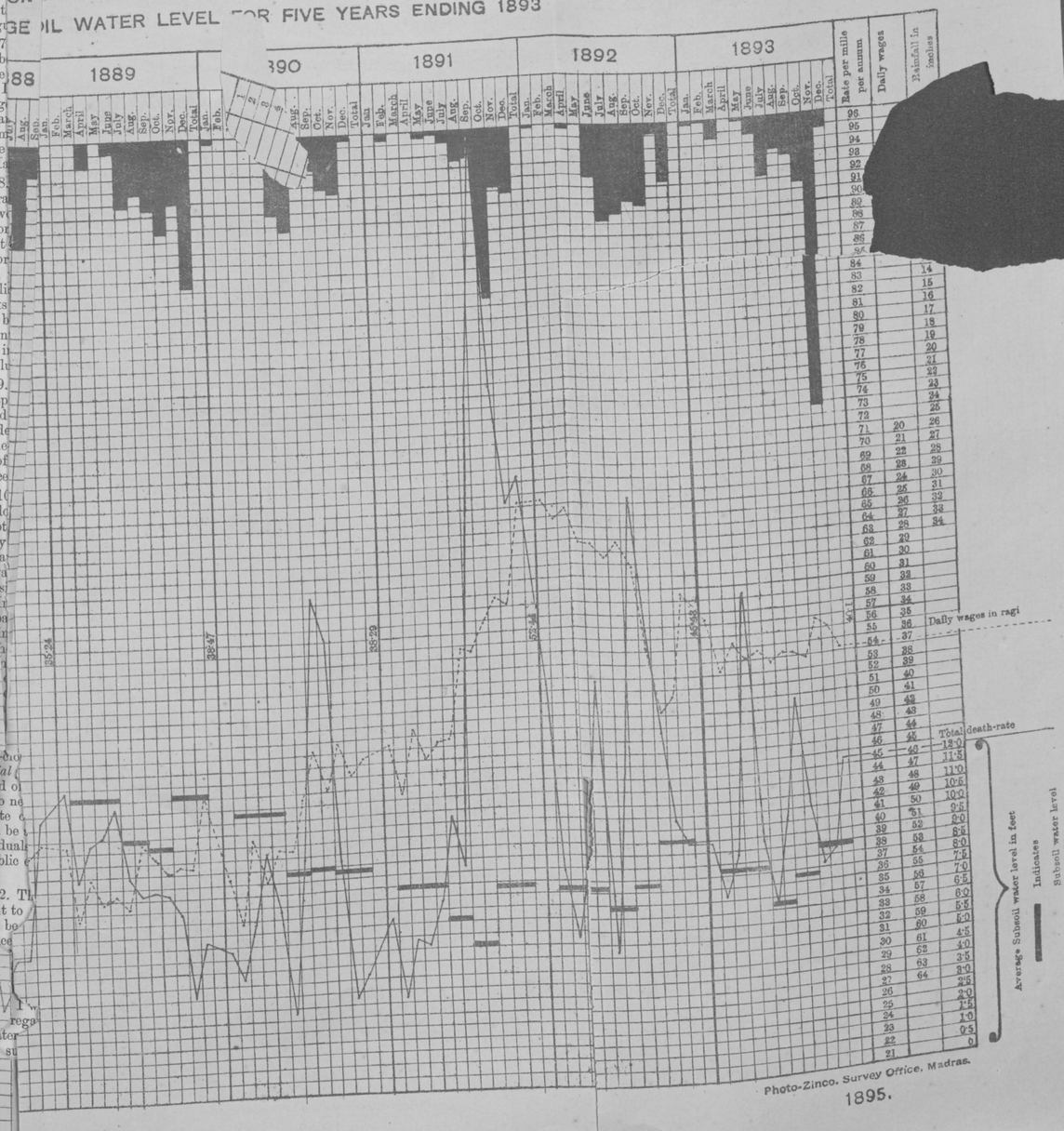


Photo-Zinco. Survey Office, Madras.

1895.

Whatever the details of the system which the municipality may ultimately adopt, it is high time that the present method of messing about with sewage within the precincts of the town, under the guise of sewage farming, was abolished.

7. Mr. Cousins' scheme is of the usually approved type on the gravitation principle, collection being at a single point and discharge in the case of all parts served (except St. Thomé) being to the existing sewage farm beyond Black Town. Leaving engineering matters out of the question, I think the outlet at St. Thomé to the sea as well as the system proposed of lifting the sewage to an elevated cistern at the collecting well before discharge to the farm undesirable sanitarily. It ought not to complicate matters to take St. Thomé sewage direct with the major system, as proposed by Major Tulloch and Mr. Clark, and thus avoid complications as to disposal in the sea owing to currents—the action of which has been well investigated in this connection by Major Tulloch.

8. I cannot help thinking also that an attempt to effect a simple gravitation system in Madras will lead to much difficulty and unlooked-for expense being experienced, on account of the work being conducted in treacherous soil, and in the midst of sub-soil water of high level. One or other of the lifting methods would have to be adopted, not necessarily all over Madras, but at certain spots where sufficient fall could not be secured for the gravitation sewers. Shone's ejector method is that which finds most popular favour, but I believe from a sanitary and economical point of view that Latham's hydraulic method is decidedly the superior. It is a well-established mechanical principle that power can be transmitted by medium of water with better results than by air. I need not enter into the question of comparative merits of these systems here, but I would point out that Madras could never find difficulty in supplying the very small amount of water necessary for working the automatic pumps by the use of sub-soil water, whilst for work in the harbour and in private manufactories the possession of water under pressure ought to be valuable.

9. There is a point in existing methods that demands improvements urgently. At the Ráyapuram pumping station, the receiving well ventilates direct into the engine-room. This should undoubtedly never have been thus arranged. The well and inspection inlets should be outside the main building, and should be ventilated by a special shaft. Special gauges inside the engine-room would afford necessary information as to the depth of sewage. The medical condition of the engineering staff employed at the station shows that they suffer severely from their unnecessary subjection to sewer gas.

10. I need not say I fully agree with Mr. Cousins in thinking that Madras should finally abandon the 'open-drain' system. In my opinion this description of scheme does not, and cannot, correctly fulfil sanitary requirements. In expressing this opinion, I trust it will be distinctly understood I do not pretend to criticise the engineering methods by which the system has been applied. I object to the system itself which, however, I am fully aware in past years, had the warm support of a certain sect of sanitarians, who were misled as to the feasibility of the extension of the dry-earth system of night-soil disposal.

In this connection, I may add that after fully impressing Dr. Weir, the Health Officer of Bombay, with the meaning of my query, I received from him the plain answer that, notwithstanding defective velocity of sewers here and there in Bombay, and notwithstanding difficulties as to house connections, he would not think if he had the option of undoing all existing work of advising the use of 'open drains' in the streets of Bombay! I would further point out that the three experts—Captain (now Major) Tulloch, Mr. Clarke and Mr. Cousins, who have successively prepared drainage schemes for Madras, have advised not 'open drains,' but pipe gravitation systems.

11. But the great scarecrow which has for ever been flourished before those who would elect the pipe as against the open-drain system is that the European adjunct to the pipe system—the water-closet—renders the method unsuitable for natives. The truth is *the water-closet forms no essential part of the pipe system;* it simply affords a mode for using water carriage for transport instead of, for example, bullock power; but the absence of this mechanical addition ought not to lead to neglect of utilization of this power for public purposes—that power being water flowing at the rate of three feet per second to a convenient distance in convenient receptacles—pipes. It would be a poor argument against lighting a town with electricity were it stated that private individuals still preferred burning kerosine oil; would there still not remain a field of utility in its public employment.

* * * * *

12. There is no necessity to attempt to change habits; where the people have hitherto been content to resort to public latrines, why should this not be so still? Therefore, it would by no means be necessary to calculate that the whole of the houses need be provided with private conveniences. Three classes might be imagined—one willing to go to public latrines, another to semi-public latrines, that is, latrines let by the municipality for the use of private houses on payment monthly of some small sum and not placed within private premises; and a third desirous of abiding by their present filthy mode of separate removal.

13. I would advise, before the question of adopting or rejecting the pipe system be settled, that, in regard to ordinary house connections, private latrines, semi-public and public latrines upon the water carriage principle, any points of difficulty be investigated by a series of practical experiments, such as have lately been conducted in Bombay.

14. But if there be any further argument required as to the superiority of the pipe system of sewage removal over the 'open-drain' method, I would point to the ease with which the sub-soil water of Madras could be dealt with in the former case by laying a sub-soil drainage system side by side with it. It would, of course, be impossible to remove the sub-soil water to any great extent by pumping with the sewage flow, but the extent of its vertical fluctuation certainly could be brought within due limits, and *the effecting of this is an essential point in Madras sanitation;* I would point out in this connection that Major Tulloch's scheme embraced the use of sub-soil water for flushing the sewers—a mode that now automatic flush tanks are in common use, could be easily adopted.

* * * * *

15. *The improvement of water-supply.*—It is high time that Madras made an effort to improve its water-supply. This question has been long under consideration. Mr. Cousins' scheme differs but little from the recommendations made by the Committee on Drainage and Water-supply of 1890. I, however, cannot see the necessity in the present day to demand that the water be in the first place elevated before distribution; with engines of modern type, direct pumping meets safely and efficiently all requirements. Further, I think, it should be held in mind that a masonry conduit cannot be considered absolutely water-tight at all points, and that consequently as Mr. Cousins' line for the conduit passes close to inhabited areas and to irrigated fields—possibly manured with Madras night-soil—care should be taken to prevent the conduit being built through doubtful soil.

16. That the water requires great care in treatment with the object of effecting purification before distribution, the accompanying analysis by the Chemical Examiner sufficiently proves:—

		Red Hills water from filter cistern No. 1 at Mylapore.	Red Hills water from filter cistern No. 2 at Mylapore.
Total solids	Grms. per litre	0·200	0·200
Volatile solids	Do.	0·045	0·040
Chlorine	Do.	0·039	3·039
Total hardness	Clark's scale	2°·800	2°·800
Permanent hardness	Do.	0°·350	0°·350
Free ammonia	Milgrms. per litre	Trace.	Trace.
Albumenoid ammonia	Do.	0·320	0·240
Nitric acid	Do. (as ammonia)	0·750	0·750

REMARKS.—Albumenoid ammonia and nitric acid are higher than limits of safety; but in this as well as in other respects these two samples of water are much superior to the usual quality of Red Hills water.

17. The method of filtration referred to by Mr. Cousins as patented by Mr. Atkins cannot, I believe, perform the duty demanded. For this end, I would advise either the Anderson process combined with sand filtration or the use of sand and polarite. The former method is at present used in Agra, and has been proved by Mr. Hankin, a very weighty authority on matters of this sort, to benefit the water both in respect to its chemical and bacteriological characteristics. Neither method can be regarded as expensive in working.

* * * * *

18. I have in my notes, as member of the committee of 1890, done my best to draw attention to the importance of the whole of the collecting area of the Red Hills tank and the Korttalaiyár being carefully surveyed with the object of ascertaining how far the watershed is inhabited, and how far contamination of the supply is possible. This duty should, I think, fall to the Health Officer of the city. Notwithstanding the popular faith as to the self-purification of rivers, which has been lately supported by certain Sanitary authorities, the recent disastrous outbreak of typhoid fever on the banks of the Tees, and the well-recognized rapidity with which cholera can be spread by a contaminated stream, point to the fact that a city may for years on end drink water defiled by human beings without any alarming results being secured, but that a day may come when the neglect to divert the surface water from a nallah near habitations may result in wide-spread disaster. The course of each streamlet should be carefully traced, and, in communication with the local authorities, arrangements should be made by the Municipality for the diversion of surface drainage from inhabited areas, in accordance with the spirit of the Rivers Pollution Prevention Act of England.

19. Practically, no care seems to have been taken during the laying down of the pipes as to the possibility of foul water entering them. It is a popular idea that on account of water being under pressure in pipes, it is impossible for foul air or fluids to enter them. Experimental enquiry has shown that even where the constant system is in force, an alteration of the pressure behind or in front of a leak, the sudden change of direction of the current due to angles and so forth in its vicinity, secure aspiration of fluid from the exterior. Thus an epidemic of typhoid at Croydon was ascribed to contamination of the water by aspiration of sewage. It does not take a great stretch of imagination to understand that these conditions may be repeated in Madras in the very numerous cases where pipes for the supply of houses and fountains pass *below* the leaky brick drains at the road side, or where the pipes are laid side by side with the leaky Old Black Town main drain, or Pycroft's road main drain. But, unfortunately, Madras has not even the advantage which attaches to the 'constant system.' It has one of the very worst forms of intermittent system, that is, periodical shuttings-off of the entire supply at the service reservoir occur every Monday. Residents in Madras cannot have failed to notice the noise caused by the struggle between water and air which proceeds in domestic supply pipes on Monday afternoons, after the shutting-off referred to before re-establishment of the supply. What does this mean?—

It implies that the pipes formerly filled with water to the practical exclusion of air are now filled with air, and that the water in attempting to re-enter has to displace it. If, before the water be turned on at the reservoir, a pot containing water be put to the mouth of a supply pipe so as to make the tap dip below the water to the exclusion of air, its contents will be found to be sucked not the pipe freely. Now instead of a chatty of clean water, as in this experiment, if a leak exists in a pipe in a sub-soil foul with sewage, or, for example, when a water pipe passes beneath a pervious brick drain, or, as is actually the case near China Bazaar, passes *through* a sewer, it stands to reason that if there were a flaw in the pipe but a pin hole in size, enough cholera or typhoid poison might enter by the water system and bring death to hundreds of the inhabitants. Or, again, if, as is the case near Royapettah, a pipe be made to *dip into* an ill-made drain, in imitation of a trough closet, to flush direct, instead of indirectly through a cistern, it but requires that the town supply should be turned off for the contents to be sucked into the pipe, were the drain outlet temporarily blocked. A similar state of affairs exists in the case of pipes so arranged as to be within the open sewage drains of the Black Town system they are meant to flush—a common arrangement. Presuming that these are only at certain times open, it but requires that the valves should not be completely shut as shown by their permitting a dribble, or the valves be slightly imperfect, for aspiration of filth to occur. This would be particularly easy were a drain to be filled with mixed sewage and storm water between 12 and 2 o'clock on Mondays. But, even if no fluid were thus aspirated within the pipe, foul gases may reach the interior. For example, in some of the better class of native houses in Madras, latrines are made upstairs with the supply pipes duly arranged for ablution purposes. For a certain number of hours per day, on account of deficient pressure for the time being, following general demand, water may not be present in the pipe. The householder may thereupon open the pipe, and, finding no water, may neglect to shut it. The result must be aspiration of foul air from the latrine. Under the influence of such conditions, it has occurred before now in other towns that blood from slaughter-houses has been circulated in the pipes. It is obvious, therefore, in the case of this town which so far has only an intermittent supply, that the very greatest caution should be exercised as to the position of pipes, and that whilst the usual precaution of retaining a pipe in view should be taken when passing a dangerous position, or of specially encasing it, should be observed, where pipes end for purposes of flushing, &c., within the existing 'open drains,' they should at once be altered so as to flush either indirectly by means of a cistern, or be lifted to a height that would at least secure that at no time fluids can be aspirated, even if gases be ignored.

20. Many of the supply pipes have been fitted with common taps. These, after long service, cannot be water-tight, and they can here and there throughout Madras be seen to leak. Experience shows that many thousand gallons daily can thus be lost in a city where dribbling cocks are allowed to exist. When Madras secures a water-supply system under good pressure, these will still more exhibit this defect.

21. I have above alluded to the possibility of water being defiled by reason of the situation in which the householders elect to place the supply pipe. When a native of good caste takes the water-supply pipe into his house, there is usually an end of all inspection of its condition. In former inspections of Madras, I have repeatedly entered houses where the taps have been allowed to flow constantly. This habit, at frequent intervals over the city, must imply enormous waste of water, and when every gallon has to be pumped and filtered under the new system, it becomes a question of money absolutely wasted to permit this to proceed unchecked. Hence I think, much more care should be exercised in the matter of supplying pipes to the interior of native houses. Under such circumstances, the municipality would be well advised to extend the system of meters, and to purchase self-recording waste meters as I understand has already been advised by Mr. Ellis. So far as I could ascertain, the Water-works Department do not consult the Health Officer as to where the pipes should be placed, and I think this certainly ought to be done in each case. Further, I think, considering the fact that in this tropical climate, undue exposure need not be feared by householders proceeding to taps fixed outside houses, and that the habit of the women proceeding outside for water is recognized, it should be laid down that pipes be placed in the front of the house, the tap being protected by a small box or other arrangement allowing it to be inspected through iron wire gauze netting, but not touched except by the householder.

22. Instead of water being made to flush a drain, it is allowed by opening a pipe to flow in a regular stream for hours on end. It could easily be arranged to have at the heads of these drains small syphon flush tanks costing about £ 1–10–0 each, which by sudden discharge of a quantity of water, much smaller than lost by the constant flow method, would secure the work being correctly accomplished. But, in my opinion, with a sub-soil water always at a level higher than is desirable, and any amount of it available within a few feet of the surface, the cheapest way to flush these drains would be to sink Norton's tube wells at their heads. In arranging for this, very little expenditure need be undergone. It would not be necessary to place a tube *plus* a pump at each place. All that would be required would be that the upper end of the tube be made to fit a pump barrel, which could be placed on wheels and be taken from one head of a drain to another for adjustment to the permanently-sunk tube; or the tube being of large diameter, the drain flusher could carry with him a Norton's pump complete of smaller diameter, which could be plunged into the sunk tube on the guarding screw being removed. I need hardly add that one set of driving apparatus would suffice.

23. I have no data to show how many wells in the town have been closed since the introduction of the water-supply. But, whilst I think practically few public wells have been so treated, it is safe to assume that private wells remain as they were fifty years ago. There is scarcely a house in the thickly inhabited parts of the town that has not got its well side by side with a filthy latrine. It is impossible for such water to be pure; yet at all times it is used for the washing of domestic vessels, the washing and cooking of rice, &c. Of course, boiling, if complete, *and* long enough continued, is one of the best safe-guards against disease propagation by water-borne diseases; but, so long as food is placed cold, or at a low temperature, in contact with vessels that have been washed with water containing disease-bearing matter, no safety is secured; nor need I appeal to the usual method by which typhoid fever has been supposed to be spread in England, namely, the washing of vessels destined to contain milk with contaminated well water—resulting probably from small quantities purposely, or accidently, being left in them. Where therefore water has been laid within reasonable distance of houses, these wells draining water from a foul sub-soil should be closed as early as possible. To enable this to be done, house after house should be inspected, and if the inhabitants will not yield to persuasion, they should be closed under section 326 of Act I of 1884.

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24. Experience in cities where electric tramways and underground cables are employed shows that the current escaping at certain points causes electrolysis so that the public water-supply iron pipes corrode, and, it may be, irrespective of serious loss thus caused, that iron and lead salts are produced in the water to the danger of the consumers. The English Board of Trade has consequently issued a series of regulations to be imposed upon Electric Companies to guard from these results. I would advise the municipality to enter into the subject, and ascertain from experts in the commercial application of electricity how far any such results need be feared from the special form of working to be followed by the Madras Electric Tramway Company, and form regulations accordingly.

I.

Statement showing the ratios of Births and Deaths per mille of population in Black Town in quinquennial periods from 1869 *to* 1893.

——	1869–73.	1874–78.	1879–83.	1884–88.	1889–93.
Births	15·0	24·1	35·3	35·3	34·6
Deaths	35·9	* 50·8	38·5	38·0	44·6

* Famine period.

II.

Statement showing the ratios of Births and Deaths per mille of population in Black Town from 1867 *to* 1893.

——	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Births	...	...	...	10·1	23·6	*18·2*	22·2	23·9	18·6	20·7	27·6	29·4	34·6
Deaths	33·1	33·8	29·2	30·0	38·3	*40·9*	40·6	37·7	31·3	34·3	105·1	44·6	35·8

——	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.
	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Births	34·5	34·9	37·9	34·7	35·0	36·9	35·2	36·1	33·2	34·7	36·5	37·2	32·2	32·8
Deaths	38·2	41·2	35·2	42·2	47·1	34·9	35·1	37·2	35·3	35·1	37·9	52·6	52·7	44·9

NOTE.—The figures in italics denote the year in which the Red Hills water was first introduced in Black Town (1872).

The figures in block type denotes the year in which the Black Town drainage scheme was commenced and completed respectively (in 1882 and 1893–94).

III.

Statement showing the rates of Births and Deaths per mille of Population in the several divisions of Madras town from 1867 *to* 1393.

Divisions.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
First Division—											*57·5*	*61·8*	*55·3*
Birth-rate	...	...	...	...	...	...	...	...	...	...	230·2	74·2	44·5
Death-rate	...	...	...	...	...	...	...	...	...	...			
Second Division—				*7·9*	*24·2*	*22·9*	*26.0*	*29·4*	*18·6*	*19·2*	*24·2*	*26·7*	*32·4*
Birth-rate	...	...	...	35·3	38·4	**43·3**	44·2	40·6	30·2	32·7	111·7	47·0	36·7
Death-rate	36·9	39·5	36·7										
Third Division—				*13·8*	*22·7*	*10·8*	*16·2*	*15·3*	*18·7*	*23·0*	*32·9*	*33·4*	*37·8*
Birth-rate	...	...	...	21·5	37·9	**37·1**	34·8	33·2	32·8	36·8	94·8	40·8	34·5
Death-rate	27·1	24·6	17·0										
Fifth Division—				*27·4*	*39·1*	*44·5*	*44·4*	*51·9*	*46·4*	*53·1*	*54.0*	*47·4*	*53·6*
Birth-rate	...	...	...	40·9	41·4	**43·9**	45·5	44·1	44·2	46·1	112·1	47·7	30·9
Death-rate	34·8	36·6	42·0										
Sixth Division—													
Birth-rate	...	...	...	...	...	...	...	...	...	...	...	...	...
Death-rate	...	...	...	...	...	...	...	...	...	...	...	...	...
Seventh Division—				*10·0*	*16·5*	*19·5*	*20·7*	*28·7*	*28·5*	*28·5*	*25·8*	*29·2*	*34·0*
Birth-rate	...	...	...	34·7	36·2	**39·2**	39·8	41·4	39·0	39·0	91·6	41·3	34·5
Death-rate	42·5	40·0	33·4										
Eighth Division—				*15·8*	*16·1*	*18·8*	*22·9*	*34·1*	*30·8*	*35·9*	*36·6*	*33·6*	*40·1*
Birth-rate	...	..	...	34·0	33·3	**39·0**	40·7	50·3	45·7	46·5	111·2	47·2	38·3
Death-rate	46·8	43·4	34·0										

Divisions.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.
	15	16	17	18	19	20	21	22	23	24	25	26	27	28
First Division—	*49·2*	*54·6*	*55·8*	*53·9*	*50·6*	*38·6*	*38·9*	*36·2*	*32·7*	*33·4*	*36·1*	*36·3*	*34·3*	*41·2*
Birth-rate ...	43·8	44·2	**43·6**	**42·8**	57·4	42·5	39·1	43·4	40·4	43·0	44·3	72·2	48·7	41·8
Death-rate ...														
Second Division—	*31·9*	*32·1*	*34·7*	*31·7*	*32·2*	*34·0*	*33·1*	*33·2*	*30·2*	*31·4*	*32·0*	*34·0*	*30·1*	*31·0*
Birth-rate ...	40·0	41·8	36·2	42·2	47·5	34·9	35·9	37·7	35·7	40·0	37·9	50·1	54·2	44·9
Death-rate ...														
Third Division—	*38·5*	*39·2*	*42·8*	*39·3*	*39·1*	*41·2*	*38·3*	*40·3*	*37·6*	*39·5*	*42·9*	*41·7*	*35·0*	*35·2*
Birth-rate ...	35·4	40·2	33·5	42·0	46·4	35·0	33·8	36·4	35·1	40·4	38·0	50·1	50·7	45·0
Death-rate ...														
Fifth Division—	*53·3*	*43·8*	*45·3*	*46·5*	*42·7*	*40·1*	*39·2*	*47·4*	*46·4*	*40·5*	*40·2*	*43·3*	*40·2*	*44·2*
Birth-rate ...	29·2	32·7	30·4	33·1	40·8	31·1	29·8	32·3	30·3	34·9	37·8	42·9	41·2	36·1
Death-rate ...														
Sixth Division—	...	*22·5*	*26·4*	*25·7*	*26·7*	*24·0*	*28·1*	*31·5*	*31·3*	*32·7*	*34·1*	*34·8*	*32·4*	*35·9*
Birth-rate ...	...	19·3	21·7	20·6	30·0	22·4	**22·8**	29·8	32·9	32·4	31·4	50·3	38·1	31·8
Death-rate ...														
Seventh Division—	*33·9*	*36·7*	*37·0*	*34·6*	*34·1*	40·1	*38·1*	*37·4*	*35·1*	*37·3*	*39·8*	*40·8*	*38·0*	*41·0*
Birth-rate ...	38·7	37·6	33·7	37·2	50·0	36·4	35·2	39·0	35·7	36·6	36·2	45·4	39·4	37·6
Death-rate ...														
Eighth Division—	*40·9*	*39·4*	*42·5*	*41·5*	*39·1*	*42·2*	*43·2*	*40·7*	*38·9*	*42·7*	*47·1*	*45·6*	*39·5*	*45·5*
Birth-rate ...	39·0	41·7	36·9	41·7	55·6	37·4	36·9	38·6	35·0	38·9	35·5	49·6	38·0	35·8
Death-rate ...														

NOTE.—The figures in block type indicate the years in which Red Hills water was introduced in the division concerned.

Statistics of births for 1867, 1868 and 1869 are not available.

IV.

Statement showing the Quinquennial rate of Mortality from Cholera per 10,000 *of Population in Madras Municipality from* 1869 *to* 1893.

——	1869–73.	1874–78.	1879–83.	1884–88.	1888–93.
Madras Town	10·5	* 49·2	3·9	11·1	15·2

* Famine period.

V.

Statement showing the rate of Cholera Mortality per 10,000 *of Population in the several divisions of Madras from* 1867 *to* 1893 *in connection with the introduction of water-supply.*

Divisions.	Cholera death-rate in												
	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
First Division ...	...	...	...	...	...	...	...	...	...	...	289·4	1·3	3·0
Second do. ...	8·2	0·3	14·5	19·7	10·9	...	0·3	...	13·6	36·4	146·5	3·0	0·5
Third do. ...	14·7	1·4	6·2	6·3	75·9	...	...	...	24·6	36·1	96·6	40	0·2
Fifth do. ...	7·9	...	33·9	4·8	14·7	...	...	...	26·8	57·2	74·0	1·9	0·3
Sixth do. ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Seventh do. ...	21·6	0·2	15·7	17·6	20·8	0·3	...	...	10·6	35·4	14·6	0·6	0·4
Eighth do. ...	46·0	...	7·8	50·0	10·8	0·3	...	...	21·1	55·0	185·7	40·2	1·1

Divisions.	Cholera death-rate in—*cont.*													
	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.
	15	16	17	18	19	20	21	22	23	24	25	26	27	28
First Division ...	...	12·7	34·9	5·2	35·6	26·8	...	20·8	21·7	10·8	27·2	78·6	13·3	0·6
Second do. ...	0·3	0·3	7·2	2·0	20·7	3·7	0·4	9·6	14·1	2·0	14·4	28·7	13·3	0·6
Third do. ...	...	...	...	0·4	25·6	7·4	...	21·3	13·9	4·8	16·2	63·5	18·0	0·8
Fifth do. ...	...	0·1	4·7	1·0	32·7	0·8	...	28·8	5·4	1·9	17·8	21·3	19·1	0·5
Sixth do. ...	...	...	4·1	4·6	22·5	2·0	...	3·3	4·3	1·4	10·7	45·9	11·8	...
Seventh do. ...	...	1·8	6·4	11·5	32·6	5·1	...	10·4	10·6	3·2	13·3	28·6	12·1	0·5
Eighth do. ...	...	7·8	8·5	3·6	20·7	10·6	...	13·2	9·2	2·7	10·5	42·8	17·5	1·2

NOTE.—The figures underlined indicate the years in which Red Hills water was introduced in the division concern ed

APPENDIX C.

Extract of letter from the Civil Apothecary, Kángayam, to the District Sanitary Officer, Coimbatore, dated 19*th March* 1895.

I beg to bring to your notice that cholera of a severe type is prevalent now in Kángayam and in almost all the surrounding hamlets and villages. As far as I have been able to ascertain, the cause of these unprecedented and widespread outbreaks is the same. It is that the affected individuals returned from the annual Kottaimarai festival held in the Erode taluk only a week ago.

On the 16th morning, I was called to see a cholera case in Poodoor, a hamlet of a dozen houses, a mile from Kángayam, of a boy who had returned from the said festival. I found him in a state of collapse. Since then there have been over eight attacks and four deaths. Outbreaks were at the same time reported from Arthanaripoliem, Agattulingampalyam, Sivamalai, Padiyandipalyam and other villages with severe fatality in some. In all cases the victims were persons who had returned from the Kottaimarai festival.

At the Kángayam on the night of the 16th instant, a bandy driver and his son, who had returned from the festival, were both seized with cholera and died the next day, though treated carefully with salal mixture. Since then there have been four cases, all being persons who had returned from the festival.

* * * * *

In continuation of my letter, dated 19th instant, I beg to state that cholera is now prevalent in almost every village of importance in the Kángayam division and is particularly severe in Muthur, Méttupálaiyam, Veerasolapuram and Mangalampatti. It has also been very severe in Kángayam. This is seen from the subjoined figures :—

—	Date of outbreak.	Number attacked up to date.	Number died up to date.
Muthur	16th March 1895.	22	9
Méttupálaiyam	16th March 1895.	23	9
Veerasolapuram	16th March 1895.	16	8
Mangalampatti	18th March 1895.	10	9
Kángayam	16th March 1895.	29	9

Each of these villages comprises a dozen or more widely-scattered hamlets often at a long distance from Kángayam and from each other, and it would be impossible even for one constantly on the move to visit these villages even twice a week. Thus Méttupálaiyam, one of the affected villages, is 16 miles from here and its hamlets 3 or 4 miles from it. Muthur is 12 miles. Mudalipaliam in altogether different direction is 15 miles and so on. Besides cholera is severe in Kángayam and its hamlets, about a dozen in number, several of them from 4 to 6 miles from Kángayam. In Kángayam cusbah, a fatal case occurred to-day besides the four already reported. Hence it is highly necessary that there should be a central place from which the monigars of the affected villages can get the medicines and disinfectants they require. I therefore think it indispensable that there should be a Medical subordinate in Kángayam for the distant villages which cannot efficiently be visited without altogether neglecting Kángayam and the other villages.

* * * * *

I beg to state that, as directed by you, I left this morning (23rd March) for Veerasolapuram where cholera is particularly severe. As the way lies through a difficult 'itlei path,' it was past noon when we reached the village. It is a small place with about 30 or 40 houses. It has several hamlets at varying distances. All told there have been up to date 26 attacks and 14 deaths. The village is very dirty, heaps of rubbish being freely thrown about close to some oilmongers' houses. There is only one well for the whole village, but people told me that infected clothes and mats were often washed in it. I have advised the monegar to post a toti to prevent it from further contamination. I saw three persons lying ill, but they were all recovering. I fumigated the houses, instructed the people to use boiled water and furnished the principal resident of the village with some tincture of chloroform and morphia.

I next went to the Shanars' huts, five in number, half a mile from the village. The scene was most distressing. Three of the inmates had died and three were lying ill, two of them in a critical condition. I administered medicines and disinfected all the houses with carbolic lotion (1 in 100) and sulphur fumigation.

I next went to Papini a mile from Veerasolapuram. A fatal case had occurred there two days ago. I fumigated the house and furnished the curmum, a resident of the village, with some chlorodyne. The village abounds in prickly-pear, which is the principal resort of the inhabitants for easing purposes. The village can never be kept clean under such circumstances.

I next visited Padiyandipalayam; of the two attacked one had died and the other was in a critical condition. I administered medicines and furnished a teacher, an intelligent person, with some tincture of chloroform and morphia. The Weddars' quarters are extremely filthy as well as the lane in front of Nallakosavan's house, where the present cholera case has occurred. The excreta of pigs and rubbish of all sorts block the passage in several places.

I visited Poodoor close by, fumigated a house in which a fatal case had recently occurred and furnished the principal resident with some medicines.

I next visited Bangalow-Poodoor, a small place of 15 houses, about a mile from Kángayam. At the commencement of the outbreak I visited the place and made some sanitary arrangements, since then there have been seven deaths and three were convalescent. The houses were disinfected with carbolic lotion and sulphur fumigation. I left some chlorodyne with the chieftman of the village. The well in use is undoubtedly contaminated, but, as it is the only drinking well for the village, I strongly advised them to use well-boiled water.

I have been impressed with several facts in the course of my past and present visits to those villages which are generally very dirty. Considering the supreme importance of good sanitation in cholera, this is much to be pitied. The monegars cannot be held to account in this respect seeing that they have no staff to work with. The village inhabitants cannot or will not do all that is necessary to keep a village thoroughly clean. They will not remove rubbish heaps on poramboke lands allowed to accumulate for a long time. If, as is generally afford good sanitation, is an important factor in warding off cholera, then a temporary travelling sanitary staff is absolutely necessary during the prevalence of cholera epidemics. I would therefore suggest that the Deputy Tahsildar be empowered by the Local Fund Boards to appoint temporary sweepers to maintain cleanliness in infected villages. A few sweepers can do much more good in this way by securing the cleanliness of the villages and thus taking the sting out of the epidemic than the medical man whose visits once in the way fail to do appreciable good and whose appearance is dreaded in some villages as that of the harbinger of death (probably from an indiscriminate use of hospital cholera pills dealt out to the villagers by ignorant monegars and their still more ignorant menial servants). I can say from experience that this system has long been in vogue in the Kurnool district and has produced very good results.

The next point is the defenceless state of the chief sources of water-supply of these villages; one well often does duty for washing clothes, bathing and drinking. The evil would be obviated if a well were set apart in each village for drinking purposes at the commencement of an epidemic and proper measures be taken subsequently to secure it from contamination by appointing a watchman or otherwise.

* * * * *

APPENDIX D.

Abstract of Fairs and Festivals held in the Madras Presidency during the year 1894.

District.	Name of Festival and where held.	Date of Festival.	Number assembled.	Epidemics.	Recommendations.	Recommendations by the Sanitary Commissioner.	Amount allotted for the Festival.	Amount spent.	Average Cost per Pilgrim.
Anantapur.	Car festival at Pennahobalam.	24th May 1894. People began to arrive on the 22nd and commenced to leave on the 25th.	About 12,000 people, 600 bandies, 70 bulls, 1 elephant, 1 camel.	.....	*Nil*	No information is given as to protection of water-supply from pollution. The staff of scavengers and the single latrine were inadequate. Practically, no sanitary precautions were taken.	RS. A. P. 50 0 0	RS. A. P. 38 2 0	RS. A. P. 0 0 6
	Mustan Sahib's urusu at Guntakal.	28th to 31st July 1894, but people began to assemble on 26th July and disperse on 2nd August 1894.	About 9,000 ...	.....	*Nil*	The number of latrines provided was inadequate. The number of sweepers employed should have been stated. The mode of transport and disposal of rubbish and fæces should have been detailed.	50 0 0	47 12 8	0 0 1
Bellary.	Mylar festival, held in Mylar, a village in the Hadagalli taluk.	22nd February 1894.	55,000	.....	Fees were levied on carts, bulls, &c., this year, and the festival will be made a self-supporting one and improvements of permanent nature, such as improving water-supply by revetting the old ruined well and making roads from the balance of funds, are recommended.	It is reported that the excreta were permanently buried in trenches. It would be advisable to plough and cultivate this portion of the encampment before next festival. If there be a balance of funds available, the District Sanitary Officer should be consulted as to the most advantageous manner of spending it.	250 0 0	250 0 0	0 0 8
	Car festival at Kuruvatti, Harpanahalli taluk.	7th and 8th March 1894.	About 20,000 pilgrims, 10,000 head of cattle, and 7,000 conveyances of all sorts.	.....	Two latrines appear to be very inadequate for a crowd of 20,000 pilgrims.	Two latrines for a congregation of 20,000 were absurdly disproportionate to requirements. The actual number of servants employed to attend to the sanitation of the place should in future be stated. It is not known in what manner the river was conserved for drinking purposes, nor is it stated how night-soil was disposed of. Information on these points should invariably be furnished in future reports.	150 0 0	150 0 0	0 0 1·4

Abstract of Fairs and Festivals held in the Madras Presidency during the year 1894—continued.

District.	Name of Festival and where held.	Date of Festival.	Number assembled.	Epidemics.	Recommendations.	Recommendations by the Sanitary Commissioner.	Amount allotted for the Festival.	Amount spent.	Average Cost per Pilgrim.
Bellary—*continued.*	Hampi car festival. Held in Hampi, a village in Hospet taluk.	20th April 1894.	50,000	.....	The local medical officer suggests that the river and channels should be conserved in future as far as possible; that special watchmen should be posted over all sources of water-supply, but a very large staff of police will be required to give them a real effect; that scavengering staff may be increased according to requirements, but funds will hardly be available for the entertainment of an adequate number of special watchmen; and that good water wells may, with advantage, be cleaned. Permanent latrines may be constructed as suggested by the Stationary Sub-Magistrate of Hospet, but the cost will amount to Rs. 2,000.	Civil Apothecary Stocking, in his report on the festival, very correctly contends that the fact of it not being possible to secure complete protection was no good reason for not attempting to prevent wholesale contamination of the water-supply in parts where religious scruples did not apply. The Assistant Collector contends that it would require a very large number of police to enforce protection. This probably is so; but undersigned would respectfully advise that the question be not thus dropped. A statement from the Superintendent of Police as to the number he thinks would be requisite to maintain sanitary discipline should be procured, and the feasibility of placing the required force at disposal be definitely settled. In any case, it is obvious that a considerable number of watchmen could be employed. These men, furnished with badges and under careful supervision, if strengthened by the presence of a few more police, would probably secure what is required. That these men could be paid for out of the funds available is evident from the statement that no less than Rs. 227 of a total grant of Rs. 600 remained unspent. The officers concerned consider this economy a matter to be commended; but, in view of the large number of people assembled together, it would have been much better policy to have met all sanitary requirements before looking to 'savings.' I trust the authorities concerned will not devote the saving thus effected to the making of V-shaped drains, which implies the use of a sanitarily bad form. 2. It seems an extraordinary fact that the allowing of water intended for culinary purposes to flow along the drains of the main street should have formed a part of the approved programme of sanitary efforts! All culinary operations are not carried to a point of heat that would necessarily imply destruction of either disease germs or the ova of parasites, and seeing that vessels used to contain food and water are washed with such water and are not subject to any degree of heat, the placing of water at the disposal of the public in this manner is not only 'inexpressibly nasty,' but sanitarily dangerous. 3. Nothing is said as to what became of the droppings of the 1,000 animals accommodated at one time in the bandy-stand. This should prove a source of income by the making of a contract as to collection, which would ensure safe removal and the retention of cleanliness. 4. Nine latrines, unless of far too great a size, ought to have been insufficient for the people. The employment of a number of small latrines within convenient reach of the various parts of the camp would be far more advisable than those of large dimensions. 5. Rubbish was apparently collected and removed from the site. Small mud and stone cinerators, placed at convenient sites in and near the camp, would afford a ready and effectual method of disposal by incineration. 6. Considering the duration of the festival, namely, thirteen days, it would have been advisable that the trenches were used as temporary places of deposit of excreta only, and that daily removal to a distant site should have been effected. Care should now be taken to cultivate the ground that has been occupied by the trench latrines before the next festival. 7. The suggestion by the Deputy Collector to form permanent latrines would be advisable, sanitarily, only in the event of it being possible to erect a decidedly superior type and it being shown that when contrasted with the cost of temporary latrines the idea is economically sound.	RS. A. P. 650 0 0	RS. A. P. 413 0 6	RS. A. P. 0 0 1·6
	Mahodayam festival at Mahabalipuram.	5th February 1894.	10,000	.....	The reporter thinks that a few temporary latrines, conservancy carts and wells ought to have been arranged for.	A larger festival took place also in the district of Kistna without its previously coming to the notice of the Revenue authorities that one was due owing to its being periodical at long intervals. It would be well if both in the Collector's and District Board's office each year a register of forthcoming festivals were maintained after consultation with native gentlemen of leading in such matters and that in each office a subordinate was specially held responsible for notifying the dates of each.	...	...	...
Chingleput.	Sri Kundaswami Brahma Utsavam, including Masi Kṛttikai at Tiruppōrur.	11th to 22nd February 1894.	13,000	.....	The festival is, I believe, of rare occurrence and the arrangements made appear to have been bad. Provision may be made for temporary latrines and conservancy carts when the festival occurs again. I doubt whether good water is to be had even if wells were sunk. (Signed) N. S. BRODIE, Ag. Taluk Board President. No arrangements seem to have been made except the deputation of the hospital assistant. Latrine accommodation might have been provided at a trifling cost, as there is plenty of sandy waste. The occurrence of the gathering was evidently not foreseen I had no knowledge of it. In future due care must be taken. (Signed) J. THOMSON, District Magistrate. Reporter is of opinion that the presence of a magistrate would help much to prevent nuisance. The Stationary Sub-Magistrate, Chingleput, may perhaps be asked to visit Tiruppōrur on the next occasion. (Signed) N. S. BRODIE, Ag. Taluk Board President. The Stationary Sub-Magistrate could not quit his head-quarters for days at a time, and I do not think that is necessary. (Signed) J. THOMSON, District Magistrate.	Three tons of fœcal matter had to be dealt with daily by apparently one toty. At the least 6½ tons of refuse had to be dealt with daily. The staff was therefore insufficient. Two latrines for 13,000 people is a ridiculous provision.	30 0 0	19 11 0	0 0 ·3
	Little Mount festival near Guindy.	12th to 22nd April.	About 7,000 ...	.....	A pucka built well on the Mount side of the river should be deepened and provided with pulleys and platforms. (Sd.) SAIYID ISMAIL, Civil Apothecary. The recommendations of the festival officer will duly be attended to. (Signed) A. PINTO, Deputy Collector.	I visited the locality during the festival. The method of making trench latrines was evidently misunderstood; their condition up to 9 a.m. was such as to make the pilgrims complain of the impossibility of using them. The District Sanitary officer should personally instruct the civil apothecary on this subject. One latrine was situated on the bank of the Adyar; the water of the river was freely used, and I found no one endeavouring to induce any other source being employed. The recommendation of the civil apothecary as to improvement of the existing well should be adopted.	100 0 0	90 8 0	0 0 2·5

Abstract of Fairs and Festivals held in the Madras Presidency during the year 1894—continued.

District.	Name of Festival and where held.	Date of Festival.	Number assembled.	Epidemics.	Recommendations.	Recommendations by the Sanitary Commissioner.	Amount allotted for the Festival.	Amount spent.	Average Cost per Pilgrim.
Chingleput—*continued.*	Brahmotsavam of Kandaswami Coil, cusba Cheyur.	10th to 21st May 1894.	About 3,000 ...	.....	*Nil*	Sand is an inefficient deodorant; dry earth should be used.	RS. A. P. 20 0 0	Rs. A. P. 10 0 0	RS. A. P. 0 0 ·6
	Sri Devarajaswamiyar's Grand Festival at Conjeeveram.	From 17th to 28th May, both days inclusive. The car reached its destination on the fourth day.	The attendance was smaller than in the previous year. The number of visitors counted, according to report, 96,709, against 156,225 in the previous year.	.....	The District Medical and Sanitary officer visited the hospital on the 18th May and discussed with me and the chairman about the sanitary arrangements made for the festival. In approving of them he suggested for future festivals that the latrines should be lighted and their situation should be pointed out by signboards. Further he asked that it should be notified by beat of drum that defecation along roadside and outside latrines will be severely noticed. He suggested also that a wooden fixture should be erected at each tank to prevent people walking into water while drawing the same.	If, as it is presumed was the case, the latrines were within municipal limits, the procedure of burying fœcal matter "mostly in pits near latrines" was unsafe. 2. It would have been well to have placed signboards at all places reserved for drinking purposes. The District Sanitary officer's proposal of using platforms for the tanks is of utility; but it must be remembered in effecting this design that the platforms must be so formed as to be impervious, permitting of no overflow, and having a slope towards the banks, so as to guide spilt water either to reservoirs or drains. 3. The other suggestions of the District Sanitary officer would also obviously be useful.	1,062 0 0	1,062 0 3	0 0 2
	Bhavani Amman festival held at Periyapalaiyam.	15th, 22nd and 29th July and 5th and 12th August 1894.	About 30,000 people assembled on Sunday the 5th August (the most important day); on the other days the number varied from 5,000 to 10,000. People began to congregate on the Saturday evening previous and the maximum number reached on the following Sunday morning. They began to disperse on the same evening and cleared by Monday morning.	.....	The ground surrounding the temple must be acquired for accommodating the people and their carts and permanent wells sunk in it for supplying drinking water. This would prevent people from being put up on the bed of the river.	The arrangements suggested last year of preventing the pilgrims camping in the bed of the river has been duly followed. The recommendation made by the apothecary as to acquiring the ground near the river and sinking wells there is very suitable. The land being acquired, the sinking of tube wells would probably be the best method to follow. They could be sunk and removed after use and stored till next festival. Their use would ensure that correctly protected water is obtained. Should any tube sunk strike brackish water, it can be withdrawn and be sunk elsewhere. In this manner the expense and uncertainty attending the making of ordinary shallow wells will be avoided.	200 0 0	200 0 0	0 0 1·3
Coimbatore.	Car festival, Kurumadai.	20th to 26th February 1894.	20,000	.....	*Nil*	Unless the latrines were of extraordinary dimensions, a provision of four for 20,000 persons was inadequate. Care should be taken to plough and cultivate the ground trenched before next festival.	100 0 0	100 0 0	0 0 ·96
	Gurunatha Swami festival at Gettisamudram village.	8th August 1894.	About 15,000 ...	.....	Half-a-dozen water-sheds should be opened in future, as it will prevent the necessity of people entering into the wells and contaminating water.	The suggestions of the reporting officers should be given effect to. It would be advisable to convert the 'step wells' into 'draw wells,' furnished with pulleys, chains and buckets. The number of toties employed should have been stated.	45 0 0	45 0 0	0 0 ·57
	The wells should be cleared of silt. Some place not exposed to public view ought to be set apart for slaughtering sheep, as the present practice of slaughtering sheep all over the fields and of people cooking their food close by is objectionable. Recommended that the suggestions of the Medical officer should be carried out at future festivals. (Signed) J. F. FITZPATRICK, Dist. Medl. and Sany. Officer.								
Gánjam.	Sivaratri festival at Mokalingam.	4th to 7th March 1894.	About 10,000 ...	.....	*Nil*	The quality of the river water and the measures adopted for its conservation should have been stated. Latrine accommodation appears insufficient, unless the two put up were of a size unusually and inconveniently large, each capable of accommodating over 500 people at a time. It is advisable that the District Sanitary Officer should arrange, in communication with the President, that a medical subordinate be deputed to attend the festival.	90 0 0	89 0 4	0 0
	Dola festival at Sreekurmam, Chicacole taluk.	19th to 21st March 1894.	About 12,000 ...	.....	Drinking-water tanks require cleaning out. Efficient supervision of the regular sanitation of the town should be arranged for. The main road leading to the temple and fair should be metalled and gravelled.	The recommendation of the civil apothecary should receive attention.	90 0 0		
	Dola festival at Liviri.	20th to 22nd March 1894.	About 5,000 ...	.....	.....	More latrines should have been erected.			

Abstract of Fairs and Festivals held in the Madras Presidency during the year 1894—continued.

District.	Name of Festival and where held.	Date of Festival.	Number assembled.	Epidemics.	Recommendations.	Recommendations by the Sanitary Commissioner.	Amount allotted for the Festival.	Amount spent.	Average Cost per Pilgrim.
							Rs. A. P.	Rs. A. P.	Rs. A. P.
Gódávari.	Antervedi festival. Held from the 15th to 19th February 1894, both days inclusive.	From 15th to 19th February 1894, both days inclusive.	About 40,000 ...	.....	In an important and largely-crowded festival like Antervedi, the number of scavengers now employed was quite insufficient to attend to the street sweepings and latrines. Even though they have worked to their best, it was not to satisfaction. And so I earnestly recommend that a provision for an additional grant of twenty scavengers be specially made for the next year, without which the latrine work, as well as street sweepings, cannot systematically be attend to.	Except as to the number of scavengers placed at disposal, the sanitary arrangements were satisfactory. The reporter's recommendation as to increase of the scavengering staff should receive attention. It would be well to arrange that the area used for latrines be cultivated before next festival.			
	Sivaratri festival at Kotapalli, Rámachendrapuram taluk.	4th to 7th March 1894.	20,000	.....	The water of this tank should be let off a few days before the festival and refilled with canal water. Pandals should be erected on the river side. People should be compelled not to pollute the tank water.	The suggestions of the medical subordinate should be carried out. The police should prevent defecation in lanes.			
	Sivaratri Theertham.	5th Mar. 1894.	About 20,000 ...	.....	*Nil*	The report conveys no information of the slightest value sanitarily, as it does not state the number of latrines provided, the conservancy staff engaged for the occasion, nor how the river water was conserved.			
	Kalyanam festival of Sree Rama at Bhadrachalam.	4th Apr. 1894, and four following days.	About 4,000 ...	.....	*Nil*	Arrangements satisfactory.			
	Sree Rama Navami festival at Bhadrachalam.	14th to 19th April 1894.	About 4,000 ...	.....	*Nil*	Do. do.			
	Vadapalli Sree Venkatesvaraswami varu Kalyana utsavam.	16th and 17th April 1894.	20,000	.....	A pandal that would accommodate about 1,000 people should be constructed at the cart-stand. A water-shed should be opened close to the temple between 8 A.M. and 10 P.M. An additional sum of Rs. 50 would meet the above requirements.	It is no wonder that the majority of the pilgrims adjourned to the adjacent fields for purposes of nature, seeing that there were only two latrines provided for such a large concourse. Three furlongs from the town was too great a distance to place the latrines.			
	Mamillammah festival held at Maradupaka.	2nd to 15th July 1894. Fair lasted up to 17th July.	About 6,000 ...	.....	The three drinking-water wells should be repaired. A water-shed should be provided. Bazaar street up to temple should be gravelled. Pandals should be erected near the temple. Six scavengers should be employed for street sweeping. Four latrines should be constructed and a toty appointed to each. Bazaar streets should be fumigated both morning and evening by burning tar and sulphur.	The improvements suggested by the hospital assistant as to water-supply and conservancy are judicious and should be carried out.			
Kistna.	Makha Utsavam at Akeripalli, Nuzvid taluk.	11th to 13th February 1894.	5,000	.....	A shed for pilgrims and additional lights necessary.	Information placed at disposal by the civil apothecary is useless for sanitary purposes.	20 0 0	13 15 9	0 0 ·5
	Sivaratri festival held at Kotappa Konda (Kotappa Hill), 7 miles from Narasaraopet.	4th and 5th March 1894.	About 75,000 people with about 5,000 bullock carts.	Cholera broke out in the assembly. There was one death from the disease on the evening of the second day and another on the night. Both the cases were brought to my notice only after death.	As recommended by me in my report for 1891, if the smaller tank (which generally gets almost dry by the time of the festival, but which by its high embankment shuts away a good bit of land from the ground available for encampment of the pilgrims) be filled up and levelled, the objectionable necessity of allowing them to halt with their carts within the collecting area and over the bank of the drinking-water tank could be avoided. 2. The silt that has been accumulating in the drinking-water tank probably during the past many years must be cleared before the next rainy season. 3. A special conservancy establishment must in future be organized consisting of not less than 20 sweepers under a maistry; 7 of them must be put to work at the latrines and the remaining to have the streets and the encamping ground cleaned morning and evening. 4. A few watchers—at least one over each block—must be appointed to see that the entrances into it are not blocked by carts, &c., and to report to the medical man on duty as soon as there is a case of cholera in any block. 5. Sulphur and tar must be kept burning on a larger scale in the encamping ground and also at the head of the different streets leading from it.	The civil apothecary's account (*vide* his statements, marked by undersigned, 1, 2, 3, 4, 5) shows that the sanitary arrangements made were of an unusually inefficient character. The president's remarks upon the civil apothecary's report show that he has failed to grasp the sanitary points at issue. Having no knowledge of the locality, undersigned cannot say whether the filling up of the tank mentioned in the first of the recommendations of the reporting officer be the best course to pursue, but that the prevention of encampment on the banks of the drinking-water tank is a necessity there can be no doubt. With reference to statement marked 2 in the report, some method certainly should be devised for protecting the water of the tank—either by the running of platforms into the tank with impervious flooring sloping to a drain to enable drawing of the water to be effected without defilement by the feet and hands of persons, or by lifting the water by picottahs or allowing a portion to flow by means of a pipe or syphon into a protected subsidiary reservoir at the side, or a series of wells, whichever be found within reasonable financial effort. Interest on the capital so sunk might be recouped by a toll on the pilgrims as in the case of the festival lately held at Mylar, Bellary district. Except as to remark No. 5, the reporter's recommendations have my approval.	480 0 0	321 5 7	0 0 ·8
	Sivaratri festival, Bezwada.	5th March 1894.	1,000	.....	Water-supply and drainage scheme necessary.	.....	90 0 0	89 0 0	0 1 5

Abstract of Fairs and Festivals held in the Madras Presidency during the year 1894—continued.

District.	Name of Festival and where held.	Date of festival.	Number assembled.	Epidemics.	Recommendations.	Recommendations by the Sanitary Commissioner.	Amount allotted for the Festival.	Amount spent.	Average Cost per Pilgrim.
							RS. A. P.	RS. A. P.	RS. A. P.
Kistna—*continued.*	Sivarátri festival at Bhogesvaram.	5th March 1894.	About 2,500 ...	.....	More money to be sanctioned to enable more pandals to be erected; to have a greater supply in the drinking-water tank.	Information placed at disposal by the hospital assistant is useless for sanitary purposes.	80 0 0	80 0 0	0 0 6
	Sivarátri festival at Balivi.	5th and 6th March 1894.	12,000	.....	A large shed for pilgrims, a shed for the hospital and a water-shed should be provided. Six scavengers should be entertained.	Information placed at disposal by civil apothecary is useless for sanitary purposes.	20 0 0	10 9 0	0 0 ·2
	Mahásivarátri at Petha Kullapully, Bandur taluk.	5th to 8th March 1894.	About 10,000; three times greater than previous year.	.....	The police must be instructed to prevent people using the tank water as it undergoes pollution. The latrines are not freely resorted to. Pilgrims excuse themselves by saying that they do not know what they are intended for. The appointment of a watchman at these latrines and strict supervision by the police will secure this end. Four more pucca wells should be sunk and two big pandals erected for the accommodation of pilgrims.	It would be better to prevent the pollution. Encampment on the tank bund should be stopped. The suggestion to sink wells is good.	140 0 0	160 5 1	0 0 3
	Kalyánam and car festival of Sri Bava Narayanaswami Varu of Ponnur.	11th to 19th May 1894.	6,000	.....	*Nil*	Report extremely meagre. The arrangements made to conserve drinking-water sources, latrine accommodation provided for the pilgrims, and the means taken for the removal and disposal of excreta should have been entered into.	100 0 0	100 0 0	0 0 3
Nool.	Veerabudraswámi festival at Dupaguntla.	8th to 11th April 1894.	About 3,000 ...	.....	*Nil*	The report is defective, in that it omits all mention of the latrine accommodation provided.	30 0 0	30 0 0	0 0 1·9
Kur-	Tai Mahodayam festival held at Sathu.	5th February 1894.	About 20,000 ...	A few cases of cholera occurred, the progress of which was checked by timely medical aid, &c.	*Nil*	.....	100 0 0	100 0 0	0 0 ·96
	Panguni Uttiram festival at Tiruparankunram.	16th to 25th March 1894.	Between 4,000 and 5,000.	.....	*Nil*	.....	100 0 0	113 15 2	0 0 4
Madura.	Chithra festival near Tamkam bungalow, Madura Park.	18th to 25th April 1894.	20,000 people and 19,891 bullocks.	There were seven sporadic cases of cholera, of which four proved fatal. This was due to the taking of untimely meals, consumption of indigestible articles, and sleeping on wet ground, and exposure to heavy dew. Tar and sulphur have been burnt in all directions and disinfecting powder sprinkled. Twenty-two patients were treated for other causes.	The attention of the Chairman of the Madura Municipal Council has been drawn to the remarks of the hospital assistant under 'water-supply.' (Signed) L. MILLER, *Ag. Collector.*	It is not desirable that tank water should be available, the sources mentioned as used (*i.e.*, springs wells newly dug in the river, stone troughs supplied with river water through pipes and four water sheds) being preferable. The driving of cattle a sufficient distance to obtain water should prove no insuperable difficulty.	1,500 0 0	1,500 10 11	0 0 10·8
	Santhana Koodor Festival held at Yervadi.	19th to 29th May 1894.	About 10,000 ...	.....	At least two temporary latrines with cocoanut-leaf tatties should be erected near the durga for females on dry-earth system. Number of lights should be increased and chimneys and burners should be provided instead of small tins with wicks. A maistry should be temporarily appointed to have close supervision over the work of sweepers during festival days.	The arrangements made for the occasion were inadequate in every detail. Action taken by the sanitary association is not stated.	.....	.....	.....
	Adi Ammavasai festival, held at Sathuragiri hills.	31st July and 1st and 2nd August 1894.	About 6,000 ...	.....	The paths are very narrow in several places and should be widened. More springs should be dug to provide sufficient water to visitors. More sheds also should be put up.	The number of latrines provided should have been doubled, or the Jewish system (G.O., dated 11th August 1890, No. 2009 L., Local and Municipal) should have been followed. Unless the fifty-two sheds were of very large dimensions, they could not have sufficed for the population.	50 0 0	*94 0 0	0 0 3

* A moiety of this expenditure was borne by the trustee of the temple.

Abstract of Fairs and Festivals held in the Madras Presidency during the year 1894—continued.

District.	Name of Festival and where held.	Date of Festival.	Number assembled.	Epidemics.	Recommendations.	Recommendations by the Sanitary Commissioner.	Amount allotted for the Festival.	Amount spent.	Average Cost per Pilgrim.
							RS. A. P.	RS. A. P.	RS. A. P.
Madura—*continued.*	Agram Muthiyalamman festival.	15th and 16th October 1894.	About 12,000 to 13,000.	.....	Pits should be dug near latrines to bury night-soil. The sheds should be lighted by kerosine-oil lights.	The latrine accommodation provided for the pilgrims was insufficient. The measures adopted for conserving the river and wells should have been described. In future, if the latrines are near inhabited areas, burial of night-soil in pits should not be pursued. It should be removed to a safe distance and buried in shallow trenches.	100 0 0	100 0 0	0 0 1·5
	Nercha at Kadannamanna mosque.	From 2nd to 28th January 1894.	About 6,000 ...	.....	Provision should be made by the taluk board for a well.	The number of latrines put up and particulars of the conservancy staff employed and mode adopted to prevent pollution of the water-supply should have been stated.	.....	7 10 0	0 0 ·24
	Ariakode Nercha.	18th January 1894.	About 400 ...	.....	*Nil*	.....	.....	.....	.....
	Puthanthalukkal Bagavathi temple.	31st Jan. 1894 to 10th February 1894.	2,000	.....	*Nil*	Report useless; details as to protection of water-supply, mode of conservancy and staff employed should have been entered into.	.....	.....	.....
	Car festival at Kodamba in Thiruvalathur amsham, Palghat taluk.	31st January 1894.	3,700	.....	.....	For a gathering of so large a number, suitable sanitary arrangements were indispensable. This should not be allowed to recur.	.....	.....	.....
	Car festival in Big Bazaar, Palghat.	Do. ...	6,500	.....	.....	Do. do.	14 7 0	3 4 0	0 0 ·1
	Malanhur Chinakathurkavu temple.	1st February 1894.	About 6,500 ...	.....	*Nil*	Report useless; details as to protection of water-supply, mode of conservancy and staff employed should have been entered into.	.....	.....	.....
Malabar.	Varidayampattu Bagavathi temple.	11th to 17th February 1894.	2,500	.....	*Nil*	Do. do. ...	...	...	...
	Payavur festival in Kanhileri amsham, Chirakal taluk.	11th to 23rd February 1894.	About 2,000 ...	.....	.....	The adoption of the Jewish system of conservancy described in G.O., dated 11th August 1890, No. 2009 L., Local and Municipal, would have been desirable.	...	...	...
	Panakat Nercha.	13th February 1894.	About 200 ...	.....	*Nil*	.....	...	...	...
	Mannarghat Bagavathi temple.	14th to 21st February 1894.	2,000	.....	*Nil*	Report useless; details as to protection of water-supply, mode of conservancy and staff employed should have been entered into.			
	Karimpoya ambalathiru.	17th to 24th February 1894.	1,000	.....	*Nil*	Do. do. ...	...	...	...
	Kattingal Mosque Nercha.	19th February 1894.	200	.....	*Nil*	.....	...	...	...
	Kundoti Nercha.	21st February 1894.	About 10,000 ...	.....	No sanitary arrangements necessary.	For a gathering of so large a number, suitable sanitary arrangements were indispensable. This should not be allowed to recur.	...	...	...
	Cherpulcheri Ayyappen kavu temple.	22nd February 1894 to 3rd March 1894.	About 2,000 ...	.....	*Nil*	Report useless; details as to protection of water-supply, mode of conservancy and staff employed should have been entered into.	...	5 10 0	0 0 ·54
	Malapuram Sahidammar Nercha.	25th to 27th Februarry 1894.	About 13,000 ...	.....	*Nil*	Do. do. ...	60 0 0	25 0 0	0 0 ·37
	Puramitavu festival in Tiruchamaram temple, Taliparamba amsham.	Festival 4th to 18th March 1894; fair 4th to 24th March 1894.	About 4,000 for festival; about 2,500 for fair.	.....	.....	The number of latrines put up and particulars of the conservancy staff employed and mode adopted to prevent pollution of the water-supply should have been stated.	...	...	...
	Vallurkavu festival near Manantoddy.	13th to 27th March 1894.	Between 2,500 and 2,600.	.....	.....	.....	...	...	...
	Nagalaserrikavu temple.	14th to 20th March.	1,000	.....	*Nil*	Report useless; details as to protection of water-supply, mode of conservancy and staff employed should have been entered into.	...	...	...

Abstract of Fairs and Festivals held in the Madras Presidency during the year 1894—continued.

District.	Name of Festival and where held.	Date of Festival.	Number assembled.	Epidemics.	Recommendations.	Recommendations by the Sanitary Commissioner.	Amount allotted for the Festival.	Amount spent.	Average Cost per Pilgrim.
							RS. A. P.	RS. A. P.	RS. A. P.
Malabar—*continued.*	Manjeri Poorum.	14th to 20th March 1894.	3,000	.....	*Nil*	No arrangements were apparently made for the sanitation of the locality during the time the festival lasted. It is advised this be seen to in future.	...	...	...
	Tirumatham Puram at Kanna Bagavathi temple.	From 14th to 24th March 1894.	10,000	.....	Notice should be issued to the owner some days previous to the festival to store up the water in the channel by putting bunds.	The number of latrines put up and particulars of the conservancy staff employed and mode adopted to prevent pollution of the water-supply should have been stated.	...	12 8 0	0 0 ·24
	Pooram festival in Kavaseri amsham, Palghat taluk.	20th Mar. 1894.	5,000	.....	.....	For a gathering of so large a number, suitable sanitary arrangements were indispensable. This should not be allowed to recur.	...	...	...
	Kottiyur festival held in Manathana amsam, Kóttayam taluk.	From 18th May to 13th June 1894.	60,000	.....	.....	The Sub-Collector's letter, No. 1337, dated 2nd October 1894, makes certain points left to doubt in the original report clearer, and shows that a reasonable amount of activity was displayed in making preparations. There is, of course, the factor of doubt as to how many of the 60,000 were assembled on any one day; but, if even half the number were assembled—discussed merely from the point of sitting room, say, 2′ 6″, and granting relays—the trenches for night-soil, of which only five appear to have been formed, must have been of unusually large proportions. Small trenches at frequent intervals, and in positions easily approachable from the camp, should have been formed for the disposal of night-soil. Special plots might well have been laid out so as to meet the 'single-hole' method of conservancy referred to in G.O., No. 2009 L., Local and Municipal, dated 11th August 1896, in addition to numerous trenches. The error pointed to by the Sub-Collector as to not appointing definite positions for washing and bathing, should be attended to on the next occasion.	100 0 0	118 3 3	0 0 ·38
Nellore.	Narasimha Hill festival.	18th to 20th May 1894.	Between 5,000 and 8,000.	*Nil*	*Nil*	Report is very meagre, the nature and extent of latrine accommodation provided not being described. Apparently the pilgrims were permitted to defile the streets,—an arrangement that is most objectionable.	160 0 0	160 0 0	0 0 3·8

North Arcot.	Radhasaptami festival at Tiruvattúr.	6th to 19th February 1894.	4,500	.....	Parapet walls should be put up to the bridges on the road that leads from petta to Tiruvattur to prevent accidents that happen every year.	The District Sanitary officer having stated the situation of the tannery is objectionable, he should be requested to report his grounds for saying so.			
	The removal of the tannery, which is situated between the travellers' bungalow and the two main roads of Arcot and Conjeeveram, is also desirable, as it is highly prejudicial to the health of the passers-by and to the gentlemen that halt at the bungalow. The situation of the tannery certainly seems objectionable. (Signed) LEE, Surgeon-Major, Acting District Surgeon.								
	Brahmótsavam of Kálahasti, Isvarar Kálahasti.	1st to 10th March 1894.	About 22,000 ...	.....	Spring hand-carts should be employed to water the four important streets, the practice of sprinkling water in streets with the aid of pots being unsatisfactory.	Statement as to conservancy indefinite as to staff employed. Six latrines for 22,000 persons were insufficient.	200 0 0	187 4 0	0 0 1·6
	Brahmotsavam festival at Vepur.	10th to 19th April 1894.	2,000	.....	*Nil*	.....			
	Ádikirtigai festival at Tiruttani.	From 25th to 30th July 1894.	About 50,000 ...	.....	I strongly recommend that three or four pucka wells be sunk in some of the conspicuous parts in Lower and Upper Tiruttani and the construction of permanent	The remarks made by Mr. Grimley in his function of President of the Ránipéttai Taluk Board and by the hospital assistant show that the requirements of the case are fully realized by the local officers concerned; it is therefore presumed that arrangements which this year, on account of the accident of the Chairman's illness, seem to have been incomplete, notwithstanding the President's subsequent personal efforts to put matters right, will, in future, be effected with greater forethought. I would particularly call attention to the recommendation of the			
	latrines—two for males and for females in Lower Tiruttani, and two for males and for females in Upper Tiruttani—which are essentially required for the convenience of the public and for the upkeep of sanitation. The above suggestion was made in the previous festival report, but to no effect. It may not be out of place here to bring to notice that the great multitude that pass to and from the hill suffer a great deal owing to the narrowness of the road that leads from 'Thirukkulum' to the hill caused by the construction of platforms on both sides of the road in front of houses and by the sundry bazaars held on them, which cause great obstruction to the free passage of the people. This should, in my opinion, be first remedied so as to make it a thoroughfare. The employment of some more toties, sweepers and carts during the festival to remove human ordure promptly from the road sides and lanes and for thorough removal of rubbish is very necessary. Owing to the sudden illness of the Chairman, M.R.Ry. P. M. Velayuda Mudaliar, the sanitary arrangements rather fell backward, but it was fairly kept up by the assistance of Mr. R. F. Grimley, the Head Assistant Magistrate, and the local Second-class Magistrate of Tiruttani, who were there present. The sanitary arrangements were, on the whole, satisfactory.								
	hospital assistant as to the sinking of wells, the paucity of the conservancy staff, and the obstruction of the roads. It is obvious that a sanitary grant of Rs. 44 to meet the sanitary needs of 50,000 people is ridiculous.								

Abstract of Fairs and Festivals held in the Madras Presidency during the year 1894—continued.

District.	Name of Festival and where held.	Date of Festival.	Number assembled.	Epidemics.	Recommendations.	Recommendations by the Sanitary Commissioner.	Amount allotted for the Festival.	Amount spent.	Average cost per Pilgrim.
							RS. A. P.	RS. A. P.	RS. A. P.
Salem.	Car festival, Kapilamalai.	12th January 1894.	2,500	.....	*Nil*	Statements as to water-supply and conservancy useless.	25 0 0	25 0 0	0 0 1·9
	Car festival at Tirthamalai.	25th February 1894 to 4th March 1894.	About 8,000 ...	.....	*Nil*	Do. do. ...	25 0 0	25 0 0	0 0 ·6
South Canara.	Annual festival in the Mahalingeshwar temple at Adur.	12th to 16th March 1894.	3,000	.....	*Nil*	*Nil*	30 0 0	26 8 0	0 0 1·7
	Annual festival in the Punchalingeshwar temple at Vittal.	14th to 24th March 1894.	About 15,000 ...	.....	*Nil*	The method of preventing pollution of the water-supply should have been stated.	38 14 0	30 6 0	0 0 ·39
	The annual car festival at Kollur in Coondapoor taluk.	21st to 30th March 1894.	About 7,000 ...	.....	The Head Assistant Collector is of opinion that half the number of latrines would be quite enough, as they are not much used, and the whole village is surrounded by jungle, "where the people can ease themselves after their customary manner without being in any way offensive or insanitary." The attention of the taluk board will be drawn to the above remarks.	I do not agree with the opinion of the Head Assistant Collector as to the advisability of trusting to defæcation in the jungle. So long as the water shed is near inhabited localities, and so long as inspissated matter can be air-borne, the procedure of allowing 7,000 persons during nine days to deposit a total of at least 14 to 15 tons of excreta on the surface near a village must be regarded as dangerous. The simple method described in G.O., dated 11th August 1890, No. 2009 L., Local and Municipal, would be less objectionable.	200 0 0	152 3 0	0 0 4
	Annual festival in Madaneshvara Vinayaka Devastanam in Mahdur village.	12th to 16th April 1894.	4,000	.....	As the ordinary kerosine lamps did not serve the purpose, the Revenue Inspector suggests that for future festivals lanterns similar to those used by the municipality of Mangalore should be provided.	*Nil*	30 0 0	24 6 0	0 0 1
Tanjore.	Car festival at Hiridaka in Udipi taluk.	19th to 23rd April 1894.	About 12,000 ...	.....	*Nil*	Apparently no latrine accommodation was provided, and nothing was done in the way of conserving the village during the time the festival lasted. These defects should be remedied in future.	...	...	...
	Sri Mahalingaswami Pushyam festival, Tiruvadamarudur.	10th to 21st January.	7,000	There were three attacks from cholera.	*Nil*	The mode of disposal of choleraic excreta should have been stated.	45 0 0	45 0 0	0 0 1·2
	Mahaodyam festival which occurred during the time of Mahamaham festival held at Vedaranniyam.	From 5th to 10thFebruary 1894.	About 100,000 ...	Fortunately there was no epidemic during the festival occasion. A few cases of cholera occurred here and there: were all cured by the timely and careful treatment of the local medical officer assisted by the compounder specially sent for from Mutupet hospital. This epidemic did not originate in this town, but was imported by pilgrims, and these patients were given timely treatment and were almost saved.	*Nil*	The provision of seven latrines for such a large concourse as 100,000 was out of all proportion to actual requirements. The temporary conservancy toties and one rubbish cart engaged for the occasion were likewise insufficient, the total excreta to be dealt with daily being 23 tons of fœcal matter and 111 tons of urine.	15 0 0	...	...
	Magham, Kumbakónam.	20th February 1894.	15,000	There was a slight rise in the number of attacks and deaths prior and subsequent to the day of festival.	*Nil*	No statement is made as to the number of extra conservancy staff employed. Two latrines for 15,000 people is obviously an absurdly inadequate provision.	...	...	...
	Panguni Utiram festival of Sri Tyagarajaswami temple, Tiruválúr, Negapatam taluk.	23rd February to 21st March 1894.	About 30,000 ...	.....	The water of the Kamalalayam tank, which is the main source of water-supply, should be completely drained and refilled, as it is overgrown with weeds and unfit for drinking purposes at present.	It should not have been assumed that, because the town was 'large,' three times the number of the resident population could be safely accommodated. Special arrangements manifestly were necessary. Apparently, although the Kamalalayam tank was used for drinking purposes, no effort was made to conserve it. This should be attended to at the next festival. It is advised that the hospital assistant's suggestion as to emptying and refilling the tank be effected.	150 0 0	111 8 6	0 0 ·7

Abstract of Fairs and Festivals held in the Madras Presidency during the year 1894—continued.

District.	Name of Festival and where held.	Date of Festival.	Number assembled.	Epidemics.	Recommendations.	Recommendations by the Sanitary Commissioner.	Amount allotted for the Festival.	Amount spent.	Average Cost per Pilgrim.
							RS. A. P.	RS. A. P.	RS. A. P.
Tanjore—*continued.*	Saptastánam festival, Tiruvádi.	From 10th to 21st April 1894. The 5th and 12th days are important days.	About 15,000 ...	.....	Police orderly is given to the hospital assistant specially during festival occasions (as per paragraph 1, Part IV, Medical Supervision, of the G.O., dated 7th February 1887, No. 277, Local and Municipal); but it is now stated by the Station-house officer, Tiruvádi, that an orderly to look after some streets in the town is also expected to do duty with me. This is quite impracticable, and it has been so during this festival. A special orderly given during the festival will greatly enable me to look after sanitation with the best results.	1. All due care seems to have been exercised by the officers concerned. It would certainly conduce to securing cleanliness and order if a police orderly were attached to the medical officer on duty. 2. It is not stated how long *before* the festival the water was allowed to flow over the river bed. It would be advisable to let the required quantity of water flow over the river-bed at least twenty-four, and preferably forty-eight hours before the time appointed for the festival with the object of washing away the filth that usually accumulates on dry river-beds in the neighbourhood of villages. 3. The number of pilgrims is open to doubt.	100 0 0	58 0 0	0 0 ·74
	Chitrapurnami festival at Ettigudi.	11th to 19th April 1894.	About 40,000 ...	.....	.....	Practically, no sanitary precautions were taken in respect to this huge assembly of 40,000. It is to be hoped that, in future, under the late ruling by Government as to festivals (Board's Proceedings, No. 283, dated 28th June 1894), such a condition of affairs will not recur in any part of the presidency.	70 0 0	70 0 0	0 0 ·34
Tinnevelly.	Ani festival held at Avadaiyárkoil.	29th June to 9th July 1894.	4,000	.....	A bullock conservancy cart should be permanently sanctioned, as it is found difficult to drag the hand cart during the rainy season in the clayey soil of the place. The bullock cart which the hospital assistant recommends is very expensive. Avadaiyarkoil is a very small place. The cart now in use is sufficient and works well. The soil is not clayish, but is sandy. (Sd.) H. SUBBROYA AIYAR, *President, Taluk Board.*	.....	30 0 0	30 0 0	0 0 1·4
	Ennaikappu festival, Srívilliputtúr.	4th to 13th January.	7,000	Two or three persons were only suffering from symptoms of cholera, but they were cured by timely administration of pills.	*Nil*	The reporter should have stated in what manner choleraic excreta were disposed of.	40 0 0	37 0 0	0 0 1
	Tai Pusam festival at Kalugumalai.	12th to 22nd January 1894.	Nearly 10,000 people for the festival; about 5,000 men, 18,000 cattle and 1,000 bandies for cattle fair.	.....	A medical officer should be posted during the festival with medicines.	The arrangements for water-supply were good. Statements as to conservancy are inadequate. A medical officer should have been deputed to attend.	50 0 0	50 0 0	0 0 ·64
	Masi festival in Tirchendúr.	10th to 23rd February 1894.	15,000	There were fifteen attacks and four deaths from cholera.	*Nil*	Latrines were insufficient. The statement as to provision for rubbish conservancy is indefinite. It would be advisable to trust to cremation of rubbish in small mud cinerators.	100 0 0	98 0 0	0 0 1·3
	Panguni Uthram festival at Kalugumalai.	12th March to 2nd April 1894.	Festival proper 15,000 people; cattle fair 10,000 men, 15,000 cattle, 1,000 bandies.	.....	*Nil*	.....	50 0 0	50 0 0	0 0 ·38
	Mariamman festival, Virudupatti.	10th to 20th April 1894.	About 10,000 persons, carriages 200.	.....	The number of fresh-water wells and ponds which were available for drinking purposes should have been stated in the report. (Sd.) C. MUKUNDA RAO, *Vice-President, Taluk Board, Srivilliputtúr.*	.....	70 0 0	50 0 0	0 0 ·96

Abstract of Fairs and Festivals held in the Madras Presidency during the year 1894—continued.

District.	Name of Festival and where held.	Date of Festival.	Number assembled.	Epidemics.	Recommendations.	Recommendations by the Sanitary Commissioner.	Amount allotted for the Festival.	Amount spent.	Average Cost per Pilgrim.
							RS. A. P.	RS. A. P.	RS. A. P.
Tinnevelly—continued.	Sundara Raja Perumal festival, Sivalaperi.	12th to 25th April 1894.	Persons 16,000, carriages 1,800, bullocks for sale 20,000, cows and buffaloes for sale 800, timber shops 18, cloth and other shops 150.	.....	No accommodation was provided by the taluk board. The report shows that a large number of people remained in plains. Accommodation in the choultry and the temple and in temporary huts erected by private persons seems to be insufficient. The matter will be brought to the notice of the taluk board.	Latrine accommodation was insufficient.	100 0 0	109 0 0	0 0 1·3
	Máriyamman Panguni Pongal festival at Sivakási.	15th to 24th April. The important days on which the assembly was large being the 23rd and 24th. People continued to remain till the 28th.	6,000 people on important days. Cattle for sale about 1,000; miscellaneous shops 80, and carriages 60 each day.	A few cases of cholera occurred during the latter part of the festival. Tar, sulphur, &c., were burnt in places where they appeared.	*Nil*	The measures taken to check the spread of cholera, *e.g.*, segregation of patients, disinfection of clothing, excreta, &c., conservancy of drinking water, &c., should have been detailed.	30 0 0	26 0 0	0 0 ·83
	Vaikási festival, Alwar Tirunagiri.	Festival, 10th to 24th May 1894; cattle fair, 19th May to 3rd June 1894.	15,000 on the 5th day and about 4,000 or 5,000 on other days; 2,850 carts and 6,650 cattle.	.....	Twenty-five grinding stones with mortars for grinding cotton seed for feeding cattle should be provided. Places ought to be fenced in for the safety of cattle and property. A ramp on the western side of the union limits is very necessary for the passing of carts and cattle within the fair.	Mode of disposal of night-soil should have been described.	50 0 0	50 0 0	0 0 ·64
	Kanniseri Sennakesava Perumal festival held at Seddarpatti.	19th to 29th May 1894.	3,000	.....	*Nil*	*Nil*	90 0 0	93 0 0	0 0 6
Tinnevelly—	Bayani Esvarar Ani festival held at Muthulapuram.	19th to 30th June 1894.	10,000	.....	*Nil*	More latrines should have been provided. No statement as to how the well was protected is furnished. The use of topes and fields in the neighbourhood for purposes of nature was an unsafe procedure.	90 0 0	87 0 0	0 0 1·7
	Roman Catholic festival, Srívaikuntam union, Tenkási taluk.	16th July 1894.	2,000 to 3,000 ...	.....	The church compound should be lighted with at least fifteen lamps. As the festival is held during dark nights, lights are indispensable to enable pilgrims to spend the nights with safety and convenience. The estimate for this proposal will in due course be submitted when the budget is prepared.	It is not stated whether the channal which supplied water to the pilgrims was in any manner conserved. This should be attended to in the next report.	10 0 0	10 0 0	0 0 ·6
	Adi festival, Srívilliputtúr.	27th July to 15th August 1894.	About 20,000 ...	Fourteen cases of cholera with five deaths were reported about the end of the festival. A cholera shed was erected for the use of cholera patients and effective medicines were distributed. Tar was burnt in the locality where a greater number of attacks occurred and every other precaution taken to prevent spread of cholera.	*Nil*	The precautions taken for the disposal of choleraic matter should have been specifically stated.	120 0 0	120 0 0	0 0 1·2
	Aditapasu festival, Sankaranayinárkóyil.	14th August 1894. The crowd began to gather from the 13th and dispersed within two days after the Tapasu day.	The estimated number of people that assembled on the 14th August 1894 was 30,000, that of carriages 8,350, of cattle 2,950, and of wood and timber shops 200.	The outbreak of cholera on the night of the 18th August 1894, or three days after the Tapasu festival in cattle fair, is a sad event in this year, though the site, *i.e.*, the bed of Pettagulam tank selected for cattle fair this year to that of previous years is one calculated much towards sanitation and far away from the town. The introduc-	Suggested to the chairman of the union to erect six water closets and six latrines, pointing out the places also; but only two in each set were erected on account of deficiency in finance and a far less sum provided in the budget for the current year than that of the last year as explained by the chairman; (2) suggested also to employ larger number of coolies to clean up the place in a day or two after the fair instead of prolonging this work or six days together; (3) suggested to construct four	It would serve no purpose to detail the defects that existed in the sanitary arrangements for this fair. Practically nothing was done, the mere fact of it being necessary to detail men for six days subsequent to the fair to get the place into a presentable condition, telling its own tale as to how deficient conservancy arrangements were. The District Sanitary officer's letter shows that cholera was spread all over the taluk concerned on return of the people to their villages. The allot-	120 0 0	120 0 0	0 0 ·76

Abstract of Fairs and Festivals held in the Madras Presidency during the year 1894—continued.

District.	Name of Festival and where held.	Date of Festival.	Number assembled.	Epidemics.	Recommendations.	Recommendations by the Sanitary Commissioner.	Amount allotted for the Festival.	Amount spent.	Average Cost per Pilgrim.
							RS. A. P.	RS. A. P.	RS. A. P.
Tinnevelly—*continued.*	Aditapasu festival—*cont.*	...	...	tion of the disease is probably from persons come from Aruppucottai in Madura district and Sambeervadagarai in Travancore territory, where the disease is said to have been prevailing in a virulent form. The infected persons were immediately segregated and every medical aid was rendered to restore the sick, and every possible sanitary arrangements were adopted to prevent the further spread of the disease. The people immediately dispersed from the cattle fair and resorted to their villages, probably the affected persons also, and hence the simultaneous widespread of the disease throughout the taluk. The sanitary arrangements adopted are as follows:—(*a*) Burning of the soiled clothings and other perishable articles, (*b*) alvine discharges were disinfected and buried in pits away from habitation and water source, (*c*) infected ground was scraped and buried away with disinfectants, (*d*) tar and sulphur were burnt on the spot, (*e*) people advised to drink well-boiled water, &c. Cusbah—Number of cases attacked, 38; number died, 21; medical aid rendered, 30, and death, 13.	spacious pandals as special accommodation to pilgrims outside town to avoid over crowding in houses as much as possible; but none of the suggestions, I regret to say, has been carried out. Lastly efficient supervision was wanting. *Suggestions for future guidance.*—(1) Some special accommodation for pilgrims if made in future will relieve much of the sufferings; (2) sufficient number of sweepers and toties should be employed in addition to the permanent staff to keep the town and its surroundings clean within a couple of days; (3) a temporary establishment, consisting of twelve sweepers and eight toties, should be maintained in cattle fair to be capable of removing the filth and feculance then and there under efficient supervision and thus to keep the place neat and clean; (4) there should be three water sheds, four latrines and four water closets for the use of cattle fair. As for the town and its surroundings, twelve movable latrines on a large scale for males and females separately if provided for, people being prevented from committing nuisances outside the latrines, and eight water closets introduced in important centres of the town and its surroundings will considerably lessen the insanitary condition.	ment for the fair was decreased by the taluk board during the year. I advise that the District Sanitary officer be required to draw up an estimate in detail of actual requirements, and that it be then ascertained how far the taluk board can bear the requisite expenditure.			
Vizagapatam.	Avani festival, Tiruchendur.	21st August to 1st September 1894.	5,000	.....	*Nil*	If it were not found possible to compel people to resort to latrines, the method described in G.O., dated 11th August 1890, No. 2009 L., Local and Municipal, should have been pursued. This should be done in future.	40 0 0	25 0 0	0 0 ·96
	Kalyanam at Simhachallam.	16th to 22nd April 1894.	About 25,000 ...	.....	By the side of northern bank of the drinking-water tank below the hill dead bodies are being burnt and buried. Steps may be taken to prevent this practice and a distant site on the northern side of the hill may be selected for the purpose.	The hospital assistant's suggestion as to abolition of the burial-grounds should receive early attention. The steps taken to conserve the water have been detailed after special reference; the number of toties, &c., should also have been reported.	200	182 10 0	0 0 1·4
	Chandana yathra festival, Simhachallam.	7th and 8th May.	About 7,000 to 8,000.	.....	The tank below the hill needs cleansing and should be watched to prevent pollution. There should be ten scavengers and a maistry above the hill and six scavengers and a maistry below the hill. McDougall's powder should be freely used in and around the latrines and dry earth thrown over the floor of the latrines and a lamp put up at each latrine so as to prevent people defæcating other places besides the latrines in dark nights, and the cost debited to Vizianagram samasthanam, which has the sole authority over the temple. The steps leading to Hanuman Dwara are slippery in consequence of the constant dribbling of water from the springs and from the pores in the walls of Hanuman Dwara. Some measures should be adopted to divert the course and block up the pores in the wall by concrete. Immediate measures should be taken to remove the two huge masses of rock closely overhanging in two places on the steps leading to Simhachallam, as on some day or other during rainy weather it will give rise to landslip. The number of lights, especially on the steps, should be increased. This could be easily done by the Vizianagram samasthanam. Attention is invited to the recommendations of the hospital assistant. (Signed) S. E. WINSLOW. (Signed) A. H. LEAPINGWELL, District Surgeon.	The hospital assistant's suggestions should be attended to.		17 4 0	0 0 ·4

APPENDIX E.

Table showing the History of Persons attacked with Cholera on their way home especially from Tiruvannámalai Festival and the number of deaths that occurred in particular villages subsequent to their arrival there by train.

District.	Name and rank of reporting officer.	Taluk or village in which the disease first appeared.	Date of first case in last outbreak.	Date of first case in present outbreak.	Method of introduction as suggested by reporting officers.	When disease became epidemic.	Number of deaths from date of present outbreak.	Date of last case reported up to December 1894.	Remarks.
Chingleput.	Surgeon-Major H. F. Nailer, District Sanitary Officer, Chingleput.	Chingleput town.	.....	16th May 1894.	An old woman, 60 years old, belonging to a gang of Rajahput Guzaraths, came from Rámésvaram through Chidambaram and alighted at Chingleput chatram on the 16th May 1894, having arrived at Chingleput station by the early mail. This old woman was suffering from cholera at Chidambaram. These in a gang went to Tirukalikundram in jutkas. On their way to the place a female (25 years of age) was attacked, and as she got bad on arrival at Tirukalikundram, they all returned the same day to Chingleput. On their way back three more were attacked, a cook, and another female and a girl. The second attacked died while entering the town of Chingleput, and the cook the same night and the old woman following day. A boy, the son of the chatram gardener, who used to spend his time with his father during the day in and around the chatram, was attacked on the 19th May 1894 and died. A boy, relative of a baker, living close by the chatram, and who probably went to chatram to sell bread, was attacked on the 20th and died.	.....	6	7th June 1894.	There were no deaths in January 1895. Sanitary preventive measures were adopted.
	P. B. Sambuntha Moodaliar, Civil Apothecary in charge of Municipal Hospital, Conjeeveram.	Municipal Town, Conjeeveram.	.....	15th December 1894.	"On the 13th current (December 1894) a Hindu (male), weaver by profession, a resident of Conjeeveram, by name Kundaswami Moodali, returned to his permanent residence Pillapolliem (Conjeeveram) from Tiruvannámalai by train. He went to attend the Karthigai festival that took place on the 10th idem. He stopped at Tiruvannámalai where cholera prevailed from Monday to Wednesday morning." "About 7 miles from Conjeeveram, when coming by the South Indian train on the 13th instant, he vomited. On arrival at Conjeeveram station, he walked into the latrine on the platform; vomited and purged once therein and then went on walking homewards. On the way he entered Kámátchiamman temple, washed his hands and feet and rinsed his mouth in the tank of the temple and then walked away; approaching another temple Kachapésvaraswami's, he had another motion; still further on at the end of Kachapesvaran Mada street, he had one more motion. There was a fourth motion at the bend of Okkaparandan street. After this, he appears to have been much exhausted and fell down unable to walk near the Manjaneer channel." . . .	.....	20	30th December 1894.	From December 15th to the end of the year a total of 33 attacks and 20 deaths occurred. From January up to 8th March 1895 126 more attacks and 74 deaths were reported in continuation of the epidemic. Active preventive measures were adopted by the civil apothecary.
South Arcot.	M.R.Ry. Krishnaswami Pillai, Hospital Assistant, Civil Dispensary, Gingee.	Gingee, Tindivanam taluk.	.....	.....		.....			
	Mr. Vellems, Civil Apothecary.	Municipal town (Chidambaram).	.....	15th December 1894.	"The first case of cholera was that of a pilgrim, a Malayalee, who, with his relative, alighted in a house in the eastern part of the town on the 14th instant (December), coming directly from Tiruvannámalai whither he had been for the festival; he is reported to have been taken bad the same night and died by the morning of the 15th. Another patient was found on the Railway Company's premises suffering from cholera, and he was sent on to the hospital on the forenoon of the 15th instant, where he died a few hours afterwards in spite of treatment. As he was in a greatly exhausted condition, a detailed account of his attack could not be obtained, but it is ascertained that he was also a pilgrim coming directly from Tiruvannámalai and was a native of Salem."	.....	1	31st December 1894.	[From 2nd to 30th January there were 35 deaths.] [From 3rd to 27th February 40 deaths.] The Deputy Collector of Tirukkóyilúr writes . . . . "From the Tahsildar's reports it appears that cholera patients were not actually taken out of the trains either at Tirukkóyilúr or Murugayur during or after the festival; but that such men got into the train stealthily and quietly got down at the former station and went away to their villages." . . . . "It is admitted on all hands that Karthigai festival has been the cause of the appearance of the disease in many places." . . . . "I think it absolutely necessary that the Railway authorities should be requested to make special arrangements in future to put out cholera patients from the trains."
	Porto Novo, Chidambaram taluk.	.....	.....	21st December 1894.	A native of Porto Novo went to Shiyali where he was attacked at 6 P.M. on the 13th December 1894. He was brought down by his relatives to Porto Novo on the same night by the mail train. In January 1895 no deaths; February one death.	.....		21st December 1894.	I hear cholera is prevailing at Shiyali being imported by the pilgrims who had been to Tiruvannámalai for the Karthigai feast. The Sub-Magistrate of Porto Novo writes:— "A native of this town went * at the same time to Shiyali and was attacked with the disease at 6 P.M. on the 13th December 1894 and brought by his relatives to Porto Novo on the same night by the mail train. The Hospital Assistant here treated the patient from the 14th morning, and the case was successful after seven days." "I beg to add that no particular arrangements were made by the Railway authorities here in the case." * Two others from Tiruvannámalai affected with cholera travelled with him in the train to Shiyali.
					The first case in Vanoor occurred in one Papooraya Moodali who had been to the Karthigai festival at Tiruvannámalai where cholera prevailed.	.....		.....	The Collector of South Arcot writes:— "The South Indian Railway authorities do not appear to have taken any special precautions, and I do not doubt that this Railway, which has the bulk of the so-called 'pilgrim trade' of this presidency, is a potent medium for the spread of cholera from the various temple festivals it serves to other parts of the country. Special trains are run day and night to and from Tiruvannámalai during the Karthigai festival, and considering the great profit that must accrue to the Company by this special service, I am of opinion that it should be required, under very stringent sanitary regulations, to make adequate provisions for the proper conservancy of its passengers." . . . .
					One Pandáram, aged 65 years, had been to Tiruvannámalai festival. He picked up cholera after his arrival at Gingee on the 14th instant (December 1894). This place was quite free of cholera till his arrival. After he was attacked with cholera, two others were also attacked in the same street. The first attacked, namely the Pandáram, died on the 15th and another man on the 17th December 1894.	.....		.....	

Table showing the History of Persons attacked with Cholera on their way home, especially from Tiruvannámalai Festival, &c.—continued.

District.	South Arcot—*cont.*		
Name and rank of reporting Officer.	Mr. M. Edwards, First-class Hospital Assistant, Old Town, Cuddalore.	Mr. F. Joseph, Second-class Hospital Assistant, Panruti.	Surgeon-Major C. M. Thomson, District Sanitary Officer, Tanjore.
Taluk or village in which the disease first appeared.	Old Town, Cuddalore.	Panruti, Cuddalore taluk.	Shiyali taluk.
Date of first case in last outbreak.	.....	.....	.....
Date of first case in present outbreak.	13th December 1894.	15th December 1894.	12th December 1894.
Method of introduction as suggested by reporting Officers.	Three pilgrims, natives of Tinnevelly district (1 female and 2 males), on their return from Tiruvannámalai festival last midnight (12th December), were attacked with cholera, of whom the female died this morning in a choultry near the Railway Station."	Cholera of a virulent type was imported from Tiruvannámalai by pilgrims who had been there for the late Karthigai feast: none of them were the residents of the place, but belonging to different parts of this district, excepting one who was a native of a village in Tanjore district. All the attacked were Hindu males who actually brought cholera with them. Two of them suffered from the complaint on their way home by the rail; as they were not allowed to proceed further to their destination, they alighted at the station and halted at their friend's place and fell victims to the disease. On the morning of 12th December 1894, on arrival of the 9 A.M. train at Shiyali station from Villupuram, a Brahmin was found to be suffering from cholera. He took train at Villupuram on his way from Tiruvannámalai at 3-40 A.M., and shortly afterwards was attacked with choiera; he passed several motions in the carriage and vomited several times. According to the account furnished by the Civil Apothecary, Shiyali, he was allowed to proceed from several stations before Shiyali, although he was seen to be vomiting by some of the Railway officials. The Medical officer further states:— "Since writing the above I have received a report from the Medical officer at Shiyali that three more cases of cholera were discovered in the train, all patients who were returning from the Tiruvannámalai Karthigai festival. I intend proceeding to Shiyali myself at once." NOTE.—Neither the Daily cholera return nor the District return show any deaths from cholera in Shiyali town.	Remarks by District Sanitary officer in District Board Sanitary Report, 1894:— The first case occurred at Shiyali. On the arrival of a passenger train, four passengers (12th December 1894) were found to be suffering from the disease. They were removed to a shed which had been erected close to the station in anticipation of the disease breaking out. I myself visited Shiyali and found that all possible precautions had been taken by the Civil Apothecary to prevent the further spread of the disease; it is, I think, due entirely to the energetic measures adopted by the Civil Apothecary that the disease was stamped out, and never afterwards obtained a footing in the Shiyali taluk which, from its close proximity to the infected district of *Cuddalore*, would, under ordinary circumstances, have suffered heavily. The next cases occurred at Tanjore; the patient was a man who had attended the Tiruvannámalai festival; then a girl was attacked shortly after her arrival at Tanjore from the same place. From this date (15th December 1894) cases were reported from all parts of
When disease became epidemic.	.....	.....	.....
Number of deaths from date of present outbreak.	2	*2	10
Date of last case reported up to December 1894.	14th December 1894.	18th December 1894.	25th December 1894.
Remarks.	[3rd to 31st January 1895 4 cases; 4th to 24th February 1895 4 cases.] [January *nil*; February 1 death.]	*According to Daily cholera return there were 4 deaths; 15th and 16th December 1894 3, and 18th 1.	

District.	North Arcot.		Tanjore.
Name and rank of reporting Officer.	Surgeon-Major C. Adams, District Sanitary Officer, North Arcot.	Chairman, Municipal Council, Máyavaram.	Mr. Gnánam Pillai, Assistant Surgeon, Tanjore.
Taluk or village in which the disease first appeared.	Municipal Town, Vellore.	Municipal Town, Máyavaram.	Tanjore town.
Date of first case in last outbreak.	.....	.....	.....
Date of first case in present outbreak.	13th December 1894.	14th December 1894.	15th December 1894.
Method of introduction as suggested by reporting Officers.	One Murugathal, resident of Kakadara, Pollâchi taluk, Coimbatore district, went to Tiruvannámalai and thence to Chidambaram. She remained at Tiruvannámalai from 10th to 13th, and ate food and drank water in an eating house in the infected locality. While travelling from Chidambaram to Tanjore on the 14th at 5 P.M. the attack commenced with vomiting and purging. The stools and vomited matter were voided in rags and thrown out of the carriage. She was admitted into the Rajah Mirasdar Hospital, Tanjore, at 10 P.M. on the night of the 14th December and died on the following day. Kottappa Chetty, a Mirasdar of Alangudi near Mutupet (Máyavaram), went to Tiruvannámalai with another female relative. The female was attacked first with cholera while at Tiruvannámalai. Kottappa Chetty attended upon her. While the female was still suffering and the male had symptoms of cholera (he thought he had only diarrhœa), they travelled by train. The female was dropped from the train at Shiyali as being cholera stricken, but Kottappa Chetty continued to travel. The stools while at Shiyali were voided in his clothes while in train. How disposed of stools, &c., during transit is not known. He was picked up in the Máyavaram Railway station and sent to the hospital where he died. "Cholera was imported into the town (Vellore) by pilgrims on their way from the Tiruvannámalai festival which took place about the 10th December. A number of people were seized with the illness on the journey and were sent on to Vellore in the train or from Káṭpádi in jutkas by the Railway Apothecary or other official. The first case was that of a resident of Madras, aged 20 years. He was brought in a cart from the South Indian Railway station to the hospital on the 12th December, and died the next day. The next case also, a resident of Madras, was attacked with the disease in the train and was taken into hospital on the 13th, and died the same evening. In like manner 7 other cases were brought by train to the hospital, of whom 6 died in all." * * *		
When disease became epidemic.	.....	.....	.....
Number of deaths from date of present outbreak.	11	4	6
Date of last case reported up to December 1894.	30th December 1894.	24th December 1894.	27th December 1894.
Remarks.			

the district, and in every instance the disease was introduced by some person who had been to attend the Karthigai festival at Tiruvannámalai. In several places the disease thus introduced, spread among the people and caused many deaths. Long before the actual outbreak in the district, Apothecaries and Hospital Assistants were warned of its probable advent, and were given clear and explicit instructions in regard to the importance of isolating the first case and disinfecting clothes soiled by excreta, and they were directed to communicate with local authorities for the purpose of having small sheds erected for the treatment of the first cases. I have no doubt that it is only by carefully and completely isolating the first cases and disinfecting soiled clothes, burning or efficiently disinfecting all excreta, that there is any chance of preventing the spread of the disease once it has broken out in a locality.
The Railway materially assists the dissemination of the disease.

From 3rd to 30th January 1895 14 deaths; February 3 deaths. (Tanjore town).

No deaths in January 1895; February 5 deaths.

Careful segregation and destruction of cholera matter were practised.
None in January and February 1895.

Table showing the History of Persons attacked with Cholera on their way home, especially from Tiruvannámalai Festival, &c.—continued.

District.	Name and rank of reporting Officer.	Taluk or village in which the disease first appeared.	Date of first case in last outbreak.	Date of first case in present outbreak.	Method of introduction as suggested by reporting Officers.	When disease became epidemic.	Number of deaths from date of present outbreak.	Date of last case reported up to December 1894.	Remarks.
Nellore.	N. Arcot—*cont.*								
Surgeon-Major Thornhill, District Sanitary Officer, Nellore.	Surgeon-Major C. Adams, Deputy Sanitary Officer, North Arcot—*cont.*	Municipal Town, Vellore—*cont.*	.....	19th December 1894.	"A Hospital Assistant was deputed to visit all infected houses and to see that thorough cleansing and disinfection were carried out under his own supervision, with directions to pay particular attention to infected clothing and to the discharges."	December 1894.	7	29th December 1894.	[There were 4 deaths in Potlapudi in January 1895.] None in February.
		Potlapudi, Nellore taluk.	.....	22nd December 1894 (according to District return).	"About 30 people went to the festival held at Tiruvannámalai from Potlapudi (Nellore taluk), Nellore district. On arrival there they learned by tom-tom that cholera was present; they however did not leave till two days afterwards, and on the return journey in the train on the morning of the 14th December 1894, the first case occurred in a woman who died next morning, about one hour before the train arrived at Nellore where her body was buried. Next morning, as they were travelling to Potlapudi, a boy was attacked (since recovered), and on the 16th instant a woman living in the same house as the boy was seized and died that night. The disease at first appeared only in the houses of those who had gone to the festival, but afterwards spread to the houses of other residents in the village. When it was found that cholera was present in their midst, many of the villagers went to their fields and stayed there till it had died out. . . . He experienced great difficulty in dealing with the sick, as the relatives in most instances would not allow disinfection of stools or their instant removal to a distance and buried as he advised, but threw them on the manure heap in the backyard usually, and only in some instances covered them with earth." . . . "The dead were buried within 12 hours, some in their clothes, but the clothes of others were removed by relatives and given to the dhobies to be washed: the relatives as well as the dhobies refused to use disinfectants in the water for washing them as recommended by the Hospital Assistant. They also refused to have their houses limewashed." . . . "It seems to me to be of little use sending a Hospital Assistant to an affected village, unless he or some revenue official there be given some powers to enforce simple sanitary measures against the spread of the disease such as disinfection and burial of stools without delay and early disinfection of clothing."				

APPENDIX F.

Tables showing places visited by Sanitary Commissioner and Deputy Sanitary Commissioner during 1894.

MUNICIPAL TOWNS INSPECTED BY

Sanitary Commissioner.

District.	Municipalities.	Date of inspection.	Date of report.	G.O. on report.
Anantapur ...	Anantapur ...	2nd and 3rd Nov. 1894.	18th Feb. 1895.	.....
Bellary ...	Ádóni	15th to 17th Oct. 1894.	2nd Feb. 1895.	No. 732-M., dated 1st May 1895.
	Bellary	12th and 13th Oct. 1894.	24th Dec. 1894.	No. 534-M., dated 25th Mar. 1895.
Chingleput ...	Conjeeveram ...	10th and 11th Dec. 1894.	13th March 1895.	.....
Coimbatore ...	Erode	25th and 26th July 1894.	7th Sep. 1894.	No. 1944-M., dated 14th Dec. 1894.
Cuddapah ...	Cuddapah ...	21st to 23rd Aug. 1894.	21st Sep. 1894.	G.O., No. 182-M., dated 7th Feb. 1895.
Gódávari ...	Cocanada ...	27th to 30th Oct. 1894.	30th Jan. 1895.	.....
	Ellore	19th to 21st Oct. 1894.	18th Dec. 1894.	.....
	Rajahmundry ...	23rd to 26th Oct. 1894.	30th Jan. 1895.	.....
Madura ...	Dindigul	4th to 8th July 1894.	25th Sep. 1894.	No. 1816-M., dated 27th Nov. 1894.
	Madura	14th to 19th June 1894.	3rd Aug. 1894.	No. 1802-M., dated 26th Nov. 1894.
	Periyakulam ...	29th and 30th June and 1st July 1894.	10th Sep. 1894.	No. 1852-M., dated 3rd Dec. 1894.
Malabar ...	Calicut	26th and 27th Nov. 1894.	13th March 1895.	.....
	Cannanore ...	18th and 19th Nov. 1894.	13th March 1895.	.....
	Cochin	24th and 25th Nov. 1894.	9th Feb. 1895.	.....
	Palghat	28th and 29th Nov. 1894.	13th March 1895.	.....
	Tellicherry ...	16th and 17th Nov. 1894.	13th March 1895.	.....

Deputy Sanitary Commissioner.

District.	Municipalities.	Date of inspection.	Date of report.	G.O. on report.
Coimbatore ...	Coimbatore ...	27th, 28th and 30th July 1894.	6th Sep. 1894.	No. 1733-M., dated 15th Nov. 1894.
	Karur	24th and 25th July 1894.	21st Aug. 1894.	No. 29-M., dated 10th Jan. 1895.
Ganjám ...	Berhampur ...	17th, 19th and 20th March 1894.	15th April 1894.	No. 1010-M., dated 1st Aug. 1894.
	Chicacole ...	29th to 31st March 1894.	24th April 1894.	No. 1037-M., dated 6th Aug. 1894.
	Parlákimedi ...	24th, 26th and 27th March 1894.	20th April 1894.	No. 1036-M., dated 6th Aug. 1894.
Kistna	Bezwada	16th to 18th Oct. 1894.	19th Nov. 1894.	No. 428-M., dated 14th March 1895.
	Guntúr	13th and 15th Oct. 1894.	16th Nov. 1894.	No. 135-M., dated 29th Jan. 1895.
	Masulipatam ...	20th, 22nd and 23rd Oct. 1894.	30th Nov. 1894.	No. 671-M., dated 17th April 1895.
Kurnool ...	Kurnool	28th, 29th & 30th Sep. and 1st Oct. 1894	19th Nov. 1894.	No. 28-M., dated 10th Jan. 1895.
Madura ...	Palni	2nd and 3rd Aug. 1894.	6th Sep. 1894.	No. 1727-M., dated 14th Nov. 1894.
Nellore ...	Nellore	29th and 30th June and 2nd July 1894.	16th July 1894.	No. 1406-M., dated 6th Oct. 1894.
	Ongole	6th and 7th July 1894.	16th July 1894.	No. 1734-M., dated 15th Nov. 1894.
Nilgiris ...	Ootacamund ...	1st and 3rd Dec. 1894.	6th Dec. 1894.	No. 634-M., dated 8th April 1895.
Salem ...	Salem	26th to 28th Dec. 1894.	12th Jan. 1895.	No. 693-M., dated 25th April 1895.
	Tiruppattúr ...	29th and 30th Dec. 1894.	10th Jan. 1895.	No. 467-M., dated 19th March 1895.
	Vániyambádi ...	31st Dec. 1894 ...	12th Jan. 1895.	No. 481-M., dated 19th March 1895.

Tables showing places visited by Sanitary Commissioner and Deputy Sanitary Commissioner during 1894—continued.

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.
Nilgiris ...	Coonoor	1st and 2nd Oct. 1894.	27th Nov. 1894.	.....	South Canara ...	Mangalore ...	20th to 22nd Dec. 1894.	16th Jan. 1895.	No. 744-M., dated 2nd May 1895.
North Arcot ...	Gudiyáttam ...	30th Nov. and 1st Dec. 1894.	13th March 1895.	.....	Tanjore ...	Kumbakónam ...	14th and 15th Nov. 1894.	6th Dec. 1894.	.....
	Tirupati ...	16th, 17th and 19th Aug. 1894.	12th Sep. 1894.	No. 303-M., dated 26th Feb. 1895.		Máyavaram ...	13th Nov. 1894 ...	Do. ...	No. 703-M., dated 26th April 1895.
	Vellore	6th to 9th Aug. 1894.	29th Sep. 1894.	No. 1987-M., dated 19th Dec. 1894.		Mannárgudi ...	17th Nov. 1894 ...	Do. ...	.....
	Walájápet ...	13th and 14th Aug. 1894.	19th Sep. 1894.	No. 1851-M., dated 3rd Dec. 1894.		Negapatam ...	19th, 20th and 22nd Nov. 1894.	Do. ...	.....
						Tanjore	23rd 24th and 26th Nov. 1894.	Do. ...	.....
South Arcot ...	Cuddalore ...	7th and 8th Dec. 1894.	13th March 1895.	.....	Tinnevelly ...	Palamcottah ...	8th and 10th Sep. 1894.	31st Oct. 1894.	No. 30-M., dated 10th Jan. 1895.
	Chidambaram ...	5th and 6th Dec. 1894.	21st March 1895.	.....		Tinnevelly ...	11th and 12th Sep. 1894.	19th Nov. 1894.	No. 136-M., dated 29th Jan. 1895.
Trichinopoly.	Trichinopoly ...	20th to 23rd July 1894.	14th Sep. 1894.	No. 2021-M., dated 22nd Dec. 1894.		Tuticorin ...	5th and 6th Sep. 1894.	31st Oct. 1894.	No. 302-M., dated 26th Feb. 1895.
	Srírangam ...		15th Sep. 1894.	No. 427-M., dated 13th Mar. 1895.	Vizagapatam.	Anakápalle ...	13th and 14th April 1894.	5th June 1894.	No. 1101-M., dated 17th Aug. 1894.
	Madras	Various occasions in 1894.	12th Dec. 1894.	.....		Bimlipatam ...	6th April 1894 ...	24th April 1894.	No. 921-M., dated 19th July 1894.
						Vizagapatam ...	9th, 10th and 11th April 1894.	30th May 1894.	No. 1472-M., dated 16th Oct. 1894.
						Vizianagram ...	3rd and 4th April 1894.	1st May 1894.	No. 1245-M., dated 11th Sep. 1894.

Places visited (not Municipalities).

By Sanitary Commissioner.					By Deputy Sanitary Commissioner.				
District.	Names of places.	Date of inspection.	Date of report.	G.O. on report.	District.	Names of places.	Date of inspection.	Date of report.	G.O. on report.
Bellary ...	Alipore ...	13th Oct. 1894 ...	29th Nov. 1894.	No. 2607-L., dated 15th Dec. 1894.	Coimbatore ...	Pérur Devastanam ...	30th July 1894 ...	25th August 1894.	No. 1896-L., dated 24th Sept. 1894.
	Hampi ...	26th Aug. 1894 ...	20th Sept. 1894.	No. 2062-L., dated 16th Oct. 1894.		,, Chettipalayam ...	30th July 1894 ...		
Chingleput ...	Sambium ...	4th Dec. 1894 ...	.....	.....		Pollachi	31st July 1894 ...		
Gódávari ...	Samalcottah ...	30th Oct. 1894 ...	23rd Jan. 1895.	No. 221-M., dated 12th Feb. 1895.		Udumalpet with Kadakampalayam.	30th July 1894 ...		
Malabar ...	Yaraka ...	.....	.....	.....	Cuddapah ...	Rajampet	6th Feb. 1894 ...	4th April 1894.	No. 796-L., dated 4th May 1894.
Madura ...	Chengapádi ...	21st June 1894 ...	21st Nov. 1894.	No. 2579-L., dated 11th Dec. 1894.		Utkur	7th Feb. 1894 ..		
	Sholavandán ...	13th June 1894 ...	29th Nov. 1894.	No. 2631-L., dated 17th Dec. 1894.		Pullampet	8th Feb. 1894 ...		
	Settinayakanpatti ...	.....	.....	.....		Chitvel with 5 hamlets.	9th Feb. 1894 ...		
	Tirumangalam ...	20th June 1894 ...	29th Nov. 1894.	No. 2606-L., dated 15th Dec. 1894.		Kódur and various hamlets.	12th Feb. 1894 ...		
North Arcot ...	Ranipettai ...	14th Aug. 1894 ...	7th Nov. 1894.	No. 2466-L., dated 27th Nov. 1894.		Settigunta with 14 hamlets.	13th Feb. 1894 ...		
	Upper Tirupati * ...	18th & 20th Aug. 1894.	26th Mar. 1895.	.....		Chelamkur	17th Feb. 1894 ...		
Nilgiris ...	Yedapalli ...	2nd Oct. 1894 ...	27th Nov. 1894.	.....		Proddatur	19th Feb. 1894 ...		
South Arcot ...	Tiruvannámalai * ...	9th & 10th Dec. 1894.	1st May 1895.	.....		Madanapalli	24th Feb. 1894 ...		
Trichinopoly ...	Kulitalai ...	18th and 19th July 1894.	9th Nov. 1894.	No. 2484-L., dated 27th Nov. 1894.		Chinna Tippasamudram.	26th Feb. 1894 ...		
						Vayalpadd	28th Feb. 1894 ...		
					Ganjám ...	Gopalpur	15th Mar. 1894 ...	30th April 1894.	No. 1040-L., dated 8th June 1894.
						Ichápuram	21st Mar. 1894 ...		
						Haripuram	22nd Mar. 1894 ...		
						Narasanapeta ...	28th Feb. 1894 ...		
					Kurnool ...	Dhone	26th Sept. 1894 ...	7th Dec. 1894.	No. 152-L., dated 23rd Jan. 1895.
						Nandikotkur	5th Oct. 1894 ...		
						Nandyal	9th and 10th Oct. 1894.		
						Cumbum	12th Oct. 1894 ...		
						Kodaikanal ...	14th and 15th May 1894.		
					Madura ...	Vallagari	16th May 1894 ...	19th July 1894.	No. 1644-L., dated 28th Aug. 1894.
						Velpatti	17th May 1894 ...		
						Púmbarai	19th May 1894 ...		
						Kávali	3rd July 1894 ...	19th July 1894.	No. 1583-L., dated 21st Aug. 1894.
					Nellore ...	Singarayakonda ...	4th July 1894 ...		
						Tungatúr	9th July 1894 ...		

* *Vide* Festival Reports submitted to Government.

APPENDIX G.

Statement showing the Number of Towns and Villages inspected by District Medical and Sanitary Officers during the year 1894.

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	80	4	84	7 places twice inspected.
Bellary	25	3	28	2 do.
Chingleput	10	23	33	7 do.
Coimbatore	63	...	63	8 do.
Cuddapah	24	67	91	
Ganjám	12	13	25	
Gódávari	41	5	46	4 do.
Kistna	44	21	65	26 do.
Kurnool	26	...	26	
Madura	46	2	48	
Malabar	42	24	66	7 do.
Nellore	41	21	62	6 do.
Nílgiris	31	1	32	3 do.
North Arcot	43	9	52	
Salem	52	12	64	8 do.
South Arcot	51	...	51	6 do.
South Canara	22	22	44	
Tanjore	12	6	18	5 do.
Tinnevelly	42	...	42	1 do.
Trichinopoly	29	11	40	
Vizagapatam	10	6	16	
Total ...	746	250	996	

Vital Statistics of the General Population showing the Births registered in the districts of the Madras Presidency during the year 1894.

APPENDIX II.

VITAL STATISTICS OF THE GENERAL POPULATION.

No. 1.—*Showing the Births registered in the districts of the Madras Presidency during the year* 1894.

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	105	81	186	15·1	11·6	26·7	129·6	11·7	...	15·9	15·2	31·1
2	5,125	5,150	10,275	Tadpatri ... ... T.C.	5,125	5,150	10,275	145	137	282	14·1	13·3	27·4	105·8	5·7	...	5·4	5·7	11·1
3	50,963	46,333	97,296	Anantapur ... ... R.C.	50,963	46,333	97,296	1,476	1,346	2,822	15·2	13·8	29·0	109·6	9·3	...	13·4	13·1	26·5
4	72,693	69,884	142,577	Gooty ... ... R.C.	72,693	69,884	142,577	2,331	2,309	4,640	16·3	16·2	32·5	100·9	11·6	...	15·4	15·0	30·4
5	51,976	50,397	102,373	Tadpatri ... ... R.C.	51,976	50,397	102,373	1,505	1,359	2,864	14·7	13·2	27·9	110·7	6·3	...	14·6	14·4	29·1
6	41,007	39,262	80,269	Penukonda ... ... R.C.	41,007	39,262	80,269	1,274	1,257	2,531	15·9	15·6	31·5	101·3	14·1	...	15·4	15·1	30·5
7	61,251	57,463	118,714	Dharmavaram ... ... R.C.	61,251	57,463	118,714	1,807	1,875	3,682	15·2	15·8	31·0	96·4	15·2	...	14·0	14·0	28·0
8	41,343	40,331	81,674	Hindúpur ... ... R.C.	41,343	40,331	81,674	1,182	1,131	2,313	14·5	13·8	28·3	104·5	13·2	...	13·3	12·9	26·2
9	34,231	33,761	67,992	Madakasíra ... ... R.C.	34,231	33,761	67,992	977	865	1,842	14·3	12·7	27·0	112·9	14·6	...	13·4	12·8	26·2
9	362,062	346,081	708,143	Total District ...	362,062	346,081	708,143	10,802	10,360	21,162	15·3	14·6	29·9	104·2	11·8	...	14·2	13·8	28·0
				BELLARY.															
10	29,130	28,650	57,780	Bellary ... ... M.T.C.	29,130	28,650	57,780	1,069	1,090	2,159	18·5	18·9	37·4	98·0	8·4	...	15·9	15·1	31·0
11	13,231	12,985	26,216	Ádóni ... ... M.T.C.	13,231	12,985	26,216	443	417	860	16·9	15·9	32·8	106·2	8·5	...	17·7	16·0	33·7
12	6,263	6,606	12,869	Hospet ... ... T.C.	6,263	6,606	12,869	170	148	318	13·2	11·5	24·7	114·8	8·7	...	12·6	10·9	23·5
13	5,406	5,122	10,528	Kampli ... ... T.C.	5,406	5,122	10,528	152	158	310	14·4	15·0	29·4	96·2	8·6	...	14·3	14·3	28·6
14	5,209	5,169	10,378	Rayadrug ... ... T.C.	5,209	5,169	10,378	188	176	364	18·1	17·0	35·1	106·8	17·8	...	16·8	16·3	33·1
15	61,444	59,356	120,800	Bellary ... ... R.C.	61,444	59,356	120,800	2,425	2,366	4,791	20·1	19·5	39·6	102·5	11·0	...	19·6	18·9	38·5
16	35,231	33,872	69,103	Hospet ... ... R.C.	35,231	33,872	69,103	996	881	1,877	14·4	12·7	27·1	113·0	...	3·5	18·8	18·1	36·9
17	47,281	47,014	94,295	Kúdligi ... ... R.C.	47,281	47,014	94,295	1,204	1,174	2,378	12·8	12·4	25·2	102·5	...	0·6	16·2	16·0	32·2
18	54,811	49,224	104,035	Hadagalli ... ... R.C.	54,811	49,224	104,035	1,443	1,406	2,849	13·8	13·5	27·3	102·6	10·2	...	14·8	14·2	29·2
19	41,370	40,870	82,240	Harpanahalli ... ... R.C.	41,370	40,870	82,240	1,487	1,494	2,981	18·1	18·1	36·2	99·5	16·4	...	17·4	16·2	33·6
20	44,685	43,391	88,076	Alúr ... ... R.C.	44,685	43,391	88,076	1,848	1,696	3,544	21·0	19·2	40·2	109·0	18·6	...	19·8	19·5	39·3
21	68,982	65,569	134,551	Ádóni ... ... R.C.	68,982	65,569	134,551	2,289	2,260	4,549	17·0	16·8	33·8	101·3	9·3	...	19·2	18·4	37·6
22	44,754	42,665	87,419	Rayadrug ... ... R.C.	44,754	42,665	87,419	1,427	1,430	2,857	16·3	16·3	32·6	99·8	13·2	...	17·9	17·7	35·6
23	5,712	5,659	11,371	Zemindari	5,712	5,659	11,371	203	159	362	17·8	14·0	31·8	127·7	...	7·5	14·4	14·3	28·7
14	463,509	446,152	909,661	Total District ...	463,509	446,152	909,661	15,344	14,855	30,199	16·9	16·3	33·2	103·3	9·7	...	17·5	16·8	34·3
				CHINGLEPUT.															
24	20,611	21,932	42,543	Conjeeveram ... ... M.T.C.	20,611	21,932	42,543	855	822	1,677	20·1	19·3	39·4	104·0	8·8	...	18·0	17·0	35·0
25	5,781	6,359	12,140	St. Thomas' Mount ... T.C.	5,781	6,359	12,140	28	21	49	2·3	1·7	4·0	133·3	...	3·7	0·9	1·2	2·1
26	105,580	103,897	209,477	Saidapet ... ... R.C.	105,580	103,897	209,477	3,478	3,358	6,836	16·6	16·0	32·6	103·6	11·8	...	14·3	13·9	28·2
27	69,175	68,001	137,176	Chingleput ... ... R.C.	69,175	68,001	137,176	2,591	2,515	5,106	18·9	18·3	37·2	103·0	15·9	...	18·2	18·0	36·2
28	132,734	130,396	263,130	Madurántakam ... R.C.	132,734	130,396	263,130	4,611	4,426	9,037	17·5	16·8	34·3	101·2	14·8	...	17·3	16·6	33·9
29	87,931	88,190	176,121	Conjeeveram ... ... R.C.	87,931	88,190	176,121	3,436	3,262	6,698	19·5	18·5	38·0	105·3	16·3	...	17·6	16·7	34·3
30	120,783	116,133	236,916	Tiruvallúr ... ... R.C.	120,783	116,133	236,916*	3,918	3,639	7,557	16·5	15·3	31·8	107·7	16·9	...	17·6	16·9	34·5
31	62,221	60,177	122,398	Ponnéri ... ... R.C.	62,221	60,177	122,398	1,916	1,818	3,734	15·7	14·8	30·5	105·4	10·3	...	16·1	15·3	31·4
8	604,816	595,085	1,199,901	Total District ...	604,816	595,085	1,199,901	20,833	19,861	40,694	17·4	16·5	33·9	104·9	14·0	...	16·6	16·1	32·7
				COIMBATORE.															
32	22,079	23,928	46,007	Coimbatore ... ... M.T.C.	22,079	23,928	46,007	821	880	1,701	17·8	19·1	36·9	93·3	10·5	...	18·4	17·8	36·2
33	6,074	6,164	12,238	Erode ... ... M.T.C.	6,074	6,164	12,238	207	187	394	16·9	15·3	32·2	110·7	2·7	...	15·6	15·6	31·2
34	5,157	5,583	10,740	Karúr ... ... M.T.C.	5,157	5,583	10,740	209	182	391	19·5	16·9	36·4	114·8	7·8	...	20·0	18·2	38·2
35	127,828	132,593	260,421	Coimbatore ... ... R.C.	127,828	132,593	260,421	4,020	3,716	7,736	15·4	14·3	29·7	108·2	11·7	...	14·2	13·5	27·7
36	116,150	118,527	234,677	Erode ... ... R.C.	116,150	118,527	234,677	3,331	3,221	6,552	14·2	13·7	27·9	103·4	11·7	...	13·5	13·3	26·8
37	90,279	93,809	184,088	Satyamangalam ... R.C.	90,279	93,809	184,088	2,960	2,744	5,704	16·1	14·9	31·0	107·8	14·2	...	14·8	14·4	29·2
38	89,249	94,401	183,650	Pollachi ... ... R.C.	89,249	94,401	183,650	2,891	2,725	5,616	15·7	14·8	30·5	106·1	12·1	...	13·7	13·4	27·1
39	132,332	138,052	270,384	Palladam ... ... R.C.	132,332	138,052	270,384	4,249	4,101	8,350	15·7	15·1	30·8	103·6	13·8	...	15·0	14·2	29·2
40	59,032	60,835	119,867	Bhaváni ... ... R.C.	59,032	60,835	119,867	1,595	1,574	3,169	13·3	13·1	26·4	101·3	9·9	...	13·0	12·1	25·1
41	43,575	44,949	88,524	Kollegal ... ... R.C.	43,575	44,949	88,524	1,394	1,305	2,699	15·8	14·7	30·5	106·8	14·9	...	13·6	13·1	26·7
42	69,346	73,710	143,056	Udamalpet ... ... R.C.	69,346	73,710	143,056	1,887	1,838	3,725	13·2	12·8	26·0	102·6	9·3	...	15·0	14·4	29·4
43	97,405	103,638	201,043	Karúr ... ... R.C.	97,405	103,638	201,043	2,289	2,177	4,466	11·4	10·8	22·2	105·1	7·9	...	13·1	13·0	26·1
44	122,727	126,489	249,216	Dhárápuram ... ... R.C.	122,727	126,489	249,216	3,060	2,952	6,012	12·3	11·8	24·1	103·6	8·5	...	14·7	14·3	29·0
13	981,233	1,022,678	2,003,911	Total District ...	981,233	1,022,678	2,003,911	28,913	27,602	56,515	14·4	13·8	28·2	104·7	11·2	...	14·3	13·8	28·1
				CUDDAPAH.															
45	8,597	8,614	17,211	Cuddapah ... ... M.T.C.	8,597	8,614	17,211	142	131	273	8·3	7·6	15·9	108·4	...	18·3	12·6	11·0	23·6
46	46,792	46,358	93,150	Badvel ... ... R.C.	46,792	46,358	93,150	1,330	1,509	2,839	14·3	16·2	30·5	88·1	7·7	...	14·5	14·4	28·9
47	49,572	48,845	98,417	Proddatur ... ... R.C.	49,572	48,845	98,417	1,350	1,271	2,621	13·7	12·9	26·6	106·2	4·4	...	13·1	13·3	26·4
48	33,680	33,129	66,809	Siddhavattam ... ... R.C.	33,680	33,129	66,809	950	811	1,761	14·2	12·1	26·3	117·1	2·5	...	13·9	13·4	27·3
49	75,597	73,496	149,093	Pullampet ... ... R.C.	75,597	73,496	149,093	1,668	1,591	3,259	11·2	10·7	21·9	104·8	4·0	...	11·6	11·6	23·2
50	69,744	67,711	137,455	Cuddapah ... ... R.C.	69,744	67,711	137,455	1,720	1,628	3,348	12·5	11·8	24·3	105·6	1·4	...	11·9	11·4	23·3
51	51,393	49,880	101,273	Jammalamadugu ... R.C.	51,393	49,880	101,273	1,732	1,587	3,319	17·1	15·6	32·7	109·1	6·2	...	15·3	14·7	30·0
52	53,808	52,034	105,842	Pulivendla ... ... R.C.	53,808	52,034	105,842	1,491	1,478	2,969	14·1	13·9	28·0	100·8	3·4	...	14·9	14·1	29·0
53	57,770	55,464	113,234	Ráyachóti ... ... R.C.	57,770	55,464	113,234	1,413	1,341	2,754	12·5	11·8	24·3	105·3	2·1	...	10·8	10·6	21·4
54	69,718	65,174	134,892	Kadiri ... ... R.C.	69,718	65,174	134,892	1,931	1,758	3,689	14·3	13·0	27·3	109·8	4·1	...	13·7	13·6	27·3
55	64,247	62,788	127,035	Vayalpad ... ... R.C.	64,247	62,788	127,035	1,374	1,456	2,830	10·8	11·4	22·2	94·4	3·7	...	10·1	10·1	20·2
56	65,214	62,096	127,310	Madanapalle ... ... R.C.	65,214	62,096	127,310	1,776	1,830	3,606	13·9	14·4	28·3	97·0	9·5	...	13·6	13·2	26·8
12	646,132	625,589	1,271,721	Total District ...	646,132	625,589	1,271,721	16,877	16,391	33,268	13·3	12·9	26·2	103·0	4·1	...	12·9	12·6	25·5
				GANJÁM.															
57	8,451	9,753	18,204	Chicacole ... ... M.T.C.	8,451	9,753	18,204	223	210	433	12·3	11·5	23·8	106·2	...	0·3	12·7	11·8	24·5
58	12,292	13,201	25,493	Berhampur ... ... M.T.C.	12,292	13,201	25,493	317	347	664	12·4	13·6	26·0	91·3	5·0	...	15·0	14·1	29·1

* Includes 66,000, the population of 137 villages transferred from the North Arcot District.

No. I.—*Showing the Births registered in the districts of the Madras Presidency during the year* 1894—continued.

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.*															
59	7,717	8,662	**16,379**	Parlákimedi ... ... M.T.C.	7,717	8,662	**16,379**	274	305	**579**	16·7	18·6	**35·3**	89·8	13·5	...	15·0	14·7	**29·8**
60	92,940	101,390	**194,330**	Chicacole ... ... R.C.	92,940	101,390	**194,330**	3,161	2,850	**6,011**	16·3	14·6	**30·9**	110·9	9·7	...	10·5	10·0	**20·5**
61	141,825	155,911	**297,736**	Berhampur ... ... R.C.	141,825	155,911	**297,736**	3,823	3,566	**7,389**	12·8	11·9	**24·7**	107·2	9·8	...	10·8	10·1	**20·9**
62	89,283	96,548	**185,831**	Goomsur ... ... R.C.	89,283	96,548	**185,831**	2,238	2,127	**4,365**	12·0	11·4	**23·4**	105·2	7·0	...	10·2	9·6	**19·8**
63	411,664	439,445	**851,109**	Zemindaries	411,664	439,445	**851,109**	8,242	7,859	**16,101**	9·7	9·2	**18·9**	104·8	6·6	...	8·1	7·5	**15·6**
64	158,828	148,490	**307,318**	Agency Tracts	158,828	148,490	**307,318**	326	286	**612**	1·1	0·9	**2·0**	114·0	0·1	...	0·7	0·6	**1·3**
8	923,000	973,400	**1,896,400**	Total District ...	923,000	973,400	**1,896,400**	18,604	17,550	**36,154**	9·8	9·3	**19·1**	106·0	6·4	...	8·0	7·4	**15·4**
				GÓDÁVARI.															
65	20,066	20,002	**40,068**	Cocanada ... ... M.T.C.	20,066	20,002	**40,068**	532	578	**1,110**	13·3	14·4	**27·7**	92·0	4·3	...	10·6	10·4	**21·0**
66	13,869	14,410	**28,279**	Rajahmundry ... ... M.T.C.	13,869	14,410	**28,279**	486	445	**931**	17·2	15·7	**32·9**	109·0	2·6	...	14·9	14·2	**29·1**
67	14,242	15,054	**29,296**	Ellore ... ... M.T.C.	14,242	15,054	**29,296**	332	275	**607**	11·3	9·4	**20·7**	120·7	...	2·5	12·7	12·4	**25·1**
68	6,807	6,924	**13,731**	Pithápuram ... ... T.C.	6,807	6,924	**13,731**	87	73	**160**	6·3	5·4	**11·7**	119·1	0·7	...	4·7	4·2	**8·9**
69	6,619	7,033	**13,652**	Peddápuram ... ... T.C.	6,619	7,033	**13,652**	258	312	**570**	4·8	4·5	**9·3**	82·7	11·0	...	11·8	11·3	**23·1**
70	6,407	7,002	**13,409**	Samalkot ... ... T.C.	6,407	7,002	**13,409**	65	60	**125**	18·9	22·8	**41·8**	108·3	1·3	...	6·6	7·5	**14·1**
71	4,818	5,636	**10,454**	Dowlaishweram ... T.C.	4,818	5,636	**10,454**	206	181	**387**	19·7	17·3	**37·0**	113·8	10·7	...	11·8	11·4	**23·2**
72	129,355	131,828	**261,183**	Rámachandrapuram ... R.C.	129,355	131,828	**261,183**	3,183	3,052	**6,235**	12·1	11·7	**23·8**	104·3	6·1	...	12·0	11·7	**23·7**
73	110,178	120,137	**230,315**	Narsapur ... ... R.C.	110,178	120,137	**230,315**	1,924	1,837	**3,761**	8·3	7·7	**16·0**	104·7	3·0	...	7·4	7·2	**14·6**
74	125,189	130,883	**256,072**	Amalápuram ... ... R.C.	125,189	130,883	**256,072**	2,533	2,388	**4,921**	9·9	9·3	**19·2**	106·0	5·4	...	9·1	8·7	**17·8**
75	99,535	104,505	**204,040**	Tanuku ... ... R.C.	99,535	104,505	**204,040**	2,625	2,511	**5,136**	12·8	12·3	**25·1**	104·5	8·3	...	11·3	10·9	**22·2**
76	59,624	62,366	**121,990**	Bhímavaram ... ... R.C.	59,624	62,366	**121,990**	1,357	1,317	**2,674**	11·1	10·8	**21·9**	103·0	6·0	...	10·6	10·2	**20·8**
77	73,008	69,577	**142,585**	Ellore ... ... R.C.	73,008	69,577	**142,585**	1,507	1,409	**2,916**	10·5	9·9	**20·4**	106·9	5·4	...	10·7	10·7	**21·4**
78	68,355	67,849	**136,204**	Yernagúdem ... ... R.C.	68,355	67,849	**136,204**	1,823	1,770	**3,593**	13·3	13·0	**26·3**	103·0	9·3	...	12·7	12·5	**25·2**
79	53,693	53,173	**106,866**	Rajahmundry ... ... R.C.	53,693	53,173	**106,866**	1,457	1,420	**2,877**	13·7	13·2	**26·8**	102·6	7·4	...	14·9	14·2	**29·1**
80	61,654	62,374	**124,028**	Peddápuram ... ... R.C.	61,654	62,374	**124,028**	2,032	2,061	**4,093**	16·4	16·6	**33·0**	98·6	8·3	...	13·7	13·0	**26·7**
81	64,762	62,352	**127,114***	Bhadráchalam ... ... R.C.	64,762	62,352	**127,114***	1,890	1,867	**3,757**	14·9	14·7	**29·6**	101·2	22·8	...	13·7	13·0	**26·7**
82	108,451	110,121	**218,572**	Zemindaries	108,451	110,121	**218,572**	2,366	2,340	**4,706**	10·8	10·7	**21·5**	101·1	5·3	..	8·6	8·3	**16·9**
18	1,026,632	1,051,226	**2,077,858**	Total District ...	1,026,632	1,051,226	**2,077,858**	24,663	23,896	**48,559**	11·9	11·5	**23·4**	103·2	6·3	...	10·6	10·2	**20·8**
				KISTNA.															
83	18,539	20,128	**38,667**	Masulipatam ... ... M.T.C.	18,539	20,128	**38,667**	547	523	**1,070**	14·1	13·5	**27·6**	104·6	...	2·5	14·6	13·8	**28·4**
84	11,705	11,562	**23,267**	Guntúr ... ... M.T.C.	11,705	11,562	**23,267**	424	393	**817**	18·2	16·9	**35·1**	107·9	6·4	...	15·2	13·9	**29·1**
85	11,330	9,281	**20,611**	Bezwada ... ... M.T.C.	11,330	9,281	**20,611**	323	300	**623**	15·7	14·5	**30·2**	107·7	...	3·0	13·9	13·5	**27·4**
86	5,241	5,340	**10,581**	Chírála ... ... T.C.	5,241	5,340	**10,581**	162	130	**292**	15·3	12·3	**27·6**	124·6	3·5	...	15·1	13·7	**28·8**
87	113,038	109,718	**222,756**	Répalle ... ... R.C.	113,038	109,718	**222,756**	3,817	3,549	**7,366**	17·1	15·9	**33·0**	107·5	12·9	...	16·2	16·0	**32·2**
88	87,104	84,241	**171,345**	Bápatla ... ... R.C.	87,104	84,241	**171,345**	2,742	2,772	**5,514**	16·0	16·1	**32·1**	98·9	0·3	...	16·0	15·3	**31·3**
89	73,383	69,984	**143,367**	Guntúr ... ... R.C.	73,383	69,984	**143,367**	2,725	2,660	**5,385**	19·0	18·6	**37·6**	102·4	17·5	...	17·6	17·1	**34·7**
90	70,191	71,814	**142,005**	Palnad ... ... R.C.	70,191	71,814	**142,005**	2,451	2,494	**4,945**	17·3	17·5	**34·8**	98·3	11·7	...	13·4	13·1	**26·5**
91	78,910	77,454	**156,364**	Narasaraopet ... ... R.C.	78,910	77,454	**156,364**	2,321	2,196	**4,517**	14·8	14·0	**28·8**	105·7	12·3	...	16·1	15·5	**31·6**
92	60,088	58,220	**118,308**	Gudiváda ... ... R.C.	60,088	58,220	**118,308**	2,014	2,000	**4,014**	17·0	16·9	**33·9**	100·7	12·5	...	17·4	16·5	**33·9**
93	70,034	68,577	**138,611**	Sattenapalle ... ... R.C.	70,034	68,577	**138,611**	2,797	2,729	**5,526**	20·2	19·6	**39·8**	102·5	19·3	...	17·3	16·9	**33·9**
94	80,234	79,313	**159,547**	Masulipatam ... ... R.C.	80,234	79,313	**159,547**	2,330	2,289	**4,619**	14·6	14·3	**28·9**	101·8	11·9	...	13·2	13·0	**26·2**
95	63,376	63,322	**126,698**	Nandigáma ... ... R.C.	63,376	63,322	**126,698**	2,360	2,321	**4,681**	18·6	18·3	**36·9**	101·6	15·7	...	18·6	17·7	**36·3**
96	43,318	42,413	**85,731**	Bezwada .. ... R.C.	43,318	42,413	**85,731**	1,506	1,458	**2,964**	17·5	17·0	**34·5**	103·3	12·6	...	16·2	16·0	**32·2**
97	41,760	40,671	**82,431**	Vinukonda ... ... R.C.	41,760	40,671	**82,431**	1,434	1,399	**2,833**	17·4	16·9	**34·3**	102·5	16·1	...	16·7	16·1	**32·8**
98	109,806	104,929	**214,735**	Zemindaries	109,806	104,929	**214,735**	2,945	2,839	**5,784**	13·7	13·2	**26·9**	103·7	10·8	...	10·3	10·1	**20·4**
16	938,057	916,967	**1,855,024**	Total District ...	938,057	916,967	**1,855,024**	30,898	30,052	**60,950**	16·6	16·2	**32·8**	102·8	12·8	...	15·3	14·8	**30·1**
				KURNOOL.															
99	11,631	12,675	**24,306**	Kurnool .. .. M.T.C.	11,631	12,675	**24,306**	428	401	**829**	17·6	16·5	**34·1**	106·7	2·7	...	13·8	14·1	**27·9**
100	5,330	5,374	**10,704**	Nandyal ... ... T.C.	5,330	5,374	**10,704**	62	47	**109**	5·8	4·4	**10·2**	132·0	...	5·3	5·8	6·1	**11·9**
101	51,862	48,728	**100,590**	Ramallakot ... ... R.C.	51,862	48,728	**100,590**	1,825	1,846	**3,671**	18·1	18·3	**36·4**	98·8	13·3	...	18·6	18·1	**36·7**
102	71,576	67,127	**138,703**	Pattikonda ... ... R.C.	71,576	67,127	**138,703**	2,110	2,068	**4,178**	15·2	14·9	**30·1**	102·0	0·8	...	17·8	17·8	**35·6**
103	44,786	43,773	**88,559**	Nandikotkur ... ... R.C.	44,786	43,773	**88,559**	1,716	1,735	**3,451**	19·4	19·6	**39·0**	98·9	8·6	...	18·5	18·1	**36·6**
104	43,307	42,235	**85,542**	Nandyal ... ... R.C.	43,307	42,235	**85,542**	1,285	1,241	**2,526**	15·0	14·5	**29·5**	103·5	0·2	...	17·2	16·9	**34·1**
105	43,710	42,833	**86,543**	Koilkuntla ... ... R.C.	43,710	42,833	**86,543**	1,320	1,257	**2,577**	15·2	14·5	**29·7**	105·0	0·8	...	16·9	16·9	**33·8**
106	32,915	32,249	**65,164**	Sirvel ... ... R.C.	32,915	32,249	**65,164**	934	978	**1,912**	14·3	15·0	**29·3**	95·5	...	3·7	17·7	17·4	**35·1**
107	58,632	58,946	**117,578**	Cumbum ... ... R.C.	58,632	58,946	**117,578**	1,571	1,464	**3,035**	13·4	12·4	**25·8**	107·3	6·6	...	12·1	11·5	**23·6**
108	50,286	49,685	**99,971**	Markapur ... ... R.C.	50,286	49,685	**99,971**	1,757	1,612	**3,369**	17·5	16·1	**33·6**	109·0	13·9	...	14·3	13·7	**28·0**
10	414,035	403,625	**817,660**	Total District ...	414,035	403,625	**817,660**	13,008	12,649	**25,657**	15·9	15·5	**31·4**	102·8	5·2	...	16·2	15·9	**32·1**
				MADRAS.															
109	217,690	218,685	**436,375**	Madras ... ... M.T.C.	217,690	218,685	**436,375**	8,322	8,125	**16,447**	19·1	18·6	**37·7**	102·4	0·8	...	19·8	18·7	**38·5**
				MADURA.															
110	43,707	43,414	**87,121**	Madura ... ... M.T.C.	43,707	43,414	**87,121**	1,451	1,456	**2,907**	16·6	16·7	**33·3**	99·6	0·8	...	15·9	17·2	**33·1**
111	9,984	10,131	**20,115**	Dindigul ... ... M.T.C.	9,984	10,131	**20,115**	507	412	**919**	25·2	20·5	**45·7**	123·0	22·1	...	20·6	19·4	**40·0**
112	7,718	8,645	**16,363**	Periyakulam ... ... M.T.C.	7,718	8,645	**16,363**	344	332	**676**	21·0	20·3	**41·3**	103·6	2·6	...	18·8	18·1	**36·9**
113	8,080	8,860	**16,940**	Palni ... ... M.T.C.	8,080	8,860	**16,940**	291	271	**562**	17·2	16·0	**33·2**	107·4	8·0	...	17·5	18·8	**36·3**
114	6,414	7,175	**13,589**	Ramnad ... ... T.C.	6,414	7,175	**13,589**	107	122	**229**	7·9	9·0	**16·9**	87·7	1·8	...	9·6	9·2	**18·8**
115	6,131	6,542	**12,673**	Aruppukóttai ... ... T.C.	6,131	6,542	**12,673**	189	172	**361**	14·9	13·6	**28·5**	109·9	...	1·8	17·8	15·5	**33·3**
116	5,880	6,516	**12,396**	Kílakarai ... ... T.C.	5,880	6,516	**12,396**	104	84	**188**	8·4	6·7	**15·1**	123·8	2·9	...	12·4	11·2	**23·6**
117	4,966	5,035	**10,001**	Paramagudi ... ... T.C.	4,966	5,035	**10,001**	55	50	**105**	5·5	5·0	**10·5**	110·0	3·5	...	7·6	6·3	**13·9**
118	84,372	89,383	**173,755**	Madura ... ... R.C.	84,372	89,383	**173,755**	2,060	1,913	**3,973**	11·8	11·1	**22·9**	107·7	1·6	...	12·5	11·8	**24·3**
119	71,498	77,152	**148,650**	Mélúr ... ... R.C.	71,498	77,152	**148,650**	1,943	1,771	**3,714**	13·1	11·9	**25·0**	109·7	6·8	...	13·0	12·4	**25·4**

* Including Agency tracts.

No. I.—*Showing the Births registered in the districts of the Madras Presidency during the year* 1894— continued.

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.*															
120	130,162	134,458	**264,620**	Tirumangalam ... ... R.C.	130,162	134,458	**264,620**	3,557	3,172	**6,729**	13·4	12·0	**25·4**	112·1	7·2	...	13·6	12·8	**26·4**
121	120,373	126,472	**246,845**	Periyakulam ... ... R.C.	120,373	126,472	**246,845**	3,644	3,461	**7,105**	14·7	14·0	**28·7**	105·3	3·5	...	14·9	14·3	**29·2**
122	181,508	189,349	**370,857**	Dindigul ... ... R.C.	181,508	189,349	**370,857**	6,174	5,844	**12,018**	16·6	15·8	**32·4**	105·6	14·4	...	16·7	16·0	**32·7**
123	86,086	92,024	**178,110**	Palni ... ... R.C.	86,086	92,024	**178,110**	2,872	2,832	**5,704**	16·1	15·9	**32·0**	101·8	9·6	...	18·2	17·6	**35·8**
124	587	696	**1,283**	Settinandal villages, &c. R.C.	587	696	**1,283**	17	19	**36**	13·2	14·8	**28·0**	89·5	...	4·7	14·0	15·6	**29·6**
15	767,466	805,852	**1,573,318**	Total District ...	767,466	805,852	**1,573,318**	23,315	21,911	**45,226**	14·8	13·9	**28·7**	106·4	7·6	...	15·1	14·5	**29·6**
				MALABAR.															
125	13,100	13,531	**26,631**	Tellicherry ... ... M.T.C.	13,100	13,531	**26,631**	455	426	**881**	17·1	16·0	**33·1**	106·8	12·4	...	15·1	14·9	**30·4**
126	33,841	30,957	**64,798**	Calicut ... ... M.T.C.	33,841	30,957	**64,798**	1,152	1,072	**2,224**	17·8	16·5	**34·3**	107·4	9·1	...	16·7	15·3	**32·0**
127	19,070	20,297	**39,367**	Palghat ... ... M.T.C.	19,070	20,297	**39,367**	687	642	**1,329**	17·4	16·3	**33·7**	107·0	8·1	...	16·7	15·3	**32·0**
128	8,656	7,491	**16,147**	Cochin ... ... M.T.C.	8,656	7,491	**16,147**	299	268	**567**	18·5	16·6	**35·1**	111·5	...	4·7	16·5	16·2	**32·7**
129	12,885	13,768	**26,653**	Cannanore ... ... M.T.C.	12,885	13,768	**26,653**	565	512	**1,077**	21·2	19·2	**40·4**	110·3	9·3	...	14·5	13·1	**27·6**
130	138,433	145,038	**283,471**	Chirakkal ... ... R.C.	138,433	145,038	**283,471**	3,335	3,041	**6,376**	11·8	10·7	**22·5**	109·6	6·4	...	10·6	10·6	**21·2**
131	82,593	85,667	**168,260**	Kóttayam ... ... R.C.	82,593	85,667	**168,260**	1,955	1,939	**3,894**	11·6	11·5	**23·1**	100·8	8·2	...	11·8	11·4	**23·2**
132	151,160	152,851	**304,011**	Kurumbranát ... ... R.C.	151,160	152,851	**304,011**	2,912	2,708	**5,620**	9·6	8·9	**18·5**	107·5	7·1	...	9·5	8·9	**18·4**
133	84,731	86,851	**171,582**	Calicut ... ... R.C.	84,731	86,851	**171,582**	1,778	1,663	**3,441**	10·4	9·6	**20·0**	106·9	7·4	...	10·9	10·5	**21·4**
134	169,699	169,488	**339,187**	Ernad ... ... R.C.	169,699	169,488	**339,187**	4,297	3,984	**8,281**	12·7	11·7	**24·4**	107·8	9·4	...	11·2	10·6	**21·8**
135	222,587	226,666	**449,253**	Ponnáni ... ... R.C.	222,587	226,666	**449,253**	4,464	4,326	**8,790**	10·0	9·6	**19·6**	103·2	4·4	...	9·6	9·2	**18·8**
136	163,996	168,338	**332,334**	Walavanad ... ... R.C.	163,996	168,338	**332,334**	3,871	3,794	**7,665**	11·6	11·4	**23·0**	102·0	7·7	...	10·8	10·2	**21·0**
137	160,645	171,982	**332,627**	Palghat ... ... R.C.	166,645	171,982	**332,627**	3,467	3,171	**6,638**	10·4	9·5	**19·9**	109·3	6·0	...	9·5	8·9	**18·4**
138	42,514	33,851	**76,365**	Wynaad ... ... R.C.	42,514	33,851	**76,365**	720	749	**1,469**	9·4	9·8	**19·2**	96·1	0·3	...	9·6	9·6	**18·6**
139	2,872	3,116	**5,988**	Cochin ... ... R.C.	2,872	3,116	**5,988**	82	78	**160**	13·7	13·0	**26·7**	105·1	5·3	...	12·6	13·1	**25·7**
15	1,306,782	1,329,892	**2,636,674**	Total District ...	1,306,782	1,329,892	**2,636,674**	30,039	28,373	**58,412**	11·4	10·7	**22·1**	105·9	6·7	...	10·7	10·2	**20·9**
				NELLORE.															
140	14,200	14,928	**29,128**	Nellore ... ... M.T.C.	14,200	14,928	**29,128**	486	418	**904**	16·7	14·3	**31·0**	116·2	10·3	...	13·6	11·3	**24·9**
141	5,421	5,411	**10,832**	Ongole ... ... M.T.C.	5,421	5,411	**10,832**	186	145	**331**	17·2	13·3	**30·5**	128·3	5·8	...	16·7	14·4	**31·1**
142	59,035	57,723	**116,758**	Gudur ... ... R.C.	59,035	57,723	**116,758**	1,008	1,044	**2,052**	8·7	8·9	**17·6**	96·5	4·2	...	8·3	8·2	**16·5**
143	31,209	30,096	**61,305**	Rapur ... ... R.C.	31,209	30,096	**61,305**	1,031	941	**1,972**	16·8	15·4	**32·2**	109·6	10·9	...	16·0	16·1	**32·1**
144	84,021	84,527	**168,548**	Nellore ... ... R.C.	84,021	84,527	**168,548**	1,588	1,536	**3,124**	9·4	9·1	**18·5**	103·4	4·7	...	9·3	9·0	**18·3**
145	48,803	47,546	**96,349**	Atmakur ... ... R.C.	48,803	47,546	**96,349**	1,444	1,363	**2,807**	15·0	14·1	**29·1**	106·0	8·6	...	14·1	13·5	**27·6**
146	34,179	34,697	**68,876**	Kávali ... ... R.C.	34,179	34,697	**68,876**	932	903	**1,835**	13·5	13·1	**26·6**	103·2	8·2	...	11·0	10·4	**21·4**
147	28,166	27,216	**55,382**	Udayagiri ... ... R.C.	28,166	27,216	**55,382**	853	824	**1,677**	15·4	14·9	**30·3**	103·5	6·1	...	8·0	7·8	**15·8**
148	56,478	56,879	**113,357**	Kandukur ... ... R.C.	56,478	56,879	**113,357**	1,752	1,659	**3,411**	15·5	14·6	**30·1**	105·6	7·9	...	10·7	10·4	**21·1**
149	31,013	30,053	**61,066**	Kanigiri ... ... R.C.	31,013	30,053	**61,066**	808	733	**1,541**	13·2	12·0	**25·2**	110·2	4·3	...	5·9	5·6	**11·5**
150	83,284	83,695	**166,979**	Ongole ... ... R.C.	83,284	83,695	**166,979**	2,394	2,306	**4,700**	14·3	13·8	**28·1**	103·8	7·9	...	10·7	10·5	**21·2**
151	260,585	254,192	**514,777**	Zemindaries	260,585	254,192	**514,777**	5,889	5,788	**11,677**	11·4	11·3	**22·7**	101·7	13·1	...	17·6	17·2	**34·8**
12	736,394	726,963	**1,463,357**	Total District ...	736,394	726,963	**1,463,357**	18,371	17,660	**36,031**	12·6	12·0	**24·6**	104·0	8·0	...	11·6	11·3	**22·9**
				NILGIRIS.															
152	7,450	6,541	**13,991**	Ootacamund ... ... M.T.C.	7,450	6,541	**13,991**	219	211	**430**	15·6	15·1	**30·7**	103·8	5·2	...	13·9	13·4	**27·3**
153	3,005	2,581	**5,586**	Coonoor ... ... M.T.C.	3,005	2,581	**5,586**	116	86	**202**	20·7	15·4	**36·1**	134·9	6·8	...	17·0	15·2	**32·2**
154	28,027	24,141	**52,168**	Nílgiris ... ... R.C.	28,027	24,141	**52,168**	932	853	**1,785**	17·9	16·3	**34·2**	109·3	10·6	...	13·4	12·6	**26·0**
155	16,003	9,017	**25,020**	South-East Wynaad ... R.C.	16,003	9,017	**25,020**	223	230	**453**	8·9	9·2	**18·1**	96·9	...	3·3	6·3	5·9	**12·2**
4	54,485	42,280	**96,765**	Total District ...	54,485	42,280	**96,765**	1,490	1,380	**2,870**	15·4	14·3	**29·7**	108·0	6·0	...	11·9	11·1	**23·1**
				NORTH ARCOT.															
156	21,188	23,536	**44,724**	Vellore ... ... M.T.C.	21,188	23,536	**44,724**	790	798	**1,588**	17·7	17·8	**35·5**	99·0	10·1	...	17·5	16·5	**34·0**
157	4,943	5,542	**10,485**	~~Wállajápet~~ ... ... M.T.C.	4,943	5,542	**10,485**	186	178	**364**	17·7	17·0	**34·7**	104·5	11·0	...	20·5	19·6	**40·1**
158	9,224	9,521	**18,745**	Gudiyáttam ... ... M.T.C.	9,224	9,521	**18,745**	276	226	**502**	14·7	12·1	**26·8**	122·1	6·0	...	14·9	13·4	**28·3**
159	6,872	7,366	**14,238**	Tirupati ... ... M.T.C.	6,872	7,366	**14,238**	244	203	**447**	17·1	14·3	**31·4**	120·2	...	0·1	11·5	11·2	**22·7**
160	5,518	6,197	**11,715**	Kálahasti ... ... T.C.	5,518	6,197	**11,715**	64	80	**144**	5·5	6·8	**12·3**	80·0	...	1·1	5·2	5·3	**10·5**
161	5,269	5,659	**10,928**	Arcot ... ... T.C.	5,269	5,659	**10,928**	154	145	**299**	14·1	13·3	**27·4**	106·2	...	0·6	13·1	13·0	**26·1**
162	4,973	5,610	**10,583**	Ambúr ... ... T.C.	4,973	5,610	**10,583**	62	39	**101**	5·8	3·6	**9·5**	159·0	...	6·9	3·0	2·4	**5·4**
163	101,938	98,248	**200,186**	Chittoor ... ... R.C.	101,938	98,248	**200,186**	2,422	2,452	**4,874**	12·1	12·2	**24·3**	98·8	9·5	...	11·1	10·4	**21·5**
164	51,507	48,523	**100,030**	Chendragiri ... ... R.C.	51,507	48,523	**100,030**	1,091	1,045	**2,136**	10·9	10·4	**21·3**	104·4	7·7	...	9·8	9·3	**19·1**
165	24,271	23,860	**48,131**	Palmanér ... ... R.C.	24,271	23,860	**48,131**	453	455	**908**	9·4	9·4	**18·8**	99·5	5·7	...	8·8	8·4	**17·2**
166	78,547	79,316	**157,863**	Gudiyáttam ... ... R.C.	78,547	79,316	**157,863**	2,129	2,059	**4,188**	13·5	13·0	**26·5**	103·4	10·7	...	12·3	11·9	**24·2**
167	68,729	68,638	**137,367**	Vellore ... ... R.C.	68,729	68,638	**137,367**	2,111	1,954	**4,065**	15·4	14·2	**29·6**	108·0	13·3	...	14·2	13·0	**27·2**
168	69,371	70,326	**139,697**	Polur ... ... R.C.	69,371	70,326	**139,697**	2,365	2,271	**4,636**	16·9	16·3	**33·2**	104·1	15·7	...	16·3	15·5	**31·8**
169	88,932	88,787	**177,719**	Wandiwash ... ... R.C.	88,932	88,787	**177,719**	2,883	2,773	**5,656**	16·2	15·6	**31·8**	104·0	14·3	...	15·2	14·7	**29·9**
170	82,190	83,758	**165,948**	Arcot ... ... R.C.	82,190	83,758	**165,948**	2,846	2,699	**5,545**	17·1	16·3	**33·4**	105·4	15·5	...	15·6	15·4	**31·0**
171	114,741	113,889	**228,630**	~~Wállajápet~~ ... ... R.C.	114,741	113,889	**228,630**	3,164	2,867	**6,031**	13·8	12·5	**26·3**	110·3	9·7	...	14·5	13·8	**28·3**
172	322,060	314,536	**636,596**	Zemindaries	322,060	314,536	**636,596***	9,485	9,346	**18,831**	14·9	14·7	**29·6**	101·5	11·6	...	13·7	13·3	**27·1**
17	1,960,273	1,053,312	**2,113,585**	Total District ...	1,060,273	1,053,312	**2,113,585**	30,725	29,590	**60,315**	14·5	14·0	**28·5**	103·8	11·3	...	13·6	13·1	**26·7**
				SALEM.															
173	32,828	34,812	**67,640**	Salem ... ... M.T.C.	32,828	34,812	**67,640**	1,299	1,224	**2,523**	19·2	18·1	**37·3**	106·1	12·9	...	17·4	15·9	**33·3**
174	6,988	8,850	**15,838**	Vániyambádi ... M.T.C.	6,988	8,850	**15,838**	422	367	**789**	26·6	23·2	**49·8**	115·0	23·5	...	22·0	19·9	**41·9**
175	7,721	8,742	**16,463**	Tiruppattúr ... M.T.C.	7,721	8,742	**16,463**	336	358	**694**	20·4	21·7	**42·1**	93·8	14·2	...	18·9	16·6	**35·5**

* Excludes 66,000, the population of 137 villages transferred to the Chingleput District.

No. I.—*Showing the Births registered in the districts of the Madras Presidency during the year* 1894—continued.

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.*															
176	6,416	6,938	13,354	Sendamangalam ... ... T.C.	6,416	6,938	13,354	82	80	162	6·1	6·0	12·1	102·5	3·7	...	8·0	6·3	14·3
177	5,119	5,420	10,539	Rásipuram... ... ... T.C.	5,119	5,420	10,539	149	158	307	14·1	15·0	29·1	94·3	19·4	...	14·5	14·7	29·2
178	166,338	172,421	338,759	Salem ... ... R.C.	166,338	172,421	338,759	5,903	5,533	11,436	17·4	16·3	33·7	100·7	17·4	...	15·3	14·7	30·0
179	89,211	93,991	183,202	Atur ... ... R.C.	89,211	93,991	183,202	2,839	2,718	5,557	15·5	14·8	30·3	104·4	11·0	...	15·9	15·7	31·6
180	138,698	147,988	286,686	Námakkal ... ... R.C.	138,698	147,988	286,686	4,262	4,122	8,384	14·9	14·3	29·2	103·4	10·5	...	15·3	14·7	30·0
181	123,072	125,595	248,667	Tiruchengodu ... ... R.C.	123,072	125,595	248,667	4,402	4,108	8,510	17·7	16·5	34·2	107·1	16·5	...	16·5	15·8	32·3
182	76,954	78,739	155,693	Hosúr ... ... R.C.	76,954	78,739	155,693	2,413	2,587	5,000	15·5	16·6	32·1	93·3	16·7	...	14·3	13·7	28·0
183	75,399	76,717	152,116	Krishnagiri ... ... R.C.	75,399	76,717	152,116	2,376	2,328	4,704	15·6	15·3	30·9	102·0	15·9	...	13·6	13·1	26·7
184	87,559	90,861	178,420	Dharmapuri ... ... R.C.	87,559	90,861	178,420	3,335	3,246	6,581	18·7	18·2	36·9	102·7	18·6	...	16·1	15·0	31·1
185	77,067	79,228	156,295	Tirappattúr ... ... R.C.	77,067	79,228	156,295	2,392	2,303	4,695	15·3	14·7	30·0	103·8	13·3	...	13·8	13·2	27·0
186	67,829	70,283	138,112	Uttankarai ... ... R.C.	67,829	70,283	138,112	2,157	1,958	4,115	15·6	14·2	29·8	110·1	11·9	...	14·6	14·3	28·9
14	961,199	1,000,585	1,961,784	Total District ...	961,199	1,000,585	1,961,784	32,367	31,090	63,457	16·5	15·8	32·3	104·1	14·7	...	15·3	14·6	29·9
				SOUTH ARCOT.															
187	23,026	23,999	47,025	Cuddalore ... ... M.T.C.	23,026	23,999	47,025	699	726	1,425	14·9	15·4	30·3	96·3	9·1	...	12·8	12·6	25·4
188	9,077	9,557	18,634	Chidambaram ... M.T.C.	9,077	9,557	18,634	282	250	532	15·1	13·4	28·5	112·8	...	2·9	13·0	12·9	25·9
189	6,179	7,866	14,045	Port Novo ... ... T.C.	6,179	7,866	14,045	63	73	136	4·5	5·2	9·7	86·3	...	2·1	7·0	7·3	14·3
190	5,970	6,178	12,148	Tiruvannámalai ... T.C.	5,970	6,178	12,148	101	79	180	8·3	6·5	14·8	128·0	...	1·1	7·5	6·8	14·3
191	145,706	144,202	289,908	Cuddalore ... ... R.C.	145,706	144,202	289,908	3,768	3,484	7,252	13·0	12·0	25·0	108·1	2·0	...	12·3	12·0	24·3
192	151,872	149,818	301,690	Villupuram ... ... R.C.	151,872	149,818	301,690	5,127	4,974	10,101	17·0	16·5	33·5	103·1	8·2	...	15·8	15·0	30·8
193	123,014	126,555	249,569	Chidambaram ... ... R.C.	123,014	126,555	249,569	3,528	3,294	6,822	14·1	13·2	27·3	107·1	...	0·5	14·5	13·6	28·1
194	159,076	156,918	315,994	Tindivanam ... ... R.C.	159,076	156,918	315,994	5,258	5,004	10,262	16·7	15·8	32·5	105·1	11·3	...	15·8	15·1	30·9
195	119,209	120,970	240,179	Kallakurchi ... ... R.C.	119,209	120,970	240,179	3,223	3,036	6,259	13·4	12·7	26·1	106·1	7·2	...	11·9	11·5	23·4
196	128,831	128,284	257,115	Tirukkóyilúr ... ... R.C.	128,831	128,284	257,115	4,453	4,235	8,688	17·3	16·5	33·8	105·1	7·0	...	16·3	16·0	32·3
197	97,284	95,954	193,238	Tiruvannámalai ... R.C.	97,284	95,954	193,238	3,269	2,958	6,227	16·9	15·3	32·2	110·5	14·0	...	13·9	13·1	27·1
198	109,611	113,180	222,791	Vriddhachalam ... R.C.	109,611	113,180	222,791	2,803	2,740	5,543	12·6	12·3	24·9	102·3	1·4	...	13·3	13·1	26·4
12	1,078,855	1,083,481	2,162,336	Total District ...	1,078,855	1,083,481	2,162,336	32,574	30,853	63,427	15·0	14·3	29·3	105·5	6·2	...	14·2	13·6	27·8
				SOUTH CANARA.															
199	21,168	19,452	40,620	Mangalore ... ... M.T.C.	21,168	19,452	40,620	683	653	1,336	16·8	16·1	32·9	104·6	5·8	...	15·2	14·1	29·3
200	115,802	122,172	237,974	Mangalore ... ... R.C.	115,802	122,172	237,974	3,994	3,840	7,834	16·8	16·1	32·9	104·0	14·3	...	12·8	13·1	26·7
201	137,596	143,059	280,655	Kasaragod ... ... R. C.	137,596	143,059	280,655	4,775	4,444	9,219	17·0	15·8	32·8	107·4	16·1	...	14·5	13·8	28·4
202	60,612	58,192	118,804	Uppinangadi ... ... R. C.	60,612	58,192	118,804	2,241	2,095	4,336	18·9	17·6	36·5	106·9	5·4	...	16·1	15·5	31·6
203	118,714	134,985	253,699	Udipi ... ... R. C.	118,714	134,985	253,699	4,376	4,225	8,601	16·9	16·7	33·6	103·6	12·7	...	16·2	15·8	32·0
204	55,078	65,172	120,250	Kundapur ... ... R. C.	55,078	65,172	120,250	1,908	1,810	3,718	15·8	15·1	30·9	105·4	3·7	...	16·6	15·8	32·4
6	508,970	543,032	1,052,002	Total District ...	508,970	543,032	1,052,002	17,977	17,067	35,044	17·1	16·2	33·3	105·3	11·9	...	15·1	14·6	29·7
				TANJORE.															
205	25,870	28,388	54,258	Tanjore ... ... M.T.C.	25,870	28,388	54,258	756	756	1,512	13·9	13·9	27·8	100·0	1·0	...	13·9	13·8	27·7
206	26,440	27,814	54,254	Kumbakónam... ... M.T.C.	26,440	27,814	54,254	824	762	1,586	15·2	14·0	29·2	108·1	...	8·2	13·9	13·6	27·5
207	11,526	12,228	23,754	Máyavaram ... ... M.T.C.	11,526	12,228	23,754	357	351	708	15·0	14·8	29·8	101·7	...	2·7	16·4	14·9	31 3
208	26,668	31,905	58,573	Negapatam ... ... M.T.C.	26,668	31,905	58,573	956	931	1,887	16·3	15·9	32·2	102·7	...	6·3	11·8	11·3	23·1
209	9,704	10,688	20,392	Mannárgudi ... ... M.T.C.	9,704	10,688	20,392	308	297	605	15·1	14·6	29·7	103·7	...	4·6	15·1	13·9	29·0
210	6,063	6,871	12,934	Tiruválúr ... ... T.C.	6,063	6,871	12,934	143	131	274	11·1	10·1	21·2	109·1	...	5·5	8·9	8·4	17·3
211	172,425	183,596	356,021	Tanjore ... ... R.C.	172,425	183,596	356,021	4,302	3,959	8,261	12·1	11·1	23·2	108·7	...	1·6	14·3	13·6	27·9
212	156,320	167,030	323,350	Kumbakónam ... R.C.	156,320	167,030	323,350	4,304	4,167	8,471	13·3	12·9	26·2	103·3	...	5·3	16·2	15·4	31·6
213	105,172	115,805	220,977	Máyavaram ... ... R.C.	105,172	115,805	220,977	3,449	3,289	6,738	15·6	14·9	30·5	104·9	1·5	...	16·9	16·1	33·0
214	57,586	62,215	119,801	Shíyali ... ... R.C.	57,586	62,215	119,801	1,859	1,742	3,601	15·5	14·5	30·0	106·7	2·6	...	16·2	15·5	31·7
215	100,250	115,655	215,905	Nannilam ... ... R.C.	100,250	115,655	215,905	2,889	2,693	5,582	13·4	12·5	25·9	107·3	...	4·6	14·5	13·9	28·4
216	68,944	79,233	148,177	Negapatam ... ... R.C.	68,944	79,233	148,177	1,947	1,820	3,767	13·1	12·3	25·4	107·0	...	4·8	14·1	13·6	27·7
217	80,143	86,890	167,033	Mannárgudi ... ... R.C.	80,143	86,890	167,033	2,066	1,939	4,005	12·4	11·6	24·0	106·5	0·1	...	14·1	13·1	27·2
218	87,800	92,493	180,293	Tirutturaipúndi ... R.C.	87,800	92,493	180,293	2,231	2,044	4,275	12·4	11·3	23·7	109·2	0·9	...	14·3	13·2	27·5
219	130,539	140,820	271,359	Pattukkóttai ... ... R.C.	130,539	140,820	271,359	3,030	2,804	5,834	11·2	10·3	21·5	108·0	6·2	...	12·4	11·7	24·1
15	1,065,450	1,161,631	2,227,081	Total District ...	1,065,450	1,161,631	2,227,081	29,421	27,685	57,106	13·2	12·4	25·6	106·3	...	1·1	14·6	13·8	28·4
				TINNEVELLY.															
220	11,752	13,004	24,756	Tinnevelly ... ... M.T.C.	11,752	13,004	24,756	447	443	890	18·0	17·9	35·9	100·9	...	4·0	16·0	15·2	31·2
221	8,808	9,804	18,612	Palamcottah ... ... M.T.C.	8,808	9,804	18,612	278	285	563	14·9	15·3	30·2	97·5	2·8	...	16·7	16·0	32·7
222	13,624	11,340	24,964	Tuticorin ... ... M.T.C.	13,624	11,340	24,964	343	330	673	13·7	13·2	26·9	103·9	...	4·2	13·7	12·7	26·4
223	10,448	11,000	21,448	Srívilliputtúr * ... T.C.	10,448	11,000	21,448	352	314	666	16·4	14·6	31·0	112·1	10·3	...	9·0	9·7	18·7
224	7,012	8,898	15,910	Kulasékarapatnam ... T.J.	7,012	8,898	15,910	248	234	482	15·6	14·7	30·3	106·0	0·9	...	13·6	11·9	25·5
225	6,547	7,528	14,075	Virudupatti ... ... T.C.	6,547	7,528	14,075	131	101	232	9·4	7·1	16·5	129·7	4·2	...	8·4	8·0	16·4
226	6,504	7,447	13,951	Víravanallúr ... T.C.	6,504	7,447	13,951	127	117	244	9·1	8·4	17·5	108·5	...	3·1	9·0	8·0	17·0
227	6,607	6,694	13,301	Rajapollyam ... T.C.	6,607	6,694	13,301	373	229	602	28·0	17·2	45·2	162·9	31·7	...	17·6	14·2	31·8
228	6,151	6,710	12,861	Tenkási ... ... T.C.	6,151	6,710	12,861	258	288	546	20·0	22·4	42·4	89·6	...	15·8	22·6	21·5	44·1
229	5,788	6,396	12,184	Sivakási ... ... T.C.	5,788	6,396	12,184	255	259	514	20·9	21·3	42·2	98·4	9·6	...	19·1	19·5	38·6
230	4,404	7,060	11,464	Káyalpatnam ... ... T.C.	4,404	7,060	11,464	400	345	745	34·9	30·1	65·0	115·9	3·2	...	11·7	11·0	22·7
231	5,230	5,866	11,096	Kalladakurchi ... ... T.C.	5,230	5,866	11,096	184	191	375	16·6	17·2	33·8	96·3	...	1·2	15·1	11·0	26·1
232	155,341	161,649	316,990	Ottappidáram ... ... R.C.	155,341	161,649	316,990	3,694	3,373	7,067	11·6	10·6	22·2	109·5	...	2·5	12·8	12·1	24·9
233	125,196	135,000	260,196	Tenkarai ... ... R.C.	125,196	135,000	260,196	4,106	3,894	8,000	15·8	14·9	30·7	105·4	3·9	...	13·7	13·1	26·8
234	68,436	72,816	141,252	Tinnevelly ... ... R.C.	68,436	72,816	141,252	2,338	2,154	4,492	16·6	15·2	31·8	108·5	1·2	...	14·4	13·4	27·8
235	76,937	78,824	155,761	Srívilliputtúr ... ... R.C.	76,937	78,824	155,761	2,581	2,364	4,945	16·6	15·1	31·7	109·1	8·4	...	15·1	14·1	29·2
236	106,287	107,511	213,798	Sankaranayinár Kóyil R.C.	106,287	107,511	213,798	3,084	2,814	5,898	14·4	13·1	27·5	109·5	5·0	...	12·3	11·7	24·0
237	84,402	90,008	174,410	Nángunéri ... ... R.C.	84,402	90,008	174,410	2,752	2,653	5,405	15·7	15·2	30·9	103·7	5·6	...	15·0	14·3	29·3

* This was constituted a Municipality in the latter part of the year.

No. I.—*Showing the Births registered in the districts of the Madras Presidency during the year* 1894—continued.

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.*															
238	75,776	82,776	158,552	Ambásamudram ... R.C.	75,776	82,776	158,552	2,441	2,407	4,848	15·3	15·2	30·5	101·4	0·05	...	15·3	14·5	29·8
239	77,688	80,358	158,046	Sáttúr ... ... R.C.	77,688	80,358	158,046	2,010	1,951	3,961	12·7	12·3	25·0	103·0	...	2·2	12·5	11·3	23·8
240	70,284	71,791	142,075	Tenkási ... ... R.C.	70,284	71,791	142,075	2,151	1,990	4,141	15·1	13·9	29·0	108·1	...	1·3	14·7	14·0	28·7
21	933,222	982,480	1,915,702	Total District ...	933,222	982,480	1,915,702	28,553	26,736	55,289	14·9	13·9	28·8	106·8	1·9	...	13·8	13·0	26·8
				TRICHINOPOLY.															
241	43,576	46,090	89,666	Trichinopoly ... ... M.T.C.	43,576	46,090	89,666	847	794	1,641	9·4	8·9	18·3	106·7	...	6·1	11·2	10·3	21·5
242	10,238	11,394	21,632	Srírangam ... ... M.T.C.	10,238	11,394	21,632	326	300	626	15·1	13·8	28·9	108·6	...	1·5	15·8	14·5	30·3
243	119,143	129,418	248,561	Trichinopoly ... ... R.C.	119,143	129,418	248,561	3,603	3,385	6,988	14·5	13·6	28·1	106·4	4·2	...	15·6	14·7	30·3
244	133,852	148,763	282,615	Musiri ... ... R.C.	133,852	148,763	282,615	4,123	3,904	8,027	14·6	13·8	28·4	105·6	4·7	...	14·3	13·6	27·9
245	118,900	124,785	243,685	Kulittalai ... ... R.C.	118,900	124,785	243,685	2,655	2,699	5,354	10·9	11·0	21·9	98·3	7·2	...	9·2	8·4	17·6
246	94,627	100,377	195,004	Perambalúr ... ... R.C.	94,627	100,377	195,004	2,660	2,515	5,175	13·6	12·9	26·5	105·7	3·9	...	16·3	15·6	31·9
247	98,773	102,757	201,530	Udaiyárpáliyam ... R.C.	98,773	102,757	201,530	2,690	2,780	5,470	13·3	13·8	27·1	96·7	...	0·8	17·5	17·0	34·5
248	43,926	45,107	89,033	Zemindaries	43,926	45,107	89,033	834	838	1,672	9·3	9·4	18·7	99·5	0·2	...	26·9	26·4	53·3
8	663,035	708,691	1,371,726	Total District ...	663,035	708,691	1,371,726	17,738	17,215	34,953	12·9	12·6	25·5	103·0	3·0	...	15·0	14·3	29·3
				VIZAGAPATAM.															
249	16,477	17,484	33,961	Vizagapatam ... ... M.T.C.	16,477	17,484	33,961	613	578	1,191	18·0	17·0	35·0	106·0	5·2	...	15·6	14·5	30·1
250	4,639	5,057	9,696	Bimlipatam ... ... M.T.C.	4,639	5,057	9,696	173	138	311	17·8	14·2	32·0	125·3	6·2	...	16·4	14·0	30·4
251	14,805	15,930	30,735	Vizianagram ... ... M.T.C.	14,805	15,930	30,735	461	497	958	15·0	16·2	31·2	92·7	2·4	...	12·0	12·2	24·6
252	8,482	8,519	17,001	Anakápalle ... ... M.T.C.	8,482	8,519	17,001	322	283	605	18·9	16·6	35·5	113·7	9·7	...	15·7	15·2	30·9
253	6,971	7,477	14,448	Bobbili ... ... T.C.	6,971	7,477	14,448	301	270	571	20·8	18·7	39·5	111·5	22·7	...	12·2	11·3	23·5
254	5,983	6,927	12,910	Súlúr ... ... T.C.	5,983	6,927	12,910	95	75	170	7·4	5·8	13·2	126·6	1·6	...	7·3	6·7	14·0
255	4,869	5,495	10,364	Pálkonda ... ... T.C.	4,869	5,495	10,364	157	115	272	15·1	11·1	26·2	136·5	2·3	...	10·7	11·6	22·3
256	4,711	5,342	10,053	Párvatípuram ... ... T.C.	4,711	5,342	10,053	197	212	409	19·6	21·1	40·7	93·0	14·6	...	14·8	11·9	26·7
257	76,740	78,210	154,950	Sarvasiddhi ... ... R.C.	76,740	78,210	154,950	2,408	2,301	4,709	15·5	14·8	30·3	104·6	15·4	...	12·3	12·1	24·4
258	59,459	59,053	118,512	Narasapatnam or Golgonda. R.C.	59,459	59,053	118,512	1,850	1,834	3,684	15·6	15·5	31·1	100·8	17·6	...	11·3	11·0	22·3
259	66,484	68,661	135,145	Anakápalle ... ... R.C.	66,484	68,661	135,145	1,962	1,974	3,936	14·5	14·6	29·1	99·4	14·8	...	11·2	11·0	22·2
260	31,481	31,325	62,806	Vizagapatam ... ... R.C.	31,481	31,325	62,806	753	813	1,566	12·0	12·9	24·9	92·6	7·7	...	11·1	11·4	22·5

261	98,604	99,261	197,865	Vírvalli ... ... R. C.	98,604	99,261	197,865	2,182	2,072	4,254	11·0	10·5	21·5	105·3	8·3	...	9·4	9·1	18·5
262	52,506	52,950	105,456	Bimlipatam ... ... R. C.	52,506	52,950	105,456	1,331	1,288	2,619	12·6	12·2	24·8	103·3	8·8	...	9·6	9·3	18·9
263	64,401	64,918	129,319	Srungavarapukotah ... R. C.	64,401	64,918	129,319	1,748	1,733	3,481	13·5	13·4	26·9	100·8	10·2	...	10·0	9·7	19·7
264	67,688	68,030	135,718	Vizianagram .. ... R. C.	67,688	68,030	135,718	1,327	1,325	2,652	9·8	9·7	19·5	100·1	6·4	...	8·1	7·7	15·8
265	61,564	62,231	123,795	Gajapatinagaram ... R. C.	61,564	62,231	123,795	1,948	1,865	3,813	15·7	15·1	30·8	104·4	11·0	...	11·0	10·8	21·8
266	77,664	79,162	156,826	Chipurupalle ... ... R. C.	77,664	79,162	156,826	1,741	1,627	3,368	11·1	10·4	21·5	107·0	7·8	...	8·5	8·4	16·9
267	34,391	36,391	70,782	Sálúr ... . R. C.	34,391	36,391	70,782	923	867	1,790	13·0	12·3	25·3	106·4	6·7	...	9·4	8·7	18·1
268	56,393	57,919	114,312	Bobbili ... ... R. C.	56,393	57,919	114,312	1,693	1,594	3,287	14·8	14·0	28·8	106·2	10·8	...	9·5	9·2	18·7
269	97,279	101,165	198,444	Palkonda .. .. R. C.	97,279	101,165	198,444	2,647	2,584	5,231	13·3	13·0	26·3	102·4	6·7	...	8·6	8·3	16·9
270	48,321	50,776	99,097	Párvatípuram ... ... R. C.	48,321	50,776	99,097	1,253	1,194	2,447	12·6	12·1	24·7	104·9	5·5	...	10·3	10·3	20·6
22	959,912	982,283	1,942,195	Total District ...	959,912	982,283	1,942,195	26,085	25,239	51,324	13·4	13·0	26·4	103·3	9·7	...	10·1	9·8	19·9
92	1,231,774	1,286,908	2,518,682	Total of Town Circles in the Presidency.	1,231,774	1,286,908	2,518,682	40,919	39,077	79,996	16·2	15·6	31·8	104·7	3·4	...	15·2	14·4	29·6
178	15,441,435	15,733,062	31,174,497	Total of Rural Circles in the Presidency.	15,441,435	15,733,062	31,174,497	436,000	417,063	853,063	14·0	13·4	27·4	104·5	8·1	...	13·0	12·5	25·5
270	16,673,209	17,019,970	33,693,179	Grand Total for the Presidency.	16,673,209	17,019,970	33,693,179	476,919	456,140	933,059	14·2	13·5	27·7	104·5	7·7	...	13·2	12·6	25·8

M.T.C. indicates Municipal Town Circle.

T.C. ——— Non-Municipal Town Circle or Rural Town Circle.

R.C. – ——— Rural Circle.

NOTE.—The population for which the returns were received from the districts of Ganjám and Vizagapatam according to the census of 1891, is not available. Hence the ratios shown in column 6 have been calculated on the total population of those districts as per census of 1891.

No. II.—*Statement of births and deaths regis'ered in each town and rural circle of the Madras Presidency and the receipts from and expenditure on conservancy, together with the principal sanitary defects of each circle, and the measures taken to remedy them for the year* 1894.

1	2	3	4	5			6		7			8	Deaths per 1,000			
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.				
				Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.		Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.
	ANANTAPUR.															
1	Anantapur ... M.T.C.	...	...	3,473	3,500	6,973	186	26·7	55	49	104	112·2	0·9	...	6·6	0·1
2	Tadpatri ... T.C.	...	...	5,125	5,150	10,275	282	27·4	109	114	223	95·6	7·2	...	...	...
3	Anantapur ... R.C.	...	...	50,963	46,333	97,296	2,822	29·0	985	936	1,921	105·2	3·7	0·2	1·1	0·07
4	Gooty ... R.C.	...	...	72,693	69,884	142,577	4,640	32·5	1,526	1,451	2,977	105·2	0·4	0·1	2·6	0·2
5	Tadpatri ... R.C.	...	...	51,976	50,397	102,373	2,864	27·9	1,129	1,085	2,214	104·0	2·2	0·2	1·5	0·08
6	Penukonda ... R.C.	...	...	41,907	39,262	80,269	2,331	31·5	702	692	1,394	101·4	...	0·04	6·8	0·4
7	Dharmavaram R.C.	...	...	41,343	40,331	81,674	2,313	28·3	937	943	1,880	99·4	0·1	0·4	5·1	0·2
8	Hindúpur ... R.C.	...	...	34,231	33,761	67,992	1,842	27·0	612	623	1,235	98·2	...	0·2	2·3	0·4
9	Madakasira ... R.C.	...	...						429	422	851	101·6	...	0·05	2·6	0·6
9	Total District ...	5,275	134·2	362,062	346,081	708,143	21,162	29·9	6,484	6,315	12,799	102·7	1·0	0·2	3·1	0·2
	BELLARY.															
10	Bellary ... M.T.C.	...	...	29,130	28,650	57,780	2,159	37·4	810	860	1,670	94·2	0·03	...	11·9	1·6
11	Adóni ... M.T.C.	...	...	13,231	12,985	26,216	860	32·8	319	318	637	100·3	0·1	...	9·0	...
12	Hospet ... T.C.	...	...	6,263	6,606	12,869	318	24·7	108	98	206	110·2	0·1	0·1	15·0	0·1
13	Kampli ... T.C.	...	...	5,406	5,122	10,528	310	29·4	112	107	219	104·7	...	...	20·0	0·2
14	Rayadrug ... T.C.	...	...	5,209	5,169	10,378	364	35·1	93	86	179	108·1	...	0·1	15·2	...
15	Bellary ... R.C.	...	...	61,444	59,356	120,800	4,791	35·6	1,632	1,521	3,153	107·3	0·2	1·6	16·0	0·6
16	Hospet ... R.C.	...	...	35,231	33,872	69,103	1,877	27·1	1,082	1,036	2,118	104·4	0·4	0·2	25·7	0·3
17	Kúdligi ... R.C.	...	...	47,281	47,014	94,295	2,378	25·2	1,255	1,181	2,436	106·3	...	0·7	16·1	0·5
18	Hadagalli ... R.C.	...	...	54,811	49,224	104,035	2,849	27·3	911	873	1,784	104·3	...	0·1	6·0	1·6
19	Harpanahalli R.C.	...	...	41,370	40,870	82,240	2,981	36·2	851	781	1,632	109·0	...	0·3	10·6	0·9
20	Alúr ... R.C.	...	...	44,685	43,391	88,076	3,544	40·2	991	917	1,908	108·0	...	1·1	6·9	0·1
21	Adóni ... R.C.	...	...	68,982	65,569	134,551	4,549	33·8	1,728	1,561	3,289	110·7	0·007	0·9	7·6	0·5
22	Rayadrug ... R.C.	...	...	44,754	42,665	87,419	2,857	32·6	882	824	1,706	107·0	...	1·6	12·1	0·2
23	Zamindari ... R.C.	...	...	5,712	5,659	11,371	362	31·8	245	202	447	121·3	...	3·2	30·2	0·3
14	Total District ...	6,136	148·2	463,509	446,152	909,661	30,199	33·2	11,019	10,365	21,384	106·3	0·06	0·8	11·4	0·6
	CHINGLEPUT.															
24	Conjeeveram M.T.C.	...	...	20,611	21,932	42,543	1,677	39·4	655	646	1,301	101·4	1·4	0·1	8·2	3·2
25	St. Thomas' Mount T.C.	...	...	5,781	6,359	12,140	49	4·0	45	49	94	91·8	0·1	0·1	1·5	0·7
26	Saidapet ... R.C.	...	...	105,580	103,897	209,477	6,836	32·6	2,223	2,136	4,359	104·0	0·3	0·2	7·0	2·2
27	Chingleput ... R.C.	...	...	69,175	68,001	137,176	5,106	37·2	1,448	1,469	2,917	98·5	0·5	0·1	5·5	3·0
28	Madurántakam R.C.	...	...	132,734	130,396	263,130	9,037	34·3	2,640	2,494	5,134	105·8	0·3	0·1	5·0	1·7
29	Conjeeveram... R.C.	...	...	87,931	88,190	176,121	6,698	38·0	1,840	1,979	3,819	93·0	0·4	0·1	6·2	3·2

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 from conservancy.	Net expenditure in each circle on 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.		Females.	Total.				In drainage.	In water-supply.	In domestic cleansing and conservancy.	
									RS. A. P.	RS. A. P.				
0·6	6·7	15·8	14·0	14·9	25·3	25·8	25·5		544 4 0	2,006 2 6	No system. Cess-pools are covered over and cleaned when full, and the ground in their vicinity must be saturated. Side drains in main streets are covered with platforms.	Washing and bathing is allowed in the tank said to contain water of good quality. Some of the wells require parapets, platforms, and drains.	The latrines are said to be maintained on the dry earth system, but only in name as the latrines have no roofs and no arrangements for storage of dry earth.	New cess-pools are being built of impermeable material. *In re* removal of platform over drains legal advice and steps will be taken immediately. Two wells were repaired.
0·2	14·3	21·3	22·1	21·7	14·6	14·0	14·3		...	...	No system in any of the towns or villages. Pials being constructed in some towns over drains; dirt remains in them for years together. Cess-pools in towns are hardly cleaned being covered over.	The system of guarding drinking-water sources against contamination is not done satisfactorily, as animals are allowed to loiter about tanks and channels. In some cases rubbish heaps are stored on the banks of channels and rivers.	In some of the towns and villages refuse is allowed to be in the middle of streets or thrown in open spaces, outskirts, ruined houses, &c. The duty of removing refuse by contracts is imperfectly carried out in some cases. More carts are required in Penukonda Taluk Board.	.....
0·5	14·2	19·3	20·2	19·7	20·9	22·0	21·4		...	...				
0·4	17·1	20·9	20·7	20·8	23·5	22·3	23·4		...	...				
0·4	17·3	21·9	21·5	21·6	24·7	23·9	24·3		...	...				
0·3	9·8	17·1	17·6	17·3	23·0	24·0	23·5		...	...				
0·3	9·7	15·3	16·4	15·8	19·6	21·0	20·3		...	...				
0·6	11·6	14·8	15·4	15·1	18·1	18·2	18·2		...	...				
0·3	9·0	12·5	12·4	12·5	14·9	15·7	15·3		...	...				
0·4	13·1	17·8	18·2	18·0	20·7	21·4	21·1		...	...				
0·3	15·0	27·8	30·0	28·8	27·6	31·0	29·3		4,012 2 5	24,496 13 2	No system. Cess-pools exist which are not kept clean.	Some of the wells need alteration.	Bye lanes are generally used as latrines. Number of existing latrines and rubbish carts insufficient.	Application will be made for a correct pattern of cess-pools. Latrines are being increased and provisions made for the purchase of more carts.
0·3	14·9	24·1	24·5	24·3	26·2	26·5	26·4		2,883 11 6	7,525 15 2	Defective. Ill-constructed cess-pools exist.	.....	.....	Endeavours are being made to line the holes of new cess-pools with impervious cement.
...	0·7	17·2	14·8	16·0	22·2	17·1	19·6							
0·6	...	20·7	20·9	20·8	21·3	20·9	21·1							
0·2	1·7	17·8	16·6	17·2	15·7	17·0	16·3							
0·2	13·5	26·5	25·6	26·1	24·5	25·4	24·9							
0·3	5·7	30·7	30·5	30·6	31·4	31·1	30·7							
0·3	8·2	26·5	25·1	25·8	22·4	21·8	22·1							
0·2	9·2	16·6	17·7	17·1	21·6	24·6	23·0		...	...	No system; very defective in some place.	.....	Unsatisfactory owing to backward state of people. Number of latrines short of requirements in western taluks.	.....
0·3	7·7	20·5	19·1	19·8	25·9	25·1	25·5							
0·3	13·2	22·1	21·1	21·6	23·0	22·9	22·9							
0·4	15·0	25·0	23·8	24·4	23·9	24·5	24·2							
0·1	5·5	19·7	19·3	19·5	22·2	23·4	22·8							
0·3	6·8	42·8	35·6	39·3	28·2	27·7	28·0							
0·3	10·4	23·8	23·2	25·5	24·1	24·6	24·4		...	...				
0·5	17·2	31·8	29·4	30·6	32·4	30·1	31·2		2,504 10 7	9,948 0 0	Defective	Defective	.....	A scheme for the water-supply of the town has been prepared by the Sanitary Engineer.
0·1	5·2	7·8	7·7	7·7	11·6	10·1	10·8		...	...	.....	.....	.....	.....
0·4	10·7	21·0	20·5	20·8	22·7	23·0	22·8		...	...	*Nil.* In union villages better system is wanted.	Defective. Surroundings of private wells bad. They require platforms, parapets and pulleys in some cases. No public wells.	Rubbish is stored in backyards. Backyards used as latrines. In many instances cattle are close to dwellings.	.....
0·6	11·3	20·9	21·6	21·2	23·3	22·6	22·9		...	...	*Nil.*	Silt from wells not removed periodically. Some of the drinking water wells and tanks are close to burning and burial grounds.	Prickly-pear and wild croton require removal. Some more lights and dust-bins required. No night-soil carts. Conservancy establishment should be increased.	.....
0·5	11·9	19·8	19·1	19·5	23·1	22·2	22·6		...	...	*Nil.*	No wells or tanks set apart for drinking purposes.	Conservancy establishment should be increased. Cattle sheds close to dwelling houses. Wells in some cases require parapet walls, &c.	.....
0·4	11·4	20·9	22·4	21·7	25·2	24·2	24·7		...	...	*Nil.*	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* 1894—continued.

1	2	3	4	5			6		7			8	Deaths per 1,000			
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.				
				Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.		Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.
	CHINGLEPUT—*cont.*															
30	Tiruvallúr ... R.C.	...	...	120,783	116,133	*236,916	7,557	31·8	2,307	2,355	4,662	97·9	0·1	0·1	6·5	1·0
31	Ponnéri ... R.C.	...	...	62,221	60,177	122,398	3,734	30·5	1,239	1,232	2,471	100·6	0·03	0·2	6·6	1·5
8	Total District ...	2,842	399·0	604,816	595,085	1,199,901	40,694	33·9	12,397	12,360	24,757	100·3	0·3	0·1	6·1	2·0
	COIMBATORE.															
32	Coimbatore ... M.T.C.	...	...	22,079	23,928	46,007	1,701	36·9	611	604	1,215	101·1	0·1	0·1	6·2	3·0
33	Erode ... M.T.C.	...	...	6,074	6,164	12,238	394	32·2	180	180	360	100·0	3·1	0·1	7·1	3·0
34	Karúr ... M.T.C.	...	...	5,157	5,583	10,740	391	36·4	156	151	307	103·3	4·1	0·8	6·2	6·7
35	Coimbatore ... R.C.	...	...	127,828	132,593	260,421	7,736	29·7	2,462	2,213	4,675	111·2	1·5	0·1	8·6	0·5
36	Erode ... R.C.	...	...	116,150	118,527	234,677	6,552	27·9	1,940	1,869	3,809	103·8	0·5	0·04	4·3	0·7
37	Satyamangalam ... R.C.	...	...	90,279	93,809	184,088	5,704	31·0	1,646	1,445	3,091	113·9	1·7	0·1	8·8	0·3
38	Pollāchi ... R.C.	...	...	89,249	94,401	183,650	5,616	30·5	1,713	1,686	3,399	101·6	0·9	0·03	8·5	0·4
39	Palladam ... R.C.	...	...	132,332	138,052	270,384	8,350	30·8	2,331	2,269	4,600	102·7	0·8	0·1	6·1	0·7
40	Bhavāni ... R.C.	...	...	59,032	60,835	119,867	3,169	26·4	1,038	941	1,979	110·3	1·1	0·03	10·2	0·3
41	Kollegāl ... R.C.	...	...	43,575	44,949	88,524	2,699	30·5	727	647	1,374	112·3	0·04	0·4	8·3	0·6
42	Udamalpet ... R.C.	...	...	69,346	73,710	143,056	3,725	26·0	1,188	1,201	2,389	98·8	0·6	0·1	5·8	0·4
43	Karúr ... R.C.	...	...	97,405	103,638	201,043	4,466	22·2	1,514	1,355	2,869	111·7	0·8	0·02	3·1	0·2
44	Dhārāpuram. R.C.	...	...	122,727	126,489	249,216	6,012	24·1	1,936	1,962	3,898	98·7	1·2	0·01	3·1	0·4
13	Total District ...	7,860	254·9	981,233	1,022,678	2,003,911	56,515	28·2	17,442	16,523	33,965	105·5	1·0	0·08	6·3	0·6
	CUDDAPAH.															
45	Cuddapah ... M.T.C.	...	...	8,597	8,614	17,211	273	15·9	292	296	588	98·6	...	0·6	17·1	1·5
46	Badvél ... R.C.	...	...	46,792	46,358	93,150	2,839	30·5	1,045	1,076	2,121	97·1	...	0·1	19·4	0·3
47	Proddatur ... R.C.	...	...	49,572	48,845	98,417	2,621	26·6	1,132	1,050	2,182	107·8	0·1	0·4	15·8	0·2
48	Siddhavattam R.C.	...	...	33,680	33,129	66,809	1,761	26·3	833	756	1,589	110·2	0·1	0·2	20·6	0·2
49	Pullampet ... R.C.	...	...	75,597	73,496	149,093	3,259	21·9	1,337	1,324	2,661	101·0	...	0·1	14·6	0·2
50	Cuddapah ... R.C.	...	...	69,744	67,711	137,455	3,348	24·3	1,603	1,557	3,160	103·0	...	0·2	19·3	0·2
51	Jammalamadugu ... R.C.	...	...	51,393	49,880	101,273	3,319	32·7	1,386	1,301	2,687	106·5	1·2	0·7	18·0	0·2
52	Pulivendla. R.C.	...	...	53,808	52,034	105,842	2,969	28·0	1,340	1,262	2,602	106·2	...	0·1	20·9	0·2
53	Rāyachōti ... R.C.	...	...	57,770	55,464	113,234	2,754	24·3	1,272	1,244	2,516	102·2	...	0·2	13·8	0·7
54	Kadiri ... R.C.	...	...	69,718	65,174	134,892	3,689	27·3	1,580	1,554	3,134	101·8	...	0·3	18·4	0·8
55	Vāyalpād ... R.C.	...	...	64,247	62,788	127,035	2,830	22·2	1,220	1,137	2,357	107·3	...	0·1	15·6	0·5
56	Madanapalle. R.C.	...	...	65,214	62,096	127,310	3,606	28·3	1,194	1,196	2,390	99·8	...	0·2	14·3	0·7
12	Total District ...	8,722	145·8	646,132	625,589	1,271,721	33,268	26·2	14,234	13,753	27,987	103·5	0·1	0·2	17·5	0·4
	GANJAM.															
57	Chicacole ... M.T.C.	...	...	8,451	9,753	18,204	433	23·8	234	204	438	114·7	0·7	0·2	9·0	3·0
58	Berhampur ... M.T.C.	...	...	12,292	13,201	25,493	664	26·0	299	238	537	125·6	...	...	5·3	2·8
59	Parlākimedi. M.T.C.	...	...	7,717	8,662	16,379	579	35·3	177	181	358	97·8	0·1	0·1	11·0	2·4
60	Chicacole ... R.C.	...	...	92,940	101,390	194,330	6,011	30·9	2,102	2,018	4,120	104·1	0·3	0·1	17·2	0·4
61	Berhampur ... R.C.	...	...	141,825	155,911	297,736	7,389	24·7	2,341	2,133	4,474	114·4	0·1	0·2	11·7	0·7
62	Goomsur ... R.C.	...	...	89,283	96,548	185,831	4,365	23·4	1,577	1,479	3,056	106·6	0·04	0·1	11·7	0·5

* Includes 66,000, the population of 137 villages transferred from the North Arcot District.

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 from conservancy.	Net expenditure in each circle on 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.				
0·5	11·5	19·1	20·2	19·7	22·6	23·5	23·1	...	...	.....	.....	.....	.....	.....
0·4	11·4	19·9	20·4	20·1	22·3	21·9	22·1	...	...	.....	.....	.....	.....	.....
0·5	11·6	20·5	20·8	20·6	23·4	23·0	23·2	...	...					
0·3	16·7	27·6	25·2	26·4	30·0	27·0	28·2	1,065 3 10	8,380 11 0	No system. Some of the street drains are in a most insanitary state.	Very defective. Some of the drinking-water wells are near drains and cess-pools.	Rubbish is heaped up in non-recognized depots. Most of the latrines are in a dilapidated and foul smelling condition. More dust-bins and latrines are wanted.	A scheme for water-supply has been sanctioned by Government but cannot be taken up for want of funds.
0·7	15·4	29·6	29·2	29·4	27·0	28·0	27·6	...	2,949 9 7	Defective	.....	.....	.....
0·4	10·4	30·0	27·0	28·6	32·0	28·7	30·3	200 0 0	2,580 0 0	No system	.....	.....	.....
0·4	6·8	19·2	16·7	17·9	20·6	18·0	19·3			Absolutely no system in the towns and villages of the district. Street drains are in a filthy condition. Cess-pools exist in some villages which are never cleaned.	Very unsatisfactory. All the available sources undergo pollution of some sort.	The sweepings and other filthy refuse of houses are thrown carelessly in backyards, some of which are never cleaned. Cattle are kept immediately in front or back of houses. Backyards used as latrines and generally unclean.	Inspecting officers bring to notice of Taluk Boards the defects and they are in some instances remedied as far as funds permit.
0·4	10·3	16·7	15·8	16·2	17·5	16·3	16·9						
0·4	5·4	18·2	15·4	16·7	19·8	17·2	18·5						
0·4	8·3	19·2	17·8	18·5	21·7	19·2	20·4						
0·4	8·9	17·6	16·4	17·0	18·1	17·2	17·4	...	...				
0·4	4·5	17·6	15·4	16·5	18·1	16·1	17·1						
0·2	6·0	16·7	14·4	15·5	20·6	18·9	19·7						
0·3	9·5	17·1	16·3	16·7	19·5	18·0	18·7						
0·3	9·8	15·5	13·0	14·2	20·0	18·0	19·0						
0·3	10·6	15·8	15·5	15·6	16·9	16·0	16·4						
0·4	8·6	17·8	16·1	16·9	19·5	17·7	18·6	...	...				
1·0	14·0	33·9	34·4	34·2	39·0	39·7	39·3	789 0 0	5,623 14 7	No proper system ...	.....	The houses of the agricultural and the lower classes are very often dirty. Cattle and manure are kept in or near houses. Cess-pits are used as latrines in some places.	Most of the suggestion made by the District Sanitary officer for the improvement of towns and villages have been carried out. It is found difficult to induce people to keep cattle and manure out of their houses.
0·6	2·4	22·3	23·2	22·8	27·3	25·7	26·5			Except in the subdivision there is no proper system anywhere in the district. Drainage water generally escapes into cess-pools and cleaned periodically by house owners. In some villages it is allowed to run into open spaces and allowed to soak in the ground.	In some of the villages scarcity is felt during the summer season and people experience great difficulty.		
0·4	5·3	22·8	21·5	22·2	26·7	26·1	26·4						
0·5	2·2	24·7	22·8	23·8	23·1	21·6	22·3						
0·4	2·6	17·7	18·0	17·9	21·5	20·9	21·2						
0·7	2·6	23·0	23·0	23·0	22·2	22·0	22·1						
0·3	6·1	26·9	26·1	26·5	23·7	23·5	23·6	...	...				
0·5	2·9	24·9	24·2	24·6	23·5	22·5	23·0						
0·8	1·7	22·0	22·4	22·2	19·6	19·5	19·6						
0·6	3·1	22·6	23·8	23·2	20·2	20·8	20·5						
0·6	1·7	19·6	18·1	18·5	20·7	20·5	20·6						
0·6	3·0	18·3	19·3	18·8	18·9	20·0	19·3						
0·6	3·2	22·0	22·0	22·0	22·4	22·2	22·3	...	...				
0·2	11·0	27·7	20·9	24·1	27·5	21·9	24·5	317 9 0	2,711 13 8	Defective	.....	.....	.....
0·3	12·7	24·3	18·0	21·1	28·4	23·0	25·5	872 3 0	4,430 15 3	Defective	.....	.....	.....
...	8·3	22·9	20·9	21·9	28·1	19·7	23·7	252 3 7	2,529 7 4	Refuse water in most of the houses either soaks in backyards or are received in pits where it stagnates.	Want of good drinking water.	.....	The sanitary condition is improving owing to careful attention paid to it by Chairman.
0·2	3·0	22·6	19·9	21·2	19·5	16·7	18·3			Side cuttings exist only in the principal streets and lanes of union villages while those of the smaller have none.	The quality of water from all available sources is but fair.	In unions few houses have cess-pools and filthy water, &c., sink into the soil in the backyards or through an opening in the compound walls into the adjoining streets.	.....
0·2	2·1	16·5	13·6	15·0	19·0	15·0	17·0	...	...				
0·3	3·8	17·6	15·3	16·4	20·2	16·7	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* 1894—continued.

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.
	GANJAM—*cont.*															
63	Zemindaries	...	...	411,664	439,445	851,109	16,101	18·9	5,472	5,021	10,493	109·0	0·1	0·1	9·9	0·3
64	Agency Tracts	...	...	158,828	148,490	307,318	612	2·0	321	259	580	124·0	...	0·01	1·8	0·02
8	Total District ...	8,370	226·6	923,000	973,400	1,896,400	36,154	19·1	12,523	11,533	24,056	108·5	0·1	0·1	9·8	0·4
	GODAVARI.															
65	Cocanada ... M.T.C.	...	...	20,066	20,002	40,068	1,110	27·7	523	414	937	126·3	0·2	0·1	3·8	2·3
66	Rajahmundry. M.T.C.	...	...	13,869	14,410	28,279	931	32·9	449	407	856	110·3	0·7	0·2	8·3	4·6
67	Ellore ... M.T.C.	...	...	14,242	15,054	29,296	607	20·7	362	319	681	113·4	3·9	0·4	3·9	1·9
68	Pithápuram ... T.C.	...	...	6,807	6,924	13,731	160	11·7	88	62	150	142·0	...	...	0·3	0·1
69	Peddápuram ... T.C.	...	...	6,619	7,033	13,652	570	9·3	231	189	420	122·2	...	1·0	4·9	0·6
70	Samalkot ... T.C.	...	...	6,407	7,002	13,409	125	41·8	56	52	108	108·0	...	...	7·9	...
71	Dowlaishweram. T.C.	...	...	4,818	5,636	10,454	387	37·0	143	132	275	108·3	0·8	...	...	1·1
72	Rámachandrapuram. R.C.	...	...	129,355	131,828	261,183	6,235	23·8	2,422	2,212	4,634	109·4	0·3	0·2	8·0	0·3

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 from conservancy.	Net expenditure in each circle on conservancy.	Principal sanitary defects of circle.			Measures taken for sanitary improvement of circle.
Injuries.	All other causes.	All 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.				
0·2	1·7	13·3	11·4	12·3	14·8	12·3	13·5	...	...	No system of drainage.	The quality of water from all available sources is but fair.	.....	.....
0·02	0·1	2·0	1·8	1·9	1·6	1·4	1·4	...	...	In the head quarters of Deputy Tahsildars and Sub-Magistrates drainage of villages is attended to as in the above.	*Nil* ...	.....	.....
0·2	2·1	13·6	11·8	12·7	14·6	12·3	13·4	...	...				
0·4	16·6	26·1	20·7	23·4	24·1	20·8	22·5	849 0 0	7,177 12 1	Drainage hardly exists. The main drain and the main sewer are in an insanitary state.	Unsatisfactory. More care should be taken to prevent pollution of the water-supply.		
0·8	15·6	32·3	28·2	30·3	33·9	27·4	30·6	2,303 11 0	8,582 0 0	Defective. There are many private cess-pools which are as a rule dirty.	The river which is the chief source of supply undergoing pollution in many ways. The surroundings of wells are not good.	Unsatisfactory. More latrines are required. The existing ones need repair and better supervision.	A latrine has been replaced and a drain repaired and improved.
0·3	12·8	25·3	21·1	23·2	26·0	24·2	25·0	734 2 0	6,837 14 10	No regular system. Many of the house drains simply pour their contents into the soil. There are many unlicensed cess-pools in a very bad state.	Drinking-water is not of good quality. The surrounding ground of wells is badly drained and the water is polluted.	The whole town is in a filthy state.	Drainage scheme is under preparation by Sanitary Engineer.
0·3	10·2	12·8	8·0	10·9	11·9	8·8	10·3	...	...	No system. Side cuttings to roads. House drains discharge into open street or ruined cess-pools, contents of which are baled out and thrown anywhere. Sewage absorbed into soil.	Wells out of repair. Washing carried on in immediate vicinity. Water polluted. Surroundings insanitary.	Backyards dirty and neglected. Latrines insufficient. No regular system of private conservancy. Public latrines filthy.	Establishment of rubbish depots and 25 iron dust-bins. Twenty-three new lamps.
1·0	23·2	34·8	26·9	30·7	24·3	21·6	22·9	...	...	No regular system. Only side cuttings to roads. House drains simply channels leaking to cess-pools. Contents allowed to flow into streets.	Water impure. Washing in immediate vicinity of wells. Tank open to pollution from surface drainage, cattle, travellers, &c.	Backyards dirty and badly drained. Cess-pools leak. No regular latrines. Much general fæcal contamination. No night-soil depots. One rubbish depot is too close to slaughter-house.	Five new iron dust-bins. Proposals made in budget to build latrines, &c.
...	0·1	8·7	7·4	8·0	18·1	14·6	16·3	...	...	No regular system. Dirty water runs from under walls and soaks into the ground. Drains have no regular outlet.	Quality impure. Tanks polluted by surface drainage, travellers, &c. One tank has a burial ground in juxtaposition to it.	Backyards dirty. Soil is saturated with sewage. Public latrines offensive. No private latrines. No depots for night-soil.	Construction of some new roads with side ditches. Arrangements to repair one well. Provision in budget for two toties and for constructing a slaughter-house.
0·4	24·0	29·5	26·3	26·3	35·7	25·7	30·3	...	...	No regular system. Some drainage pollutes the river. Cess-pools leak. Many house drains run into the street.	Wells badly drained. Washing in immediate vicinity. River polluted everywhere.	Cess-pools filthy. Soil saturated with sewage. Backyards generally dirty. Rubbish depot badly situated and is a standing nuisance. Latrines insufficient. Conservancy defective. No private scavengering. Fishing village on outskirts, espicially filthy.	Streets better swept than before and dust-bins cleaner. Arrangements made to construct a new public latrine.
0·2	8·7	18·7	16·0	17·7	23·9	21·6	22·8	...	...	No drainage. All low-lying places are in a swampy condition.	Quality bad. Tanks fed from canals and polluted. Wells polluted out of repair and with bad surroundings.	Backyards dirty. Heaps of rubbish stored up. Insufficient dust-bins, no rubbish depots. No good latrines. Private scavengering rare.	Some additional village sweepers. Attempts at conserving water-supplies. Formation of some unions. New roads and repairs to existing ones. New dust-bins and lamps.

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 1894—continued.*

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.
	GODÁVARI—*cont.*															
73	Narsapur ... R.C.	...	...	110,178	120,137	230,315	3,761	16·0	1,554	1,509	3,063	103·0	0·1	0·3	2·7	0·2
74	Amalápuram ... R.C.	...	...	125,189	130,883	256,072	4,921	19·2	1,853	1,673	3,526	110·7	0·08	0·3	5·9	0·2
75	Tanuku ... R.C.	...	...	99,535	104,505	204,040	5,136	25·1	1,764	1,682	3,446	104·9	0·04	0·02	7·0	0·3
76	Bhimavaram ... R.C.	...	...	59,624	62,366	121,990	2,674	21·9	1,007	927	1,934	108·6	0·1	...	3·9	0·6
77	Ellore ... R.C.	...	...	73,008	69,577	142,585	2,916	20·4	1,153	988	2,141	116·7	0·5	0·3	8·9	0·1
78	Yernagúdem ... R.C.	...	...	68,355	67,849	136,204	3,593	26·3	1,206	1,116	2,322	108·0	0·04	0·1	12·3	0·2
79	Rajahmundry. R.C.	...	...	53,693	53,173	106,866	2,877	26·8	1,070	1,010	2,080	105·9	0·03	0·1	13·3	0·6
80	Peddápurum ... R.C.	...	...	61,654	62,374	124,028	4,093	33·0	1,573	1,486	3,059	105·8	...	0·3	18·2	0·3
81	Bhadráchalam. R.C.	...	...	64,762	62,352	* 127,114	3,757	29·6	1,443	1,347	2,790	107·1	0·2	0·4	14·6	0·3

* Including Agency Tracts.

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 from conservancy.	Net expenditure in each circle on 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.				
0·1	9·9	14·1	12·5	13·3	17·1	14·3	15·6	...	...	No regular system. Want of good private drains. Drainage pollutes water-supply.	Both wells and canals polluted. Water of wells brackish. Private wells in very bad condition. Tanks much contaminated.	Backyards not well kept. Latrines unsatisfactory in point of numbers and condition. Conservancy defective. No regular depots.	Greater surface cleanliness and better removal of rubbish. Additional sweepers. Improvements to latrines.
0·4	6·9	14·7	12·7	13·7	17·7	15·7	16·7	...	...	No regular system. Many ditches lead to stagnant ponds. Drainage also runs into the streets, or soaks into the soil.	Tank and canal water much polluted. Scarcity in hot weather. Private wells undrained. Surroundings bad. Most wells need repair.	Backyards dirty, with accumulations of rubbish. Cesspools never cleaned. Dust-bins either absent, or old and worn out. Sweepings stored within villages. Latrines insufficient and in bad condition. No proper depots.	Some new roads, culverts, dust-bins and lamps. Additional sweepers. Mild attempts at conservancy of drinking-water.
0·3	9·2	17·7	16·0	16·8	23·7	20·6	22·1	...	...	None, except a few side-cuttings that lead to the canals and pollute the water.	Canal water open to pollution. Everywhere; tank water very bad, over grown with weeds. Contains rubbish. Surroundings of wells bad. One good well not used and water allowed to stagnate in it.	Neglected, dirty backyards, soil broken, refuse thrown into excavations. Open spaces and corners strew with refuse and defiled with excrement. No cesspools. No depots. Scavengering insufficient.	Construction of new roads and repairs to existing ones. Repairs to tank bund. New approaches to canals. Additional lamps and dust-bins.
0·2	11·0	16·0	14·8	15·8	22·6	19·6	21·0	...	...	No system. Only side-cuttings.	Tanks and wells open to pollution everywhere. Tanks especially filthy. Private wells often mere surface water-holes.	Backyards foul and damp. Fæcal deposits everywhere. No latrines. No depots. Scavengering establishments insufficient.	Some additional lamps, but no proper sanitary improvements.
0·2	5·0	15·8	14·2	15·0	20·6	20·2	20·4	...	...	Bad. Side drains (where present) filthy. Cess-pools overflow into streets.	Tanks, wells and canals all polluted and impure. One village had a dung hill by the side of the chief well.	Houses and surroundings dirty. Litter and rubbish lying about everywhere. Waste spots very insanitary. No regular system of conservancy. Sweepers where maintained do nothing. No latrines.	Nothing noted.
0·3	4·1	17·6	16·4	17·0	24·2	22·6	23·4	...	...	No regular system. Side-cuttings choked with rubbish and have no proper outlet. Houses undrained.	Both river and well water polluted and impure. Wells undrained with insanitary surroundings. Washings goes or in immediate vicinity.	Backyards dirty, neglected and damp. Much fæcal matter deposited everywhere, and soil and air very foul. Sweepers not supervised. No dust-bins nor depots. Entire absence of latrines.	No improvements noted.
0·3	5·1	19·9	18·9	19·4	25·3	23·8	24·6	...	...	No system. Stagnant pools abound in wet weather. Houses undrained.	Wells, tanks and channels are impure. Badly drained. Surroundings bad.	Ground reeks with filth. Surface cleanliness bad. No proper depots. Latrines absent or in bad condition. Sweepers not properly supervised.	None noted. (Remarks apply chiefly to Gokavaram and neighbouring villages.)
0·5	5·4	25·5	23·8	24·7	26·2	23·7	25·0	...	...	No system. Streets carry off rain water. Sewage water is absorbed into the soil.	Streams and tanks open to pollution everywhere. Wells need repair. Surroundings all insanitary.	Backyards neglected and not drained. Sewage sinks into the soil. No latrines nor dust-bins. No scavengering. Litter thrown on the nearest empty space.	Orders issued to conserve water supplies.
0·4	6·0	22·3	21·6	21·9	25·2	24·4	24·8	...	...	No regular system. Small side-cuttings at intervals.	River polluted by cattle, washing, &c. Well water indifferent in quality.	Rank vegetation abundant and surface cleanliness bad. Scavengering defective.	Not known. (Bhadráchalam information only obtained by reports. Not personally visited.)

No. II.—*Statement of births and deaths registered in each town and rural circle of the Madras*
together with the principal sanitary defects of each circle, and

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.
	GODAVARI—*cont.*															
82	Zemindaries	...	...	108,451	110,121	218,572	4,706	21·5	1,599	1,507	3,106	106·1	...	0·2	9·6	0·2
18	Total District ...	7,857	264·4	1,026,632	1,051,226	2,077,858	48,559	23·4	18,496	17,032	35,528	108·6	0·2	0·2	8·4	0·4
	KISTNA.															
83	Masulipatam. M.T.C.	...	...	18,539	20,128	38,667	1,070	27·6	599	569	1,168	105·3	1·6	0·1	6·1	0·9
84	Guntúr ... M.T.C.	...	...	11,705	11,562	23,267	817	35·1	342	326	668	104·9	0·7	...	8·7	1·6
85	Bezwada ... M.T.C.	...	...	11,330	9,281	20,611	623	30·2	359	327	686	109·8	6·7	0·2	5·1	2·2
86	Chirála ... T.C.	...	...	5,241	5,340	10,581	292	27·6	159	96	255	165·6	0·09	0·09	8·4	0·4
87	Répalle ... R.C.	...	...	113,038	109,718	222,756	7,366	33·0	2,404	2,073	4,477	115·9	1·2	0·1	2·4	0·1
88	Bápatla ... R.C.	...	...	87,104	84,241	171,345	5,514	32·1	1,821	1,638	3,459	111·1	0·6	0·04	6·7	0·1
89	Guntúr ... R.C.	...	...	73,383	69,984	143,367	5,385	37·6	1,446	1,423	2,869	101·6	0·3	0·01	6·3	0·2
90	Palnad ... R.C.	...	...	70,191	71,814	142,005	4,945	34·8	1,680	1,595	3,275	105·3	0·1	0·1	15·2	0·3
91	Narasaraopet R.C.	...	...	78,910	77,454	156,364	4,517	28·8	1,349	1,284	2,633	105·0	0·3	0·1	12·0	0·1
92	Gudivada ... R.C.	...	...	60,088	58,220	118,308	4,014	33·9	1,333	1,200	2,533	111·1	1·2	0·1	2·2	0·1
93	Sattenapalle ... R.C.	...	...	70,034	68,577	138,611	5,526	39·8	1,486	1,370	2,856	108·4	0·3	0·04	12·0	0·5
94	Masulipatan.... R.C.	...	...	80,234	79,313	159,547	4,619	28·9	1,439	1,277	2,716	112·7	0·9	0·03	2·0	0·2
95	Nandigama ... R.C.	...	...	63,376	63,322	126,698	4,681	36·9	1,391	1,304	2,695	106·7	0·1	0·2	9·6	0·1
96	Bezwáda ... R.C.	...	...	43,318	42,413	85,731	2,964	34·5	948	936	1,884	101·3	0·6	...	10·8	0·3
97	Vinukonda ... R.C.	...	...	41,760	40,671	82,431	2,833	34·3	777	731	1,508	106·3	0·4	...	11·8	0·1
98	Zemindaries ... R.C.	...	...	109,806	104,929	214,735	5,784	26·9	1,803	1,669	3,472	108·0	0·3	0·2	9·2	0·1
16	Total District ...	8,397	229·0	938,057	916,967	1,855,024	60,950	32·8	19,336	17,818	37,154	108·5	0·6	0·1	7·9	0·2
	KURNOOL.															
99	Kurnool ... M.T.C.	...	...	11,631	12,675	24,306	829	34·1	360	402	762	89·5	1·0	0·04	14·8	1·4
100	Nandyal ... T.C.	...	...	5,330	5,374	10,704	109	10·2	80	86	166	93·0	1·1	0·1	10·8	0·4
101	Ramallakot ... R.C.	...	...	51,862	48,728	100,590	3,671	36·4	1,200	1,128	2,328	106·4	0·8	0·8	18·6	0·2

Presidency and the receipts and expenditure in each circle from and on conservancy,
the measures taken to remedy them for the year 1894—continued.

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 from conservancy.	Net expenditure in each circle on conservancy.	Principal sanitary defects of circle.			Measures taken for sanitary improvement of circle.
		All causes.									a	b	c	
Injuries.	All other causes.	Males.	Females.	Total.		Males.	Females.	Total.			In drainage.	In water-supply.	In domestic cleansing and conservancy.	
									RS. A. P.	RS. A. P.				
0·3	3·9	14·7	13·9	14·2		16·7	15·5	16·1	...	...	No system, except side-cuttings that have no regular outlet. Streets carry off most of the rain water. House drains discharge into the streets or into filthy cesspools and much drainage sinks into the soil.	Water from streams impure, wells require repairs and better drainage. Washing in immediate vicinity. Water of private wells very brackish.	Backyards dirty, neglected and badly drained. Cess-pools filthy. Sweepers insufficient. No dust-bins. Rubbish stored too close to habitations. Latrine accommodation insufficient and bad. No proper depots.	Additional toties sanctioned. Orders issued for repairs, &c., to wells.
0·3	7·6	18·0	16·2	17·1		21·3	19·0	20·2						
0·1	21·4	32·2	28·3	30·2		27·0	23·0	25·0	487 1 0	6,440 7 6	No system of drainage.	Unsatisfactory ...	Domestic cleaning and conservancy very bad. Back lanes and streets are dirty. Cattle are allowed either too near dwelling houses or far too near them.	.....
1·0	16·7	29·2	28·2	28·7		28·9	25·5	27·2	1,410 2 4	9,934 0 0	There is no drainage in the town.	The area drained to supply the black tank which feeds the reservoirs one of the sources of water-supply is open to pollution being resorted to for purposes of nature.	Sweepings and rubbish are removed by means of dilapidated open basket carts drawn by poor, ill-fe ddiminutive buffaloes. More dust-bins and better carts are needed.	The water-supply scheme has been put off as proposed by the Sanitary Engineer. More dust-bins were purchased.
0·9	18·2	31·7	35·2	33·3		47·6	32·9	40·9	1,724 0 0	10,437 1 4	No system. Drainage of houses either percolates in the house soil or in public road. Cesspools are cleaned thrice a month.	Defective. None of the wells or tank is set apart for drinking. A private well is used, but its condition is bad and surroundings dirty.	The latrines were found by the District Sanitary Officer in a most offensive condition during his inspections. The compounds of several houses are unhealthy.	The Sanitary Engineer has promised to submit estimates and plan of drainage and water-supply scheme. They will be put in hand as soon as finds permit. The Sanitary Inspector was ordered to prosecute people who keep their compounds unclean.
0·4	14·7	30·3	18·0	23·9		26·3	21·3	23·8						
0·2	16·0	21·3	18·9	20·0		22·1	21·3	21·7						
0·3	13·5	20·9	19·4	20·2		24·4	23·4	23·9						
0·4	12·8	19·7	20·3	20·0		22·7	22·6	22·6						
0·2	7·1	23·9	22·2	23·0		20·2	19·6	19·9						
0·4	3·9	17·1	16·6	16·8		27·4	26·4	26·9						
0·2	17·6	22·2	20·6	21·4		27·3	26·4	26·9	...	...	No proper system anywhere. Cesspools abound and they are kept in a filthy state.	No tanks or wells are set apart for drinking even in union villages. Water undergoes pollution on all sides by the filthy habits of natives.	.....	.....
0·5	7·3	21·2	20·0	20·6		22·2	21·1	21·6						
0·2	13·7	17·9	16·1	17·0		19·4	18·0	18·7						
0·5	10·7	21·9	20·5	21·2		25·4	24·1	24·8						
0·4	9·8	21·9	22·0	21·5		26·3	25·6	25·9						
0·3	5·7	18·6	17·9	18·3		23·9	22·5	23·2						
0·4	6·0	16·4	15·9	16·2		16·0	15·6	15·8						
0·3	10·9	20·6	19·4	20·0		22·7	21·8	22·3						
0·7	15·4	30·9	31·7	31·3		32·8	32·9	32·9	...	4,501 4 2	.....	.....	.....	.....
0·1	3·0	15·0	16·0	15·5		32·8	27·0	29·9	...	...	No system	Some of the wells require platfroms and parapet walls. The drainage from the town near the slaughter-house is allowed to flow into the portion of the river used for drinking.	More latrines are required.	
0·4	2·3	23·1	23·1	23·1		24·4	24·1	24·3	.....	.....	Natural	Many of the wells are subject to pollution for want of parapet walls.	Some villages have public latrines, but they are too few for their requirements as every available space is resorted to for purposes of nature.	

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* 1894—continued.

1	2		3	4	5			6		7			8	Deaths per 1,000			
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.	Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.
					Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.					
	KURNOOL—*cont.*																
102	Pattikonda ...	R.C.	...	...	71,576	67,127	138,703	4,178	30·1	2,158	1,901	4,059	113·5	0·04	0·5	24·3	0·1
103	Nandikotkúr	R.C.	...	...	44,786	43,773	88,559	3,451	39·0	1,383	1,309	2,692	105·6	3·3	0·2	20·5	0·3
104	Nandyal ...	R.C.	...	...	43,307	42,235	85,542	2,526	29·5	1,256	1,253	2,509	100·2	2·0	0·1	21·7	0·5
105	Koilkuntla ...	R.C.	...	...	43,710	42,833	86,543	2,577	29·7	1,264	1,239	2,503	102·0	0·3	0·2	22·0	0·2
106	Sirvel ...	R.C.	...	...	32,915	32,249	65,164	1,912	29·3	1,068	1,087	2,155	98·0	0·2	0·4	25·7	0·3
107	Cumbum ...	R.C.	...	...	58,632	58,946	117,578	3,035	25·8	1,159	1,694	2,253	105·9	0·4	0·3	16·2	0·2
108	Markapur ...	R.C.	...	...	50,286	49,685	99,971	3,369	33·6	1,061	916	1,977	115·8	1·2	0·04	16·8	0·05
10	Total District ...		7,514	109·0	414,035	403,625	817,660	25,657	31·4	10,989	10,415	21,404	105·5	1·0	0·3	20·2	0·3
	MADRAS.																
109	Madras ...	M.T.C.	29	15,978·8	217,690	218,685	436,375	16,447	37·7	7,974	8,112	16,086	98·3	0·2	0·03	13·9	5·3
	MADURA.																
110	Madura ...	M.T.C.	...	...	43,707	43,414	87,121	2,907	33·3	1,402	1,438	2,840	97·5	4·4	0·3	5·1	3·8
111	Dindigul ...	M.T.C.	...	...	9,984	10,131	20,115	919	45·7	253	221	474	114·5	7·8	...	3·4	2·0
112	Periyakulam	M.T.C.	...	...	7,718	8,645	16,363	676	41·3	322	311	633	103·5	1·1	...	8·7	5·7
113	Palni ...	M.T.C.	...	...	8,080	8,860	16,940	562	33·2	232	194	426	119·6	4·3	0·1	3·2	0·7
114	Ramnad ...	T.C.	...	...	6,414	7,175	13,589	229	16·9	113	91	204	124·2	3·2	...	0·4	...
115	Aruppukóttai	T.C.	...	...	6,131	6,542	12,673	361	28·5	219	164	383	133·5	14·9	...	5·3	2·8
116	Kilakarai ...	T.C.	...	...	5,880	6,516	12,396	188	15·1	69	83	152	83·1	0·9	...	6·2	1·1
117	Paramagudi ...	T.C.	...	...	4,966	5,635	10,601	105	10·5	37	33	70	112·1	0·2	...	5·0	...
118	Madura ...	R.C.	...	...	84,372	89,383	173,755	3,973	22·9	1,880	1,806	3,686	104·1	5·1	0·3	6·0	0·8
119	Mélúr ...	R.C.	...	...	71,498	77,152	148,650	3,714	25·0	1,346	1,350	2,696	99·7	2·0	0·06	1·2	0·2
120	Tirumangalam	R.C.	...	...	130,162	134,458	264,620	6,729	25·4	2,461	2,348	4,809	104·8	1·6	0·4	7·5	0·4
121	Periyakulam	R.C.	...	...	120,373	126,472	246,845	7,105	28·7	3,350	2,889	6,239	115·9	8·2	0·2	9·3	0·7
122	Dindigul ...	R.C.	...	...	181,508	189,349	370,857	12,018	32·4	3,433	3,244	6,677	105·8	1·6	0·1	5·6	0·5
123	Palni ...	R.C.	...	...	86,086	92,024	178,110	5,704	32·0	2,031	1,960	3,991	103·6	2·2	0·4	3·7	0·4
124	Settinandal villages, &c.	R.C.	...	...	587	696	1,283	36	28·0	21	21	42	100·0	...	...	14·8	...
15	Total District ...		5,024	313·1	767,466	805,852	1,573,318	45,226	28·7	17,169	16,153	33,322	106·3	3·5	0·2	5·8	0·8

9							10			11	12	13			14
of population from							Mean ratio of deaths per 1,000 during previous five years.					Principal sanitary defects of circle.			Measures taken for sanitary improvement of circle.
Injuries.	All other causes.	All causes.					All causes.			Net receipt of each circle from conservancy.	Net expenditure in each circle on conservancy.	*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	4·2	30·1	28·3	29·2	21·9	25·9	26·0			.....	.....	.....	Scarcity is felt in some of the villages during hot weather.	In non-conserved villages house owners are held responsible for the cleanliness of street and they are expected to remove their rubbish to fields.	.....
0·5	5·5	30·8	29·9	30·3	32·0	32·1	32·1			.....	.....	Chiefly natural ...	No special arrangements for the preservation of water-supply.	Most of the villages require a good sanitary staff.	.....
0·4	4·6	29·0	29·6	29·3	30·8	29·7	30·3			.....	.....	In some of the villages drainage is natural. The drainage of Nandyal and Paniem empty into one of the sources of water-supply.	Scarcity is felt in Yerramalu plateau during hot weather. The tanks are subject to pollution being surface fed.	Latrines are required in some of the most important villages, where people resort to fields and waste lands.	.....
0·3	5·9	28·9	28·9	28·9	28·9	29·2	29·0			.....	.....	Natural. The Masoury drain in Koilkuntla and Owk are not kept in good repair.	Wells in some of the villages have no parapet walls though watchmen are employed to prevent pollution.	The taluk is backward in conservancy.	.....
0·4	6·0	32·4	33·7	33·0	32·3	31·1	31·7			.....	.....	Natural	The wells are not properly protected by parapet walls or drains. The villagers guard them from pollution.	There is a great scarcity for latrines in the circle. More latrines and large staff are required.	.....
0·4	1·6	19·8	18·6	19·1	25·7	23·8	24·8			.....	.....	Natural	The water of the Cumbum tank was found on analysis to be suspicious.	In some of the villages people themselves clean the houses. Cattle live with the owners and heaps of manure are stored in the vicinity of villages.	.....
0·4	1·3	21·0	18·4	19·7	24·6	23·3	23·9			.....	.....	Natural. Drainage in some villages run into cess-pools, but the latter are not cleaned as often as it should be.	Many of the wells need repair urgently.	More latrines are required in two villages.	.....
0·4	4·0	26·5	25·8	26·2	27·6	26·9	27·3			.....	.....				
0·4	17·1	36·6	37·1	36·9	42·4	44·5	43·4			9,316 0 0	2,27,176 0 0	...	.....	.....	.....
0·3	18·7	32·1	33·1	32·6	28·8	29·6	29·2			.....	17,808 0 0	Extremely unsatisfactory.	.....	Many more latrines are required.	... ...
0·7	16·3	25·3	21·8	23·5	24·4	21·0	22·7			179 9 0	4,319 8 9	Defective	Defective	.....	.....
0·4	16·1	41·7	36·0	38·7	32·8	28·2	30·0			265 7 3	2,897 2 2	No system. All the cess-pools are not cleaned daily for want of sufficient number of cess-pool carts.	The river which is the main source of drinking water-supply is polluted in many ways. The surroundings of wells are not kept clean. Some of the wells require parapet walls, &c.	None of the latrines are constructed on approved plans.	None of the drinking water well was provided with parapet walls, &c.
0·6	16·2	28·7	21·9	25·1	30·6	25·3	30·2			149 1 0	2,029 7 0	.....	.....	.....	.....
0·4	11·0	17·6	12·7	15·0	23·8	17·8	20·7			.....	.....	Natural. In some places people allow their house drains to flow into the streets.	Water from rivers undergo pollution in every possible way. Wells in some places are not provided with parapet walls. Tanks in the eastern side of the district contain muddy water which is cleared by the use of strychimos nut. Scarcity of water is felt in some of the unions.	More latrines are required. In some of the Unions and Taluk Boards sweepings are used for filling up pits and repairing streets.	Some of the tanks and wells were repaired and provided with parapet walls, &c. Orders have been issued by the Collector for preserving streams for drinking purposes.
0·9	6·3	35·7	25·9	30·2	19·6	17·1	18·3			.....	.....				
0·1	4·0	11·8	12·7	12·3	33·7	30·7	32·1			.....	.....				
...	1·8	7·5	6·5	7·0	16·1	10·9	13·5			.....	.....				
0·4	8·6	22·2	20·2	21·2	18·7	18·0	18·3			.....	.....				
0·3	1·4	18·8	17·5	18·1	20·5	17·7	19·0			.....	.....				
0·3	8·0	18·9	17·5	18·2	17·2	15·9	16·5			.....	.....				
0·3	6·6	27·8	22·8	25·3	19·7	17·0	18·3			.....	.....				
0·3	9·7	18·9	17·1	18·0	21·0	18·1	20·0			.....	.....				
0·5	15·1	23·6	21·3	22·4	24·6	21·2	22·9			.....	.....				
0·6	17·9	35·8	30·2	32·7	20·4	17·2	18·7			.....	.....				
0·4	10·5	22·4	20·0	21·2	21·0	18·9	20·0			.....	.....				

No. II.—*Statement of births and deaths registered in each town and rural circle of the Madras together with the principal sanitary defects of each circle, and*

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.
	MALABAR.															
125	Tellicherry ... M.T.C.	...	...	13,100	13,531	26,631	881	33·1	296	254	550	116·5	...	0·1	4·7	2·2
126	Calicut ... M.T.C.	...	...	33,841	30,957	64,798	2,224	34·3	822	819	1,641	100·4	2·1	0·2	3·0	2·8
127	Palghat ... M.T.C.	...	...	19,070	20,297	39,367	1,329	33·7	488	520	1,008	93·9	1·0	0·3	5·9	2·2
128	Cochin ... M.T.C.	...	...	8,656	7,491	16,147	567	35·1	324	320	644	101·2	13·5	0·6	3·3	3·4
129	Cannanore ... M.T.C.	...	...	12,885	13,768	26,653	1,077	40·4	460	370	830	124·3	3·2	...	8·6	3·2
130	Chirakkal ... R.C.	...	...	138,433	145,038	283,471	6,376	22·5	2,469	2,162	4,571	111·4	0·1	3·5	7·5	0·5
131	Kottayam ... R.C.	...	...	82,593	85,667	168,260	3,894	23·1	1,301	1,216	2,517	107·0	0·04	0·3	9·8	0·4
132	Kurumbaranat. R.C.	...	...	151,160	152,851	304,011	5,620	18·5	1,864	1,592	3,456	117·0	0·03	1·5	7·7	0·4
133	Calicut ... R.C.	...	...	84,731	86,851	171,582	3,441	20·0	1,174	955	2,129	123·0	0·3	0·3	7·7	0·4
134	Ernad ... R.C.	...	...	163,699	169,488	333,187	8,281	24·4	2,784	2,303	5,087	120·9	0·3	0·1	6·4	0·7
135	Ponnáni ... R.C.	...	...	222,587	226,666	449,253	8,790	19·6	3,585	3,200	6,785	112·0	0·7	3·3	3·3	1·8
136	Walavanad ... R.C.	...	...	163,996	168,338	332,334	7,655	23·0	2,717	2,384	5,101	113·9	0·3	0·4	7·0	1·7
137	Palghat ... R.C.	...	...	160,645	171,982	332,627	6,638	19·9	2,480	2,144	4,624	115·6	0·2	0·8	7·0	0·6
138	Wynaad ... R.C.	...	...	42,514	33,851	76,365	1,469	19·2	827	618	1,445	133·8	...	1·5	16·0	0·7
139	Cochin ... R.C.	...	...	2,872	3,116	5,988	160	26·7	73	55	128	132·7	0·3	0·2	2·3	3·3
15	Total District ...	5,585	472·1	1,306,782	1,329,892	2,636,674	58,412	22·1	21,604	18,912	40,516	114·2	0·4	1·3	6·9	1·2
	NELLORE.															
140	Nellore ... ... M.T.C.	...	...	14,200	14,928	29,128	904	31·0	335	270	605	124·1	0·03	0·3	6·9	0·3
141	Ongole ... M.T.C.	...	...	5,421	5,411	10,832	331	30·5	137	131	268	104·6	...	0·1	6·1	0·8
142	Gudur ... ... R.C.	...	...	59,035	57,723	116,758	2,052	17·6	760	723	1,483	105·1	...	0·1	6·8	0·3
143	Rapur ... ... R.C.	...	...	31,209	30,056	61,265	1,972	32·2	632	670	1,502	94·3	...	0·1	9·8	0·3
144	Nellore ... R.C.	...	...	84,021	84,527	168,548	3,124	18·5	1,224	1,101	2,325	111·1	0·04	0·06	6·8	0·1
145	Atmakúru ... R.C.	...	...	48,803	47,546	96,349	2,807	29·1	1,019	918	1,937	111·0	...	0·1	11·8	0·3
146	Kávali ... ... R.C.	...	...	34,179	34,697	68,876	1,835	26·6	565	585	1,150	96·6	0·4	0·03	8·1	0·3
147	Udayagiri ... R.C.	...	...	28,166	27,216	55,382	1,677	30·3	522	544	1,066	96·0	...	0·02	9·4	0·4
148	Kandukúr ... R.C.	...	...	56,478	56,879	113,357	3,411	30·1	1,150	1,079	2,229	106·6	0·07	0·1	11·2	0·4
149	Kanigiri ... R.C.	...	...	31,013	30,053	61,066	1,541	25·2	494	475	969	104·0	...	0·02	8·8	0·3
150	Ongole ... R.C.	...	...	83,284	83,695	166,979	4,700	28·1	1,576	1,490	3,066	101·7	0·1	0·1	8·5	0·6
151	Zemindaries	...	...	260,585	254,192	514,777	11,677	22·7	2,939	4,066	8,005	96·9	0·04	0·03	8·5	0·3
12	Total District ...	8,765	166·9	736,394	726,963	1,463,357	36,031	24·6	12,293	12,052	24,345	102·0	0·1	0·1	8·6	0·3

Presidency and the receipts and expenditure in each circle from and on conservancy, the measures taken to remedy them for the year 1894—continued.

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 from conservancy.	Net expenditure in each circle on 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.				
0·3	13·3	22·6	18·8	20·6		23·4	22·3	22·8	1,754 1 6	6,556 2 7	Natural. Cess-pools exist which are mere pits. They are filled up as necessity arises and others opened.	.....	.....	.....
0·3	16·9	24·3	26·4	25·3		33·9	36·6	35·4	977 2 0	6,415 6 7	No system	Most of the wells are unprovided with parapet walls, platforms, drains, &c. The surroundings of wells in Maqlah parts of the town are unsatisfactory.	Arrangement for the disposal of refuse, street sweepings, and night-soil is still unsatisfactory. The number of latrines, dust-bins, sweepers and toties should be increased.	Six public latrines were constructed. A scheme for supplying part of the town with water is before the council.
0·1	16·1	25·6	25·6	25·6		27·4	26·5	26·9	1,216 11 0	7,479 5 6	Defective. In parts of the town. Side channels are dry immediately before the monsoon which become closed immediately after one or two heavy showers.	.....	.....	The drainage scheme prepared by the Sanitary Engineer is postponed *sine die*.
0·3	18·7	37·4	42·7	39·8		33·9	38·0	35·9	615 0 0	4,024 0 0	No system	Bad. The surroundings of surface tanks are unsatisfactory. No wells or tanks set apart for drinking.	.....	The tanks being in private gardens the municipality could not take any steps.
0·04	16·0	35·7	26·9	31·1		25·2	20·6	22·9	.....	4,356 4 9	In the old town there are no proper and well-laid out drains. There are also several cess-pools here which are used to some extent as latrines.	Some of the wells in the compounds of private houses are in the vicinity of rubbish and ash pits.	All the movable latrines are a little out of repair owing to exposure to sun and rain.	The municipality often had to stop the owner from keeping rubbish in backyards. Three latrines were repaired.
0·3	4·2	17·4	14·9	16·1		18·4	15·6	17·0	.....	.....	No regular system. Drainage of houses either escapes into backyards where it soaks in the ground or runs into cess-pools.	Water originally good and abundant is mostly polluted, wells being in most cases entirely unprotected. Public wells need masonry parapet walls, platforms, drains, yoke and pulley.	Refuse of non-conserved villages is stored in backyards and removed to fields to be used as manure. The arrangements for the conservancy of the district are utterly inadequate. The number of latrines, dust-bins should be greatly increased.	The houses being for the most part scattered and not collected into towns and villages, the formation of a regular system of drainage is rendered difficult. Some wells, dust-bins and latrines were repaired.
0·3	4·1	15·8	14·2	14·9		15·9	13·9	14·9	.....	.....				
0·2	1·6	12·3	10·4	11·4		13·3	11·8	12·6	.....	.....				
0·2	4·5	13·9	11·6	12·4		20·1	17·1	18·6	.....	.....				
0·2	4·9	16·4	13·6	15·0		21·3	18·2	19·8	.....	.....				
0·3	5·9	16·1	14·1	15·1		19·8	17·2	18·5	.....	.....				
0·4	5·5	16·6	14·2	15·3		19·5	15·8	17·6	.....	.....				
0·3	5·0	15·4	12·5	13·9		19·7	16·0	17·8	.....	.....				
0·1	0·6	19·4	18·3	18·9		25·0	21·6	23·5	.....	.....				
0·3	14·9	25·4	17·6	21·3		24·0	22·1	22·7	.....	.....				
0·3	5·3	16·5	14·2	15·4		19·7	16·9	18·6	.....	.....				
0·3	13·0	23·6	18·1	20·8		25·3	19·8	22·5	1,321 0 0	5,103 0 0	Very defective, the drains being old fashioned and of incorrect levels. There are some cess-pools, the contents of which are never emptied.	Unsatisfactory ...	.....	Levels were taken and rough estimates prepared by the Sanitary Engineering Department for the water-supply and drainage of the town, but for want of funds nothing further was done.
0·8	16·8	25·2	24·2	24·7		24·3	19·9	22·1	409 8 0	2,026 13 1	Defective	Unsatisfactory ...	.....	.....
0·2	5·3	12·9	12·5	12·7		11·1	11·4	11·3	.....	.....	No proper drainage system anywhere in the district.	In most places no wells, &c., are specially set apart for drinking purposes nor is any care taken to prevent pollution.	In non-union villages refuse of all kinds is stored in backyards and when required taken to fields for manure. Latrines, dust-bins and scavengers are required in some of the villages.	Provision has been made in the budget for 1895–96 for the appointment of a watcher and scavengers and construction of some latrines. Some wells were repaired and others constructed.
0·3	10·7	20·2	22·2	21·2		22·1	22·8	22·5	.....	.....				
0·2	6·5	14·6	13·0	13·8		13·4	12·5	13·0	.....	.....				
0·3	7·6	20·9	19·3	20·1		19·6	18·8	19·2	.....	.....				
0·3	7·6	16·5	16·9	16·7		14·9	14·3	14·6	.....	.....				
0·2	9·2	18·5	19·9	19·2		10·4	10·8	10·6	.....	.....				
0·3	7·6	20·4	18·9	19·7		15·4	14·4	14·9	.....	.....				
0·3	6·5	15·9	15·8	15·9		7·8	7·8	7·8	.....	.....				
0·2	8·5	18·2	17·8	18·0		15·2	14·3	14·7	.....	.....				
0·2	6·5	15·1	16·0	15·6		23·1	23·5	23·3	.....	.....				
0·2	7·4	16·7	16·6	16·7		16·0	15·6	15·8	.....	.....				

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* 1894—continued.

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.
	NILGIRIS.															
152	Ootacamund ... M.T.C.	...	...	7,450	6,541	13,991	430	30·7	178	179	357	99·4	0·07	...	7·8	2·7
153	Coonoor ... M.T.C.	...	...	3,005	2,581	5,586	202	36·1	90	74	164	121·6	0·7	...	8·8	5·7
154	Nilgiris ... R.C.	...	...	28,027	24,141	52,168	1,785	34·2	648	581	1,229	111·5	0·5	0·2	20·8	0·4
155	South-East Wynaad R.C.	...	...	16,003	9,017	25,020	453	18·1	289	246	535	117·5	...	0·04	15·2	1·9
4	Total District ...	957	101·1	54,485	42,280	96,765	2,870	29·7	1,205	1,080	2,285	111·6	0·3	0·1	16·9	1·4
	NORTH ARCOT.															
156	Vellore ... M.T.C.	...	...	21,188	23,536	44,724	1,588	35·5	548	587	1,135	93·3	3·3	0·2	8·3	2·7
157	Wallajapet ... M.T.C.	...	...	4,943	5,542	10,485	364	34·7	108	140	248	77·1	1·2	...	10·6	2·3
158	Gudiyattam ... M.T.C.	...	...	9,224	9,521	18,745	502	26·8	207	183	390	113·1	1·8	0·05	10·3	1·8
159	Tirupati ... M.T.C.	...	...	6,872	7,366	14,238	447	31·4	234	215	449	106·8	1·2	0·6	10·0	2·5

* Receipts from sale of sweepings, &c., and fees for the private scavenging service in the first 8 months of 1894-95.
† Figures for 1893-94.

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 from conservancy.	Net expenditure in each circle on 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.				
0·3	14·6	23·7	27·3	25·5	21·8	22·0	21·9	*4,973 2 0		17,564 10 8	The main intercepting sewers intended to carry off sewages and prevent its discharge into the lake fails in its object owing to a defect in it. The sewer also cannot be properly cleansed, the main holes provided being too small.	The catchment area of both Marlimund and Dodabetta reservoirs is open to contamination. The water-supply of Kodapanund is extremely defective.	Natives do not keep the enclosures of their houses clean.	The council have provided a sum of Rs. 20,000 in the budget for 1895-96 for executing an approved water-supply scheme for the village of Kodapanund and for extending the Sultan pettah and Marlimund supply to Bandyshola and the Dodabetta to the houses in the Coonoor road. To partially remedy these deffects a plan and an estimate has been approved by the Sanitary Engineers.
0·2	14·0	30·0	28·7	29·4	33·6	29·0	31·5	†3,282 5 9		†6,507 10 8	.....	The channels which distribute water to bungalows, hotels, and bazaars are open to pollution. In the lower part of Coonoor there are two shallow wells fed by percolation and open to pollution.	More latrines are required.	Two latrines were constructed.
0·1	1·5	23·1	24·0	23·5	21·0	20·7	20·8	.....		.....	.....	At Gudalur the town water-supply is defective.	More latrines are required in Kotagiri and in Badaga villages. At Masanagudy cattle are kept too close to houses, and manure is too strongly in evidence on all sides.	.....	.....
0·2	4·1	18·6	27·3	21·4	18·2	22·6	20·8	.....		.....	.....	.....	.....	.....	.....
0·1	4·8	22·1	25·5	23·6	21·0	21·7	21·3	.....		.....					
0·2	10·7	25·9	24·9	25·4	26·3	23·0	24·0	814 6 0		12,605 8 1	Defective. House drains frequently flows into the street and produce dirty stagnant pools. Cess-pools are rarely cleaned and their contents soak into the soil.	The Suriyagunta which is fed by surface water is considerably contaminated before it reaches the tank.	Condition of backyards is very bad, cattle being kept in them and manure heaped up. More latrines and carts are required.	Two latrines were constructed and a few others repaired. The V shaped drains now being built are as far as practicable constructed according to Mr. Oldham's scheme. The scheme for water-supply had to be abandoned for want of funds.
0·2	9·4	21·8	25·3	23·7	33·4	30·0	30·5	284 12 0		1,705 12 9	Defective	Is much contaminated and not of good quality.	Carts are required for the satisfactory working of the private scavengering system.	Some improvements to water-supply were effected. Provision has been made in the next budget for the repair of drains.
0·05	6·9	22·4	19·2	20·8	26·6	24·9	25·7	258 6 9		†3,298 7 9	No system. Houses are ill-provided with drains.	The river water is somewhat contaminated.	The public latrines are not always kept clean. The contract system by which night-soil is removed does not produce the desired effect.	
0·8	16·4	34·0	29·9	31·5	30·6	25·5	27·9	600 0 0		3,380 0 0	Defective. Drainage of houses flows into streets or backyards. There are 300 cess-pools which are seldom cleaned.	Tank water undergoes contamination, washing and bathing being allowed. A tank is fed by a channel which is open to pollution. Nuisances are committed sometimes near tanks and wells.	There are eleven latrines, tatty enclosures, more or less in a dilapidated condition.	.....

No. II.—*Statement of births and deaths registered in each town and rural circle of the Madras*
together with the principal sanitary defects of each circle, and

1	2		3	4	5			6		7			8	Deaths per 1,000			
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.	Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.
					Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.					
	NORTH ARCOT—*cont.*																
160	Kálahasti ...	T.C.	...	...	5,518	6,197	11,715	144	12·3	68	89	157	76·4	0·1	...	6·6	0·5
161	Arcot ...	T.C.	...	...	5,269	5,659	10,928	299	27·4	145	161	306	90·0	5·5	...	1·0	0·2
162	Ambúr ...	T.C.	...	...	4,973	5,610	10,583	101	9·5	89	85	174	104·7	10·6	...	5·2	...
163	Chittoor ...	R.C.	...	...	101,338	98,248	200,186	4,874	24·3	1,501	1,462	2,963	102·7	0·1	0·4	8·3	0·3
164	Chendragiri	R.C.	...	...	51,507	48,523	100,030	2,136	21·3	682	683	1,365	99·8	1·2	0·1	5·2	0·5
165	Palmanér ...	R.C.	...	...	24,271	23,860	48,131	908	18·8	311	320	631	97·2	0·04	0·2	7·6	0·4
166	Gudiyáttam	R.C.	...	...	78,547	79,316	157,863	4,188	26·5	1,325	1,167	2,492	113·5	3·1	0·4	8·3	0·5
167	Vellore ...	R.C.	...	...	68,729	68,638	137,367	4,065	29·6	1,143	1,097	2,240	104·2	2·3	0·2	8·3	0·5
168	Polur ...	R.C.	...	...	69,371	70,326	139,697	4,636	33·2	1,269	1,301	2,570	97·5	0·7	0·3	6·4	0·9
169	Wandiwash	R.C.	...	...	88,932	88,787	177,719	5,656	31·8	1,544	1,559	3,103	99·0	0·5	0·3	2·5	0·6
170	Arcot ...	R.C.	...	...	82,190	83,758	165,948	5,545	33·4	1,514	1,458	2,972	103·8	1·3	0·3	2·6	0·5
171	Walajápet ...	R.C.	...	...	114,741	113,889	228,630	6,031	26·3	1,935	1,881	3,816	102·9	1·0	0·1	4·0	0·7
172	Zemindaries		...	...	322,060	314,536	636,596*	18,831	29·6	5,217	5,344	10,561	97·6	0·4	0·2	9·4	0·5
17	Total District ...		7,616	286·2	1,060,273	1,053,312	2,113,585	60,315	28·5	17,840	17,732	35,572	100·6	1·0	0·3	7·0	0·6
	SALEM.																
173	Salem ...	M.T.C.	...	...	32,828	34,812	67,640	2,523	37·3	811	840	1,651	96·5	1·8	0·04	8·5	1·0
174	Vániyambádi	M.T.C.	...	...	6,988	8,850	15,838	789	49·8	207	209	416	99·0	1·6	...	12·0	0·8
175	Tiruppattúr	M.T.C.	...	...	7,721	8,742	16,463	694	42·1	229	231	460	99·1	1·9	...	10·7	2·1
176	Sendamangalam	T.C.	...	...	6,416	6,938	13,354	162	12·1	50	62	112	80·6	0·3	...	1·3	...
177	Rásipuram ...	T.C.	...	...	5,119	5,420	10,539	307	29·1	61	42	103	145·2	0·1	...	0·1	...
178	Salem ...	R.C.	...	...	166,338	172,421	338,759	11,436	33·7	2,869	2,657	5,526	108·0	0·6	0·3	6·2	0·6
179	Atur ...	R.C.	...	...	89,211	93,991	183,202	5,557	30·3	1,835	1,697	3,532	108·1	2·5	0·4	9·4	0·5
180	Námakkal ...	R.C.	...	...	138,698	147,988	286,686	8,384	29·2	2,742	2,622	5,364	104·6	1·6	0·2	6·3	0·3
181	Tiruchengódu	R.C.	...	...	123,072	125,595	248,667	8,510	34·2	2,265	2,158	4,413	104·5	1·7	0·1	7·9	0·4
182	Hosúr ...	R.C.	...	...	76,954	78,739	155,693	5,000	32·1	1,191	1,196	2,387	99·6	...	0·3	6·0	0·3
183	Krishnagiri	R.C.	...	...	75,399	76,717	152,116	4,704	30·9	1,135	1,141	2,276	99·5	0·5	0·4	5·9	0·6
184	Dharmapuri	R.C.	...	...	87,559	90,861	178,420	6,781	36·9	1,674	1,592	3,266	105·1	0·8	0·3	5·4	1·0
185	Tiruppattúr	R.C.	...	...	77,067	79,228	156,295	4,695	30·0	1,306	1,304	2,610	100·1	0·8	0·1	9·0	0·3
186	Uttankarai	R.C.	...	...	67,829	70,283	138,112	4,115	29·8	1,264	1,202	2,466	105·1	0·6	0·3	8·5	0·3
14	Total District ...		7,5·9	260·6	961,199	1,000,585	1,961,784	63,457	32·3	17,629	16,953	34,582	104·0	1·1	0·2	7·1	0·5
	SOUTH ARCOT.																
187	Cuddalore ...	M.T.C.	...	...	23,026	23,999	47,025	1,425	30·3	518	478	996	108·3	2·0	0·6	3·8	2·1
188	Chidambaram	M.T.C.	...	...	9,077	9,557	18,634	532	28·5	306	280	586	109·2	5·1	0·2	10·6	2·0
189	Porto Novo ...	T.C.	...	...	6,179	7,866	14,045	136	9·7	74	92	166	80·4	1·4	0·2	1·8	0·07
190	Tiruvannámalai	T.C.	...	...	5,970	6,178	12,148	180	14·8	108	86	194	125·6	6·8	..	4·5	0·2
191	Cuddalore ...	R.C.	...	...	145,706	144,202	289,908	7,252	25·0	3,520	3,165	6,685	111·2	2·0	1·0	5·4	0·6
192	Villupuram ...	R.C.	...	...	151,872	149,818	301,690	10,101	33·5	3,912	3,695	7,607	105·8	1·1	1·1	5·2	0·6
193	Chidambaram	R.C.	...	...	123,014	126,555	249,569	6,822	27·3	3,508	3,392	6,960	105·2	6·0	0·7	5·6	0·5
194	Tindivanam	R.C.	...	...	159,076	156,918	315,994	10,262	32·5	3,485	3,210	6,695	108·6	0·7	0·4	4·5	1·2
195	Kallakurchi	R.C.	...	...	119,209	120,970	240,179	6,259	26·1	2,336	2,189	4,525	106·7	1·3	0·3	11·8	0·3
196	Tirukkóyilúr	R.C.	...	...	128,831	128,284	257,115	8,688	33·8	3,467	3,415	6,882	101·5	2·2	0·5	7·6	0·4
197	Tiruvannámalai	R.C.	...	...	97,284	95,954	193,238	6,227	32·2	1,823	1,687	3,510	108·0	1·2	0·5	9·7	1·0
198	Vriddhachalam	R.C.	...	...	109,611	113,180	222,791	5,543	24·9	2,621	2,600	5,221	100·8	1·8	0·6	9·2	0·4
12	Total District ...		5,217	414·5	1,078,855	1,083,481	2,162,336	63,427	29·3	25,738	24,289	50,027	106·0	2·0	0·6	7·0	0·7

* Excludes 66,000, the population of 137 villages transferred to the Chingleput District.

Presidency and the receipts and expenditure in each circle from and on conservancy, the measures taken to remedy them for the year 1894—continued.

9									10			11	12	13			14
of population from									Mean ratio of deaths per 1,000 during previous five years.			Net receipt of each circle from conservancy.	Net expenditure in each circle on conservancy.	Principal sanitary defects of circle.			Measures taken for sanitary improvement of circle.
			All causes.											*a*	*b*	*c*	
Injuries.	All other causes.		Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.			In drainage.	In water-supply.	In domestic cleansing and conservancy.	
												Rs. A. P.	Rs. A. P.				
0·4	5·8	12·3	14·4	13·4	14·9	12·9	13·9							There are no drains properly so called. Rough masonry drains exist in some towns, but they are defective in construction. Every house has a cesspool, but it is seldom or never cleaned.	As a rule is not of good quality and in almost all cases is contaminated. Bodies are buried in the banks of rivers or buried on the banks. Washing and bathing is allowed in tanks. Well-water is unfit for use on account of soakage of sewage. The channel which feeds many of the tanks are polluted.	In some large towns and smaller villages where there are no conservancy establishment, rubbish is thrown in heaps in backyards of houses and removed to fields when required for manure. The number of existing latrines is not sufficient for the requirements of the population. Nuisances are committed in streets, on river beds and an banks of rivers and the surroundings of latrines.	V shaped drains and latrines were constructed in some places and improvements to water-supply effected in others.
0·1	21·2	27·5	28·5	28·0	29·2	26·8	28·0										
0·4	0·2	17·8	15·1	16·4	9·6	8·0	8·8										
0·5	5·2	14·7	14·8	14·8	17·7	17·8	17·7										
0·5	6·1	13·2	14·0	13·6	16·4	16·1	16·3										
0·2	4·6	12·8	13·4	13·1	16·7	17·5	17·1										
0·4	3·1	16·9	14·7	15·8	17·9	16·4	17·1					.....	.....				
0·3	4·7	16·6	16·0	16·3	19·5	18·1	18·8										
0·3	9·8	18·3	18·5	18·4	21·7	20·1	20·9										
0·5	13·1	17·4	17·6	17·5	20·9	20·3	20·6										
0·4	11·8	18·4	17·4	17·9	22·3	21·5	21·9										
0·3	10·6	16·9	16·5	16·7	19·9	19·0	19·4										
0·5	5·6	16·2	17·0	16·6	17·5	17·8	17·7										
0·4	7·5	16·8	16·8	16·8	19·1	18·6	18·8										
0·1	12·9	24·7	24·1	24·4	26·2	23·2	24·7					873 10 6	19,664 1 10	No system. Badly constructed cesspools exist. They are not systematically cleaned.	Unsatisfactory. River water which is used for drinking is polluted by bathing and washing.	.....	The drainage and water-supply schemes are under the consideration of the Council.
0·2	11·7	29·6	23·6	26·3	37·2	30·3	33·3					153 5 6	2,699 10 11	No system. Cesspools which are mere holes in the ground are never cleaned.	The river water is fouled by the burial of bodies and the accumulation of filth in its vicinity.	.....	.....
·5	12·7	29·6	26·4	27·9	30·4	25·9	28·0					519 1 0	3,500 13 4	Some of the side drains are covered with stone slabs. Sewage soaks in the soil, and little if any is carried away from the town.	Many of the private wells are in close to proximity to cesspools.	An old temple car blocks one street. Holes dug to obtain material for building purposes become receptacles for rubbish and prove a nuisance.	.....
0·7	6·1	7·8	8·9	8·4	9·8	9·4	9·6							No system. Proper house drains are very rare. They are not properly constructed, but allow the sewage to soak into the soil.	Step wells exist which are from their nature liable to pollution.	The latrines in Sankaridrug and Sendamangalam are in a state of ruin. They are not properly scavenged. Most of the villages have no proper night-soil depots. In some places filth is thrown on any convenient spot away from houses.	.....
0·2	9·4	11·9	7·7	9·8	14·8	14·6	14·7										
0·4	8·2	17·2	15·4	16·3	18·0	16·6	17·3										
0·3	6·2	20·5	18·0	19·3	21·1	19·6	20·3										
0·4	9·9	20·0	17·7	18·7	19·0	17·6	18·3										
0·5	7·1	18·3	17·2	17·7	19·0	17·5	18·2					.....	.....				
0·3	8·4	15·3	15·3	15·3	20·1	19·5	19·8										
0·3	7·2	15·0	14·9	14·9	17·5	16·7	17·1										
0·4	10·4	19·1	17·5	18·3	18·0	16·2	17·1										
0·3	6·1	16·9	16·3	16·6	22·1	22·1	22·1										
0·3	7·8	18·6	17·1	17·8	24·3	21·7	23·0										
0·4	8·3	18·3	16·9	17·6	19·9	18·5	19·2										
0·2	12·5	22·5	19·9	21·2	19·7	18·9	19·3					.....	7,770 0 0	No system	Some of the public wells are in bad condition. Surrounding of private wells are bad. They have neither parapet walls, platforms or drains and with filthy backyards everything drains into them.	.....	Both the drainage and water-supply scheme are under the consideration of the Sanitary Engineer.
0·4	13·1	33·7	29·3	31·4	30·3	29·9	30·1					216 2 8	4,407 0 2	No system	Tank water is generally unreliable and unsafe.	The latrines in this town are not freely used by the people.	.....
0·2	8·2	11·9	11·7	11·8	16·8	16·4	16·6							No system anywhere in the district. In some villages there are dirty pools in front of houses or alongside of streets into which refuse water drains.	.....	Refuse is generally allowed to accumulate in backyards and periodically removed to fields. There are no latrines in the district except at Panruti and Tirukoilur.	.....
0·6	3·9	18·1	13·9	16·0	15·6	11·3	13·4										
0·2	13·8	24·3	21·9	23·0	21·8	20·2	21·0										
0·4	16·8	25·8	24·7	25·2	25·1	23·4	24·2										
0·2	14·9	29·0	26·8	27·9	27·2	25·1	26·1					.....	.....				
0·6	13·7	21·9	20·4	21·1	22·4	21·1	21·8										
0·3	4·8	19·6	18·1	18·8	19·2	18·0	18·6										
0·4	15·7	26·9	26·6	26·8	25·9	24·1	25·0										
0·5	5·2	18·7	17·6	18·1	20·3	19·0	19·6										
0·3	11·1	23·9	22·9	23·4	22·8	20·9	21·8										
0·4	12·4	23·8	22·4	23·1	23·0	21·4	22·2										

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* 1894—continued.

1	2	3	4	5			6		7			8	Deaths per 1,000			
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.				
				Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.		Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.
	SOUTH CANARA.															
199	Mangalore ... M.T.C.	...	...	21,168	19,452	40,620	1,336	32·9	558	541	1,099	103·1	...	...	7·9	3·5
200	Mangalore ... R.C.	...	...	115,802	122,172	237,974	7,834	32·9	2,313	2,111	4,424	109·6	0·2		6·9	0·8
201	Kasaragod ... R.C.	...	...	137,596	143,059	280,655	9,219	32·8	2,416	2,270	4,686	106·4	0·2	0·1	6·9	1·2
202	Uppinangadi R.C.	...	...	60,612	58,192	118,804	4,336	36·5	1,861	1,830	3,691	101·7	0·2	0·3	6·0	1·2
203	Udipi ... R.C.	...	...	118,714	134,985	253,699	8,601	33·6	2,746	2,611	5,357	105·2	0·03	0·2	14·6	1·6
204	Kundapur ... R.C.	...	...	55,078	65,172	120,250	3,718	30·9	1,622	1,643	3,265	98·7	...	0·1	16·7	1·8
6	Total District ...	3,902	269·6	508,970	543,032	1,052,002	35,044	33·3	11,516	11,006	22,522	104·6	0·1	0·2	9·0	1·3
	TANJORE.															
205	Tanjore ... M.T.C.	...	...	25,870	28,388	54,258	1,512	27·8	713	746	1,459	95·6	4·1	0·3	4·4	7·1
206	Kumbakónam M.T.C.	...	...	26,440	27,814	54,254	1,586	29·2	1,023	1,011	2,034	101·1	6·5	0·2	7·1	3·7
207	Máyavaram M.T.C.	...	...	11,526	12,228	23,754	708	29·8	398	374	772	106·4	3·8	0·2	6·9	3·7
208	Negapatam ... M.T.C.	...	...	26,668	31,905	58,573	1,887	32·2	1,070	1,187	2,257	90·0	3·5	0·3	8·1	4·5
209	Mannárgudi M.T.C.	...	...	9,704	10,688	20,392	605	29·7	339	361	700	93·9	5·1	0·2	5·6	6·5

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 from conservancy.	Net expenditure in each circle on conservancy.	Principal sanitary defects of circle.			Measures taken for sanitary improvement of circle.
		All causes.											a	b	c	
Injuries.	All other causes.	Males.	Females.	Total.				Males.	Females.	Total.			In drainage.	In water-supply.	In domestic cleansing and conservancy.	
											RS. A. P.	RS. A. P.				
0·4	15·2	26·4	27·7	27·0				22·3	24·1	23·7	2,200 0 0	7,900 0 0	Many of the large drains which are mere water courses in monsoon have pools of stagnant water in their beds.	The surroundings of some of the wells are bad; hence water is suspicious.	.....	.....
0·6	10·1	19·9	17·2	18·6				18·6	16·5	17·5			Natural	During hot weather people in some of the villages resort to streams and rivers which are polluted by a variety of impurities and as result are subject to fever, &c.	Conservancy establishment in towns and large villages require to be increased.	Many wells have been provided in important parts to obviate the difficulty as to scarcity of water. Want of conservancy establishment is being attended to as fast as the local funds will admit.
0·4	8·9	18·2	15·8	17·0				18·1	15·7	16·9						
0·6	13·8	30·7	31·4	31·0				26·3	24·9	25·6	...	...				
0·5	11·0	23·1	19·3	21·1				24·5	19·6	21·9						
0·5	7·9	29·4	25·2	27·1				30·6	23·8	26·9						
0·5	10·3	22·6	20·3	21·4				22·2	19·1	20·6						
0·3	10·7	27·5	26·3	26·9				30·9	28·3	29·5	646 8 0	8,901 2 11	Defective	.....	The removal of rubbish by contract system has many drawbacks. Many of the latrines are situated in place not easy of access hence people prefer secluded places. More latrines at suitable places in the fort are wanted.	.....
0·2	19·8	38·7	36·3	37·5				32·3	30·6	31·4	2,081 7 8	17,605 10 3	Want of street drainage system. Sewage and waste water from houses is allowed to soak in the ground in backyards or is run into roads. Many of the backyards consequently are in a filthy and dangerous condition. The condition of cess-pools is very unsatisfactory.	Deficient. The wells are not provided with drawing apparatus and are liable to contamination as people get upon the parapet walls to draw water. More wells are required.	The public latrines are with two exceptions too small and their number is insufficient. There are some urinals which are also used as latrines.	Some wells were sunk and a few latrines repaired. The council intend addressing the Sanitary Engineer to prepare a scheme for the water-supply.
0·3	17·6	34·5	30·6	32·5				30·3	27·6	28·9	322 9 6	4,537 11 0	Very defective ...	The drinking water tanks are not provided with proper embankments to prevent the surface drainage from the surrounding grounds which are not clean.	.....	.....
0·2	21·5	40·1	37·2	38·6				29·5	25·7	27·6	2,447 14 3	20,336 0 11	No system. Sewage from some of the houses either soaks in backyards or in ground close to buildings.	The surroundings of some of the wells amidst crowded portions of the towns are not good. The tanks are liable to contamination as they are not properly enclosed. The open channels that feed these tanks are fearfully contaminated.	A good deal of nuisance is committed around each latrine used by males particularly.	.....
0·3	16·6	34·9	33·8	34·3				30·0	24·8	27·3	222 15 0	4,153 4 9	Natural. Cess-pools sometimes overflow and consequently soakage of sewage in the vicinity of houses ensues.	The river and tank water subject to pollution. No special measures adopted to prevent them from pollution.	.....	It is proposed to reserve the river for drinking purposes and to sink of Norton's tube wells. Provision is made in the budget to erect a drain. Notice will be issued to make the existing cess-pools water-tight.

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* 1894—continued.

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 from conservancy.	Net expenditure in each circle on 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.						a	b	c	
																			Males.	Females.	Total.			In drainage.	In water-supply.	In domestic cleansing and conservancy.	
	TANJORE—*cont.*																					Rs. A. P.	Rs. A. P.				
210	Tiruválúr ... T.C.	...	...	6,063	6,871	12,934	274	21·2	176	169	345	104·1	3·5	...	2·8	0·6	0·4	19·4	29·0	24·5	26·7	20·4	17·9	19·0					
211	Tanjore ... R.C.	...	...	172,425	183,596	356,021	8,261	23·2	4,423	4,409	8,832	100·3	4·0	0·3	2·2	0·2	0·2	17·9	25·6	23·9	24·8	25·4	23·4	24·4					
212	Kumbakónam R.C.	...	...	156,320	167,030	323,350	8,471	26·2	5,101	5,085	10,186	100·3	9·2	0·4	1·8	0·2	0·1	19·4	32·6	30·4	31·3	30·1	28·3	29·3					
213	Máyavaram... R.C.	...	...	105,172	115,805	220,977	6,738	30·5	3,186	3,219	6,405	98·9	3·1	1·4	3·2	0·8	0·1	20·4	30·3	27·8	29·0	27·7	24·9	26·1					
214	Shiyali ... R.C.	...	...	57,586	62,215	119,801	3,601	30·0	1,670	1,621	3,291	103·0	3·4	1·7	2·7	0·3	0·2	19·2	29·6	26·0	27·5	26·1	24·0	25·1					
215	Nannilam ... R.C.	...	...	100,250	115,655	215,905	5,582	25·9	3,232	3,357	6,589	96·3	6·3	0·8	1·2	0·3	0·3	21·9	32·2	29·0	30·5	29·0	26·6	28·1					
216	Negapatam... R.C.	...	...	68,944	79,233	148,177	3,707	25·4	2,225	2,256	4,481	98·6	5·6	0·1	1·5	0·3	0·3	22·4	32·5	28·5	30·2	29·2	26·7	27·9					
217	Mannárgudi R.C.	...	...	87,800	92,493	180,293	4,275	23·7	2,068	2,044	4,112	101·2	3·0	0·2	1·7	0·2	0·3	18·4	24··	23·6	23·9	24·5	23·5	24·0					
218	Tiruttura'pundi R.C.	...	...	130,539	140,820	271,359	5,834	21·5	2,090	2,048	4,138	102·0	0·7	0·06	1·2	0·1	0·3	18·3	23·5	22·0	22·8	22·9	21·5	22·2					
219	Pattukkottai... R.C.	...	...														0·1	13·0	16·0	14·5	15·2	16·7	14·9	15·8					
15	Total District ...	3,709	600·4	1,065,450	1,161,631	2,227,081	57,106	25·6	29,653	29,935	59,588	99·0	4·5	0·4	2·3	0·7	0·2	18·6	27·8	25·7	26·7	26·1	24·5	25·0	...	...	There is no regular system of properly constructed drains in any town or village in this district. Proper masonry drains in the villages to carry off the fluid sewage matter to the fields are wanted.	With the exception of the union and conserved villages, elsewhere tank water is used both for bathing and drinking. Many of the tanks receive the surface drainage from the neighbouring villages and the river water is liable to pollution in various ways. The tank at Tiruválúr has not been cleaned for 30 years. The water in it is almost thick with filth of all sorts and emits at times a most offensive odour.	In non-conserved villages people make no attempt to remove the sweepings from the village. In some places the backyards were in a deplorably filthy insanitary condition. The system of giving rubbish to the contractor as part payment for supplying carts obtains. This is unsatisfactory as the contractor removes only such rubbish as he could sell with advantage to himself. Most of the latrines in the district are built in places not easy of access.	Endeavours are being made each year to remedy the defects.
	TINNEVELLY.																										
220	Tinnevelly ... M.T.C.	...	...	11,752	13,004	24,756	890	35·9	477	514	991	92·8	10·0	0·04	3·7	5·5	0·2	20·6	40·6	39·5	40·0	34·0	30·8	32·3	665 4 6	6,379 10 1	No system. The masonry drains that exist have no proper fall; hence sewage stagnates in many places and foul effluvia is given off.	The channel which is a source of water-supply receives the drainage of many private houses and latrines. Quantity insufficient.	Back-yards are generally in an insanitary condition, rubbish being stored for several months in pits or private latrines. Night-soil from public latrines is removed in open baskets which is objectionable.	Conservancy and latrine accommodation has been improved.
221	Palamcottah M.T.C.	...	...	8,808	9,804	18,612	563	30·2	272	239	511	114·0	3·4	0·9	3·6	2·3	0·2	17·0	30·9	24·4	27·4	29·5	25·0	27·1	1,473 2 8	2,944 10 5	No system	The channel which is the chief source of drinking water is subject to contamination throughout its course.	.....	The Sanitary Engineer proposes taking the preliminary survey for a joint water-supply scheme.
222	Tuticorin ... M.T.C.	...	...	13,624	11,340	24,964	673	26·9	424	355	779	119·4	1·3	0·1	10·1	4·5	0·2	15·0	31·1	31·3	31·2	27·4	29·9	28·6	692 12 0	6,379 0 0	No system	Scarcity of water is felt in the water. People resort to sandy topes to dig in the sand.	Prickly-pears is growing within the town limits and on the outskirts. The conservancy staff should be increased.	Water-supply scheme is under the re-consideration of Government.
223	Srivilliputtúr * ... T.C.	...	...	10,448	11,000	21,448	666	31·0	247	198	445	124·7	1·4	0·05	1·5	0·05	0·3	17·4	27·6	18·0	20·7	15·3	12·7	14·0	...	...	From two Teppakulams and about 100 wells, many of them badly requiring drains.	No system. Only some of the principal streets have side-cuttings, which are much obliterated, being not silted properly.	House sweepings are heaped up in backyards with other rubbish and cowdung. Refuse water is generally allowed to run out in streets or lanes; and in some cases received into cess-pools, of which there are only a few. Private grounds, corners, &c., are also found dirty with rubbish. People commit nuisances on tank bunds, in sides of streets, channel beds and in all available places. Only four latrines. They are not sufficient and their surroundings not clean. Conservancy of small lanes and alleys is not properly attended to. No private scavengering system.	.....

* This was constituted a municipality in the latter part of the year.

No. II.—*Statement of births and deaths registered in each town and rural circle of the Madras*
together with the principal sanitary defects of each circle, and

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.*															
224	KulasékarapatnamT. C.	...	...	7,012	8,898	15,910	482	30·3	250	217	467	115·3	0·7	0·5	12·2	0·4
225	Virudupatti ... T. C	...	..	6,547	7,528	14,075	232	16·5	101	72	173	140·3	1·8	0·1	3·8	1·3
226	Viravanallúr ... T. C.	...	...	6,504	7,447	13,951	244	17·5	151	137	288	110·2	4·7	0·1	0·8	...
227	Rajapollyam ... T. C.	...	...	6,607	6,694	13,301	602	45·2	88	92	180	95·6	0·4	...	0·1	...

Presidency and the receipts and expenditure in each circle from and on conservancy,
the measures taken to remedy them for the year 1894—continued.

9						10			11	12	13			14
Deaths per 1,000 of population from											Principal sanitary defects of circle.			
Injuries.	All other causes.	All causes.				Mean ratio of deaths per 1,000 during previous five years.			Net receipt of each circle from conservancy.	Net expenditure in each circle on conservancy.	*a*	*b*	*c*	Measures taken for sanitary improvement of circle.
		Males.	Females.	Total.		Males.	Females.	Total.			In drainage.	In water-supply.	In domestic cleansing and conservancy.	
									RS. A. P.	RS. A. P.				
...	15·5	35·6	24·4	29·3		31·5	23·0	26·8	.....	.....	From a dozen wells; all of which have parapet walls, but none are provided with drains.	No system. The soil is sandy.	Backyards of houses are dirty with rubbish, cow-dung, &c. Refuse water generally soaks into the soil of backyards. Street sweepings are thrown about here and there instead of being removed outside the town limits. The only latrine there is hardly used. People commit nuisances on private grounds and outskirts of the town.	.....
0·4	4·8	15·4	9·5	12·2		14·4	12·7	13·5	.....	.....	From wells and Teppakulams. Some wells having no proper drains, spilt water stagnates around them.	Some streets have square rough stone drains. New V-shaped drains have lately been constructed in some parts of the town.	Some of the backyards have drains which discharge into streets or side-cuttings. In the rest refuse water is received into cess-pools or soaks into the soil. Rubbish heaps containing cow-dung, ashes, &c., lie in backyards. The existence of tobacco godowns within the town limits is a source of nuisance to the public. Sides of streets and lanes are used by people for calls of nature especially at nights. The drains are not properly flushed. There are 10 latrines which are not sufficient.	.....
0·1	15·0	23·1	18·4	20·7		20·8	18·7	19·6	.....	.....	From channel, two large tanks and wells. Three of the drinking-water wells have not proper platforms and drains. One of the Teppakulams having no parapet walls, surface drainage finds its way into it.	Main streets are provided with drains. Side-cuttings also exist in some streets to carry off rain water.	Most of the backyards have no drains, while a few have drains which empty into side-cuttings or in streets. In all other cases refuse water soaks into the soil. Rubbish heaps with human excreta, manure, cow-dung, &c., are lying in backyards. Potters' streets and certain lanes are very filthy. People use sides of streets and lanes, private grounds, open spaces, backyards and corners for calls of nature, as there are no latrines, the five mud-wall ones recently erected having tumbled down.	.....
0·2	12·8	13·2	13·7	13·5		14·7	12·2	13·5	.....	.....	From wells, some of which badly require drains to carry off spilt water. People are allowed to bathe in the vicinity of wells. Their surroundings are generally dirty.	No system. Side-cuttings exist in a few streets. Rain water generally finds its natural course.	All the backyards are full of rubbish heaps, manure, cattle dripping, &c., and they generally have no drains. Refuse water is allowed to soak into the soil or in some cases to run on in streets or lanes.	.....

Private grounds and corners, especially in Kistnama Rajapollyam, are quite filthy with rubbish. Cleanliness of lanes and alleys is not satisfactorily attended to. The surroundings of Pudupalliam latrine need proper cleaning, as it is situated in the midst of the hamlet. Street sweepings should be removed further instead of being deposited on the out-skirts. Cess-pools are few in number and ill-paved. More latrines are required.

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 sanitary defects of each circle, and the measures taken to remedy them for the year* 1894—continued.

1	2	3	4	5			6		7			8	Deaths per 1,000			
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.	Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.
				Males.	Females.	Total.	Total number.	Birth-rate per 1,000 of population.	Males.	Females.	Total.					
	TINNEVELLY—*cont.*															
228	Tenkási ... ... T. C.	...	...	6,151	6,710	12,861	546	42·4	385	364	749	105·8	23·9	...	7·0	5·4
229	Sivakási ... ... T. C.	...	...	5,788	6,396	12,184	514	42·2	207	190	397	108·9	4·2	...	3·3	...
230	Káyalpatnam ... T. C.	...	...	4,404	7,060	11,464	745	65·0	326	382	708	85·3	2·1	...	25·1	...
231	Kalladakurchi ... T. C.	...	...	5,230	5,866	11,096	375	33·8	200	188	388	106·4	1·4	...	4·9	...
232	Ottappidáram ... R. C.	...	...	155,341	161,649	316,990	7,067	22·2	3,924	3,945	7,869	99·4	3·2	0·1	6·6	0·8
233	Tenkarai ... ... R. C.	...	...	125,196	135,000	260,196	8,000	30·7	3,617	3,360	6,977	107·6	3·9	0·5	3·4	0·5
234	Tinnevelly ... R. C.	...	...	68,436	72,816	141,252	4,492	31·8	2,188	2,137	4,325	102·4	5·4	0·5	5·1	1·0
235	Srivilliputtúr ... R. C.	...	...	76,937	78,824	155,761	4,945	31·7	1,914	1,715	3,629	111·4	2·2	0·1	2·1	0·7
236	Sankaranayinárkóyil ... ... R. C.	...	...	106,287	107,511	213,798	5,298	27·5	2,513	2,300	4,813	109·2	2·5	0·2	1·8	0·7
237	Nángunéri ... R. C.	...	...	84,402	90,008	174,410	5,495	30·9	2,285	2,131	4,416	107·2	2·9	0·2	2·8	0·2
238	Ambásamudram R. C.	...	...	75,776	82,776	158,552	4,848	30·5	2,526	2,313	4,839	109·2	5·4	0·2	6·7	2·3
239	Sáttúr ... ... R. C.	...	...	77,688	80,358	158,046	3,961	25·0	2,151	2,165	4,316	99·3	2·3	0·1	7·0	0·7
240	Tenkási ... ... R. C.	...	...	70,284	71,791	142,075	4,141	29·0	2,274	2,051	4,325	110·8	5·8	0·6	3·5	1·7
21	Total District ..	5,387	355·1	933,222	982,480	1,915,702	55,289	28·8	26,520	25,065	51,585	105·8	3·7	0·2	4·3	1·0

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 from conservancy.	Net expenditure in each circle on 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.				
0·1	21·8	62·6	54·3	58·2	36·7	31·6	34·1	.....	.....	From the river, channel and wells.	Main streets have drains and several others are provided with side-cuttings.	Backyards generally contain manure heaps. Many houses in main streets have drains emptying into street drains or side-cuttings. The backyards in Vadaku and Therku Koika streets are in a very unsanitary condition. The drains in bazaar street have rubbish accumulated in them. The number of latrines is not sufficient.	.....
0·2	24·2	35·8	29·7	32·6	35·8	30·0	32·8	.....	.....	From wells. Some of them having no proper drains, their surroundings are dirty with stagnant water.	Principal streets are provided with drains. The sewage in many of them does not flow freely.	This is one of the filthiest towns. Backyards are full of rubbish heaps, manure, cow-dung, &c. Most of the houses in main streets and lanes have drains emptying into street drains, cess-pools or in streets. The street sweepings are not removed to a depôt, but allowed to accumulate in dust-bins and sides of streets. The stagnant pools in the east of the town having been not yet filled up, they smell very offensive. Private grounds, open spaces and corners are dirty with rubbish and human excreta. People use sides of streets and lanes for calls of nature. Cess-pools are not emptied regularly. The surroundings of some latrines are dirty, rain water being allowed to stagnate in their vicinity.	.....
0·2	34·4	74·0	54·1	61·8	30·7	19·1	23·6	.....	.....	.....	.....	.....	.....
0·2	28·4	38·2	32·0	34·9	34·4	23·9	28·8	.....	.....	From channels, and during hot weather from a Teppakulam and the river.	Only a few streets have side-cuttings. In several others rain water stagnates in pools.	Backyards have generally no drains, refuse water being allowed to soak into the soil or run out in streets and lanes. Rubbish, house refuse, cow-dung, ashes are all heaped up in the backyards. Sweepings are not properly removed from lanes and alleys.	.....
0·3	13·8	25·2	24·4	24·8	21·0	20·0	20·5	.....	.....	There is no proper drainage system. In a few big places there are side-cuttings to carry away rain water.	In Ambásamudram, Tinnevelly, and Tenkási taluks, the river Tambraparni and the different channels branching out from it are the chief sources of water-supply in all towns and villages situated on their banks. All other places depend for their water-supply upon rain-fed tanks and wells, which are not guarded against pollution, bathing and washing being generally allowed in them. Their surroundings are often dirty with stagnant water.	The condition of backyards is generally unsatisfactory. Manure, cow-dung, rubbish, &c., are heaped up in them. Backyards have no drains and the refuse water is let out on the streets or lanes, or allowed to soak into the soil. In conserved villages, of which there are 68, one or two sweepers are appointed for each of them to clean the streets, and the sweepings are generally removed in wheel-barrows and heaped on the outskirts of villages. In others, no measures are taken towards keeping them in a clean condition. They have no dust-bins, no cess-pools and no latrines.	.....
0·2	18·3	28·9	24·8	26·8	26·9	22·9	24·8	.....	.....				
0·2	18·4	31·9	29·3	30·6	25·1	22·9	24·0	.....	.....				
0·2	17·9	24·8	21·7	23·2	21·3	19·2	20·3	.....	.....				
0·3	17·0	23·6	21·3	22·5	17·2	16·4	16·8	.....	.....				
0·3	18·9	27·1	23·6	25·3	25·4	21·8	23·6	.....	.....				
0·3	15·8	33·3	27·9	30·5	26·6	22·9	24·6	.....	.....				
0·4	16·8	27·6	26·9	27·3	20·2	18·8	19·5	.....	.....				
0·3	18·5	32·3	28·5	30·4	21·8	20·6	21·2	.....	.....				
0·3	17·1	28·4	25·5	26·9	22·9	20·6	21·8	.....	.....	.....	.....	.....	.....

No. II.—*Statement of births and deaths registered in each town and rural circle of the Madras*
together with the principal sanitary defects of each circle, and

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.
	TRICHINOPOLY.															
241	Trichinopoly M.T.C.	...	...	43,576	46,090	89,666	1,641	18·3	1,102	1,083	2,185	101·7	3·1	0·4	7·2	3·3
242	Srirangam ... M.T.C.	...	...	10,238	11,394	21,632	626	28·9	334	324	658	103·0	2·1	0·35	4·4	2·6
243	Trichinopoly ... R.C.	...	...	133,852	148,763	282,615	8,027	28·4	3,301	3,379	6,680	97·7	3·0	0·1	4·0	0·4
244	Musiri ... R.C.	...	...	118,900	124,785	243,685	5,354	21·9	1,782	1,815	3,597	98·1	0·7	0·01	3·3	0·1
245	Kulittalai ... R.C.	...	...	94,627	100,377	195,004	5,175	26·5	2,206	2,212	4,418	99·7	1·2	0·1	4·9	0·4
246	Perambalúr ... R.C.	...	...	98,773	102,757	201,530	5,470	27·1	2,852	2,787	5,639	102·3	4·7	0·3	4·8	0·4
247	Udaiyárpálayam R.C.	...	...	119,143	129,418	248,561	6,988	28·1	3,021	2,928	5,949	103·2	2·9	0·2	3·2	0·3
248	Zemindaries	...	...	45,926	45,107	89,033	1,672	18·7	847	803	1,650	105·5	3·2	0·4	7·2	0·1
8	Total District ...	3,631	377·8	663,035	708,691	1,371,726	34,953	25·5	15,445	15,331	30,776	100·7	2·6	0·2	4·4	0·5
	VIZAGAPATAM.															
249	Vizagapatam. M.T.C.	...	...	16,477	17,484	33,961	1,191	35·0	529	485	1,014	109·0	...	0·2	9·9	11·2
250	Bimlipatam. M.T.C.	...	...	4,639	5,051	9,696	311	32·0	116	135	251	85·2	0·5	...	6·8	4·7
251	Vizianagram. M.T.C.	...	...	14,805	15,930	30,735	958	31·2	468	415	883	112·7	...	0·1	12·4	1·4
252	Anakápalle. M.T.C.	...	...	8,482	8,519	17,001	605	35·5	247	193	440	128·0	...	0·06	11·5	1·5
253	Bobbili ... T.C.	...	...	6,971	7,477	14,448	571	39·5	121	122	243	99·1	0·1	...	12·2	0·3
254	Súlúr ... T.C.	...	...	5,583	6,927	12,910	170	13·2	96	53	149	181·1	0·8	...	7·0	3·3
255	Palkonda ... T.C.	...	...	4,869	5,495	10,364	272	26·2	136	112	248	121·4	...	...	21·5	0·2
256	Párvatipuram ... T.C.	...	...	4,711	5,342	10,053	409	40·7	132	130	262	101·5	0·2	0·9	22·2	0·6
257	Sarvasiddhi ... R.C.	...	...	76,740	78,210	154,950	4,709	30·3	1,178	1,139	2,317	103·4	...	0·1	13·3	0·2
258	Narasapatnam or Golgonda ... R.C.	...	...	59,459	59,053	118,512	3,684	31·1	839	773	1,612	108·5	...	0·05	12·3	0·2
259	Anakápallé ... R.C.	...	...	66,484	68,661	135,145	3,936	29·1	982	945	1,927	104·0	...	0·1	12·6	0·2
260	Vizagapatam ... R.C.	...	...	31,481	31,325	62,806	1,566	24·9	551	528	1,079	104·3	...	0·7	14·6	0·1
261	Viravalli ... R.C.	...	...	98,604	99,261	197,865	4,254	21·5	1,345	1,259	2,604	106·8	...	0·1	12·5	0·1
262	Bimlipatam ... R.C.	...	...	52,506	52,950	105,456	2,619	24·8	890	804	1,694	110·7	0·2	0·1	14·5	0·1
263	Srungavarapukotah ... R.C.	...	...	64,401	64,918	129,319	3,481	26·9	1,103	1,060	2,162	104·2	0·1	0·2	15·6	0·1
264	Vizianagram ... R.C.	...	...	67,688	68,030	135,718	2,652	19·5	902	885	1,787	102·0	...	0·1	11·4	0·2
265	Gajapatinagaram ... R.C.	...	...	61,564	62,231	123,795	3,813	30·8	1,258	1,187	2,445	106·0	...	0·4	16·8	0·2
266	Chipurupalle ... R.C.	...	...	77,064	79,162	156,826	3,368	21·5	1,106	1,038	2,144	106·5	0·01	0·2	11·7	0·2
267	Sálúr ... R.C.	...	...	34,391	36,391	70,782	1,790	25·3	670	646	1,316	103·7	0·4	0·2	17·1	0·3
268	Bobbili ... R.C.	...	...	56,368	57,919	114,312	3,287	28·8	1,071	973	2,044	110·0	...	0·1	16·4	0·3
269	Palkonda ... R.C.	...	...	97,279	101,165	198,444	5,231	26·3	1,967	1,937	3,904	101·5	0·1	0·4	17·8	0·1
270	Párvatipuram. R.C.	...	...	48,321	50,776	99,097	2,447	24·7	986	916	1,902	106·5	0·4	0·1	17·2	0·5
22	Total District ...	4,619	420·5	959,912	982,283	1,942,195	51,324	26·4	16,693	15,735	32,428	106·1	0·1	0·2	14·2	0·5
92	Total of Town Circles in the Presidency.	...	...	1,231,774	1,286,908	2,518,682	79,996	31·8	36,206	35,315	71,521	102·5	2·1	0·1	8·3	3·0
178	Total of Rural Circles in the Presidency.	...	...	15,441,435	15,733,062	31,174,497	853,063	27·4	307,993	293,154	601,147	105·0	1.2	0·3	8·0	0·6
270	Grand Total for the Presidency.	124,943	269·7	16,673,209	17,019,970	33,693,179	933,059	27·7	344,199	328,469	672,668	104·8	1·3	0·3	8·0	0·7

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

NOTE.—The population for which the returns were received from the districts of Ganjam and Vizagapatam according to the census of 1891, is not available.

Presidency and the receipts and expenditure in each circle from and on conservancy, the measures taken to remedy them for the year 1894—continued.

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 from conservancy.	Net expenditure in each circle on 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.	
0·4	10·0	25·3	23·5	24·4		28·9	26·5	27·7	RS. A. P. 10,020 12 3	RS. A. P. 33,671 8 6	No system of drainage.	All the channels which feed the tanks set apart for drinking purposes are open and liable to pollution.	The supervising agency of the conservancy staff is poor and ill-paid; the establishment for the removal of night-soil and rubbish is inefficient and of the poorest description.	The scheme for supplying the town with river water is in progress.
0·3	21·0	32·6	28·4	30·4		33·1	29·7	31·3	1,376 5 3	4,726 0 10	No proper artificial drainage anywhere.	.....	The night-soil depot is very limited. It is buried in the old trenches which is very objectionable.	No improvement noticed since last report.
0·4	16·9	25·5	22·6	23·9		24·8	23·9	23·8	.....	.....	No system. Main streets are provided with side drains for removal of stormy water. House drains lead into cess-pools under the roadway, or fall into the open side drains or empty themselves into the streets and forms 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 whenever practically tanks are set apart for drinking purposes and a watchman is appointed to guard against pollution. Bathing and washing 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 verandhas and backyards of houses. The house drain runs into a pit outside and there stagnates into a cess-pool.	.....
0·6	15·5	24·6	22·7	23·6		20·0	18·3	19·1						
0·4	10·2	14·9	14·5	14·7		12·7	11·7	12·2						
0·3	15·7	23·3	22·0	22·6		24·0	22·4	23·2						
0·3	17·4	28·8	27·1	27·9		28·3	26·2	27·2						
0·3	7·3	19·2	17·8	18·5		38·5	36·2	37·3	.....	.....		.....	.....	.....
0·4	14·3	23·3	21·6	22·4		23·4	21·6	22·5	.....	.....				
0·3	8·2	32·1	27·7	29·8		30·7	25·4	28·0	1,238 13 11	9,072 8 1	.....	.....	More toties and carts are required. The fishing villages should be removed.	Necessary notification for the removal of fisher village is being prepared for submission to Govt.
0·4	13·5	25·0	26·7	25·9		28·4	28·4	28·4	323 10 0	2,186 1 4	.....	.....	.....	.....
0·2	14·6	31·6	26·0	28·7		26·0	20·9	23·4	901 1 6	7,312 3 3	No system	Insufficient in quantity.	*Insufficient in quantity.*	.....
0·5	12·4	29·1	22·6	25·9		27·8	23·4	25·7	123 12 0	2,427 7 9	No system	.....	.....	No proper drainage scheme could be undertaken for want of funds.
0·2	4·0	17·3	16·3	16·8		21·2	18·2	19·7	.....	.....				
0·1	0·3	16·0	7·6	11·5		28·2	19·0	23·3	.....	.....				
0·3	1·9	28·0	20·4	23·9		22·3	18·3	20·3	.....	.....				
0·2	1·9	28·0	24·5	26·0		24·1	15·7	19·6	.....	.....				
0·2	1·1	15·2	14·5	14·9		18·3	16·5	17·4	.....	.....				
0·2	0·9	14·1	13·1	13·6		19·6	17·3	18·4	.....	.....				
0·4	0·9	14·7	13·7	14·2		16·3	14·0	15·2	.....	.....				
0·2	1·5	17·5	16·8	17·1		15·9	16·1	16·0	.....	.....				
0·2	0·3	13·6	12·6	13·2		15·6	13·9	14·8	.....	.....				
0·2	0·9	16·9	15·2	16·0		14·6	13·3	13·9	.....	.....				
0·2	0·5	17·1	16·3	16·7		16·8	15·1	16·0	.....	.....				
0·2	1·2	13·3	13·0	13·1		12·9	10·2	12·7	.....	.....				
0·4	1·9	20·4	19·0	19·7		15·6	15·2	15·4	.....	.....				
0·2	1·4	14·2	13·1	13·7		14·3	13·8	14·1	.....	.....				
0·1	0·5	19·5	17·7	18·6		18·9	16·3	17·6	.....	.....				
0·2	1·0	19·0	16·8	18·0		14·9	13·6	14·2	.....	.....				
0·2	1·0	20·2	19·1	19·6		16·5	14·8	15·6	.....	.....				
0·1	0·9	20·4	18·0	19·2		22·6	18·5	20·5	.....	.....				
0·2	1·5	17·4	16·0	16·7		17·0	15·3	16·1	.....	.....				
0·3	14·6	29·4	27·4	28·4		30·1	28·0	29·0	.....	.....				
0·3	8·8	19·9	18·6	19·2		20·0	18·5	19·2	.....	.....				
0·4	9·3	20·6	19·3	20·0		20·7	19·2	19·9	.....	.....				

R.C. indicates Rural Circle.

Hence the ratios shown in column 9 have been calculated on the total population of those districts as per census of 1891.

No. III.—*Deaths registered in the districts of the Madras Presidency during each month of the year* 1894.

1	2	3												4
Number.	Districts.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total deaths registered during the year.
1	Anantapur	1,068	818	1,141	1,361	1,084	1,054	1,064	1,306	1,038	983	970	912	12,799
2	Bellary	1,859	1,611	2,403	2,452	1,762	1,677	1,818	1,743	1,528	1,511	1,534	1,405	21,384
3	Chingleput	2,567	1,996	1,776	1,602	1,883	1,820	1,867	1,808	2,120	2,428	2,298	2,502	24,757
4	Coimbatore	4,417	2,696	2,389	2,206	2,477	2,569	2,273	2,410	2,752	3,142	3,358	3,276	33,965
5	Cuddapah	2,553	1,933	2,119	2,364	2,669	1,934	1,926	2,096	2,243	2,429	2,949	2,772	27,987
6	Ganjám	2,393	1,660	1,823	1,852	2,026	1,525	1,835	2,411	2,306	1,938	1,947	2,340	24,056
7	Gódávari	4,308	2,948	2,273	1,930	2,642	2,501	3,168	3,026	3,014	2,870	3,352	3,496	35,528
8	Kistna	3,620	2,790	2,615	2,135	3,523	3,481	3,348	3,266	3,064	2,957	3,182	3,173	37,154
9	Kurnool	1,827	1,466	1,947	3,001	2,490	1,614	1,545	1,569	1,558	1,427	1,472	1,488	21,404
10	Madras	1,677	1,285	1,252	1,179	1,179	1,005	1,220	1,392	1,419	1,684	1,409	1,285	16,086
11	Madura	4,008	2,890	2,585	2,652	2,682	2,155	2,155	2,203	2,221	2,450	3,130	4,391	33,322
12	Malabar	4,129	4,383	3,966	3,611	3,411	3,335	3,469	3,204	2,912	2,768	2,587	2,741	40,516
13	Nellore	2,063	1,947	1,787	1,800	1,971	2,107	1,993	2,065	1,942	2,228	2,267	2,175	24,345
14	Nilgiris	184	157	204	261	297	230	162	175	164	139	164	148	2,285
15	North Arcot	4,945	3,422	2,803	2,399	2,428	2,569	2,650	2,435	2,619	2,947	3,074	3,281	35,572
16	Salem	4,278	2,942	2,481	2,520	2,595	2,431	2,506	2,645	2,771	2,835	3,184	3,394	34,582
17	South Arcot	6,492	4,393	3,814	3,501	3,752	3,707	3,471	3,522	3,981	4,099	4,481	4,834	50,027
18	South Canara	2,406	2,043	1,745	1,522	1,719	1,963	2,333	2,027	1,759	1,624	1,540	1,861	22,522
19	Tanjore	12,646	6,862	4,402	3,803	3,704	3,508	3,563	3,761	4,031	4,038	4,250	5,020	59,588
20	Tinnevelly	7,431	4,889	3,758	3,113	3,433	3,316	3,200	4,018	4,299	3,700	4,612	5,816	51,585
21	Trichinopoly	5,498	3,186	2,180	2,071	2,211	1,790	1,934	1,952	2,087	2,237	2,553	3,077	30,776
22	Vizagapatam	3,334	2,339	2,141	1,974	2,339	2,295	2,419	3,098	3,104	2,789	3,232	3,364	32,428
	Total, Madras Presidency	83,694	58,656	51,494	49,309	52,257	48,586	49,919	52,222	52,912	53,223	57,545	62,851	672,668
	Ratio of deaths per 1,000 in each month	2·5	1·7	1·5	1·5	1·6	1·4	1·5	1·5	1·6	1·6	1·7	1·9	20·0

No. IV.—*Deaths* registered according to age in the districts of the Madras Presidency during the year* 1894.

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	1,316	1,215	695	708	317	286	160	150	215	367	571	1,012	773	668	794	562	756	580	887	767
2	Bellary	2,481	2,104	1,836	1,917	667	569	286	221	299	405	906	1,343	1,235	1,072	1,234	848	1,029	847	1,046	1,039
3	Chingleput	4,088	3,644	1,704	1,838	537	529	305	253	254	486	627	987	859	899	1,046	806	1,029	853	1,878	1,965
4	Coimbatore	4,816	4,177	2,295	2,193	867	816	603	457	541	512	1,380	1,593	1,536	1,500	1,462	1,217	1,581	1,531	2,261	2,527
5	Cuddapah	2,868	2,564	1,406	1,426	734	687	343	318	422	652	1,281	1,873	1,692	1,558	1,976	1,394	1,858	1,522	1,654	1,759
6	Ganjám	2,973	2,525	1,410	1,302	680	588	425	391	447	572	1,021	1,159	1,195	949	1,238	888	1,325	1,178	1,809	1,981
7	Gódávari	3,445	2,961	2,046	2,070	1,005	904	635	520	747	1,018	1,991	2,017	2,010	1,434	1,866	1,269	1,889	1,515	2,862	3,324
8	Kistna	5,058	4,291	2,360	2,041	927	850	518	483	669	1,055	1,553	1,963	1,527	1,303	1,607	991	1,583	1,292	3,534	3,549
9	Kurnool	2,059	1,869	1,379	1,539	599	525	320	280	369	437	1,193	1,418	1,441	1,145	1,402	936	1,144	1,005	1,083	1,261
10	Madras	2,544	2,239	1,070	1,144	250	307	161	162	163	242	510	643	543	561	618	439	565	511	1,550	1,864
11	Madura	3,373	2,922	2,675	2,709	1,151	1,010	623	560	703	654	1,629	1,661	1,774	1,598	1,766	1,465	1,642	1,583	1,833	1,991
12	Malabar	2,865	2,414	2,797	2,509	1,327	1,112	753	661	878	941	2,459	2,368	3,003	2,317	2,418	1,572	1,942	1,447	3,182	3,571
13	Nellore	2,913	2,358	2,032	1,695	1,068	1,109	724	832	557	603	564	615	611	601	835	676	1,179	1,145	1,810	2,418
14	Nilgiris	328	328	234	214	68	43	31	21	48	44	127	115	132	111	95	68	67	69	75	67
15	North Arcot	4,345	3,877	2,511	2,509	908	911	579	526	546	866	1,185	1,731	1,550	1,547	1,825	1,472	1,818	1,579	2,573	2,714
16	Salem	5,689	4,903	2,576	2,440	917	882	470	461	447	655	1,169	1,586	1,441	1,444	1,628	1,172	1,415	1,350	1,877	2,080
17	South Arcot	7,183	6,377	5,138	4,926	1,371	1,223	717	545	678	875	1,471	1,939	1,877	1,563	1,992	1,476	2,062	1,822	3,249	3,513
18	South Canara	3,073	2,656	1,431	1,437	557	579	244	234	342	518	999	1,220	1,093	917	1,219	761	989	857	1,569	1,827
19	Tanjore	7,174	6,089	3,258	3,319	1,501	1,429	1,014	866	1,067	1,463	2,365	3,172	2,726	2,755	2,852	2,469	2,846	2,639	4,850	5,794
20	Tinnevelly	5,313	4,799	4,256	4,236	1,619	1,365	982	854	924	978	2,053	2,230	2,382	1,947	2,702	1,976	2,590	2,334	3,659	4,247
21	Trichinopoly	3,518	3,204	2,561	2,387	805	795	461	419	446	557	1,002	1,287	1,230	1,246	1,375	1,101	1,528	1,313	2,519	2,922
22	Vizagapatam	3,516	3,319	2,336	2,328	1,032	861	669	541	667	773	1,387	1,547	1,666	1,347	1,681	1,257	1,710	1,650	2,029	2,112
	Total, Madras Presidency	80,938	70,835	48,006	46,887	18,907	17,410	11,023	9,755	11,429	14,653	27,463	33,579	32,296	28,482	33,631	24,754	32,617	28,722	47,889	53,392
	† Ratio per mille of population	142·7	119·1	24·2	22·5	7·9	7·4	5·9	6·0	8·0	10·7	9·7	10·4	13·3	11·7	18·9	14·5	31·3	26·3	53·2	48·8

* 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* 1894.

1	2	3					4					5				
Number.	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.
1	Anantapur	1,377	51,333	655,105	328	708,143	17	587	12,194	1	12,799	12·3	11·4	18·6	3·0	18·0
2	Bellary	3,469	87,638	817,078	1,476	909,661	56	1,849	19,477	2	21,384	16·1	21·1	23·8	1·4	23·5
3	Chingleput	15,944	27,235	1,156,365	357	(a)1,199,901	147	317	24,292	1	24,757	9·2	11·6	21·0	2·8	20·6
4	Coimbatore	14,638	43,947	1,945,010	316	2,003,911	206	599	33,144	16	33,965	14·1	13·6	17·0	50·6	16·9
5	Cuddapah	9,374	119,564	1,142,727	56	1,271,721	147	2,076	25,760	4	27,987	15·7	17·8	22·5	71·4	22·0
6	Ganjám	2,410	5,514	1,888,424	52	1,896,400	10	83	23,963	...	24,056	4·1	15·1	12·7	...	12·7
7	Gódávari	8,140	41,042	2,028,695	71	2,077,858	125	744	34,659	...	37,154	10·1	16·4	20·7	...	20·0
8	Kistna	67,266	108,567	1,678,333	158	1,855,024	688	1,781	34,685	...	37,154	10·1	16·4	20·7	...	20·0
9	Kurnool	22,584	97,416	697,616	44	817,660	358	2,355	18,691	...	21,404	15·8	24·2	26·8	...	26·2
10	Madras	23,599	53,184	358,997	595	436,375	736	2,026	13,347	3	16,086	31·2	37·6	37·2	5·0	36·9
11	Madura	42,298	73,465	1,457,460	95	1,573,318	634	1,460	31,228	...	33,322	15·0	19·9	21·4	...	21·2
12	Malabar	42,372	759,242	1,834,284	776	2,636,674	944	11,925	27,654	13	40,516	22·3	15·7	15·1	16·8	15·4
13	Nellore	46,797	78,185	1,337,979	396	1,463,357	116	575	23,654	...	24,345	2·5	7·3	17·7	...	16·7
14	Nilgiris	8,594	4,600	83,531	40	96,765	221	116	1,948	...	2,285	25·7	25·2	23·3	...	23·6
15	North Arcot	14,101	95,239	1,996,116	8,129	(a)2,113,585	67	1,232	34,256	17	35,572	4·7	12·9	17·2	2·1	16·8
16	Salem	17,661	61,505	1,882,409	209	1,961,784	178	1,014	33,385	5	34,582	10·1	16·5	17·7	23·9	17·6
17	South Arcot	54,326	58,661	2,043,679	5,670	2,162,336	558	695	48,747	27	50,027	10·3	11·8	23·9	4·8	23·1
18	South Canara	70,902	108,261	862,573	10,266	1,051,002	1,206	1,870	19,208	238	22,522	17·0	17·3	22·3	23·2	21·4
19	Tanjore	84,338	119,864	2,022,200	579	2,227,081	1,718	2,859	55,011	...	59,588	20·4	23·9	27·2	...	26·7
20	Tinnevelly	145,569	95,951	1,674,150	32	1,915,702	2,156	2,696	46,733	...	51,585	14·8	28·1	28·0	...	26·9
21	Trichinopoly	69,410	38,271	1,264,037	8	1,371,726	1,079	602	29,095	...	30,776	15·5	15·7	23·0	...	22·4
22	Vizagapatam	1,998	21,058	1,919,070	69	1,942,195	43	182	32,196	7	32,428	21·5	8·6	16·8	101·4	16·7
	Total, Madras Presidency.	767,867	2,149,742	30,745,848	29,722	33,693,179	11,410	37,617	623,307	334	672,668	14·8	17·5	20·3	11·2	20·0

(a) Populations of the districts of North Arcot and Chingleput are altered owing to the transfer from the former to the latter of 137 villages of Maderpak Division containing a population of 66,000.

No. VI.—*Deaths registered from Different Causes in the districts and towns of the Madras Presidency during the year* 1894.

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 previous 5 years.
	*A.—Districts.**																				
1	Anantapur	690,895	646	133	2,158	106	13	47	151	51	262	9,107	12,472	0·9	0·2	3·1	0·2	0·4	13·2	18·0	21·3
2	Bellary	791,890	48	700	8,890	486	14	31	155	31	231	8,118	18,473	0·06	0·9	11·2	0·6	0·3	10·3	23·3	24·3
3	Chingleput	1,145,218	315	150	6,984	2,313	42	53	307	142	544	18,056	23,362	0·3	0·1	6·1	2·0	0·5	11·4	20·4	22·9
4	Coimbatore	1,934,926	1,878	157	12,286	904	70	82	428	139	719	16,139	32,083	1·0	0·08	6·4	0·5	0·4	8·3	16·6	18·2
5	Cuddapah	1,254,510	144	282	22,006	499	60	92	394	137	683	3,785	27,393	0·1	0·2	17·5	0·4	0·6	3·0	21·8	22·0
6	Ganjám	1,836,324	175	245	17,975	640	33	33	222	71	359	3,329	22,723	0·1	0·1	9·8	0·3	0·2	1·8	12·3	13·0
7	Gódávari	1,928,969	243	409	16,723	521	70	86	275	122	553	13,652	32,101	0·1	0·2	8·7	0·3	0·3	7·0	16·6	20·0
8	Kistna	1,761,898	961	122	13,988	338	76	86	310	100	572	18,396	34,377	0·6	0·07	7·9	0·2	0·3	10·5	19·5	22·0
9	Kurnool	782,650	767	246	16,041	170	33	57	174	53	317	2,935	20,476	1·0	0·3	20·5	0·2	0·4	3·8	26·2	27·3
10	Madura	1,384,120	4,632	328	8,240	714	37	55	376	90	558	13,668	28,140	3·3	0·2	6·0	0·6	0·4	9·8	20·3	19·6
11	Malabar	2,463,078	663	3,499	17,287	2,629	64	40	393	159	656	11,109	35,843	0·3	1·4	7·0	1·1	0·3	4·5	14·6	17·5
12	Nellore	1,423,397	88	92	12,355	449	3	14	312	14	343	10,145	23,472	0·1	0·1	8·7	0·3	0·2	7·1	16·5	15·6
13	Nilgiris	77,188	24	11	1,476	65	...	1	7	1	9	179	1,764	0·3	0·1	19·1	0·8	0·2	2·3	22·8	20·3
14	North Arcot	1,992,167	1,834	520	13,832	1,057	40	57	596	142	835	14,635	32,713	0·9	0·3	6·9	0·5	0·4	7·4	16·4	18·6
15	Salem	1,837,950	1,958	471	12,977	923	58	87	398	153	696	14,815	31,840	1·1	0·3	7·1	0·5	0·3	8·0	17·3	18·9
16	South Arcot	2,070,484	4,140	1,371	14,694	1,366	23	30	418	273	744	25,770	48,085	2·0	0·6	7·1	0·7	0·4	12·4	23·2	22·2
17	South Canara	1,011,382	129	182	9,192	1,233	53	29	327	93	502	10,185	21,423	0·1	0·2	9·1	1·2	0·5	10·1	21·2	20·5
18	Tanjore	2,002,916	8,928	916	3,680	557	31	30	250	146	457	37,483	52,021	4·5	0·5	1·8	0·3	0·2	18·7	26·0	24·7
19	Tinnevelly	1,721,080	6,204	419	7,555	1,558	47	81	324	81	533	29,240	45,569	3·6	0·2	4·4	0·9	0·3	17·0	26·4	21·4
20	Trichinopoly	1,260,428	3,223	229	5,303	363	28	48	315	131	522	18,293	27,933	2·6	0·2	4·2	0·3	0·4	14·5	22·2	21·9
21	Vizagapatam	1,803,027	125	355	25,951	325	24	33	287	51	395	1,787	28,938	0·06	0·2	14·4	0·2	0·2	1·0	16·0	15·7
	Total, Rural districts	31,174,497	37,125	10,837	249,593	17,276	819	1072	6,419	2,180	10,490	275,826	601,147	1·2	0·3	8·0	0·6	0·3	8·8	19·2	19·2

* Exclusive of B.—Towns.

No. VI.—*Deaths registered from Different Causes in the districts and towns of the Madras Presidency during the year* 1894—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 previous 5 years.
	B.—Towns.																						
1	Anantapur. M.T.C. Anantapur.	6,973	6.	...	46	1	...	...	4	...	4	47	104	0·9	...	6·6	0·1	0·6	6·7	14·9	25·5
2	Anantapur. T.C. Tadpatri ...	10,275	74	...	...	...	...	...	1	1	2	147	223	7·2	...	...	...	0·2	14·3	21·7	14·3
3	Bellary. M.T.C. Bellary ...	57,780	2	...	686	92	...	1	18	1	20	870	1,670	0·03	...	11·9	1·6	0·3	15·0	28·8	29·3
4	Bellary. M.T.C. Adoni ...	26,216	2	...	236	...	...	1	8	...	9	390	637	0·1	...	9·0	...	0·3	14·9	24·3	26·4
5	Bellary. T.C. Hospet ...	12,869	1	1	194	1	...	...	...	...	...	9	206	0·1	0·1	15·0	0·1	...	0·7	16·0	19·6
6	Bellary. T.C. Kampli ...	10,528	...	...	211	2	...	...	6	...	6	...	219	...	...	20·0	0·2	0·6	...	20·8	21·1
7	Bellary. T.C. Rayadrug ...	10,378	...	1	158	...	...	...	2	...	2	18	179	...	0·1	15·2	...	0·2	1·7	17·2	16·3
8	Chingleput. M.T.C. Conjeeveram.	42,543	60	6	348	137	1	...	18	1	20	730	1,301	1·4	0·1	8·2	3·2	0·5	17·2	30·6	31·2
9	Chingleput. T.C. St. Thomas' Mount.	12,140	1	1	19	8	...	...	...	1	1	64	94	0·1	0·1	1·5	0·7	0·1	5·2	7·7	10·8
10	Coimbatore. M.T.C. Coimbatore.	46,007	6	4	285	139	1	6	7	1	15	766	1,215	0·1	0·1	6·2	3·0	0·3	16·7	26·4	28·2
11	Coimbatore. M.T.C. Erode ...	12,238	38	1	87	37	1	1	5	1	8	189	360	3·1	0·1	7·1	3·0	0·7	15·4	29·4	27·6
12	Coimbatore. M.T.C. Karúr ...	10,740	44	8	67	72	1	...	2	1	4	112	307	4·1	0·8	6·2	6·7	0·4	10·4	28·6	30·3
13	Cuddapah. M.T.C. Cuddapah.	17,211	...	11	294	26	...	1	14	2	17	240	588	...	0·6	17·1	1·5	1·0	14·0	34·2	39·3
14	Ganjam. M.T.C. Chicacole ...	18,204	12	3	164	54	1	...	2	2	5	200	438	0·7	0·2	9·0	3·0	0·2	11·0	24·1	24·5
15	Ganjam. M.T.C. Berhampur.	25,493	...	...	136	72	1	1	1	3	6	323	537	...	...	5·3	2·8	0·3	12·7	21·1	25·5
16	Ganjam. M.T.C. Parlákimedi.	16,379	1	1	180	40	...	...	...	...	...	136	358	0·1	0·1	11·0	2·4	...	8·3	21·9	23·7
17	Godávari. M.T.C. Cocanada ...	40,068	7	2	154	93	...	1	16	...	17	664	937	0·2	0·1	3·8	2·3	0·4	16·6	23·4	22·5
18	Godávari. M.T.C. Rajahmundry.	28,279	21	7	234	130	...	...	20	4	24	440	856	0·7	0·2	8·3	4·6	0·8	15·6	30·3	30·6
19	Godávari. M.T.C. Ellore ...	29,296	116	12	113	55	1	...	7	2	10	375	681	3·9	0·4	3·9	1·9	0·3	12·8	23·2	25·0
20	Godávari. T.C. Pithápuram ...	13,731	...	...	4	2	...	1	3	...	4	140	150	...	...	0·3	0·1	0·3	10·2	10·9	10·3
21	Godávari. T.C. Peddápuram ...	13,652	...	13	67	9	4	5	4	...	13	318	420	...	1·0	4·9	0·6	1·0	23·2	30·7	22·9
22	Godávari. T.C. Samalkot ...	13,469	...	...	106	...	...	...	...	...	...	2	108	...	...	7·9	...	...	0·1	8·0	16·3
23	Godávari. T.C. Dowlaishweram	10,454	8	...	...	12	...	1	1	2	4	251	275	0·8	...	...	1·1	0·4	24·0	26·3	30·3
24	Kistna. M.T.C. Masulipatam.	38,667	62	6	236	33	...	1	3	2	6	825	1,168	1·6	0·1	6·1	0·9	0·1	21·4	30·2	25·0
25	Kistna. M.T.C. Guntúr ...	23,267	16	...	203	38	2	3	17	...	22	389	668	0·7	...	8·7	1·6	1·0	16·7	28·7	27·2
26	Kistna. M.T.C. Bezwada ...	20,611	137	3	106	45	1	2	13	3	19	376	686	6·7	0·2	5·1	2·2	0·9	18·2	33·3	40·9
27	Kistna. T.C. Chirala ...	10,581	1	1	90	4	1	...	2	1	4	155	255	0·09	0·09	8·4	0·4	0·4	14·7	23·9	25·8
28	Kurnool. M.T.C. Kurnool ...	24,306	24	1	359	35	3	...	10	3	16	327	762	1·0	0·04	14·8	1·4	0·7	13·4	31·3	32·9
29	Kurnool. T.C. Nandyal ...	10,704	12	1	115	5	...	...	...	1	1	32	166	1·1	0·1	10·8	0·4	0·1	3·0	15·5	29·9
30	M.T.C. Madras	436,375	75	12	6,066	2,318	8	6	131	5	150	7,465	16,086	0·2	0·03	13·9	5·3	0·4	17·1	36·9	43·4
31	Madura. M.T.C. Madura ...	87,121	382	23	447	334	4	3	20	1	28	1,626	2,840	4·4	0·3	5·1	3·8	0·3	18·7	32·6	29·3
32	Madura. M.T.C. Dindigul ...	20,115	23	...	68	41	...	1	11	2	14	328	474	1·1	...	3·4	2·0	0·7	16·3	23·5	22·7
33	Madura. M.T.C. Periyakulam.	16,363	127	...	143	93	...	1	3	2	6	264	633	7·8	...	8·7	5·7	0·4	16·1	38·7	30·0
34	Madura. M.T.C. Palni ...	13,589	43	...	6	...	...	...	4	1	5	150	204	3·2	...	0·4	...	0·4	11·0	15·0	20·7
35	Madura. T.C. Ramnad ...	12,673	189	...	67	36	2	5	4	...	11	80	383	14·9	...	5·3	2·8	0·9	6·3	30·2	18·3
36	Madura. T.C. Aruppukóttai .	12,396	11	...	77	14	...	...	1	...	1	49	152	0·9	...	6·2	1·1	0·1	4·0	12·3	32·1
37	Madura. T.C. Kilakarai ...	10,001	2	...	50	...	...	...	...	...	...	18	70	0·2	...	5·0	...	...	1·8	7·0	13·5
38	Madura. T.C. Paramagudi ...																				
39	Malabar. M.T.C. Tellicherry	26,631	...	3	125	59	1	...	7	1	9	354	550	...	0·1	4·7	2·2	0·3	13·3	20·6	22·8
40	Malabar. M.T.C. Calicut ...	64,798	135	16	197	180	4	1	13	3	21	1,092	1,641	2·1	0·2	3·0	2·8	0·3	16·9	25·3	35·4
41	Malabar. M.T.C. Palghat ...	39,367	40	11	232	85	...	...	3	1	4	636	1,008	1·0	0·3	5·9	2·2	0·1	16·1	25·6	26·9
42	Malabar. M.T.C. Cochin ...	16,147	218	11	53	55	...	...	4	1	5	302	644	13·5	0·6	3·3	3·4	0·3	18·7	39·8	35·9
43	Malabar. M.T.C. Cannanore.	26,653	89	...	228	86	...	...	...	1	1	426	859	3·3	...	8·6	3·2	0·04	16·0	31·1	22·9
44	Nellore. M.T.C. Nellore ...	29,128	1	9	202	7	...	...	6	2	8	378	605	0·03	0·3	6·9	0·3	0·3	13·0	20·8	22·5
45	Nellore. M.T.C. Ongole ...	10,832	...	2	66	9	...	...	9	...	9	182	268	...	0·1	6·1	0·8	0·8	16·8	24·7	22·1
46	Nilgiris. M.T.C. Ootacamund.	13,991	1	...	110	38	...	...	4	...	4	204	357	0·07	...	7·9	2·7	0·3	14·6	25·5	21·9
47	Nilgiris. M.T.C. Coonoor ...	5,586	4	...	49	32	...	...	1	...	1	78	164	0·7	...	8·8	5·7	0·2	14·0	29·4	31·5
48	North Arcot. M.T.C. Vellore ...	44,724	148	7	369	123	1	2	5	...	8	480	1,135	3·3	0·2	8·3	2·7	0·2	10·7	25·4	24·0
49	North Arcot. M.T.C. Walajanagar.	10,485	13	...	111	24	...	...	1	1	2	98	248	1·2	...	10·6	2·3	0·2	9·4	23·7	30·5
50	North Arcot. M.T.C. Gudiyáttam.	18,745	33	1	193	33	...	...	...	1	1	129	390	1·8	0·05	10·3	1·8	0·05	6·9	20·8	25·7
51	North Arcot. M.T.C. Tirupati ...	14,238	17	8	143	36	2	1	9	...	12	233	449	1·2	0·6	10·0	2·5	0·8	16·4	31·5	27·9
52	North Arcot. T.C. Kálahasti ...	11,715	1	...	77	6	...	1	4	...	5	68	157	0·1	...	6·6	0·5	0·4	5·8	13·4	13·9
53	North Arcot. T.C. Arcot ...	10,928	60	...	11	2	...	...	...	1	1	232	306	5·5	...	1·0	0·2	0·1	21·2	28·0	28·0
54	North Arcot. T.C. Ambúr ...	10,583	113	...	55	...	...	1	3	...	4	2	174	10·6	...	5·2	...	0·4	0·2	16·4	8·1
55	Salem. M.T.C. Salem ...	67,640	126	3	582	66	...	...	2	5	7	870	1,651	1·8	0·04	8·5	1·0	0·1	12·9	24·4	24·7
56	Salem. M.T.C. Vániyambádi.	15,338	25	...	180	13	...	...	4	...	4	185	416	1·6	...	12·0	0·8	0·2	11·7	26·3	33·3
57	Salem. M.T.C. Tiruppattúr.	16,463	32	...	176	34	2	...	6	1	9	209	460	1·9	...	10·7	2·1	0·5	12·7	27·9	28·0
58	Salem. T.C. Sheudamangalam.	13,354	4	...	17	...	...	1	8	...	9	82	112	0·3	...	1·3	...	0·7	6·1	8·4	9·6
59	Salem. T.C. Rásipuram ...	10,539	1	...	1	...	...	2	...	...	2	99	103	0·1	...	0·1	...	0·2	9·4	9·8	14·7
60	South Arcot. M.T.C. Cuddalore.	47,025	95	28	179	97	...	...	8	2	10	587	996	2·0	0·6	3·8	2·1	0·2	12·5	21·2	19·3
61	South Arcot. M.T.C. Chidambaram.	18,634	96	4	198	37	1	...	4	2	7	244	586	5·1	0·2	10·6	2·0	0·4	13·1	31·4	30·1
62	South Arcot. T.C. Porto-Novo ...	14,045	20	2	26	1	1	...	1	...	2	115	166	1·4	0·2	1·8	0·07	0·2	8·2	11·8	16·6
63	South Arcot. T.C. Tiruvannámalai.	12,148	83	...	55	2	...	...	7	...	7	47	194	6·8	...	4·5	0·2	0·6	3·9	16·0	13·4
64	South Canara. M.T.C. Mangalore.	40,620	...	...	322	141	...	...	19	...	19	617	1,099	...	...	7·9	3·5	0·4	15·2	27·0	23·7

No. VI.—*Deaths registered from Different Causes in the districts and towns of the Madras Presidency during the year* 1894—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 previous 5 years.
	B.—Towns—cont.																				
65	Tanjore. M.T.C. Tanjore ...	54,258	222	13	241	383	...	...	18	...	18	582	1,459	4·1	0·3	4·4	7·1	0·3	10·7	26·9	29·5
66	Tanjore. M.T.C. Kumbakónam.	54,254	351	11	384	204	1	...	8	2	11	1,073	2,034	6·4	0·2	7·1	3·7	0·2	19·7	37·5	31·4
67	Tanjore. M.T.C. Máyavaram.	23,754	90	4	163	89	...	...	7	1	8	418	772	3·8	0·2	6·9	3·7	0·3	17·6	32·5	28·9
68	Tanjore. M.T.C. Negapatam	58,573	203	25	474	262	...	...	10	4	14	1,279	2,257	3·5	0·4	8·1	4·5	0·2	21·8	38·5	27·6
69	Tanjore. M.T.C. Mannárgudi.	20,392	104	4	114	133	...	...	4	2	6	339	700	5·1	0·2	5·6	6·5	0·3	16·6	34·3	27·3
70	Tanjore. T.C. Tiruválúr ...	12,934	45	...	35	8	...	...	...	2	5	252	345	3·5	...	2·8	0·6	0·4	19·4	26·7	19·0
71	Tinnevelly. M.T.C. Tinnevelly.	24,756	247	1	92	136	1	2	3	...	6	509	991	10·0	0·04	3·7	5·5	0·2	20·6	40·0	32·3
72	Tinnevelly. M.T.C. Palamcottah.	18,612	64	17	67	43	1	...	2	...	3	317	511	3·4	0·9	3·6	2·3	0·2	17·0	27·4	27·1
73	Tinnevelly. M.T.C. Tuticorin ...	24,964	32	2	251	113	...	...	5	1	6	375	779	1·3	0·1	10·1	4·5	0·2	15·0	31·2	28·6
74	Tinnevelly. T.C. Srivilliputtúr...	21,448	30	1	33	1	1	1	4	1	7	373	445	1·4	0·05	1·5	0·05	0·3	17·4	29·7	14·0
75	Tinnevelly. T.C. Kulasékarapatnam.	15,910	12	8	194	7	...	...	...	...	...	246	467	0·7	0·5	12·2	0·4	...	15·5	29·3	26·8
76	Tinnevelly. T.C. Virudupatti ...	14,075	26	1	54	19	1	2	3	...	6	67	173	1·8	0·1	3·8	1·3	0·4	4·8	12·2	13·5
77	Tinnevelly. T.C. Viravanallur .	13,951	65	2	11	...	1	...	...	...	1	209	288	4·7	0·1	0·8	...	0·2	12·8	13·5	13·5
78	Tinnevelly. T.C. Rajahpoliem ...	13,301	6	...	1	...	2	1	...	...	3	170	180	0·4	...	0·1	...	0·1	21·8	58·2	34·1
79	Tinnevelly. T.C. Tenkási ...	12,861	307	...	90	70	...	...	...	1	1	281	749	23·9	...	7·0	5·4	0·1	24·2	32·6	32·8
80	Tinnevelly. T.C. Sivakási ...	12,184	51	...	40	...	1	2	8	...	11	295	397	4·2	...	3·3	...	0·9	34·4	61·8	23·6
81	Tinnevelly. T.C. Kayalpatnam .	11,464	24	...	288	...	...	...	1	...	2	394	708	2·1	...	25·1	...	0·2	28·4	34·9	28·8
82	Tinnevelly. T.C. Kalladakurchi.	11,096	16	...	55	...	...	...	2	...	2	315	388	1·4	...	4·9	...	0·2			
83	Trichinopoly. M.T.C. Trichinopoly.	89,666	278	35	645	297	4	3	23	1	31	899	2,185	3·1	0·4	7·2	3·3	0·4	10·0	24·4	27·7
84	Trichinopoly. M.T.C. Srirangam.	21,632	45	1	94	56	1	...	6	...	7	455	658	2·1	0·05	4·4	2·6	0·3	21·0	30·4	31·3
85	Vizagapatam. M.T.C. Vizagapatam.	33,961	...	6	338	379	...	1	9	2	12	279	1,014	...	0·2	9·9	11·2	0·3	8·2	29·8	28·0
86	Vizagapatam. M.T.C. Bimlipatam.	9,696	5	...	66	45	...	...	4	...	4	131	251	0·5	...	6·8	4·7	0·4	13·5	25·9	28·4
87	Vizagapatam. M.T.C. Vizianagram.	30,735	...	3	381	44	...	2	4	1	7	448	883	...	0·1	12·4	1·4	0·2	14·6	28·7	23·4
88	Vizagapatam. M.T.C. Anakápalle	17,001	...	1	195	25	...	...	7	1	8	211	440	...	0·06	11·5	1·5	0·5	12·4	25·9	25·7
89	Vizagapatam. T.C. Bobbili ...	14,448	2	...	177	4	...	...	2	...	2	58	243	0·1	...	12·2	0·3	0·2	4·0	16·8	19·7
90	Vizagapatam. T.C. Sálúru ...	12,910	10	...	91	43	...	...	1	...	1	4	149	0·8	...	7·0	3·3	0·1	0·3	11·5	23·3
91	Vizagapatam. T.C. Palkonda ...	10,364	...	...	223	2	...	2	1	...	3	20	248	...	...	21·5	0·2	0·3	1·9	23·9	20·3
92	Vizagapatam. T.C. Párvatipuram.	10.053	2	10	223	6	...	1	1	...	2	19	262	0·2	0·9	22·2	0·6	0·2	1·9	26·0	19·6
	Total, Towns ...	2,518,682	5,164	370	20,863	7,525	59	67	631	85	842	36,757	71,521	2·1	0·1	8·3	3·0	0·3	14·6	28·4	29·0
	Total, Rural districts ...	31,174,497	37,125	10,837	249,593	17,276	819	1,072	6,419	2,180	10,490	275,826	601,147	1·2	0·3	8·0	0·6	0·3	8·8	19·2	19·2
	Total, Madras Presidency.	33,693,179	42,289	11,207	270,456	2,4801	878	1,139	7,050	2,265	11,332	312,583	672,668	1·3	0·3	8·0	0·7	0·4	9·3	20·0	19·9

No. VII.—*Deaths registered from Cholera in the districts of the Madras Presidency during each month of the year* 1894.

1		3		4		5												6			7			8
		Circles of registration.		Villages.														Total.			Ratio of deaths per 1,000 of population.			
Number.	Districts.	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.	Mean ratio per 1,000 for previous 5 years.
1	Anantapur ...	9	6	941	65	...	...	...	8	2	120	117	349	70	33	24	3	376	350	726	1·0	1·0	1·0	1·7
2	Bellary ...	14	6	819	12	20	3	1	...	...	1	26	1	1	...	...	...	26	27	53	0·06	0·06	0·06	1·6
3	Chingleput ...	8	8	*2,134	99	119	53	4	1	7	2	4	...	...	2	...	184	199	177	376	0·3	0·3	0·3	1·5
4	Coimbatore ...	13	13	1,478	268	1,239	262	56	33	89	191	36	...	...	7	5	48	1,063	903	1,966	1·1	0·9	1·0	1·8
5	Cuddapah ...	12	3	1,276	21	...	...	...	...	...	...	1	22	102	17	2	...	69	75	144	0·1	0·1	0·1*	1·9
6	Ganjám ...	8	6	6,037	28	51	47	9	2	...	...	...	...	...	...	...	...	82	106	188	0·09	0·1	0·1	1·6
7	Gódávari ...	18	13	2,603	68	110	165	116	4	...	...	...	...	...	...	61	18	203	192	395	0·2	0·2	0·2	1·7
8	Kistna ...	16	16	1,848	234	67	572	442	95	...	1	...	...	...	...	...	...	650	527	1,177	0·7	0·6	0·6	2·1
9	Kurnool ...	10	10	802	114	...	...	172	184	116	95	85	51	95	5	...	...	454	349	803	1·1	0·9	1·0	2·1
10	Madras ...	1	1	1	1	18	12	3	1	1	...	...	...	...	...	1	39	50	25	75	0·2	0·1	0·2	1·5
11	Madura ...	15	14	1,078	339	1,239	606	378	626	472	159	144	212	161	67	309	1,048	3,008	2,473	5,481	3·9	3·1	3·5·	2·6
12	Malabar ...	15	13	2,245	30	152	315	153	163	86	28	5	23	91	43	45	41	554	591	1,145	0·4	0·4	0·4	1·5
13	Nellore ...	12	6	1,793	57	...	30	31	20	...	...	1	...	...	...	...	7	50	39	89	0·07	0·05	0·1*	0·7
14	Nilgiris ...	4	3	52	6	26	3	...	...	...	...	...	...	...	...	...	...	23	6	29	0·4	0·1	0·3	0·3
15	North Arcot ...	17	17	† 4,328	279	1,088	433	101	62	40	39	105	71	4	11	...	265	1,153	1,066	2,219	1·1	1·0	1·0	1·7
16	Salem ...	14	13	3,811	354	1,070	426	117	128	15	...	...	...	...	...	4	169	1,142	1,001	2,143	1·2	1·0	1·1	1·7
17	South Arcot ...	12	12	2,897	663	2,013	910	441	193	96	46	34	33	53	1	32	582	2,472	1,962	4,434	2·3	1·8	2·0	2·7
18	South Canara.	6	4	1,277	46	98	31	...	...	...	...	...	...	...	...	...	...	76	53	129	0·1	0·1	0·1*	0·5
19	Tanjore ...	15	15	3,550	1,255	6,928	2,258	450	100	16	1	...	...	1	1	5	183	5,117	4,786	9,943	4·8	4·1	4·5·	2·1
20	Tinnevelly ...	21	21	1,538	683	2,455	1,154	481	188	206	213	96	624	798	273	254	348	3,793	3,291	7,084	4·1	3·3	3·7·	2·7
21	Trichinopoly.	8	8	1,502	479	2,247	833	228	75	36	1	...	...	1	...	12	113	1,858	1,688	3,546	2·8	2·4	2·6	2·7
22	Vizagapatam.	22	10	2,668	28	90	49	5	...	...	...	...	...	...	...	...	...	87	57	144	0·09	0·06	0·1·	1·1
	Total, Madras Presidency ...	270	218	44,678	5,009	19,030	8,222	3,188	1,883	1,182	897	648	1,387	1,377	468	914	3,003	22,545	19,744	42,289	1·3	1·2	1·3	1·9

* Includes 137 villages transferred from the North Arcot District.

† Excludes 137 villages transferred to the Chingleput District.

No. VIII.—*Deaths registered from Small-pox in the districts of the Madras Presidency during each month of the year* 1894.

1	2	3		4		5												6			7		8	9
		Circles of registration.		Villages.														Total.			Number of deaths among children.		Ratio of deaths per 1,000 of population.		
Number.	Districts.	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 ...	9	7	941	63	11	16	25	6	20	11	9	4	5	10	3	13	64	69	133	73	56	0·2	0·2	0·2	0·7
2	Bellary ...	14	11	819	188	67	68	103	54	51	37	64	63	40	45	36	74	366	336	702	183	519	0·8	0·8	0·8·	1·1
3	Chingleput ...	8	8	*2134	106	12	21	34	21	11	17	11	9	2	2	16	2	72	85	157	26	76	0·1	0·1	0·1	0·4
4	Coimbatore ...	13	13	1,478	49	24	21	34	21	27	24	26	23	21	30	13	14	89	81	170	34	74	0·09	0·08	0·08	0·7
5	Cuddapah ...	12	12	1,276	125	34	14	33	34	27	18	30	30	23	11	7	24	152	161	293	35	47	0·2	0·3	0·2	0·7
6	Ganjám ...	8	7	6,037	150	10	20	29	25	36	40	40	11	4	6	24	11	120	129	249	49	61	0·1	0·1	0·1	0·6
7	Gódávari ...	18	14	2,603	61	124	52	69	26	36	40	40	11	4	6	24	11	229	214	443	32	52	0·2	0·2	0·2	1·4
8	Kistna ...	16	13	1,848	66	7	8	26	14	1	12	9	7	10	5	13	20	63	69	132	28	24	0·07	0·08	0·1	1·8
9	Kurnool ...	10	10	802	72	16	14	22	34	25	6	12	23	29	23	21	23	123	125	248	46	100	0·3	0·3	0·3	1·0
10	Madras ...	1	1	1	1	75	56	37	42	27	26	18	20	11	12	13	16	6	6	12	6	5	0·03	0·03	0·03	0·1
11	Madura ...	15	8	1,078	114	609	911	884	497	235	110	68	59	22	20	7	118	1,875	1,665	3,540	13	216	1·4	1·3	1·3·	2·4
12	Malabar ...	15	14	2,245	129	609	911	884	497	235	110	68	59	22	20	7	118	1,875	1,665	3,540	13	216	1·4	1·3	1·3·	2·4
13	Nellore ...	12	12	1,793	50	6	12	11	9	5	11	4	5	16	14	2	8	51	52	103	35	40	0·07	0·07	0·1	0·3
14	Nilgiris ...	4	2	52	6	1	...	...	...	4	3	...	...	2	1	...	...	8	3	11	2	1	0·1	0·07	0·1	0·5
15	North Arcot ...	17	13	†4328	232	100	67	87	51	39	13	32	32	34	38	25	18	252	284	536	101	157	0·2	0·3	0·3	1·1
16	Salem ...	14	10	3,811	187	64	44	54	37	57	52	41	25	37	19	21	23	246	228	474	82	148	0·3	0·2	0·2	0·7
17	South Arcot ...	12	11	2,897	399	146	137	151	150	162	100	90	100	90	108	120	51	704	701	1,405	325	560	0·7	0·6	0·6·	1·9
18	South Canara.	6	5	1,277	57	9	19	24	30	26	23	11	16	14	4	3	3	104	78	182	14	10	0·2	0·1	0·2	0·2
19	Tanjore ...	15	14	3,550	284	100	110	112	127	120	69	68	76	55	51	41	44	490	483	973	128	266	0·5	0·4	0·4	0·5
20	Tinnevelly ...	21	16	1,538	139	68	38	45	25	22	14	16	25	20	14	23	3	207	244	451	57	233	0·2	0·2	0·2	0·8
21	Trichinopoly.	8	8	1,502	86	32	40	37	14	27	14	16	20	42	43	45	44	147	118	265	59	107	0·2	0·2	0·2	0·4
22	Vizagapatam.	22	18	2,668	120	45	39	66	54	23	19	20	20	27	14	10	38	189	186	375	58	93	0·2	0·2	0·2	0·5
	Total, Madras Presidency ...	270	227	44,678	2,684	1,561	1,708	1,876	1,278	951	626	620	593	509	488	446	551	5,721	5,486	11,207	1,432	3,072	0·3	0·3	0·3	1·0

* Includes 137 villages transferred from the North Arcot District.

† Excludes 137 villages transferred to the Chingleput District.

No. IX.—*Deaths registered from Fevers in the districts of the Madras Presidency during each month of the year* 1894.

1	2	3		4		5												6			7			8
		Circles of registration.		Villages.														Total.			Ratio of deaths per 1,000 of population.			
Number.	Districts.	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.	Mean ratio per 1,000 for previous 5 years.
1	Anantapur ...	9	8	941	1,214	199	149	207	317	230	139	160	131	157	181	176	158	1,125	1,079	2,204	3·1	3·2	3·1	4·1
2	Bellary ...	14	14	819	783	889	771	1,446	1,463	848	719	744	762	676	739	687	640	5,404	4,971	10,375	11·7	11·1	11·4	8·6
3	Chingleput ...	8	8	*2,134	1,450	659	530	550	513	671	648	595	507	617	708	691	662	3,689	3,662	7,351	6·1	6·2	6·1	5·6
4	Coimbatore ...	13	13	1,478	1,114	1,238	1,032	975	853	969	938	896	912	1,097	1,271	1,249	2,334	2,225	11,326	10,974	22,300	17·6	17·5	17·5	15·6
5	Cuddapah ...	12	12	1,276	1,216	2,032	1,553	1,672	1,944	2,264	1,528	1,440	1,562	1,797	1,949	2,334	2,225	11,326	10,974	22,300	17·6	17·5	17·5	15·6
6	Ganjám ...	8	8	6,037	2,900	1,896	1,292	1,395	1,435	1,485	1,142	1,364	1,841	1,791	1,510	1,371	1,730	1,948	8,982	8,419	17,401	8·7	8·0	8·4	8·3
7	Gódávari ...	18	17	2,603	789	2,357	1,358	982	915	1,255	1,169	1,510	1,371	1,435	1,371	1,730	1,948	8,982	8,419	17,401	8·7	8·0	8·4	8·3
8	Kistna ...	16	16	1,848	880	1,516	890	845	856	1,726	1,631	1,337	1,299	1,075	1,184	1,164	1,190	7,359	7,264	14,623	7·8	7·9	7·9	8·2
9	Kurnool ...	10	10	802	740	1,472	1,194	1,449	2,451	2,012	1,229	1,171	1,156	1,077	1,073	1,092	1,139	8,473	8,042	16,515	20·5	19·9	20·2	18·9
10	Madras ...	1	1	1	1	554	459	473	493	511	381	469	526	528	671	525	485	4,692	4,461	9,153	6·1	5·5	5·8	5·5
11	Madura ...	15	15	1,078	589	859	687	638	687	732	671	683	684	675	809	886	1,142	4,692	4,461	9,153	6·1	5·5	5·8	5·5
12	Malabar ...	15	15	2,245	434	1,674	1,661	3,540	1,542	1,626	1,670	1,778	1,518	1,384	1,346	1,193	1,195	9,785	8,339	18,122	7·5	6·3	6·9	6·9
13	Nellore ...	12	12	1,793	851	1,115	1,050	920	912	1,004	1,050	968	1,082	986	1,189	1,181	1,166	6,431	6,192	12,623	8·7	8·5	8·6	7·4
14	Nilgiris ...	4	4	52	50	99	101	144	183	224	185	125	127	118	101	115	115	849	786	1,635	15·6	18·6	16·9	14·7
15	North Arcot ...	17	17	†4,328	2,916	1,573	1,339	1,295	1,079	1,162	1,135	1,098	1,054	1,092	1,322	1,331	1,401	7,356	7,435	14,791	6·9	7·1	7·0	7·5
16	Salem ...	14	14	3,811	1,815	1,405	1,077	1,089	1,011	1,130	1,063	1,087	1,161	1,140	1,189	1,256	1,334	6,965	6,977	13,942	7·2	6·9	7·1	8·1
17	South Arcot ...	12	12	2,897	1,851	1,407	1,127	1,070	1,100	1,240	1,316	1,182	1,120	1,247	1,372	1,511	1,460	7,720	7,432	15,152	7·2	6·9	7·0	6·3
18	South Canara.	6	6	1,277	878	889	757	726	647	779	948	1,160	887	762	637	581	741	4,824	4,690	9,514	9·5	8·6	9·0	7·7
19	Tanjore ...	15	15	3,550	1,228	534	416	375	398	383	345	352	352	422	495	483	536	2,420	2,671	5,091	2·3	2·3	2·3	2·0
20	Tinnevelly ...	21	21	1,538	978	947	755	665	558	717	695	607	658	667	626	756	1,080	4,545	4,186	8,731	4·9	4·3	4·6	3·1
21	Trichinopoly.	8	8	1,502	843	665	497	385	465	480	425	421	431	483	454	589	747	2,998	3,044	6,042	4·5	4·3	4·4	4·6
22	Vizagapatam.	22	22	2,668	1,394	2,792	1,923	1,708	1,671	2,902	1,999	2,078	2,659	2,619	2,367	2,876	2,951	14,134	13,511	27,645	14·7	13·7	14·2	12·6
	Total, Madras Presidency.	270	268	44,678	24,914	26,771	20,618	20,459	21,493	23,450	21,026	21,216	21,703	21,845	22,555	23,853	25,467	137,938	132,518	270,456	8·3	7·8	8·0	7·6

* Includes 137 villages transferred from the North Arcot District.

† Excludes 137 villages transferred to the Chingleput District.

No. X.—*Deaths registered from Dysentery and Diarrhœa in the districts of the Madras Presidency during each month of the year* 1894.

1	2	3		4		5												6			7			8
		Circles of registration.		Villages.														Total.			Ratio of deaths per 1,000 of population.			
Number.	Districts.	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.	Mean ratio per 1,000 for previous 5 years.
1	Anantapur ...	9	8	941	138	20	16	17	10	4	12	11	7	15	17	20	18	94	73	167	0·3	0·2	0·2	0·3
2	Bellary ...	14	12	819	176	40	34	28	37	44	50	72	71	63	45	49	48	292	289	581	0·4	0·6	0·6	0·8
3	Chingleput ...	8	8	*2134	843	278	245	201	121	134	141	184	203	246	271	201	233	1,264	1,194	2,458	2·1	2·0	2·0	2·9
4	Coimbatore ...	13	13	1,478	215	114	68	63	49	74	89	70	121	121	144	122	117	602	550	1,152	0·6	0·5	0·6	0·6
5	Cuddapah ...	12	12	1,276	225	50	31	29	39	32	29	48	60	43	43	65	65	294	231	525	0·5	0·4	0·4	0·5
6	Ganjám ...	8	8	6,037	325	48	32	64	60	80	47	74	112	94	55	62	78	474	332	806	0·5	0·3	0·4	0·3
7	Gódávari ...	18	17	2,603	70	71	69	66	45	70	68	96	128	79	43	43	44	438	384	822	0·4	0·3	0·4	0·4
8	Kistna ...	16	16	1,848	176	19	57	26	30	41	27	38	62	38	34	38	48	254	204	458	0·3	0·2	0·2	0·4
9	Kurnool ...	10	10	802	95	14	7	20	15	14	13	14	31	34	15	19	14	114	96	210	0·3	0·2	0·3	0·4
10	Madras ...	1	1	1	1	302	196	141	112	127	104	164	258	221	308	210	175	1,147	1,171	2,318	5·3	5·3	5·3	7·6
11	Madura ...	15	12	1,078	155	153	132	112	99	99	79	56	56	73	76	121	188	1,668	1,426	3,094	1·3	1·1	1·2	1·8
12	Malabar ...	15	15	2,245	225	329	271	226	254	283	273	295	304	243	205	220	191	236	229	465	0·3	0·3	0·3	0·5
13	Nellore ...	12	12	1,793	186	40	23	38	22	22	27	50	33	50	68	59	43	80	55	135	1·5	1·3	1·4	1·5
14	Nilgiris ...	4	4	52	19	9	4	6	36	17	12	10	14	12	7	6	2	669	612	1,281	0·6	0·6	0·6	0·8
15	North Arcot ...	17	16	†4,328	423	233	153	105	52	62	85	75	83	112	115	101	105	547	489	1,036	0·6	0·5	0·5	0·5
16	Salem ...	14	12	3,811	466	110	54	52	61	66	56	92	95	106	137	119	88	828	675	1,503	0·8	0·6	0·7	0·6
17	South Arcot ...	12	12	2,897	476	234	120	107	94	89	66	80	94	149	157	132	181	755	619	1,374	1·5	1·1	1·3	1·6
18	South Canara.	6	6	1,277	250	176	130	107	85	91	83	116	124	102	124	110	126	840	796	1,636	0·8	0·7	0·7	0·8
19	Tanjore ...	15	15	3,550	281	318	196	116	87	101	100	95	101	129	117	135	141	1,015	932	1,947	1·1	0·9	1·0	0·7
20	Tinnevelly ...	21	16	1,538	333	305	191	115	86	95	113	118	161	224	137	154	248	366	350	716	0·6	0·5	0·5	0·5
21	Trichinopoly.	8	8	1,502	163	132	93	57	26	25	31	40	63	66	57	45	81	2,998	3,044	6,042	4·5	4·3	4·4	4·6
22	Vizagapatam.	22	22	2,668	152	80	55	65	54	52	56	88	102	113	83	62	63	475	398	873	0·5	0·4	0·5	0·4
	Total, Madras Presidency..	270	255	44,678	5,373	3,075	2,177	1,761	1,465	1,622	1,561	1,886	2,283	2,353	2,248	2,093	2,297	13,111	11,690	24,801	0·8	0·7	0·7	0·9

* Includes 137 villages transferred from the North Arcot District.

† Excludes 137 villages transferred to the Chingleput District.

No. XI.—*Births registered according to Months and Classes in the districts of the Madras Presidency during the year* 1894.

1	2	3													4	5					6					
Number.	Districts.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total Births.	Births registered according to classes.					Ratio of births per mille of population.					
															Christians. Native	Muhammadans.	Hindus.	Other classes.	Total.	Christians. Native	Muhammadans.	Hindus.	Other classes.	Total.
1	Anantapur	1,551	1,424	1,629	1,533	1,785	1,895	1,998	1,797	1,951	1,991	1,914	1,694	21,162	21	1,425	19,715	1	21,162	15·2	27·8	30·1	3·0	29·9
2	Bellary	2,111	2,070	2,321	2,604	2,725	3,012	3,079	2,604	2,431	2,582	2,544	2,116	30,199	112	3,113	26,971	3	30,199	32·3	35·5	33·0	2·0	33·2
3	Chingleput	3,139	2,450	2,290	2,456	2,759	3,217	3,888	3,884	3,973	4,497	4,324	3,817	40,694	277	605	39,812	...	40,694	17·4	22·2	34·4	...	33·9
4	Coimbatore	3,947	3,686	4,488	4,524	4,648	4,707	4,945	4,810	4,996	5,383	5,410	4,971	56,515	323	1,158	55,033	1	56,515	22·1	26·3	28·3	2·1	28·2
5	Cuddapah	2,161	2,008	2,487	2,498	2,610	2,614	3,276	3,205	3,053	3,212	3,254	2,890	33,268	211	3,129	29,926	2	33,268	22·5	26·2	26·2	35·7	26·2
6	Ganjám	3,116	2,649	3,056	2,895	3,214	2,981	3,211	3,422	3,246	3,106	2,444	2,814	36,154	21	88	36,043	2	36,154	8·7	16·0	19·1	38·5	19·1
7	Gódávari	4,609	3,378	3,193	2,996	3,744	4,479	4,744	3,682	4,295	4,292	4,739	4,408	48,559	154	735	47,670	...	48,559	18·9	17·9	23·5	...	23·4
8	Kistna	5,386	3,733	3,925	4,069	4,696	5,373	5,599	5,549	5,144	5,562	6,249	5,665	60,950	1,323	3,608	56,018	1	60,950	19·5	33·2	33·4	6·3	32·8
9	Kurnool	1,843	1,894	2,166	2,107	2,212	2,308	2,136	2,204	2,183	2,390	2,285	1,929	25,657	569	3,078	22,010	...	25,657	25·2	31·6	31·5	...	31·4
10	Madras	1,419	1,149	1,339	1,280	1,247	1,356	1,517	1,401	1,494	1,495	1,423	1,327	16,447	866	2,093	13,486	2	16,447	36·7	30·4	37·6	3·4	37·7
11	Madura	3,173	3,140	3,789	3,730	3,612	3,767	4,105	3,733	3,668	4,094	4,229	4,186	45,226	1,157	2,001	42,068	...	45,226	27·4	27·2	28·9	...	28·7
12	Malabar	3,803	3,740	3,789	3,730	3,612	3,767	4,105	3,733	3,668	4,094	4,229	4,186	45,226	1,224	17,784	39,388	16	58,412	28·9	23·4	21·5	20·6	22·1
13	Nellore	4,286	4,124	4,387	4,450	5,131	5,422	5,704	5,358	4,960	5,221	4,749	4,620	58,412	374	1,316	34,341	...	36,031	7·9	16·8	25·7	...	24·6
14	Nilgiris	2,842	2,707	2,574	2,615	2,786	3,126	3,136	3,235	3,225	3,331	3,278	3,176	36,031	283	98	2,489	...	2,870	32·9	21·3	29·8	...	29·7
15	North Arcot	203	248	251	257	275	214	243	246	265	254	227	187	2,870	156	2,017	58,124	18	60,315	11·0	21·2	29·1	2·2	28·5
16	Salem	5,028	3,975	4,131	3,749	4,219	5,153	6,090	5,976	5,542	5,745	5,497	5,210	60,315	335	1,745	61,373	4	63,457	19·0	28·4	32·6	19·1	32·3
17	South Arcot	4,531	4,142	4,911	5,012	4,852	5,528	6,269	5,766	5,533	5,948	5,778	5,187	63,457	884	1,091	61,396	56	63,427	16·3	18·6	30·0	9·9	29·3
18	South Canara	4,009	3,213	3,789	4,086	4,683	5,767	6,810	6,641	5,944	6,556	6,367	5,562	63,427	2,332	3,203	29,231	278	35,044	32·9	29·6	33·9	27·1	33·3
19	Tanjore	3,569	3,341	3,397	3,282	3,019	3,274	3,263	2,703	2,117	2,066	2,388	2,625	35,044	1,839	2,722	52,545	...	57,106	21·8	22·7	26·0	...	25·6
20	Tinnevelly	4,217	3,790	4,799	4,598	4,322	4,316	5,269	5,387	5,245	5,351	4,934	4,878	57,106	3,468	3,048	48,773	...	55,289	24·5	31·7	29·1	...	28·8
21	Trichinopoly	4,222	3,790	4,520	4,541	4,673	4,472	4,820	4,439	4,498	4,837	5,214	5,253	55,289	1,539	771	32,643	...	34,953	23·6	20·1	25·8	...	25·5
22	Vizagapatam	2,648	2,418	2,693	2,739	2,682	2,774	3,144	2,888	2,920	3,273	3,451	3,323	34,953	43	244	51,032	5	51,324	21·5	11·6	26·6	72·5	26·4
	Total, Madras Presidency	4,207	3,680	3,957	3,804	4,152	4,412	4,845	4,495	4,836	4,370	4,403	4,163	51,324	17,511	55,072	860,087	389	933,059	22·8	25·6	28·0	13·1	27·7
	Ratio per mille of population	72,227	63,009	70,092	69,825	74,046	80,167	88,091	83,425	81,519	85,556	85,101	80,001	963,059										
		2·1	1·9	2·1	2·1	2·2	2·4	2·6	2·5	2·4	2·5	2·5	2·4	27·7										

No. XII.—*Births and Deaths registered among Europeans and Eurasians from different causes in each district of the Madras Presidency and the number of born dead among all classes during the year* 1894.

| 1 | 2 | 3 | | | 4 | 5 | | 6 | | 7 | | | 8 | | | | | | | | | | | | | | | | | | | | | | | | 9 | | | 10 | | | 11 | | | 12 | | | | | | | | | | | | | | | | | | 13 | | | 14 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---

Including Europeans & Eurasians -

Return showing the Births and Deaths registered in the

Districts.	Municipal towns.	Population according to Census of 1891.	Births.									Deaths.								
			Class.						Total births.			Class.						Total deaths.		
			Europeans.	Eurasians.	Native Christians.	Hindus.	Muhammadans.	Other Classes.	M.	F.	Total.	Europeans.	Eurasians.	Native Christians.	Hindus.	Muhammadans.	Other Classes.	M.	F.	Total.
Ganjám	Chicacole	18,241	...	...	4	400	29	...	223	210	433	...	...	...	466	32	...	234	204	438
	Berhampur	25,653	3	...	13	620	31	...	319	348	667	2	3	7	502	28	...	303	239	542
	Parlákimedi	16,390	...	...	4	556	19	...	274	305	579	...	...	3	340	14	1	177	181	358
Vizagapatam	Vizagapatam	34,487	7	15	16	1,096	77	2	626	587	1,213	6	13	25	916	70	3	542	491	1,033
	Bimlipatam	9,827	4	5	3	394	6	...	180	140	320	2	1	1	245	5	...	118	136	254
	Vizianagram	30,881	...	1	...	933	25	...	461	498	959	...	...	...	859	24	...	468	415	883
	Anakápalle	17,010	...	...	...	596	9	...	325	280	605	...	...	...	433	7	...	247	193	440
Gódávari	Cocanada	40,553	9	9	4	1,065	42	...	543	586	1,129	4	10	10	900	26	...	531	419	950
	Rajahmundry	28,397	2	2	9	877	45	...	489	446	935	1	3	9	787	63	...	452	411	863
	Ellore	29,382	1	2	16	511	84	...	333	281	614	...	5	12	582	86	1	364	322	686
Kistna	Masulipatam	38,809	1	...	11	946	113	...	548	523	1,071	1	2	9	1,045	114	...	601	570	1,171
	Guntúr	23,359	3	4	20	546	251	...	429	395	824	2	1	9	494	165	...	344	327	671
	Bezwada	20,741	1	6	5	514	102	2	326	304	630	...	6	9	568	109	...	368	324	692
Nellore	Nellore	29,336	3	2	22	717	151	...	479	416	895	...	3	6	503	96	...	340	268	608
	Ongole	10,860	1	...	18	270	43	...	186	146	332	...	...	17	225	26	...	137	131	268
Madras	Madras	452,518	135	480	866	13,186	2,093	2	8,642	8,420	17,062	105	351	736	13,347	2,000	3	8,183	8,359	16,542
Chingleput	Conjeeveram	42,548	...	...	...	1,637	40	...	855	822	1,677	...	...	...	1,265	35	...	655	645	1,300
South Arcot	Cuddalore	47,355	2	11	15	1,371	36	...	703	735	1,438	1	2	14	972	24	...	527	486	1,013
	Chidambaram	18,640	...	...	4	470	36	22	282	250	532	...	...	3	542	29	12	306	280	586
Trichinopoly	Trichinopoly	90,609	10	20	168	1,254	209	...	860	801	1,661	5	18	206	1,664	315	...	1,113	1,095	2,208
	Srirangam	21,632	...	...	1	625	...	...	326	300	626	...	...	4	651	3	...	334	324	658
Tanjore	Tanjore	54,390	...	3	154	1,276	82	...	758	757	1,515	...	2	89	1,283	87	...	713	748	1,461
	Kumbakónam	54,307	...	1	41	1,478	67	...	825	762	1,587	...	1	34	1,925	75	...	1,024	1,011	2,035
	Máyavaram	23,765	...	...	16	684	8	...	357	351	708	...	...	18	740	14	...	398	374	772
	Negapatam	59,221	3	32	210	1,219	458	...	970	952	1,922	1	23	209	1,488	560	...	1,082	1,199	2,281
	Mannárgudi	20,395	1	...	12	575	18	...	309	297	606	...	...	13	663	24	...	339	361	700
Madura	Madura	87,428	3	8	101	2,625	181	...	1,456	1,462	2,918	1	11	48	2,602	190	...	1,407	1,445	2,852
	Periyakulam	16,363	...	...	44	573	59	...	344	332	676	...	...	36	541	56	...	322	311	633
	Dindigul	20,393	...	3	137	659	123	...	508	414	922	2	3	63	360	51	...	255	224	479
	Palni	16,940	...	...	15	592	45	...	291	271	562	...	...	7	368	51	...	232	194	426
Tinnevelly	Tinnevelly	24,768	...	...	6	857	27	...	447	443	890	...	...	11	935	45	...	477	514	991
	Palamcottah	18,686	1	...	70	478	15	...	279	285	564	...	...	2	451	13	...	276	242	518
	Tuticorin	25,107	...	2	237	399	37	...	345	330	675	...	...	3	217	530	33	427	356	783
Kurnool	Kurnool	24,376	...	1	6	350	473	...	429	401	830	1	...	2	352	408	1	361	403	764
Cuddapah	Cuddapah	17,379	...	...	5	115	153	...	142	131	273	1	1	7	330	248	2	293	296	589
Bellary	Bellary	59,467	11	11	92	1,253	817	...	1,081	1,103	2,184	10	5	49	1,039	589	...	818	874	1,692
	Adoni	26,243	...	1	2	528	330	...	443	418	861	...	1	1	407	229	...	319	319	638
Anantapur	Anantapur	6,994	...	1	1	122	50	7	101	80	181	...	...	...	75	27	4	55	51	106
North Arcot	Vellore	44,925	1	6	45	1,117	426	...	796	799	1,595	1	3	25	747	363	...	551	588	1,139
	Gudiyáttam	18,747	...	...	1	431	69	1	276	226	502	...	...	...	346	43	1	207	183	390
	Walajapet	10,485	...	...	...	335	29	...	186	178	364	...	...	...	220	28	...	108	140	248
	Tirupati	14,242	1	...	2	420	25	...	245	203	448	1	...	2	424	25	...	234	216	450
Salem	Salem	67,710	2	...	36	2,349	138	...	1,200	1,225	2,525	...	...	21	1,488	142	...	811	840	1,651
	Vániyambádi	15,838	...	...	1	312	476	...	422	367	789	...	...	...	193	223	...	207	209	416
	Tiruppattúr	16,499	...	...	3	417	274	...	326	368	694	...	...	1	290	169	...	230	230	460
Coimbatore	Coimbatore	46,383	1	10	76	1,517	105	...	826	883	1,709	1	3	81	1,080	54	...	613	606	1,219
	Erode	12,830	...	...	12	328	53	1	207	187	394	...	...	6	320	33	1	180	180	360
	Karúr	10,750	...	...	12	346	33	...	210	182	392	...	...	7	271	29	...	156	151	307
Nilgiris	Ootacamund	15,053	23	31	151	230	47	2	246	238	484	11	13	92	212	51	2	187	194	381
	Coonoor	6,049	11	6	75	120	23	...	132	103	235	11	5	45	109	23	...	105	88	193
South Canara	Mangalore	40,922	7	...	375	789	172	...	685	658	1,343	2	...	282	638	179	...	559	542	1,101
Malabar	Tellicherry	27,196	1	8	46	436	399	...	457	433	890	...	1	32	271	247	...	296	255	551
	Calicut	66,078	4	26	102	1,128	904	1	1,172	1,083	2,255	5	21	114	815	703	...	832	826	1,658
	Palghat	39,481	1	3	40	1,106	183	...	691	642	1,333	...	4	13	822	173	...	492	520	1,012
	Cochin	17,601	1	37	395	85	87	...	320	285	605	3	35	289	117	238	...	346	326	672
	Cannanore	27,418	5	10	104	418	554	1	574	518	1,092	3	6	72	274	484	...	467	372	839
	Total	2,100,967	260	757	3,824	54,271	10,472	41	35,565	34,160	69,725	183	561	3,018	49,972	9,176	31	31,723	31,218	62,941

Municipalities of the Madras Presidency during the year 1894.

Districts.	Municipal towns.	Deaths. Causes of death. Cholera.		Small-pox.		Fevers.		Dysentery and diarrhœa.		Injuries. Suicides		Wounds or accidents.		Snake-bite.		Killed by wild beasts.		All other causes.		Still-birth or born dead.		Ratio per mille of population. Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.	Injuries.	All other causes.	Births.	Deaths.	Average ratio per mille of population per annum for previous five years ending 1893. Births.	Deaths.
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.										
Ganjám	Chicacole																	103	94	1	1	0·6	0·1	9·0	3·0	0·3	11·0	23·7	24·0	24·6	24·6
	Berhampur	3	9	...	3	96	68	25	29	1	...	2	...	1	1	...	...	191	134	1	4	...	...	5·3	2·8	6·3	12·7	26·1	21·1	29·2	25·5
	Parlákimedi	...	...	...	...	67	70	39	33	2	1	1	1	1	...	...	2	69	67	...	...	0·1	0·1	10·8	2·6	...	8·2	35·3	21·8	29·9	23·7
Vizagapatam	Vizagapatam	1	...	...	...	84	93	22	21	...	...	...	...	...	...	...	...	148	140	1	3	...	0·2	9·5	11·6	0·3	8·3	35·2	29·9	30·2	28·2
	Bimlipatam			1	...													70	64	8	2	0·5	...	6·7	4·6	0·4	13·6	32·6	25·8	30·4	28·6
	Vizianagram					162	164	230	171	...	1	6	3	...	2	...	...	217	251	...	...	...	0·1	12·4	1·4	0·2	14·5	31·1	28·6	24·6	23·4
	Anakápalle			2	4	25	41	16	29	...	...	4	...	...	...	1	...	130	81	...	2	...	...	11·5	1·5	0·5	12·4	35·6	25·9	31·0	25·7
Gódávari	Cocanada	3	...	2	...	215	166	30	14	...	2	4	...	...	...	...	...	370	304	19	19	0·2	...	3·9	2·3	0·4	16·6	27·8	23·4	21·1	22·5
	Rajahmundry	...	...	1	2	101	94	15	10	...	...	1	6	...	1	...	...	229	214	11	7	0·7	0·3	8·3	4·6	0·9	15·6	32·9	30·4	29·1	30·6
	Ellore	...	...	...	1													211	168	4	6	4·0	0·4	4·0	1·8	0·3	12·9	20·9	23·3	25·3	25·2
Kistna	Masulipatam	4	3	1	1	93	66	52	41	...	1	11	3	...	...	...	...	435	391	18	15	1·6	0·2	6·1	0·8	0·2	21·3	27·6	30·2	28·5	25·0
	Guntúr	12	9	3	4	121	115	71	60	...	...	3	4	...	2	...	...	225	166	26	21	0·7	...	8·7	1·7	0·9	16·7	35·3	28·7	29·2	27·8
	Bezwada	58	58	7	5	55	61	26	27	1	...	...	...	...	...	...	...	191	187	29	15	6·8	0·1	5·1	2·2	1·0	18·2	30·4	33·4	27·4	31·1
Nellore	Nellore	32	30	2	4	112	125	15	19	...	1	3	...	1	...	...	...	215	165	16	15	0·03	0·3	6·9	0·3	0·5	13·0	30·2	20·7	25·1	22·4
	Ongole	8	8	...	...	80	124	19	19	2	3	10	7	...	...	...	...	92	90	15	14	...	0·2	6·1	0·8	0·8	16·8	30·6	24·7	31·1	23·1
Madras	Madras	82	58	1	2	49	57	24	21	1	2	3	1	...	...	...	1	4,009	3,770	309	224	0·2	0·03	13·5	5·3	6·4	17·2	37·7	36·6	38·4	43·1
Chingleput	Conjeeveram	1	...	2	7	109	94	4	3	...	...	7	1	...	...	...	...	360	370	64	49	1·4	0·1	8·2	3·2	0·5	17·2	39·4	30·6	35·0	31·2
South Arcot	Cuddalore	...	...	1	1	31	35	6	3	...	...	3	3	2	...	...	...	298	291	19	25	2·3	0·6	3·8	2·1	0·2	12·4	30·4	21·4	25·5	19·3
	Chidambaram	51	26	6	6	2,840	3,288	1,186	1,206	8	6	79	56	4	1	...	...	119	125	7	9	5·1	0·2	10·6	2·0	0·4	13·1	28·5	31·4	25·9	30·1
Trichinopoly	Trichinopoly	27	32	3	3	191	157	61	76	1	...	11	7	1	...	...	...	442	470	3	4	3·0	0·4	7·2	3·4	0·3	10·1	18·3	24·4	21·5	27·7
	Srirangam	63	46	14	14	94	85	51	47	...	...	6	2	1	1	...	...	235	220	15	10	2·1	0·05	4·4	2·6	0·3	21·0	28·9	30·4	30·3	31·3
Tanjore	Tanjore	49	47	4	...	106	92	22	15	1	...	4	...	1	1	...	...	313	270	49	38	4·1	0·3	4·4	7·1	0·3	10·7	27·9	26·9	27·7	29·6
	Kumbakónam	163	115	21	14	311	339	164	145	...	...	12	11	...	1	...	...	530	544	75	51	6·5	0·2	7·1	3·7	0·2	19·8	29·2	37·5	27·5	31·4
	Máyavaram	18	27	...	1	52	42	25	31	1	...	3	3	...	...	...	...	217	201	15	14	3·8	0·1	6·9	3·7	0·3	17·6	29·8	32·4	31·3	28·9
	Negapatam	109	113	7	6	97	144	178	206	...	...	9	9	...	...	...	...	627	659	25	25	3·5	0·5	8·1	4·3	0·3	21·7	32·5	38·6	23·2	27·6
	Mannárgudi	189	162	2	3	190	194	103	101	1	...	7	1	2	...	...	...	165	174	22	16	5·1	0·2	5·6	6·3	0·3	16·6	29·7	34·3	29·1	27·3
Madura	Madura	46	44	1	3	83	80	45	44	...	...	8	2	3	1	...	...	764	866	2	3	4·4	0·3	5·2	3·8	0·3	18·6	33·4	32·6	32·3	29·4
	Periyakulam	93	114	11	3	83	80	45	44	...	...	8	2	3	1	...	...	764	866	2	3	4·4	0·3	5·2	3·8	0·3	18·6	33·4	32·6	32·3	29·4
	Dindigul	46	59	3	1	210	269	129	138	...	...	8	2	1	1	...	...	120	144	15	11	7·8	...	8·7	5·7	0·4	16·1	41·3	38·7	37·0	30·4
	Palni	45	59	3	1	57	57	66	67	...	...	2	1	...	...	...	...	163	167	5	1	1·1	...	3·2	0·7	0·6	16·2	32·2	25·1	36·3	30·8
Tinnevelly	Tinnevelly	206	178	14	11	236	214	173	161	4	3	10	11	...	1	...	...	154	121	...	...	4·3	0·1	3·2	0·7	0·6	16·2	32·2	25·1	36·3	30·8
	Palamcottah	69	58	...	...	75	68	54	39	...	1	2	1	2	...	...	...	154	121	...	...	4·3	0·1	3·2	0·7	0·6	16·2	32·2	25·1	36·3	30·8
	Tuticorin	16	7	...	1	46	24	24	18	...	...	6	4	1	...	...	...	252	287	6	5	10·0	0·04	3·7	5·5	0·2	20·6	35·9	40·0	31·3	32·3
Kurnool	Kurnool	34	38	1	...	32	23	5	7	...	...	5	1	...	...	...	...	168	154	4	2	3·4	0·9	3·7	2·3	0·2	17·2	30·2	27·7	32·8	27·2
Cuddapah	Cuddapah	107	140	1	...	48	44	66	70	1	2	2	1	...	...	...	...	209	168	...	...	1·3	0·1	10·1	4·5	0·2	15·0	26·9	31·2	26·4	28·5
Bellary	Bellary	36	28	8	9	42	27	20	23	1	...	5	...	1	...	...	...	168	154	4	2	3·4	0·9	3·7	2·3	0·2	17·2	30·2	27·7	32·8	27·2
	Adoni	23	9	2	...	124	129	63	50	...	...	7	3	3	...	...	...	161	168	15	9	1·0	0·04	14·7	1·4	0·7	13·1	34·0	31·3	27·9	32·9
Anantapur	Anantapur	...	...	...	1	155	204	18	17	3	...	7	3	3	...	...	...	110	131	17	11	...	0·6	17·0	1·5	1·0	13·8	15·7	33·9	23·5	39·1
North Arcot	Vellore	14	10	...	3	157	137	16	10	...	1	7	7	...	1	...	1	423	463	4	7	0·03	...	11·6	1·6	0·4	14·9	36·7	28·5	30·5	29·9
	Gudiyáttam	...	...	3	8	334	356	47	46	...	2	12	6	1	...	...	...	197	194	3	1	0·1	...	9·0	...	0·3	14·9	32·8	24·3	33·7	26·4
	Walajapet	1	1	...	...	120	116	...	...	...	1	1	7	...	...	...	...	24	25	...	1	0·9	...	6·6	0·1	0·6	7·0	25·9	15·2	31·0	25·6
	Tirupati	1	1	...	...	24	22	...	1	...	...	3	1	...	...	...	...	238	259	30	33	3·3	0·1	8·2	2·4	0·2	11·1	35·5	25·4	34·1	24·6
Salem	Salem	4	2	...	...	175	195	58	51	1	2	5	...	...	...	...	...	73	56	4	9	1·8	0·05	10·3	1·8	0·05	6·8	26·8	20·8	28·3	25·7
	Vániyambádi	70	78	4	3	94	99	19	14	...	...	...	...	1	...	...	...	59	59	10	5	1·2	...	10·6	2·3	0·2	9·3	34·7	23·6	40·2	30·5
	Tiruppattúr	20	13	...	1	46	65	15	9	...	...	1	...	...	...	...	...	127	107	9	8	1·2	0·6	10·0	2·6	0·8	16·4	31·4	31·6	22·7	27·9
Coimbatore	Coimbatore	6	7	...	...	66	77	21	15	2	1	6	3	...	...	...	...	446	424	19	12	1·8	0·04	8·6	1·0	0·1	12·9	37·3	24·4	35·3	24·7
	Erode	6	9	4	4													101	84	5	2	1·6	...	11·9	0·8	0·3	11·7	49·8	26·3	41·9	33·3
	Karúr	8	...	2	1	263	319	33	33	...	...	1	1	4	1	...	...	103	106	9	11	1·9	...	10·7	2·1	0·5	12·7	42·1	27·9	35·6	27·9
Nilgiris	Ootacamund	62	61	2	1	91	98	5	8	...	...	3	3	1	...	...	...	369	399	6	3	0·1	0·1	6·2	3·0	0·3	16·6	39·0	26·3	36·1	28·2
	Coonoor	9	16	...	...	89	87	15	19	2	...	3	3	1	...	...	...	98	91	2	5	3·1	0·1	7·1	3·0	0·7	15·3	35·2	29·3	31·3	27·5
South Canara	Mangalore	17	15	...	...	152	134	75	64	2	6	6	1	1	...	...	...	63	51	7	3	4·1	0·6	6·2	6·7	0·4	10·6	36·5	28·6	38·4	30·4
Malabar	Tellicherry	5	1	3	1	35	52	22	15	1	1	3	1	2	...	...	...	100	127	...	...	0·1	...	7·4	2·4	0·4	15·1	32·2	25·3	28·7	22·0
	Calicut	19	19	...	4	31	36	31	41	1	...	2	...	1	...	...	...	59	36	...	...	0·8	...	8·9	6·3	0·2	15·7	38·8	31·9	32·9	30·7
	Palghat	23	21	...	...	58	53	25	11	1	1	2	2	...	...	...	...	315	302	14	22	...	...	7·9	3·4	0·5	15·1	32·8	26·9	29·4	23·2
	Cochin	1	...	...	...	21	33	20	18	...	...	1	...	...	...	...	...	190	165	37	21	...	0·1	4·6	2·2	0·3	13·1	32·7	20·3	30·0	22·8
	Cannanore	4	1	...	...	163	160	67	74	1	...	13	6	...	...	...	...	567	535	46	36	2·1	0·2	3·0	2·8	0·3	16·7	34·1	25·1	32·2	35·3
		...	...	...	...	62	63	34	25	1	...	5	2	1	...	...	...	313	324	...	...	1·0	0·3	5·9	1·2	0·1	16·1	33·8	25·6	32·0	27·0
		...	...	3	...	98	102	89	93	4	1	9	4	2	1	...	...	168	159	15	3	12·8	0·6	3·2	3·1	0·4	18·6	34·4	38·7	32·2	34·9
		...	...	3	13	102	132	45	40	...	...	3	2	...	...	...	...	241	189	3	3	3·2	...	8·4	3·3	0·04	15·7	39·8	30·6	27·8	22·6
		60	77	7	4	32	23	...	...	...	...	2	...	...	1	...	...														
		22	19	6	5	29	28	32	23	...	...	...	...	...	...	...	...														
		108	118	...	...	124	105	62	28	...	...	...	...	...	...	...	...														
		39	50																												
		2,041	1,939	158	172	8,724	9,322	3,778	3,599	44	39	349	211	48	20	5	2	16,569	15,921	1,039	816	1·9	0·1	8·6	3·5	0·3	15·5	33·2	29·9	31·5	30·9

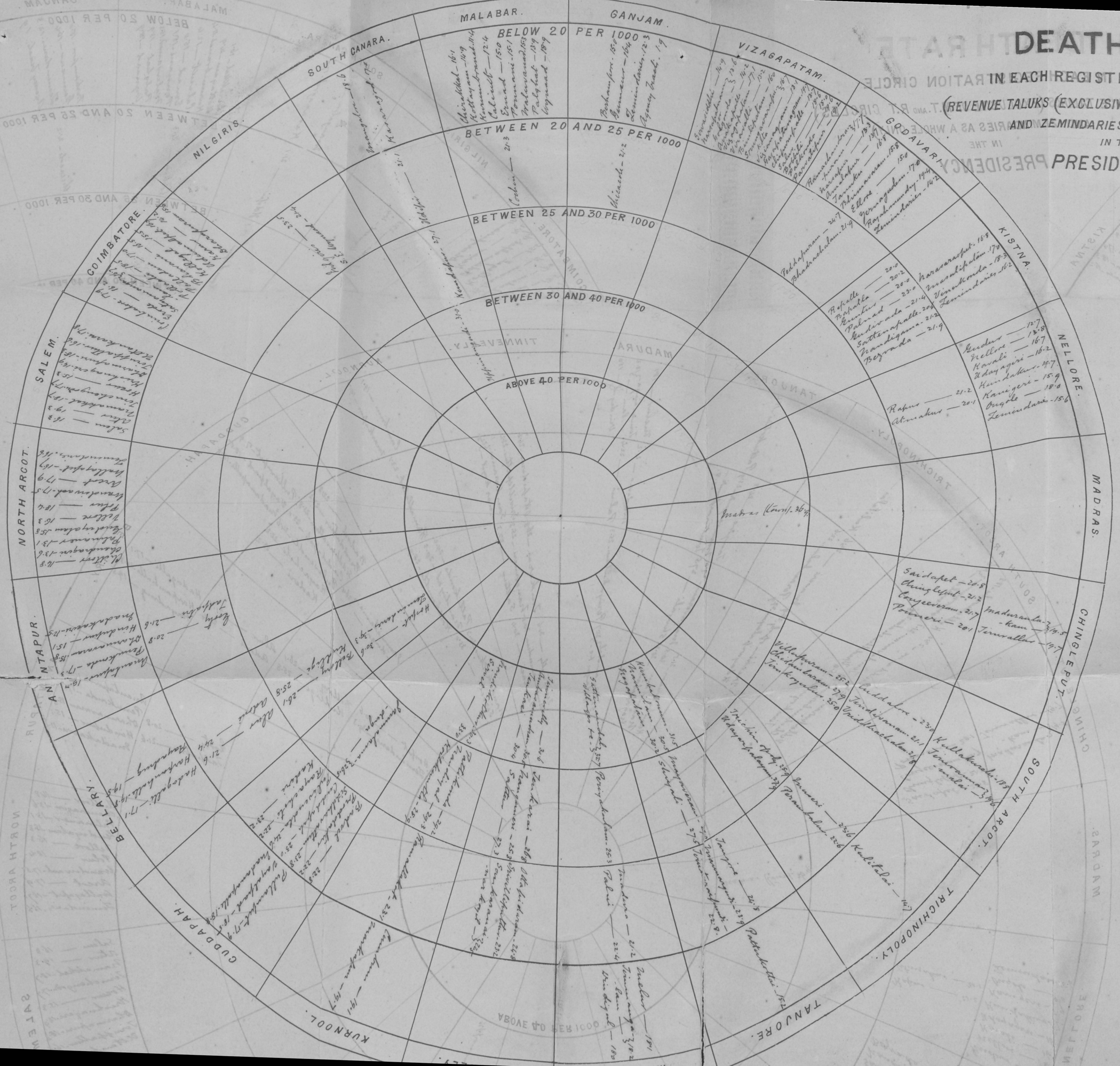
DEATH RATE

IN EACH REGISTRATION CIRCLE

(REVENUE TALUKS (EXCLUSIVE OF M.T. AND R.T CIRCLES) AND ZEMINDARIES AS A WHOLE ONLY)

IN THE

PRESIDENCY.



Statement showing the rate of Mortality of Infants under one year of age in Districts and Municipalities in 1894—continued.

Districts.	Ratio per mille of registered births.*			Municipalities.	Ratio per mille of registered births.†		
	Males.	Females.	Total.		Males.	Females.	Total.
South Arcot	214·3	198·4	206·5	Chidambaram	228·1	180·1	204·7
Trichinopoly	184·8	177·3	181·2	Trichinopoly	130·3	129·1	129·7
				Srírangam	238·4	223·6	231·0
				Tanjore	255·8	248·5	252·0
Tanjore	217·6	195·8	207·0	Kumbakonam	292·4	257·4	275·4
				Mayavaram	230·6	176·6	203·9
				Negapatam	364·7	328·6	347·0
				Mannárgudi	196·4	188·0	192·4
				Madura	160·2	148·5	154·3
Madura	147·4	136·2	142·0	Periyakulam	267·9	168·6	187·3
				Dindigul	222·9	171·9	198·0
				Palni	187·9	153·8	171·2
				Tinnevelly	197·9	198·7	198·3
Tinnevelly	192·2	186·6	189·5	Palamcottah	221·8	157·6	187·7
				Tuticorin	276·5	229·1	254·0
Kurnool	164·1	152·8	158·6	Kurnool	213·3	173·9	193·8
Cuddapah	177·8	163·4	170·7	Cuddapah	269·2	298·0	282·1
				Bellary	276·3	245·6	261·3
Bellary	164·6	144·9	155·0	Adoni	161·6	151·9	157·1
Anantapur	127·6	123·2	125·5	Anantapur	158·5	133·3	147·9
				Vellore	144·6	132·0	138·4
				Gudiyattam	177·2	173·3	175·4
North Arcot	135·8	125·6	130·8	Wallajapet	147·3	114·8	131·6
				Tirupati	243·2	195·9	221·2
				Salem	209·6	195·8	202·8
				Vaniambadi	207·9	166·7	188·3
Salem	176·9	159·4	168·3	Tirupattúr	176·9	168·6	173·0
				Coimbatore	201·2	175·2	187·8
				Erode	162·0	181·8	171·8
Coimbatore	165·6	147·5	156·7	Karur	245·3	230·3	238·5
				Ootacamund	193·0	220·9	206·7
Nílgiris	216·9	237·0	226·5	Coonoor	185·4	146·3	167·9
South Canara	168·6	152·8	160·9	Mangalore	241·4	193·6	218·1
				Tellichery	162·6	124·4	144·9
				Calicut	153·0	128·3	141·3
Malabar	99·5	89·3	94·6	Palghat	242·4	227·7	235·4
				Cochin	142·4	188·7	163·8
				Cannanore	195·8	155·6	176·5
	167·5	153·3	160·6		226·9	204·6	216·0

* Excluding Europeans and Eurasians. † Including Europeans and Eurasians.

30. The sacrifice of infant life in certain municipalities reached proportions that are enormous; for example, in Madras (267·7), Kumbakónam (275·4), Negapatam (347·0), Tuticorin (254·0), Bellary (261·3), Bezwada (273·1), Cuddalore (254·1), Tanjore (252·0) and Cuddapah (282·1). In Bellary, in default of a drainage system, the town is honeycombed with cess-pools, and the houses of the poor are greatly crowded upon the soil; the other towns add to the sewage-sodden state of the soil, markedly high sub-soil water level in some parts or in the whole of the area, and are very badly conserved. Irrespective of the medical and hygienic treatment of infants, which is the chief cause of this high death-rate, there seems here to be, as might be expected, a connection between filthy and damp soil and infant mortality—probably brought about chiefly by diarrhœa.

31. A better knowledge of hygienic care requisite for infants would go far towards restraining this mortality. This end, and indeed sanitary advance of the population generally, can only be attained by more attention being paid to the education of women than has been hitherto thought necessary. I am glad to say that at least one of the social improvement associations which are now found in the country, has turned its attention to the useful object of diffusing a knowledge of hygiene amongst the people, by distribution of leaflets at its own expense. The Secretary lately addressed this office for aid in respect to supply of information of the character required. A magazine in the vernacular has also directed its attention to this object. Such efforts deserve encouragement.

24. It need hardly be said that such phenomenal death-rates as 14·6 per mille in Malabar and 12·3 per mille in Ganjám, which would require that the inhabitants had a mean life of 68·5 years' and 81·3 years' duration, respectively, are the result of imperfect registration and not of perfect sanitary condition. In the latter district, large zemindari tracts, doubtless, influence the result; in the former, the area in which the *Athigári* is supposed to gather his information is enormous, owing to the villages being arranged in scattered groups of houses after the style of an English parish, and also to the fact that registration of infants is particularly defective—a result, probably, due to the habit of certain sects of Hindus burying infants and children up to ten years of age in their private land.

25. On the same ground, I should hesitate to regard the death-rate of 14·9 as representing the truth in the case of the municipal town of Anantapur. There is nothing with respect to the situation of this town, nor its sanitary condition to lead one to suppose that it would be right to advise those in search of health to proceed there. I think it safe to infer that the only reason for this very favourable rate is that the municipality has neglected the registration of deaths. In the matter of births there is probably more reliability in this town, as since the period of Surgeon-Lieutenant-Colonel Wilkin's tenure there, considerable attention has been paid to vaccination and, incidentally, therefore, to registration of births.

26. Madras town, as usual, returned the heaviest death-rate, namely, 36·9 per mille. This is an improvement upon the rate found in 1893, when 41·4 per mille was registered. This may be ascribed to a nearer approach to normal conditions affecting the sub-soil water and price of food—matters which are referred to in appendix B.

27. The total average death-rate of infants per mille of the registered births in the latter half of the preceding year, and the former half of that under review was 160·6.

28. The deaths of males were in the proportion of 167·5 to 153·3 of females per mille of births. The proportion recognised in England is about 158·6 males to 135·7 females per mille of births. It is not to be supposed that male infant life is more delicate in this country than elsewhere, and it may be assumed therefore that registration of the deaths of males is attended to with more care than in the case of females: the loss of a son becomes public news in a village, that of an infant daughter is a household matter.

29. The following table shows, side by side, the rates of infantile mortality in districts and in municipalities:—

Statement showing the rate of Mortality of Infants under one year of age in Districts and Municipalities in 1894.

Districts.	Ratio per mille of registered births.*			Municipalities.	Ratio per mille of registered births.†		
	Males.	Females.	Total.		Males.	Females.	Total.
Ganjam	246·8	222·0	234·8	Chicacole	162·6	155·8	159·6
				Berhampore	188·1	147·6	167·9
				Parlakimedi	123·4	110·1	116·6
Vizagapatam	108·9	90·0	99·5	Vizagapatam	241·5	196·6	219·7
				Bimlipatam	151·0	239·1	187·9
				Vizianagaram	209·9	195·0	202·3
				Anakapalle	182·7	70·2	123·2
Godávari	99·9	90·7	95·4	Cocanada	128·2	132·8	130·5
				Rajahmundry	244·5	205·5	225·4
				Ellore	149·7	110·2	129·7
Kistna	163·7	144·0	154·0	Masulipatam	241·8	214·2	228·8
				Guntur	241·7	188·8	242·4
				Bezwada	290·6	254·3	273·1
Nellore	167·1	140·3	154·0	Nellore	174·4	172·3	173·4
				Ongole	201·0	188·8	196·0
Madras	280·9	260·8	271·2	Madras	277·1	257·9	267·7
Chingleput	193·2	181·0	187·2	Conjeeveram	226·5	191·6	209·3
				Cuddalore	252·9	255·3	254·1

* Excluding Europeans and Eurasians.

† Including Europeans and Eurasians.

Table showing Ratio of Deaths for Urban and Rural Circles—continued.

Districts.	Registration Circles.	Ratio of deaths per mille of population.* 1894.	1893.
Cuddapah	Municipal towns	34·2	47·3
	Rural towns	..	..
	Rural villages	21·8	23·6
Ganjám	Municipal towns	22·2	21·2
	Rural towns	..	..
	Rural villages	12·3	11·9
Gódávari	Municipal towns	25·3	23·9
	Rural towns	18·6	16·8
	Rural villages	16·6	16·4
Kistna	Municipal towns	30·5	28·8
	Rural towns	24·1	19·7
	Rural villages	19·5	17·9
Kurnool	Municipal towns	31·3	30·3
	Rural towns	15·5	14·9
	Rural villages	26·2	23·2
Madras	Municipal town	36·9	41·4
Madura	Municipal towns	31·1	27·6
	Rural towns	16·6	15·3
	Rural villages	20·3	16·8
Malabar	Municipal towns	26·9	27·3
	Rural towns	..	..
	Rural villages	14·6	18·3
Nellore	Municipal towns	21·8	19·5
	Rural towns	..	..
	Rural villages	16·5	15·2
Nilgiris	Municipal towns	26·6	25·1
	Rural towns	..	..
	Rural villages	22·8	20·2
North Arcot	Municipal towns	20·2	29·1
	Rural towns	19·2	18·9
	Rural villages	16·4	16·7
Salem	Municipal towns	25·3	28·7
	Rural towns	9·0	12·5
	Rural villages	17·3	17·3
South Arcot	Municipal towns	24·1	22·7
	Rural towns	13·7	10·8
	Rural villages	23·2	18·8
South Canara ..	Municipal towns	27·0	22·8
	Rural towns	..	..
	Rural villages	21·2	19·0
Tanjore	Municipal towns	34·2	33·3
	Rural towns	26·7	22·9
	Rural villages	26·0	26·5
Tinnevelly	Municipal towns	33·4	32·4
	Rural towns	30·0	25·4
	Rural villages	26·4	20·4
Trichinopoly	Municipal towns	25·5	36·9
	Rural towns	..	..
	Rural villages	22·2	22·4
Vizagapatam ..	Municipal towns	28·3	25·9
	Rural towns	18·9	17·6
	Rural villages	16·0	13·8
Total ..	Municipal towns	30·0	31·2
	Rural towns	20·9	18·7
	Rural villages	19·2	18·5

* Calculated on the census population of 1891, excluding Europeans and Eurasians.

21. In regard to this matter of fecundity, as influenced by malaria, the following exhibits the results obtained by me in the Kurnool district about 1887, bearing on the same point :—

—	Number of children born to each male in a married life extending from 1 to 20 years.	Number of children who lived over 3 years of every 100 born.	Remarks.
Pattikonda	4·91	79	Non-malarious.
Dhone	1·87	50	Malarious.
Velapanur	1·01	Not ascertained ...	Do.
Cumbum	2·19	61	Do.

DEATHS.

22. A total of 672,668 deaths was registered throughout the presidency, giving a rate upon the estimated population under registration of 19·0. There was no reason to regard the death-rates as increased by food scarcity in any part of the Presidency, although, as shown in paragraph 3, the food grains have not yet reached their normal rates. The subjoined table exhibits the death-rates for a series of fourteen years :—

—	Total deaths in		Rate per mille of population.	
	Districts.*	Municipalities.	Districts.	Municipalities.
1881	465,682	45,373	15·8	24·3
1882	470,700	45,296	15·8	23·9
1883	541,930	51,994	17·9	27·1
1884	650,335	58,989	21·2	30·4
1885	615,449	52,258	19·8	26·6
1886	553,927	50,675	17·6	25·5
1887	604,775	57,695	18·9	28·7
1888	597,015	58,482	18·4	28·7
1889	661,178	60,093	20·1	29·2
1890	650,394	60,113	19·5	28·8
1891	747,553	70,549	22·0	33·4
1892	750,755	69,350	21·8	32·5
1893	649,782	65,438	18·7	30·3
1894	672,668	62,882	19·0	28·7

23. The following table shows the death-rate in the various districts, arranged according to the area in which registration has been carried out :—

Table showing Ratio of Deaths for Urban and Rural Circles.

Districts.	Registration Circles.	Ratio of deaths per mille of population. †	
		1894.	1893.
Anantapur	Municipal towns	14·9	18·9
	Rural towns	21·7	10·1
	Rural villages	18·0	17·6
		27·4	23·0
Bellary	Municipal towns	17·9	17·6
	Rural towns	23·3	22·2
	Rural villages	30·6	33·0
Chingleput	Municipal towns	7·7	10·0
	Rural towns	20·4	20·3
	Rural villages	27·3	30·4
Coimbatore	Municipal towns	..	..
	Rural towns	16·6	18·0
	Rural villages		

* Exclusive of Europeans and Eurasians.
† Calculated on the census population of 1891, excluding Europeans and Eurasians.

BIRTH RATE

IN EACH REGISTRATION CIRCLE

(REVENUE TALUKS (EXCLUSIVE OF M.T. AND R.T. CIRCLES) AND ZAMINDARIES AS A WHOLE ONLY

IN THE

PRESIDENCY

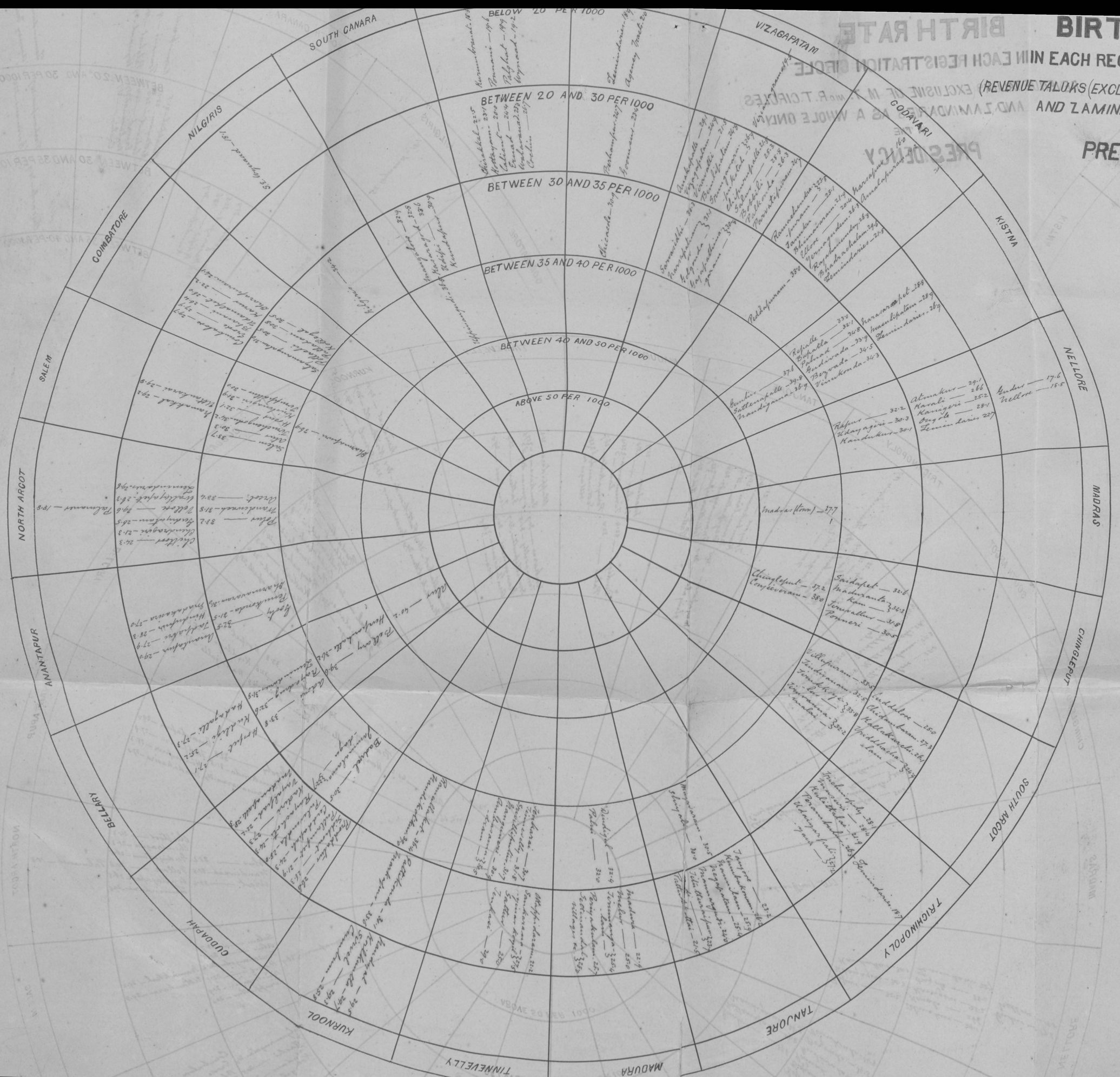


Table showing Ratio of Births for Urban and Rural Circles—continued.

Districts.	Registration Circles.	Ratio of births per mille of population.* 1894.	1893.
Nellore	Municipal towns	30·9	26·6
	Rural towns	..	..
	Rural villages	24·4	22·5
Nilgiris	Municipal towns	32·3	32·3
	Rural towns	..	..
	Rural villages	29·0	25·0
North Arcot	Municipal towns	32·9	36·5
	Rural towns	16·4	16·2
	Rural villages	28·5	28·2
Salem	Municipal towns	40·1	39·1
	Rural towns	12·6	22·0
	Rural villages	32·1	29·2
South Arcot	Municipal towns	29·8	30·1
	Rural towns	12·0	11·7
	Rural villages	29·5	31·5
South Canara ..	Municipal towns	32·9	28·4
	Rural towns	..	..
	Rural villages	33·3	29·6
Tanjore	Municipal towns	29·8	33·3
	Rural towns	21·2	19·0
	Rural villages	25·2	30·2
Tinnevelly	Municipal towns	31 1	36·4
	Rural towns	34·9	33·4
	Rural villages	28·3	27·6
Trichinopoly ..	Municipal towns	20·4	26·5
	Rural towns	..	..
	Rural villages	25·9	29·1
Vizagapatam ..	Municipal towns	33·5	32·7
	Rural towns	29·8	28·8
	Rural villages	26·0	21·4
Total ..	Municipal towns	33·2	34·1
	Rural towns	25·2	24·8
	Rural villages	27·4	26·5

19. In accordance with the orders passed on my Report for 1893, I prepared a scheme for sanction of Government to be in force for three years at an annual cost of Rs. 5,320, for observation of populations aggregating 100,000 in various parts of the country, with the object of ascertaining the true birth† and death rate.

20. The birth-rate of Cuddapah showed no signs of improvement. During my inspection in August 1894, I examined 90 persons met haphazard on the streets for splenic enlargement, and found 52 per cent. affected. Amongst the better-fed and well-housed official classes, the rate of splenic enlargement was 21 per cent. There can be no doubt that Cuddapah affords an instance of fecundity being diminished under the influence of malarial poison. Surgeon-Captain Dyson, Deputy Sanitary Commissioner, Punjab, has lately in a very interesting and able report on the subject of malaria in the neighbourhood of the Jumna Canals, again demonstrated the truth of Dr. Dempster's observations on this point made years back, as well as of the utility of the practical [redacted] since then carried out to abate malaria.

* Calculated on the census population of 1891, excluding Europeans and Eurasians.
† This scheme has since been rejected by Government.

16. It will be seen that the depression of birth-rate exhibited in 1892 (as to the causes of which I entered fully in my last year's report) has been fully recovered from.

17. The rates returned differed greatly according to the nature of administration of the areas concerned. Next to zemindari tracts, the least trustworthy information gathered is from rural towns having populations of over 10,000—a result, I suggested last year, was due to the unsuitability of the revenue organization for collecting information where large populations are dealt with. This is very marked in Chingleput, which is otherwise a model district in respect to registration, where in a rural town with a population of 12,140, a rate of only 4·0 per mille was registered.

18. The following table illustrates the above facts, and contrasts the rates obtained in 1894 with those of 1893 in municipalities and in districts:—

Table showing Ratio of Births for Urban and Rural Circles.

Districts.	Registration Circles.	Ratio of births per mille of population.*	
		1894.	1893.
Anantapur	Municipal towns	26·7	26·1
	Rural towns	27·4	15·8
	Rural villages	29·9	26·0
Bellary	Municipal towns	35·9	31·0
	Rural towns	29·4	27·5
	Rural villages	33·1	30·1
Chingleput	Municipal towns	39·4	35·9
	Rural towns	4·0	2·3
	Rural villages	34·0	36·0
Coimbatore	Municipal towns	36·0	36·9
	Rural towns	..	..
	Rural villages	27·9	28·4
Cuddapah	Municipal towns	15·8	16·1
	Rural towns	..	..
	Rural villages	26·3	23·2
Ganjám	Municipal towns	27·9	26·9
	Rural towns	..	..
	Rural villages	18·8	18·1
Gódávari	Municipal towns	27·1	27·6
	Rural towns	24·2	26·4
	Rural villages	23·1	22·9
Kistna	Municipal towns	30·4	29·6
	Rural towns	27·6	27·3
	Rural villages	33·0	29·6
Kurnool	Municipal towns	34·1	26·4
	Rural towns	10·2	9·8
	Rural villages	31·6	27·0
Madras	Municipal town	37·7	40·5
Madura	Municipal towns	36·0	35·8
	Rural towns	18·1	20·8
	Rural villages	28·4	29·3
Malabar	Municipal towns	34·9	34·0
	Rural towns	..	..
	Rural villages	21·2	19·3

* Calculated on the census population of 1891, excluding Europeans and Eurasians.

Table showing the Average Quantities of Food Grains, in seers of 80 tolahs, procurable for a Rupee in the Madras Presidency during 1892, 1893 and 1894, compared with the average of previous ten years ending 1891.

Grain.	—	Ganjam.	Vizagapatam.	Gódávari.	Kistna.	Kurnool.	Bellary.	Anantapur.	Cuddapah.	Nellore.	Madras.	Chingleput.	S. Arcot.	N. Arcot.	Salem.	Coimbatore.	Trichinopoly.	Tanjore.	Madura.	Tinnevelly.	Nilgiris.	Malabar.	S. Canara.
Second-sort rice.	January ... Average	17·8	15·4	16·4	15·1	13·1	13·5	15·2	14·8	14·8	13·5	15·3	15·9	16·1	15·6	14·4	14·6	15·8	14·2	13·7	11·2	14·2	15·1
	January ... 1892 ..	11·8	10·2	10·2	10·2	8·7	8·7	8·5	8·0	9·5	8·9	10·1	11·0	9·5	9·2	9·9	10·4	12·1	10·4	10·4	8·0	11·8	12·6
	January ... 1893 ...	13·8	12·4	12·7	12·0	11·1	11·4	11·7	10·6	11·3	9·6	10·3	10·3	10·8	10·1	9·4	8·5	9·5	8·8	9·0	9·1	10·6	12·1
	January ... 1894 ...	15·3	14·2	13·1	12·1	12·7	11·5	12·6	12·3	12·3	10·7	11·2	12·2	11·9	12·2	11·6	11·2	12·0	11·6	10·8	8·8	11·6	12·4
	February ... Average	17·8	15·8	16·4	15·2	13·2	13·4	14·9	14·9	14·8	13·7	16·0	16·4	16·0	15·4	14·3	14·9	16·2	14·7	14·0	11·4	14·2	15·0
	February ... 1892 ...	11·8	10·7	10·3	10·1	8·7	9·0	8·7	8·3	9·1	9·1	10·2	11·1	9·4	9·3	10·1	10·3	12·0	10·9	10·6	8·0	11·5	12·2
	February ... 1893 ...	14·0	13·2	12·9	12·6	11·4	11·5	12·5	10·9	11·2	9·5	10·9	10·4	11·2	10·2	9·7	9·1	9·8	9·4	9·1	9·3	10·7	12·3
	February ... 1894 ...	15·7	14·2	13·7	13·3	13·1	11·9	12·5	12·5	12·5	11·1	12·5	13·1	12·3	12·2	12·2	12·3	14·0	12·6	11·3	9·0	11·8	12·7
	March ... Average	17·7	15·8	16·4	15·2	13·1	13·6	15·1	14·9	14·8	13·6	16·0	16·3	16·0	15·2	14·4	15·1	16·5	15·0	14·3	11·6	14·0	15·1
	March ... 1892 ...	11·7	10·6	10·6	10·4	8·9	9·1	8·8	8·3	9·2	9·0	10·2	10·6	9·6	9·4	10·1	10·4	11·7	11·4	10·7	8·2	11·1	11·9
	March ... 1893 ...	14·3	13·0	13·1	12·3	11·6	11·3	12·6	11·5	11·3	9·9	11·0	10·9	11·2	10·2	10·1	9·2	10·1	9·9	9·3	8·9	10·5	12·3
	March ... 1894 ...	16·1	14·0	14·3	13·7	13·0	11·7	12·5	12·6	12·8	11·4	13·6	13·6	12·5	12·1	12·6	13·3	14·9	13·0	11·9	9·0	11·8	12·6
	April ... Average	17·7	15·5	16·1	15·1	13·0	13·3	15·2	14·8	14·9	13·8	16·2	16·2	16·2	15·3	14·4	15·1	16·3	15·1	14·4	11·5	13·8	14·9
	April ... 1892 ...	11·7	10·3	10·6	10·7	8·9	8·9	8·7	8·3	9·2	9·0	10·1	10·9	9·7	9·4	9·8	10·4	11·8	11·3	11·0	8·2	10·7	11·9
	April ... 1893 ...	14·1	12·6	12·9	12·1	11·7	11·6	12·4	11·5	11·6	10·5	10·9	11·0	11·3	10·3	10·3	9·4	10·4	9·8	9·6	9·2	10·5	12·3
	April ... 1894 ...	15·4	13·7	14·0	13·9	12·9	11·5	12·6	12·4	12·5	11·9	13·5	14·4	12·8	12·4	12·5	13·4	15·0	13·4	12·4	9·2	11·9	12·9
	May ... Average	17·6	15·3	15·9	14·8	13·1	13·2	15·3	14·9	14·9	13·8	15·9	15·8	15·9	15·3	14·2	14·9	15·9	14·9	14·2	11·3	13·6	14·6
	May ... 1892 ...	11·1	10·0	10·5	10·6	9·1	9·0	8·9	8·4	9·2	9·0	10·0	11·2	9·8	9·5	9·9	10·3	11·5	10·9	10·8	8·1	10·2	11·9
	May ... 1893 ...	13·8	12·7	12·5	12·1	11·6	11·5	13·0	12·3	12·2	10·4	11·1	11·1	11·4	10·5	10·3	9·4	10·4	10·1	9·7	9·4	10·5	12·3
	May ... 1894 ...	15·2	13·1	14·1	13·8	12·8	11·1	12·5	13·2	12·7	12·4	13·9	14·5	13·6	13·1	12·7	13·2	14·7	13·2	12·5	9·4	11·7	12·8
	June ... Average	17·3	15·1	15·7	14·7	12·8	13·1	15·2	14·9	14·7	13·7	15·5	15·6	15·7	14·9	13·9	14·5	15·5	14·6	13·5	11·1	13·3	14·1
	June ... 1892 ...	10·9	10·1	10·8	10·8	9·2	9·0	9·1	8·4	9·3	8·8	9·6	10·9	9·6	9·6	9·9	9·9	11·2	10·3	10·0	8·1	10·2	11·9
	June ... 1893 ...	13·5	12·5	12·5	12·0	12·0	11·3	13·4	12·9	12·3	10·4	10·8	11·0	11·5	10·6	10·3	9·4	10·5	10·1	9·7	9·2	10·2	12·1
	June ... 1894 ...	15·1	12·8	13·9	13·9	12·7	11·2	12·6	12·7	13·1	12·2	14·0	14·0	13·6	12·6	12·2	13·2	14·2	12·7	11·7	9·6	11·4	12·5
	July ... Average	16·9	14·8	15·6	14·6	12·8	13·1	15·1	14·9	14·8	13·5	14·9	15·3	15·3	14·6	13·6	13·9	15·1	14·0	13·1	10·9	13·1	13·8
	July ... 1892 ...	10·9	9·9	10·9	10·9	9·7	9·3	10·6	8·8	9·6	8·9	9·5	11·6	9·8	9·6	9·7	9·6	10·6	10·2	9·3	8·2	10·0	12·0
	July ... 1893 ...	13·5	12·5	12·3	12·0	12·3	11·5	13·5	12·9	12·4	10·5	10·6	11·0	11·5	10·7	10·4	9·6	10·5	10·3	9·7	9·0	10·3	12·1
	July ... 1894 ...	14·9	12·7	13·5	13·8	12·7	11·0	12·8	12·6	13·3	11·4	13·0	12·7	13·2	12·2	11·9	11·8	12·7	11·5	10·8	9·8	11·5	12·3
	August ... Average	16·2	14·5	15·4	14·5	12·8	13·1	15·0	14·7	14·7	13·4	14·6	15·0	15·2	14·3	13·5	13·7	14·7	13·9	13·0	10·9	13·1	13·7
	August ... 1892 ...	10·7	10·3	11·3	10·9	10·0	9·8	10·7	9·4	9·7	9·1	9·7	10·9	10·1	9·8	9·9	9·6	10·5	10·2	9·3	8·2	9·7	12·1
	August ... 1893 ...	13·9	12·8	12·4	12·0	12·6	11·5	13·5	12·9	12·4	10·7	10·6	11·0	11·6	10·8	10·4	9·6	10·3	10·3	10·1	9·1	10·2	12·0
	August ... 1894 ...	14·6	12·5	13·1	13·8	12·7	11·2	12·7	13·1	13·3	11·3	12·5	12·7	13·3	12·1	11·3	11·3	12·2	11·2	10·3	9·4	11·6	12·2
	September... Average	16·2	14·1	15·2	14·2	12·7	13·0	14·7	14·7	14·7	13·2	14·6	15·1	15·0	14·3	13·3	13·8	14·7	13·6	13·0	10·8	13·5	13·6
	September... 1892 ...	11·5	10·8	12·2	11·6	10·5	11·0	11·1	10·0	10·4	9·4	9·7	11·0	10·5	10·0	10·1	10·0	10·4	9·9	9·5	8·2	10·2	12·1
	September... 1893 ...	13·7	13·1	12·2	12·1	12·5	11·3	12·9	12·2	12·0	10·4	10·3	10·5	11·2	10·7	10·1	9·4	10·2	10·0	10·2	9·0	10·9	11·9
	September... 1894 ...	14·5	12·3	13·0	13·7	12·8	11·2	12·8	13·3	13·3	11·3	12·5	12·8	13·4	12·1	11·3	11·3	12·3	11·3	10·3	9·3	11·9	12·3
	October ... Average	15·8	13·9	15·0	14·4	12·7	12·8	14·6	14·5	14·5	13·1	14·4	15·0	15·0	14·5	13·7	13·8	15·4	13·4	13·3	10·7	13·7	13·7
	October ... 1892 ...	12·4	11·6	12·7	12·1	11·1	10·8	11·2	10·2	11·1	10·0	9·9	11·2	10·7	10·6	10·1	10·1	11·0	10·0	9·9	8·2	10·8	11·9
	October ... 1893 ...	14·5	13·4	12·3	12·0	12·2	11·6	12·5	11·6	11·9	9·7	10·1	10·3	10·9	10·9	10·2	9·3	10·6	10·0	10·4	8·5	11·2	11·7
	October ... 1894 ...	14·7	12·4	13·2	13·7	12·8	11·1	11·9	13·1	13·2	11·1	12·5	12·8	13·3	12·5	11·2	11·6	12·7	11·3	10·5	9·3	12·1	12·3
	November... Average	16·0	14·1	15·0	14·2	12·6	12·8	14·5	14·3	14·4	12·8	14·7	15·1	15·0	14·8	13·9	14·1	15·3	13·5	13·5	10·4	13·6	13·9
	November... 1892 ...	13·0	11·8	12·5	11·9	10·9	10·8	11·3	10·7	11·3	9·9	10·4	10·8	11·0	11·1	10·0	10·0	10·7	9·7	9·7	8·2	10·8	12·1
	November... 1893 ...	15·3	13·0	12·1	11·7	12·3	10·9	12·6	12·2	11·9	10·2	10·0	10·1	11·1	11·4	10·3	9·3	10·7	10·1	10·2	8·4	11·2	11·9
	November... 1894 ...	15·0	12·9	13·4	13·8	12·7	11·2	11·7	13·0	13·2	11·1	12·4	13·0	13·6	12·7	11·4	12·0	13·0	11·2	10·9	9·0	12·0	12·6
	December... Average	16·3	14·3	15·2	14·1	12·5	12·8	14·5	14·1	14·1	12·6	14·5	15·1	14·9	14·7	13·7	13·9	15·0	13·4	13·3	10·6	13·7	14·5
	December... 1892 ...	13·8	12·0	12·2	11·9	10·9	11·1	11·4	10·5	11·2	9·2	9·9	9·4	10·3	9·9	9·5	8·3	8·8	8·6	8·6	8·5	10·4	12·2
	December... 1893 ...	15·0	13·3	12·3	11·8	12·6	10·9	12·5	11·9	11·9	10·3	10·3	10·9	11·4	11·7	10·9	10·1	10·8	10·6	10·4	8·3	11·4	12·0
	December... 1894 ...	15·7	13·4	14·2	14·1	12·7	11·4	11·8	12·7	13·3	11·0	12·7	13·5	13·3	12·4	11·6	11·9	13·1	11·4	11·2	9·0	11·6	12·9
	Total ... Average	16·9	14·9	15·7	14·7	12·9	13·1	14·9	14·7	14·7	13·4	15·2	15·6	15·5	14·9	13·9	14·4	15·5	14·2	13·6	11·0	12·7	14·3
	Total ... 1892 ...	11·8	10·7	11·2	11·0	9·7	9·7	9·9	9·1	9·9	9·2	9·9	10·8	10·0	9·8	9·9	9·9	11·0	10·3	10·0	8·2	10·6	12·1
	Total ... 1893 ...	14·1	12·9	12·5	12·1	12·0	11·4	12·8	11·9	11·9	10·2	10·6	10·7	11·3	10·7	10·2	9·4	10·3	9·9	9·8	8·3	10·7	12·1
	Total ... 1894 ...	15·2	13·2	13·6	13·6	12·8	11·3	12·4	12·8	13·0	11·4	12·9	13·3	13·1	12·4	11·9	12·2	13·4	12·0	11·2	9·2	11·7	12·5

Table showing the Average Quantities of food grains, in seers of 80 *tolahs, procurable for a Rupee in the Madras Presidency during* 1892, 1893 *and* 1894, *compared with the average of previous ten years ending* 1891—continued.

Grain.	—	Ganjam.	Vizagapatam.	Godávari.	Kistna.	Kurnool.	Bellary.	Anantapur.	Cuddapah.	Nellore.	Madras.	Chingleput.	S. Arcot.	N. Arcot.	Salem.	Coimbatore.	Trichinopoly.	Tanjore.	Madura.	Tinnevelly.	Nilgiris.	Malabar.	S. Canara.
Cholum.	January ... Average	...	...	28·3	24·3	29·5	31·1	31·5	29·7	24·9	21·7	...	...	28·1	26·5	24·2	38·8	...	31·2	24·0	...	...	...
	1892 ...	...	...	16·1	14·2	13·9	14·4	13·6	12·9	13·0	11·9	...	...	12·6	12·3	13·6	22·6	...	12·9	15·0	...	...	...
	1893 ...	...	...	20·2	17·7	18·4	25·4	20·0	16·7	17·9	15·8	...	...	16·0	17·5	17·1	16·5	...	13·0	13·1	...	...	...
	1894 ...	...	...	20·3	17·0	24·1	25·1	21·5	20·2	20·0	14·4	...	...	17·5	17·8	20·6	24·5	...	16·2	16·8	...	...	...
	February ... Average	...	...	29·1	24·3	29·3	30·7	30·9	29·8	24·9	21·4	...	...	27·4	26·7	23·2	39·1	...	32·0	24·0	..	...	...
	1892 ...	...	...	16·1	14·7	14·5	15·3	14·2	13·3	12·8	11·5	...	...	13·1	12·9	14·7	22·5	...	13·7	14·8	...	...	...
	1893 ...	...	...	20·2	17·9	18·8	26·3	19·7	16·8	18·2	14·4	...	...	15·8	17·4	17·4	17·7	...	13·2	12·9	...	...	...
	1894 ...	...	...	22·0	18·2	24·5	24·9	22·0	20·7	18·9	14·4	...	...	17·4	18·2	17·9	28·2	...	17·8	17·4	...	...	...
	March ... Average	...	...	29·2	23·9	28·9	25·8	30·7	29·8	25·1	21·4	...	...	27·4	26·7	24·5	41·8	...	32·1	23·4	...	...	...
	1892 ...	...	...	16·7	15·1	14·6	15·2	14·8	13·6	13·3	11·9	...	...	13·4	13·4	15·0	22·4	...	15·8	14·6	...	...	...
	1893 ...	...	...	19·8	17·7	19·7	26·2	20·2	17·8	18·5	...	...	...	15·9	17·2	17·7	17·9	...	13·8	12·8	...	...	...
	1894 ...	...	...	23·3	19·1	24·8	25·3	22·0	20·5	21·4	16·3	...	...	17·3	18·9	19·2	28·4	...	19·2	17·9	...	...	...
	April ... Average	...	...	29·1	23·7	29·3	30·2	31·5	29·3	25·7	21·6	...	...	27·3	27·4	24·8	43·3	...	33·3	23·9	...	...	...
	1892 ...	...	...	17·2	15·5	14·9	15·3	15·2	13·6	13·5	12·9	...	...	13·5	13·9	14·6	19·6	...	15·4	15·8	...	...	...
	1893 ...	...	...	20·1	18·3	21·0	26·5	20·3	17·8	20·3	...	...	...	15·8	17·7	17·7	17·8	...	15·0	13·6	...	...	...
	1894 ...	...	...	22·6	19·6	25·4	23·0	23·7	20·0	22·0	17·3	...	...	17·7	19·9	19·5	22·4	...	23·1	19·4	...	...	...
	May ... Average	...	...	28·6	23·0	28·5	29·8	32·1	29·8	25·5	21·1	...	...	27·3	27·2	24·4	43·1	...	33·3	25·8	...	...	...
	1892 ...	...	...	16·9	15·5	14·9	15·3	16·1	14·1	13·5	13·7	...	...	13·9	13·9	14·5	18·9	...	15·3	18·5	...	...	...
	1893 ...	...	...	20·2	18·4	21·6	26·0	22·1	18·2	21·1	...	...	...	16·0	19·2	17·6	16·6	...	15·6	14·5	...	...	...
	1894 ...	...	...	22·6	20·0	25·2	24·9	25·3	22·4	23·6	17·3	...	...	19·0	22·3	19·5	22·2	...	26·4	20·5	...	...	...
	June ... Average	...	...	28·0	22·5	27·6	28·7	31·2	29·4	25·4	21·2	...	...	27·0	7·5	23·8	38·0	...	31·9	24·6	...	...	...
	1892 ...	...	...	16·7	15·3	14·4	14·9	15·7	14·0	13·4	13·9	...	...	13·3	14·2	14·3	18·3	...	15·0	17·9	...	...	...
	1893 ...	...	...	19·5	17·9	21·1	24·6	21·4	18·7	21·9	...	...	...	16·6	19·6	18·2	17·0	...	15·1	16·1	...	...	...
	1894 ...	...	...	22·3	19·5	24·4	23·9	25·2	22·4	23·9	17·3	...	...	19·0	23·4	19·4	22·0	...	22·2	19·7	...	...	...
	July ... Average	...	...	27·3	22·1	28·0	28·6	30·6	28·6	24·4	21·1	...	...	26·9	26·8	22·8	36·1	...	29·9	24·6	...	...	...
	1892 ...	...	...	16·9	15·6	16·3	16·3	18·5	14·6	13·9	13·0	...	...	13·7	14·3	13·5	17·8	...	14·1	15·8	...	...	...
	1893 ...	...	...	19·5	16·4	20·8	24·0	21·6	18·6	21·6	...	...	...	17·4	18·4	18·8	17·2	...	15·9	15·7	...	...	...
	1894 ...	...	...	22·0	19·0	23·4	23·3	25·0	22·4	24·3	17·3	...	...	18·6	21·7	18·9	19·8	...	20·4	19·6	...	...	...
	August ... Average	...	...	26·7	22·5	28·3	29·3	30·4	28·2	24·6	20·6	...	...	28·0	26·7	22·6	33·6	...	28·7	24·1	...	...	...
	1892 ...	...	...	17·9	16·2	16·7	19·2	19·5	15·2	14·5	12·5	...	...	15·1	16·7	16·0	17·9	...	14·4	15·0	...	...	...
	1893 ...	...	...	19·6	16·6	21·1	24·3	21·3	18·8	21·5	...	...	...	18·7	17·4	18·8	17·2	...	15·8	15·6	...	...	...
	1894 ...	...	...	21·3	18·9	24·6	24·0	24·0	22·2	24·5	17·3	...	...	19·4	21·7	19·9	20·9	...	19·9	18·5	...	...	...
	September. Average	...	...	26·5	22·4	27·8	29·5	29·8	28·0	24·2	21·1	...	...	28·3	27·2	22·7	32·6	...	28·0	23·6	...	...	...
	1892 ...	...	...	20·3	17·6	19·2	22·9	20·8	17·0	16·7	14·4	...	...	16·9	19·4	16·7	19·2	...	15·5	15·2	...	...	...
	1893 ...	...	...	19·4	16·5	21·1	24·1	20·6	18·6	20·5	...	...	...	18·9	16·8	17·9	16·4	...	15·4	15·7	...	...	...
	1894 ...	...	...	21·1	19·0	25·6	25·4	24·4	22·6	23·9	18·2	...	..	21·9	21·3	20·4	21·2	...	19·5	19·4	...	...	...
	October ... Average	...	...	25·8	22·1	28·2	29·6	30·3	28·2	24·1	21·1	...	...	28·3	27·1	22·6	32·2	...	27·0	24·0	...	...	...
	1892 ...	...	..	20·8	18·6	19·7	23·2	20·0	17·5	18·4	18·2	...	...	18·5	20·3	18·9	19·2	...	15·1	15·5	...	...	...
	1893 ...	...	...	18·6	16·1	20·9	23·7	19·8	17·7	19·4	...	...	...	17·8	16·1	17·8	16·0	...	14·8	14·6	...	...	...
	1894 ...	...	...	21·0	19·0	25·6	24·3	24·4	23·7	24·0	19·4	...	...	21·6	21·1	20·4	20·6	...	19·2	19·2	...	...	...
	November. Average	...	...	25·6	22·3	28·5	29·7	30·7	28·1	24·4	21·0	...	...	27·9	27·2	23·0	32·5	...	26·9	23·5	...	...	...
	1892 ...	...	...	20·1	17·3	18·5	23·7	20·2	18·7	18·9	17·8	...	...	19·4	20·5	18·6	18·0	...	14·6	14·1	...	...	...
	1893 ...	...	...	18·5	15·9	21·1	24·4	20·4	18·0	18·9	...	...	...	17·1	16·4	18·8	15·9	...	14·3	14·3	...	...	...
	1894 ...	...	...	21·3	19·4	26·4	25·6	26·1	23·9	24·6	19·3	...	...	22·1	20·3	20·8	20·7	...	18·8	18·8	...	...	...
	December. Average	...	...	25·6	22·4	27·8	30·7	30·2	28·0	23·2	20·8	...	...	26·6	26·0	22·7	34·9	...	28·5	23·2	...	...	...
	1892 ...	...	...	19·3	17·0	18·1	16·8	20·2	24·9	18·6	...	...	...	14·3	15·9	13·0	17·0	...	16·3	13·9	...	...	...
	1893 ...	...	...	18·9	16·1	21·5	24·4	20·7	18·8	19·2	14·4	...	...	17·2	17·4	19·7	21·7	...	15·2	15·0	...	...	...
	1894 ...	...	...	22·3	19·8	27·5	27·2	26·9	25·0	25·2	19·4	...	...	22·1	19·5	21·0	20·6	...	19·2	18·8	...	...	...
	Total ... Average	...	...	27·5	23·0	28·5	29·8	30·8	28·9	24·7	21·2	...	...	27·5	26·9	23·4	37·2	...	30·2	24·1	...	...	...
	1892 ...	...	...	17·9	16·1	16·3	17·7	17·4	15·8	15·0	12·6	...	...	14·8	15·6	15·3	19·5	...	14·8	15·5	...	...	...
	1893 ...	...	...	19·5	17·1	20·6	25·0	20·7	18·0	19·9	14·9	...	...	16·9	17·6	18·1	17·3	...	14·8	14·5	...	...	...
	1894 ...	...	..	21·8	19·0	25·1	24·7	24·2	22·2	23·0	17·3	...	...	19·5	20·5	19·8	22·6	...	20·2	18·8	...	...	...

Table showing the Average Quantities of Food Grains, in seers of 80 *tolahs, procurable for a Rupee in the Madras Presidency during* 1892, 1893 *and* 1894, *compared with the average of previous ten years ending* 1891—continued.

Grain.	—	Ganjam.	Vizagapatam.	Godávari.	Kistna.	Kurnool.	Bellary.	Anantapur.	Cuddapah.	Nellore.	Madras.	Chingleput.	S. Arcot.	N. Arcot.	Salem.	Coimbatore.	Trichinopoly.	Tanjore.	Madura.	Tinnevelly.	Nilgiris.	Malabar.	S. Canara.
Ragi.	January ... Average	31·8	29·0	30·7	29·9	30·4	36·8	34·8	32·9	28·4	27·3	27·0	30·9	31·7	31·5	30·1	30·6	30·1	31·1	28·7	21·8	...	...
	1892 ...	17·6	16·4	17·7	16·9	13·1	15·8	15·3	14·1	13·6	12·6	12·6	16·1	13·2	13·6	15·1	15·9	19·6	17·5	17·5	11·2	...	...
	1893 ...	27·5	27·5	21·7	21·0	19·7	27·5	21·4	18·5	18·7	17·7	15·8	16·9	18·4	18·8	18·8	15·3	15·3	15·4	14·4	16·7	...	...
	1894 ...	26·7	26·6	24·8	23·0	26·2	27·4	25·1	21·1	22·8	19·7	17·8	19·6	20·4	21·7	21·2	18·4	21·4	26·0	20·9	17·3	...	...
	February ... Average	31·6	28·5	30·6	29·3	30·4	36·4	34·1	32·8	28·3	27·3	26·9	30·5	31·2	30·9	29·7	31·0	28·6	31·0	27·4	21·6	...	...
	1892 ...	18·4	17·0	17·4	16·6	13·6	16·0	15·6	14·6	13·8	13·0	12·2	15·7	13·0	14·0	15·4	17·1	18·0	17·6	17·2	11·5	...	...
	1893 ...	27·2	27·0	22·8	21·7	20·2	29·3	21·2	18·9	19·3	17·8	16·2	17·0	18·5	18·9	18·8	16·0	15·1	15·5	14·7	17·0	...	...
	1894 ...	26·5	26·2	24·2	27·4	26·9	28·1	25·5	21·5	23·4	19·5	18·3	19·8	20·4	22·1	21·1	19·6	25·0	23·7	21·1	17·6	...	...
	March ... Average	31·2	28·3	30·0	30·6	30·3	35·8	33·9	32·9	28·4	27·1	26·6	28·9	30·9	31·0	30·0	30·5	30·0	29·9	27·0	21·8	...	...
	1892 ...	18·2	16·9	17·4	17·2	14·5	17·1	15·5	14·8	14·0	13·2	12·2	15·0	13·4	14·6	15·6	16·6	18·2	17·2	16·5	12·2	...	...
	1893 ...	26·4	26·3	22·5	22·0	20·3	28·2	21·3	20·0	20·1	18·3	16·8	16·9	18·5	19·7	19·0	15·5	15·3	16·1	14·9	16·7	...	...
	1894 ...	25·4	27·0	25·7	26·3	27·5	26·6	25·7	21·9	23·6	19·3	18·5	19·9	20·6	22·9	21·5	20·0	25·0	23·0	21·1	17·6	...	...
	April ... Average	31·1	28·1	29·7	30·0	29·2	36·0	33·5	33·3	29·2	27·0	26·8	28·0	31·0	31·7	30·1	30·1	28·9	29·9	26·6	21·6	...	...
	1892 ...	18·3	16·7	17·1	17·8	14·5	17·3	15·8	15·6	14·4	14·4	13·4	15·3	14·2	15·0	15·4	16·3	17·4	16·1	16·0	12·7	...	...
	1893 ...	26·7	24·9	21·6	22·3	20·0	29·0	21·9	20·0	22·1	18·5	17·7	17·3	19·4	20·6	19·3	15·8	15·8	16·5	15·2	16·7	...	...
	1894 ...	26·1	26·6	26·7	26·1	26·5	27·4	26·1	22·8	24·1	20·4	20·1	20·6	22·1	24·9	22·8	20·3	24·2	24·8	21·6	17·8	...	...
	May ... Average	30·8	27·8	29·6	29·5	29·7	35·3	33·9	33·6	29·2	27·2	26·8	27·8	31·3	31·6	30·0	29·0	28·7	29·5	26·1	21·5	...	...
	1892 ...	18·0	15·7	16·6	17·3	15·2	17·5	16·4	16·3	14·5	14·7	14·2	16·5	15·2	15·9	15·7	16·0	17·5	15·8	15·8	13·0	...	...
	1893 ...	26·5	23·8	22·3	22·1	19·7	28·6	22·4	21·0	23·3	19·5	17·7	17·3	20·2	20·9	19·9	16·1	15·6	16·4	15·4	17·0	...	...
	1894 ...	25·6	25·6	26·5	26·9	26·2	27·2	26·0	22·8	24·8	20·2	20·9	20·8	23·8	25·9	23·4	20·4	23·4	24·7	21·6	18·4	...	...
	June ... Average	29·7	26·8	29·2	29·5	29·8	34·4	33·5	33·3	29·0	27·0	26·2	27·5	30·8	31·0	29·1	28·5	27·8	28·9	25·1	21·1	...	...
	1892 ...	16·8	15·8	16·9	16·7	15·1	16·2	16·0	16·3	14·4	14·7	14·1	16·0	15·3	16·1	16·3	15·7	17·5	15·5	15·0	13·6	...	...
	1893 ...	26·3	24·9	22·3	21·8	22·8	28·5	22·0	21·4	24·0	19·4	17·5	17·3	19·9	20·8	19·9	16·2	15·6	16·5	15·4	17·2	...	...
	1894 ...	24·0	24·9	26·4	25·7	26·4	27·9	26·1	24·5	26·1	20·7	21·1	20·2	23·9	25·3	22·6	19·8	22·6	23·3	21·4	19·0	...	...
	July ... Average	28·7	26·2	29·0	29·0	29·4	34·0	32·9	32·5	28·9	25·9	25·4	26·9	30·1	30·2	28·0	27·9	27·1	27·8	24·4	20·6	...	...
	1892 ...	18·0	16·1	16·9	17·5	15·7	17·5	20·2	17·7	15·3	14·9	14·1	16·0	16·3	17·8	15·9	15·8	16·4	15·0	14·1	14·0	...	...
	1893 ...	27·4	25·3	22·7	21·4	22·5	27·3	21·3	21·2	24·6	19·3	17·3	17·2	20·0	20·6	19·9	16·1	15·1	16·7	15·1	16·9	...	...
	1894 ...	25·2	25·1	25·6	25·7	26·2	27·1	25·5	24·0	26·4	21·4	20·8	18·2	23·3	24·5	22·6	18·9	20·0	20·9	20·2	18·5	...	...
	August ... Average	27·7	27·0	28·7	28·9	29·1	34·2	32·9	31·8	28·6	25·7	25·4	27·0	30·0	30·1	27·6	27·1	26·7	27·4	23·9	20·6	...	...
	1892 ...	18·8	18·4	17·6	18·2	15·5	21·7	20·8	19·0	16·0	15·9	15·2	17·1	17·6	19·5	18·6	15·7	17·3	16·3	15·0	15·0	...	...
	1893 ...	27·6	26·1	22·5	21·3	21·2	27·2	22·4	21·8	24·5	19·2	17·5	17·7	20·6	20·9	19·7	16·2	15·4	17·6	15·2	17·1	...	...
	1894 ...	24·9	25·0	24·9	24·9	27·0	27·1	26·4	24·0	25·6	21·6	20·8	19·8	23·6	24·9	22·8	18·3	19·5	20·5	19·7	18·5	...	...
	September... Average	29·7	28·1	28·4	28·5	28·3	34·2	32·6	31·4	28·5	25·5	25·3	27·9	29·9	30·0	27·7	27·8	27·4	27·7	24·7	20·5	...	...
	1892 ...	21·3	25·2	20·1	19·0	17·4	26·2	22·6	20·0	17·3	18·1	17·2	20·9	19·0	20·9	18·8	16·7	19·3	17·5	15·7	15·7	...	...
	1893 ...	27·3	27·1	22·9	21·1	22·2	26·6	21·6	20·8	23·9	19·4	17·9	18·0	20·2	20·3	18·6	16·2	16·2	17·0	15·0	18·0	...	...
	1894 ...	24·6	26·2	24·8	23·1	26·2	28·1	27·2	24·0	25·5	21·9	20·9	21·5	24·1	25·8	22 9	19·5	19·8	21·4	20·7	18·7	...	...
	October ... Average	31·8	28·1	28·6	28·0	28·3	34·4	33·9	31·6	27·6	25·7	26·2	29·5	30·4	30·5	28·3	28·6	28·9	27·6	25·2	20·4	...	...
	1892 ...	26·7	28·0	21·0	21·3	19·8	25·1	22·0	21·7	19·1	21·3	20·3	23·5	21·6	22·7	21·7	18·9	20·9	18·4	15·9	16·5	...	...
	1893 ...	28·8	26·7	22·9	21·3	24·1	26·9	22·0	19·9	23·8	18·5	18·2	18·4	20·1	19·5	18·8	16·6	17·5	15·7	15·2	15·3	...	...
	1894 ...	26·4	27·6	24·6	23·7	25·2	26·7	27·3	24·1	25·3	21·9	21·9	24·1	25·5	26·0	22·8	22·2	21·9	22·0	20·7	19·0	...	...
	November... Average	31·1	28·0	27·8	27·7	28,8	34·8	4·	31·9	27·6	25·7	26·3	30·2	30·6	30·9	28·9	29·1	29·7	28·2	25·7	20·4	...	...
	1892 ...	28·7	28·4	21·9	21·8	20·2	27·7	22·9	20·9	20·3	20·2	18·7	22·1	22·1	22·3	21·6	18·8	18·9	17·1	15·6	17·2	...	...
	1893 ...	28·4	25·6	22·9	21·2	21·9	22·3	23·3	20·9	23·4	17·5	18·0	18·0	20·3	20·4	20·2	16·5	17·7	16·3	15·5	16·7	...	...
	1894 ...	26·9	28·3	24·2	24·3	25·7	29·5	28·8	25·3	25·3	21·9	22·0	24·9	25·7	26·0	23·7	22·7	23·1	21·6	20·9	18·9	...	...
	December... Average	30·5	27·8	28·0	27·7	28·5	34·4	33·8	31·2	26·8	25·2	25·8	29·5	29·4	30·2	28·5	28·6	28·2	28·5	25·6	20·6	...	...
	1892 ...	27·4	27·3	21·9	20·9	18·8	19·0	23·3	27·5	20·6	16·7	15·7	18·4	16·5	15·3	15·4	19·4	18·7	15·5	14·8	14·0	...	...
	1893 ...	27·0	26·3	23·9	21·4	23·5	26·9	24·8	21·3	22·7	19·2	18·2	18·4	20·5	20·9	21·3	17·3	17·5	20·7	17·3	16·9	...	...
	1894 ...	27·1	29·0	25·8	24·8	26·6	30·7	30·5	26·4	25·7	21·9	21·8	26·3	25·9	26·0	24·7	22·4	25·8	23·0	20·7	19·1	...	...
	Total ... Average	30·5	27·8	29·2	29·1	29·4	35·1	33·7	32·4	28·4	26·4	26·2	28·7	30·6	30·8	29·0	29·1	28·5	29·0	25·8	21·0	...	...
	1892 ...	20·7	20·2	18·5	18·4	16·1	19·8	18·9	18·2	16·1	15·8	15·0	17·7	16·4	17·3	17·1	16·9	18·3	16·6	15·8	139	...	...
	1893 ...	27·3	26·0	22·6	21·6	21·5	27·4	22·1	20·5	22·5	18·7	17·4	17·5	19·7	20·2	19·5	16·2	16·0	16·7	15·3	16·8	...	...
	1894 ...	25·8	26·5	25·4	25·2	26·4	27·8	26·7	23·5	24·9	20·9	20·4	21·3	23·3	24·7	22·7	20·2	22·6	22·9	20·9	18·4	...	...

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.	Decrease.	Increase.	Rice.	Cholum.	Ragi.	Cumbu.	Decrease.	Increase.	Decrease.	Increase.	Decrease.	Increase.	Decrease.	Increase.	Birth.	Death.	Decrease.	Increase.	Decrease.	Increase.
Gánjám ...	Average.	43·39	2·71	...	16·9	...	30·5	...	...	1·7	...	...	...	4·7	...	...	13·1	10·9	5·4	...	1·4	...
	1892 ...	49·65	...	3·55	11·8	...	20·7	...	3·4	...	...	...	5·1	...	...	...	17·6	14·1	0·9	...	...	1·8
	1893 ...	59 21	...	13·11	14·1	...	27·3	...	1·1	...	...	...	...	1·5	...	...	18·0	12·0	0·5	...	0·3	...
	1894 ...	46·10	...	...	15·2	...	25·8	...	...	...	...	...	...	...	...	...	18·5	12·3	...	...	...	...
					Warning rate. 14·4																	
Vizagapatam ...	Average.	38·75	14·18	...	14·9	...	27·8	...	...	1·7	...	...	...	1·3	...	...	17·4	12·9	8·3	...	3·3	...
	1892 ...	53·29	...	0·36	10·7	...	20·2	...	2·5	...	...	...	6·3	...	...	...	21·2	21·4	4·5	...	...	5·2
	1893 ...	60·80	...	7·87	12·9	...	26·0	...	0·3	...	...	...	0·5	...	...	...	21·6	14·2	4·1	...	2·0	...
	1894 ...	52·93	...	...	13·2	...	26·5	...	...	...	...	...	...	...	...	...	25·7	16·2	...	...	...	...
					Warning rate. 12·8																	
Gódávari ...	Average.	37·66	2·03	...	15·7	27·5	29·2	...	...	2·1	...	5·7	...	3·8	...	...	19·6	18·9	2·6	...	...	2·6
	1892 ...	50·53	...	10·84	11·2	17·9	18·5	...	2·4	...	3·9	...	6·9	...	...	...	21 6	26·6	0·6	...	...	10·3
	1893 ...	57·35	...	17·66	12·5	19·5	22·6	...	1·1	...	2·3	...	2·8	...	...	...	22·4	16·2	...	0·2	0·1	...
	1894 ...	39·69	...	...	13·6	21·8	25·4	...	...	...	...	...	..	...	...	...	22·2	16·3	...	...	...	...
					Warning rate. 13·1																	
Kistna	Average.	32·91	...	1·75	14·7	23·0	29·1	...	...	1·1	...	4·0	...	3·9	...	...	30·2	20·5	0·7	...	...	1·7
	1892 ...	46·22	...	15·06	11·0	16·1	18·4	...	2·6	...	2·9	...	6·8	...	...	...	28·9	26·8	2·0	...	...	8·0
	1893 ...	39·78	...	8·62	12·1	17·1	21·6	...	1·5	...	1·9	...	3·6	...	...	...	28·3	17·6	2·6	...	1·2	...
	1894 ...	31·16	...	...	13·6	19·0	25·2	...	...	...	...	...	...	...	...	...	30·9	18·8	...	...	...	...
					Warning rate. 12·0																	
Kurnool	Average.	26·17	2·34	...	12·9	28·5	29·4	...	...	0·1	...	3·4	...	3·0	...	...	36·1	23·7	...	6·6	0·9	...
	1892 ...	38·96	...	10·45	9·7	16·3	16·1	...	3·1	...	8·8	...	10·3	...	...	...	30·5	34·2	...	1·0	...	9·6
	1893 ...	30·43	...	1·92	12·0	20·6	21·5	...	0·8	...	4·5	...	4·9	...	...	...	25·6	22·3	3·9	...	2·3	...
	1894 ...	28·51	...	...	12·8	25·1	26·4	...	...	...	...	...	...	...	...	...	29·5	24·6	...	...	...	...
					Warning rate. 22·5																	
Bellary	Average.	21·25	1·01	...	13·1	29·8	35·1	...	...	1·8	...	5·1	...	7·3	...	...	37·2	21·7	...	6·4	0·1	...
	1892 ...	27·35	...	5·09	9·7	17·7	19·8	...	1·6	...	7·0	...	8·0	...	...	...	31·5	26·6	...	0·7	...	4·8
	1893 ...	30·57	...	8·31	11·4	25·0	27·4	...	...	0·1	...	0·3	0·4	...	...	...	28·5	21·0	2·3	...	0·8	...
	1894 ...	22·26	...	...	11·3	24·7	27·8	...	...	...	...	...	...	...	...	...	30·8	21·8	...	...	...	...
					Warning rate. 23·3																	
Anantapur ...	Average.	21·52	0·42	...	14·9	30·8	33·7	...	...	2·5	...	6·6	...	7·0	...	...	31·5	19·8	...	3·2	...	2·7
	1892 ...	27·87	...	5·93	9·9	17·4	18·9	...	2·5	...	6·8	...	7·8	...	...	...	27·0	19·9	1·3	...	...	2·8
	1893 ...	25·59	...	3·65	12·8	20·7	22·1	...	...	0·4	3·5	...	4·6	...	...	...	24·9	16·8	3·4	...	0·3	...
	1894 ...	21·94	...	...	12·4	24·2	26·7	...	...	...	...	...	...	...	...	...	28·3	17·1	...	...	...	...
					Warning rate. 24·0																	
Cuddapah ...	Average.	27·77	1·01	...	14·7	28·9	32·4	...	...	1·9	...	6·7	...	8·9	...	...	28·0	19·5	...	2·3	1·6	...
	1892 ...	35·31	...	6·53	9·1	15·8	18·2	...	3·7	...	6·4	...	5·3	...	...	...	23·2	23·7	2·5	...	...	2·6
	1893 ...	32·24	...	3·46	11·9	18·0	20·5	...	0·9	...	4·2	...	3·0	...	...	...	22·4	23·2	3·3	...	...	2·1
	1894 ...	28·78	...	...	12·8	22·2	23·5	...	...	...	...	...	...	...	...	...	25·7	21·1	...	...	...	...
					Warning rate. 22·5																	
Nellore	Average.	34·42	...	2·16	14·7	24·7	28·4	...	...	1·7	...	1·7	...	3·5	...	...	23·0	13·8	0·2	...	1·8	...
	1892 ...	34·65	...	2·39	9·9	15·0	16·1	...	3·1	...	8·0	...	8 8	...	...	...	21·4	19·5	1·8	...	...	3·9
	1893 ...	43·87	...	11·61	11·9	19·9	22·5	...	1·1	...	3·1	...	2·4	...	...	...	21·6	14·7	1·6	...	0·9	...
	1894 ...	32·26	...	...	13·0	23·0	24·9	...	...	...	...	...	...	...	...	...	23·2	15·6	...	...	...	...
					Warning rate. 21·8																	
Madras	Average.	51·99	...	4·21	13·4	21·2	26·4	...	...	2·0	...	3·9	...	5·5	...	...	37·2	37·6	...	0·8	...	2·4
	1892 ...	38·40	9·38	...	9·2	12·6	15·8	...	2·2	...	4·7	...	5·1	...	...	..	35·0	44·2	1·4	...	...	9·0
	1893 ...	43·98	3·80	...	10·2	14·9	18·7	...	1·2	...	2·4	...	2·2	...	...	...	38·1	39·0	...	1·7	...	3·8
	1894 ...	47·78	...	...	11·4	17·3	20·9	...	...	...	...	...	...	...	...	...	36·4	35·2	...	...	...	...
					Warning rate. 10·8																	
Chingleput ...	Average.	46·89	...	2·94	15·2	...	26·2	...	...	2·3	...	...	...	5·8	...	...	36·7	23·4	...	2·6	...	2·7
	1892 ...	36·06	7·89	...	9·9	...	15·0	...	3·0	...	...	...	5·4	...	...	...	25·8	22·7	8·3	...	...	2·0
	1893 ...	48·57	...	4·62	10·6	...	17·4	...	2·3	..	...	...	3·0	...	...	...	34·3	19·9	...	0·2	0·8	...
	1894 ...	43·95	...	...	12·9	...	20·4	...	...	...	...	...	...	...	...	...	34·1	20·7	...	...	...	...
					Warning rate. 12·8																	
South Arcot ...	Average.	44·92	...	2·72	15·6	...	28·7	28·1	...	2·3	...	...	...	7·4	...	6·5	26·3	20·6	1·3	...	1·2	...
	1892 ...	29·34	12·86	...	10·8	...	17·7	18·7	2·5	...	...	...	3·6	...	2·9	...	23·3	18·3	4·3	...	3·5	...
	1893 ...	40·13	...	6·93	10·7	...	17·5	17·7	2·6	...	...	...	3·8	...	3·9	...	30·0	18·1	...	2·4	3·7	...
	1894 ...	42·20	...	...	13·3	...	21·3	21·6	...	...	...	...	...	...	...	...	27·6	21·8	...	...	...	...
							Warning rate.	21·8														
North Arcot ...	Average.	38·93	...	7·37	15·5	27·5	30·6	...	...	2·4	...	8·0	...	7·3	...	...	27·9	18·8	...	1·8	...	2·9
	1892 ...	36·84	...	5·28	10·0	14·8	16·4	...	3·1	...	4·7	...	6·9	...	...	...	22·0	18·1	4·1	...	...	2·7
	1893 ...	39·91	...	8·35	11·3	16·9	19·7	...	1·8	...	2·6	...	3·6	...	...	...	27·2	16·5	...	1·1	...	1·1
	1894 ...	31·56	...	...	13·1	19·5	23·3	...	...	...	...	...	...	...	...	...	26·1	15·4	...	...	...	...
						Warning rate. 24·0																
Salem	Average.	30·96	1·08	...	14·9	26·9	30·8	...	...	2·5	...	6·4	...	6·1	...	...	31·7	18·1	...	1·6	...	1·7
	1892 ...	30·48	1·56	...	9·8	15·6	17·3	...	2·6	...	4·9	...	7·4	...	...	...	25·1	18·0	5·0	...	...	1·6
	1893 ...	39·27	...	7·23	10·7	17·6	20·2	...	1·7	...	2·9	...	4·5	...	...	...	28·2	17·0	1·9	...	...	0·6
	1894 ...	32·04	...	...	12·4	20·5	24·7	...	...	...	...	...	...	...	...	...	30·1	16·4	...	...	...	...
							Warning rate. 23·3															

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

Districts.	Years.	Rainfall.			Prices of food grains.												Ratio per mille of population.		Ratio per mille of population.			
									Rice.		Cholum.		Ragi.		Cumbu.		Birth.		Birth.		Death.	
		Quantity in inches.	Decrease.	Increase.	Rice.	Cholum.	Ragi.	Cumbu.	Decrease.	Increase.	Decrease.	Increase.	Decrease.	Increase.	Decrease.	Increase.			Decrease.	Increase.	Decrease.	Increase.
Coimbatore ...	Average.	26·21	...	3·36	13·9	23·4	29·0	27·6	...	2·0	...	3·6	...	6·3	...	5·8	27·0	16·9	...	1·2	...	1·4
	1892 ...	21·25	1·60	...	9·9	15·3	17·1	17·6	2·0	...	4·5	...	5·6	...	4·2	...	24·8	17·7	1·0	...	...	2·2
	1893 ...	32·18	...	9·33	10·2	18·1	19·5	19·0	1·7	...	1·7	...	3·2	...	2·8	...	27·4	17·7	...	1·6	...	2·2
	1894 ...	22·85	...	...	11·9	19·8	22·7	21·8	...	...	...	...	...	...	...	...	25·8	15·5	...	...	...	...
							Warning rate.	21·8														
Trichinopoly ...	Average.	33·61	...	4·60	14·4	37·2	29·1	27·0	...	2·2	...	14·6	...	8·9	...	7·8	29·1	21·8	...	4·7	...	0·3
	1892 ...	23·86	5·15	...	9·9	19·5	16·9	17·0	2·3	...	3·1	...	3·3	...	2·2	...	26·2	19·6	...	1·8	1·9	...
	1893 ...	43·02	...	14·01	9·4	17·3	16·2	15·8	2·8	...	5·3	...	4·0	...	3·4	...	28·1	22·9	...	3·7	...	1·4
	1894 ...	29·01	...	...	12·2	22·6	20·2	19·2	...	...	...	...	...	...	...	...	24·4	21·5	...	...	...	...
							Warning rate.	21·0														
Tanjore	Average.	46·75	...	8·08	15·5	...	28·5	...	...	2·1	...	...	...	5·9	...	...	28·3	24·1	...	3·0	2·1	...
	1892 ...	28·68	9·99	...	11·0	...	18·3	...	2·4	...	...	...	4·3	...	...	...	26·8	25·5	...	1·5	0·7	...
	1893 ...	53·45	...	14·78	10·3	...	16·0	...	3·1	...	...	...	6·6	...	...	...	30·1	26·8	...	4·8	...	0·6
	1894 ...	38·67	...	...	13·4	...	22·6	...	...	...	...	...	...	...	...	...	25·3	26·2	...	...	...	...
				Warning rate.	12·6																	
Madura	Average.	30·76	1·59	...	14·2	30·2	29·0	...	...	2·2	...	10·0	...	6·1	...	...	29·2	18·4	...	2·3	1·4	...
	1892 ...	20·47	11·88	...	10·3	14·8	16·6	...	1·7	...	5·2	...	6·3	...	...	...	28·0	18·9	...	1·1	0·9	...
	1893 ...	35·39	...	3·04	9·9	14·8	16·7	...	2·1	...	5·2	...	6·2	...	...	...	28·3	16·9	...	1·4	2·9	...
	1894 ...	32·35	...	...	12·0	20·2	22·9	...	...	...	...	...	...	...	...	...	26·9	19·8	..	...	...	...
							Warning rate.	22·5														
Tinnevelly	Average.	28·98	...	9·12	13·6	24·1	25·8	21·7	...	2·4	...	5·3	...	4·9	...	3·2	27·0	21·8	0·7	...	4·1	...
	1892 ...	15·36	4·50	...	10·0	15·5	15·8	14·6	1·2	...	3·3	...	5·1	...	3·9	...	26 6	21·8	1·1	...	4·1	...
	1893 ...	26·70	...	6·84	9·8	14·5	15·3	12·8	1·4	...	4·3	...	5·6	...	5·7	...	27·5	20·6	0·2	...	5·3	...
	1894 ...	19·86	...	...	11·2	18·8	20·9	18·5	...	...	...	...	...	...	...	...	27·7	25·9	...	...	...	...
							Warning rate.	18·0														
Nilgiris	Average.	72·43	...	13·14	11·0	...	21·0	...	...	1·8	...	...	...	2·6	...	...	17·2	16·2	11·7	...	6·6	..
	1892 ...	58·77	0·52	...	8·2	...	13·9	...	1·0	...	...	...	4·5	...	...	...	22·4	24·4	6·5	...	...	1·6
	1893 ...	84·81	...	25·52	8·9	...	16·8	...	0·3	...	...	...	1·6	...	...	...	25·1	20·5	3·8	...	2·3	...
	1894 ...	59·29	...	...	9·2	...	18·4	...	...	...	...	...	...	...	...	...	28·9	22·8	...	...	...	...
				Warning rate.	8·8																	
Malabar	Average.	115·18	...		10·75	13·7	...	...	...	...	2·0	...	...	...	...	...	22·5	18·0	...	1·2	...	3·2
	1892 ...	143·06	...		38·63	10·6	...	...	...	1·1	...	...	...	...	...	...	20·1	23·0	1·2	...	...	8·2
	1893 ...	99·28	5·15		...	10·7	...	...	...	1·0	...	...	...	...	...	...	19·7	18·3	1·6	...	...	3·5
	1894 ...	104·43	...		...	11·7	...	...	...	...	...	...	...	...	...	...	21·3	14·8	...	...	...	...
					Warning rate.	11·0																
South Canara ...	Average.	143·20	0·55		...	14·3	...	...	...	1·8	...	...	...	...	...	...	39·1	21·3	...	6·9	...	0·6
	1892 ...	175·88	...		32·13	12·1	...	...	...	0·4	...	...	...	...	...	...	31·5	22·0	0·7	...	...	1·3
	1893 ...	144·66	...		0·91	12·1	...	...	...	0·4	...	...	...	...	...	...	28·9	18·7	3·3	...	2·0	...
	1894 ...	143·75	...		...	12·5	...	...	...	...	...	...	...	...	...	...	32·2	20·7	...	...	...	...
					Warning rate.	11·8																
Total, Madras Presidency.	Average.	45·20	...		1·95	14·4	27·4	29·0	...	...	1·9	...	6·1	...	5·5	...	27·4	19·8	...	1·0	...	0·8
	1892 ...	58·43	...		15·18	× 10·2	× 16·0	× 17·4	...	2·3	...	5·3	...	6·1	...	...	24·6	21·8	1·8	...	...	2·8
	1893 ...	50·93	...		7·68	11·2	× 18·2	× 20·3	...	1·3	...	3·1	...	3·2	...	...	26·1	18·7	0·3	...	0·3	...
	1894 ...	43·25	...		..	12·5	21·3	23·5	...	...	..	...	...	...	...	...	26·4	19·0	...	...	...	...

× These figures slightly differ from those in para 3 of GO 1210 L 2-7-91.

Comparative Statement showing the Mortuary and Meteorological Statistics of the different Districts five years preceding it, required by the Government of

Districts.		Population.	Total deaths.	Deaths from				Temperature in shade.			Mean humidity.	Wind.	
				Cholera.	Small-pox.	Fevers.	Dysentery and Diarrhœa.	Maximum.	Minimum.	Means.		Prevailing direction.	Mean velocity (in miles) per diem.
Ganjám.	1894 ...	1,896,400	24,056	188	249	18,455	806	85·9	73·0	79·4	84	S.W; N.W; N.	300
	1893 ...	1,896,400	23,240	187	276	18,013	605	84·8	72·1	78·5	85	N.;S.W; N.W.	286
	1892 ...	1,896,400	27,153	469	498	20,123	809	97·2	54·5	78·9	82	...	338
	1891 ...	1,896,400	18,665	136	198	14,165	329	92·2	52·0	79·5	80	...	316
	1890 ...	1,346,545	18,074	60	770	13,876	400	93·2	55·0	80·3	81	...	314
	1889 ...	977,341	40,037	13,932	4,290	15,852	563	96·2	57·5	80·9	78	...	339
Vizagapatam.	1894 ...	1,942,195	32,428	144	375	27,645	873	85·4	79·0	82·2	74	W.	33
	1893 ...	1,942,195	28,046	74	1,042	23,090	742	83·9	78·0	80·9	75	W.	38
	1892 ...	1,942,195	42,130	3,229	1,587	32,138	1,205	97·9	62·9	81·0	73	...	46
	1891 ...	1,942,195	25,153	30	314	20,773	688	99·9	59·9	82·1	69	...	70
	1890 ...	1,493,352	25,887	3	762	22,363	394	96·0	60·5	82·6	68	...	58
	1889 ...	1,390,330	35,854	7,065	1,029	24,457	572	96·8	60·0	82·9	67	...	61
Gódávari.	1894 ...	2,077,858	35,528	395	443	17,401	822	89·0	74·7	81·8	79	N;S.W;W;N.W	185
	1893 ...	2,077,858	34,898	1,099	2,008	15,575	786	87·5	73·0	79·4	79	N. ; S.W.	202
	1892 ...	2,077,858	56,341	13,618	6,211	18,446	1,217	116·1	58·9	83·0	75	...	...
	1891 ...	2,077,858	39,922	1,496	4,101	17,753	874	114·1	57·9	83·9	73	...	...
	1890 ...	1,790,850	34,514	...	1,716	17,536	686	113·6	58·9	82·9	79	...	...
	1889 ...	1,790,850	43,694	9,686	197	17,286	1,121	110·1	57·9	83·1	69	...	...
Kistna.	1894 ...	1,855,024	37,154	1,177	132	14,623	458	90·6	74·3	82·5	81	N.W ; N.	125
	1893 ...	1,855,024	34,132	2,951	325	13,374	454	89·0	74·0	81·5	84	N.W. & calm.	154
	1892 ...	1,855,024	51,080	4,539	6,438	17,514	1,053	114·7	57·7	82·0	85	...	138
	1891 ...	1,855,024	47,397	4,353	8,223	14,655	1,234	112·7	59·6	83·5	82	...	96
	1890 ...	1,548,355	35,709	9	1,871	15,446	509	113·7	60·2	82·5	83	...	72
	1889 ...	1,548,355	38,353	3,757	323	14,780	526	110·7	58·4	81·8	79	...	110
Kurnool.	1894 ...	817,660	21,404	803	248	16,515	210	93·1	70·3	81·7	67	Calm ; W.	...
	1893 ...	817,660	19,081	29	224	15,071	227	90·6	69·9	80·4	70	W. & calm.	...
	1892 ...	817,660	28,701	4,886	421	18,691	428	111·6	51·2	81·2	70	...	...
	1891 ...	817,660	22,381	3,286	214	14,315	550	108·6	46·6	82·9	63	...	...
	1890 ...	678,464	20,190	127	421	15,560	314	111·6	47·7	81·4	68	...	...
	1889 ...	678,464	21,071	339	2,913	13,536	340	107·6	47·1	81·9	68	...	...
Bellary.	1894 ...	909,661	21,384	53	702	10,375	581	93·4	70·5	69·0	64	W.; N.W.	166
	1893 ...	909,661	20,141	2	1,027	9,572	694	90·7	69·8	80·2	76	W. & calm.	149
	1892 ...	909,661	24,979	2,455	364	9,522	1,087	108·5	53·2	79·9	58	...	158
	1891 ...	909,661	23,400	3,115	267	7,001	656	106·6	51·0	81·3	54	...	173
	1890 ...	732,361	19,155	...	554	7,438	567	106·7	47·2	80·3	59	...	155
	1889 ...	736,128	23,118	1,757	2,782	5,829	838	108·1	52·0	81·2	55	...	159
Anantapur.	1894 ...	708,143	12,799	726	133	2,204	167	...	...	...	...	...	...
	1893 ...	708,143	12,395	18	180	2,716	179	...	...	...	...	...	...
	1892 ...	708,143	14,427	820	129	2,937	222	...	...	...	...	...	...
	1891 ...	708,143	17,560	4,373	254	2,638	244	...	...	...	...	...	...
	1890 ...	603,656	15,759	39	789	4,189	266	...	...	...	...	...	...
	1889 ...	599,889	14,727	859	1,120	2,185	293	...	...	...	...	...	...
Cuddapah.	1894 ...	1,271,721	27,987	144	293	22,300	525	94·9	73·5	84·6	68	S.E; S.W; N.W.	...
	1893 ...	1,271,721	30,382	96	212	25,223	471	93·6	73·8	83·7	69	S.W. N W; W.	...
	1892 ...	1,271,721	30,731	3,338	405	21,362	728	113·3	58·3	84·1	66	...	...
	1891 ...	1,271,721	28,538	6,270	644	16,801	601	109·8	57·3	85·8	63	...	...
	1890 ...	1,120,714	27,602	2,073	1,307	19,444	770	109·3	58·3	84·1	72	...	...
	1889 ...	1,120,714	24,348	496	2,285	16,642	693	113·3	58·8	84·2	69	...	...
Nellore.	1894 ...	1,463,357	24,345	89	103	12,623	465	94·4	75·6	85·0	77	N.W;W;calm; S	156
	1893 ...	1,463,357	22,485	84	329	11,145	561	93·3	75·0	84·2	78	N.W. & calm.	163
	1892 ...	1,463,357	29,252	1,818	1,345	12,894	887	115·7	62·1	84·4	77	...	164
	1891 ...	1,463,357	25,038	1,754	316	11,539	660	111·3	61·1	85·3	75	...	192
	1890 ...	1,219,883	19,911	39	230	10,415	549	112·8	61·1	84·1	75	...	166
	1889 ...	1,219,883	19,009	1,623	327	7,940	748	110·3	60·6	83·7	79	...	168
Madras.	1894 ...	436,375	16,086	75	12	6,066	2,318	91·5	74·8	83·1	76	S.W; W; S; N.	158
	1893 ...	436,375	18,037	26	18	6,544	2,637	90·8	74·2	82·5	77	S. W. & W.	156
	1892 ...	436,375	20,287	565	25	6,794	3,863	108·4	62·6	80·8	76	...	157
	1891 ...	436,375	23,181	1,806	65	6,635	4,480	107·3	61·7	82·2	75	...	179
	1890 ...	389,984	16,647	687	72	4,588	2,620	109·0	61·7	80·9	78	...	144
	1889 ...	389,984	16,618	171	42	4,064	2,930	107·0	61·9	81·2	78	...	148
Chingleput.	1894 ...	1,199,901	24,757	376	157	7,351	2,458	...	...	...	...	...	...
	1893 ...	1,133,901	23,416	24	306	6,729	2,568	...	...	...	...	...	...
	1892 ...	1,133,901	26,389	1,957	367	7,099	3,646	...	...	...	...	...	...
	1891 ...	1,133,901	32,132	4,985	623	7,453	4,088	...	...	...	...	...	...
	1890 ...	978,524	23,565	410	684	6,454	2,809	...	...	...	...	...	...
	1889 ...	978,524	26,216	1,544	485	5,938	3,964	...	...	...	...	...	...

comprised in the Madras Presidency, together with the prices current of the chief food-grains for 1894 *and India*, vide *G.O., No.* 1239 *L., dated* 25*th May* 1892.

Rainfall in inches.	Average quantity in seers per rupee of the chief food-grains in general use in the districts.				Remarks.
	Rice (2nd sort).	Cholum.	Cumbu.	Ragi.	
46·10	16·6	...	...	23·6	Rainfall lower than in 1893 and 1892. Food grains were cheaper. Death-rate was 12·7 per mille of census population against 12·2 in the preceding year. Increase slightly occurred under all heads except small-pox.
59·21	11·6	...	...	21·9	
49·65	11·2	14·5	...	17·8	
35·72	14·8	...	...	28·2	
43·09	12·7	...	...	24·4	
59·42	10·7	...	...	19·1	
52·93	10·4	20·4	23·8	24·5	Rainfall much less than in 1893. Prices of grains (rice and cholum) were almost the same. Ragi showed an increase of 2·8 seers per rupee. Death-rate was 16·7 against 14·4 in 1893. Except small-pox there was an increase under all heads.
60·80	10·4	20·2	24·1	21·7	
53·29	9·3	16·2	19·1	17·2	
33·32	11·6	24·7	27·2	23·7	
48·11	11·4	26·1	29·1	26·2	
53·56	10·7	22·1	22·9	20·6	
39·69	12·7	16·1	23·3	24·7	Except 1891 the rainfall registered during 1894 was much below the falls of the preceding years. Rice and ragi were slightly easier than in 1893. Death-rate was 17·1 against 16·8 or 0·3 more than that of 1893, the increase mainly occurring under fevers.
57·35	12·0	17·5	23·4	23·8	
50·53	10·9	15·9	17·9	17·3	
25·34	13·7	22·4	24·5	25·0	
41·21	15·1	24·7	26·2	28·9	
46·44	15·2	24·8	23·8	25·6	
31·16	12·5	16·0	...	26·7	Rainfall much less than in any of the previous years except 1891. Food grains sold cheaper. Death-rate was 20·0 against 18·4 in 1893, increase occurring chiefly under fevers and 'all other causes.'
39·78	12·1	15·5	...	22·1	
46·22	11·0	16·0	...	18·3	
21·20	12·5	18·0	...	25·8	
31·84	13·6	18·7	...	27·2	
36·80	13·2	20·4	...	24·1	
28·51	11·5	24·3	19·7	...	The rainfall in 1894 was less than in the preceding two years. Food grains were cheaper except cumbu, which was almost stationary. Death-rate was 26·2 against 23·3 in 1893. Increase chiefly occurred under cholera and fevers.
30·43	10·8	20·5	19·8	...	
38·96	9·7	16·6	14·9	...	
15·41	11·5	24·0	19·9	...	
29·14	11·2	26·1	23·8	31·0	
35·76	11·6	24·3	21·6	28·4	
22·26	10·8	23·5	19·4	23·7	Rainfall much lower than in any of the previous years except 1891. Food grains were cheaper. Death-rate was 23·5 against 22·1 in 1893. Fever and cholera mortality was greater.
30·57	10·5	21·8	19·0	23·4	
27·35	9·2	17·3	14·9	18·3	
10·02	11·2	25·2	20·8	25·4	
24·47	12·8	28·3	23·4	30·0	
29·89	13·3	28·9	21·3	33·9	
21·94	11·8	23·1	22·0	23·5	Except 1890, the rainfall of 1894 was much below the fall of the previous years. Rice was sold at 0·3 seers less than in the preceding year 1893. The other grains were cheaper. Death-rate was 18·0 against 17·5 in 1893. Increase chiefly occurs under cholera.
25·59	12·1	19·5	19·1	20·5	
27·87	9·5	15·9	13·0	17·1	
29·39	11·1	23·3	19·6	25·6	
20·97	13·4	29·4	24·5	29·8	
32·69	14·3	31·6	26·3	32·6	
28·78	11·4	17·9	21·0	22·3	Rainfall much lower than in 1893 and 1892. Rice sold at 0·3 seers per rupee less than in 1893 and the prices of the other three grains were easier. Death-rate was 22·0 against 23·9 in 1893. Decrease chiefly occurred under fevers.
32·24	11·7	16·4	19·6	20·7	
35·31	9·3	15·2	16·5	17·8	
14·79	10·3	20·7	18·0	21·9	
21·17	12·9	22·5	25·9	29·4	
30·53	13 3	22·7	26·7	30·6	
32·26	14·7	20·6	17·6	21·5	Rainfall was much below the fall of the two preceding years, especially 1893. Food grains were cheaper. Death-rate was 16·7 per mille against 15·4 in 1893. Increase mainly occurs under fevers.
43·87	13·2	19·2	17·4	22·3	
34·65	9·9	14·5	12·8	15·7	
19·18	11·0	18·2	18·6	18·9	
23·95	12·9	22·2	22·9	25·2	
29·07	13·5	23·0	21·7	27·0	
47·78	11·4	17·3	16·9	20·9	Rainfall was far in excess of previous years. All the food grains were cheaper. Death-rate was 36·9 against 41·5 or 4·6 less than in the previous year. Except cholera there is a decrease under all other heads.
43·98	10·2	14·4	16·2	18·8	
38·40	9·3	13·9	14·3	15·8	
30·43	10·4	17·3	15·8	19·3	
27·99	11·2	18·9	18·1	24·7	
43·39	12·8	19·6	20·9	26·6	
43·95	10·9	...	12·9	20·0	Rainfall much lower than in 1893. Food grains cheaper. Death-rates of 1894 and 1893 were equal; cholera and fevers prevailed to a larger extent than in 1893.
48·57	9·6	14·8	12·8	17·6	
36·06	9·1	...	...	15·5	
31·31	10·8	...	17·2	19·3	
29·44	11·5	...	17·2	24·1	
38·90	13·7	...	18·8	25·3	

Comparative Statement showing the Mortuary and Meteorological Statistics

Districts.		Population.	Total deaths.	Deaths from				Temperature in shade.			Mean humidity.	Wind.	
				Cholera.	Small-pox.	Fevers.	Dysentery and diarrhœa.	Maximum.	Minimum.	Mean.		Prevailing direction.	Mean velocity (in miles) per diem.
South Arcot.	1894 ...	2,162,336	50,027	4,434	1,405	15,152	1,503	89·7	74·3	82·0	88	N.W.; W.; S.W.	50
	1893 ...	2,162,336	40,859	1,318	1,783	12,731	900	90·0	74·2	82·1	85	W.; N. W.	84
	1892 ...	2,162,336	40,615	3,831	1,601	12,546	1,000	106·3	62·8	81·9	86	...	78
	1891 ...	2,162,336	64,079	16,096	4,805	14,926	2,322	105·8	64·3	83·2	81	...	72
	1890 ...	1,815,916	48,797	2,043	8,166	15,216	1,103	107·8	62·2	82·1	80	...	64
	1889 ...	1,815,916	45,490	6,377	4,010	12,644	1,180	...	...	...	...	...	...
North Arcot.	1894 ...	2,113,585	30,572	2,219	536	14,791	1,281	...	...	...	...	...	...
	1893 ...	2,179,585	37,579	1,639	1,309	15,555	1,539	...	...	...	...	...	...
	1892 ...	2,179,585	40,362	3,327	2,072	15,898	1,621	...	...	...	...	...	...
	1891 ...	2,179,585	47,934	7,355	3,094	16,097	2,160	...	...	...	...	...	...
	1890 ...	1,822,312	41,372	2,304	3,545	17,275	1,586	...	...	...	...	...	...
	1889 ...	1,822,312	38,260	3,799	1,725	14,686	1,452	...	...	...	...	...	...
Salem.	1894 ...	1,961,784	34,582	2,143	474	13,942	1,036	93·1	71·4	82·2	73	Calm.; S.W.; S.	94
	1893 ...	1,961,784	34,973	1,498	1,092	15,956	678	91·9	70·7	81·4	74	N.E.; S.W. & calm	103
	1892 ...	1,961,784	36,388	3,861	1,598	14,540	885	107·3	58·1	80·8	66	...	88
	1891 ...	1,961,784	40,470	5,896	1,180	15,129	1,391	106·0	58·0	81·6	67	...	78
	1890 ...	1,592,274	40,545	2,548	1,388	19,545	935	106·1	56·3	80·6	69	...	69
	1889 ...	1,592,274	35,640	2,919	1,607	14,517	976	106·0	56·4	81·5	69	...	77
Coimbatore.	1894 ...	2,003,911	33,965	1,966	170	12,725	1,152	89·7	69·0	79·4	82	S.; E.; S.W.	89
	1893 ...	2,003,911	37,028	2,229	888	14,567	1,279	90·1	68·6	79·4	85	N.; S.	86
	1892 ...	2,003,911	36,515	2,091	2,675	14,676	1,103	100·8	57·0	80·3	86	...	122
	1891 ...	2,003,911	43,152	8,394	1,894	13,912	1,445	101·3	58·6	79·8	83	...	96
	1890 ...	1,657,144	36,284	2,364	558	15,732	1,136	104·3	58·0	79·6	83	...	96
	1889 ...	1,657,144	33,727	2,976	800	12,935	1,541	104·3	58·9	80·5	88	...	88
Trichinopoly.	1894 ...	1,371,726	30,776	3,546	265	6,042	716	95·0	74·5	84·8	70	Calm; W.	106
	1893 ...	1,371,726	32,296	6,411	675	5,390	707	94·2	74·1	84·2	71	W.; & calm.	108
	1892 ...	1,371,726	27,401	2,328	419	5,540	641	108·8	62·8	83·1	60	...	138
	1891 ...	1,371,726	35,288	5,197	373	6,790	907	106·4	62·4	83·1	63	...	158
	1890 ...	1,214,485	31,671	2,415	515	7,802	755	109·0	60·5	83·2	60	...	153
	1889 ...	1,214,485	27,302	1,994	652	6,066	642	106·3	62·1	83·7	62	...	155
Tanjore.	1894 ...	2,227,081	59,588	9,943	973	5,091	1,636	90·5	76·1	83·4	75	W.; S. W.	230
	1893 ...	2,227,081	60,379	10,779	1,311	4,839	1,529	89·1	75·6	82·4	74	W.; & calm.	168
	1892 ...	2,227,081	57,277	9,093	713	4,916	1,782	106·7	65·2	83·0	74	...	180
	1891 ...	2,227,081	58,395	6,565	1,201	4,885	1,829	103·2	64·7	83·3	74	...	120
	1890 ...	2,129,538	51,953	5,717	1,992	4,101	1,856	104·1	64·2	82·1	77	...	144
	1889 ...	2,129,538	50,603	6,545	1,787	3,171	1,663	100·6	66·2	82·5	77	...	128
Madura.	1894 ...	1,573,318	33,322	5,481	353	9,153	1,244	93·9	74·3	84·1	70	N.W.; N.	62
	1893 ...	1,573,318	27,823	1,175	1,110	8,951	823	92·8	73·5	83·2	73	N.; N.W.	50
	1892 ...	1,573,318	30,687	2,838	2,509	8,499	983	105·5	64·7	83·7	68	...	66
	1891 ...	1,563,317	37,515	7,731	3,159	8,770	1,186	104·0	64·2	84·1	69	...	72
	1890 ...	1,293,829	30,976	4,015	1,246	9,491	1,023	105·5	62·7	83·8	69	...	72
	1889 ...	1,293,829	30,093	4,752	877	7,619	1,281	105·0	64·2	84·4	72	...	72
Tinnevelly.	1894 ...	1,915,702	51,585	7,084	451	8,731	1,947	94·6	76·8	85·7	67	N.W.; W.; N.	163
	1893 ...	1,915,702	40,572	1,392	918	6,483	947	93·5	76·2	85·0	69	N.; N.W.	163
	1892 ...	1,915,702	42,360	4,458	2,125	5,893	1,291	...	...	...	...	...	...
	1891 ...	1,915,702	45,050	4,096	3,690	5,868	1,938	...	...	...	...	...	...
	1890 ...	1,699,056	43,042	5,825	999	6,421	1,536	...	...	...	...	...	...
	1889 ...	1,699,056	37,416	4,575	228	5,047	1,506	...	...	...	...	...	...
Nilgiris.	1894 ...	96,765	2,285	29	11	1,635	135	70·8	52·7	61·8	68	Calm.	65
	1893 ...	96,765	2,054	12	15	1,430	150	70·2	52·7	61·4	71	S.W.; & calm.	75
	1892 ...	96,765	2,463	21	75	1,715	163	81·2	35·7	61·9	72	...	71
	1891 ...	96,765	2,250	97	75	1,498	179	79·5	35·6	61·9	73	...	67
	1890 ...	88,324	2,158	7	53	1,502	128	80·2	36·2	61·7	69	...	61
	1889 ...	88,324	1,421	12	38	980	111	81·4	38·2	62·6	70	...	63
Malabar.	1894 ...	2,636,674	40,516	1,145	3,540	18,122	3,094	86·4	73·8	80·1	81	Calm; E.; N.E.	266
	1893 ...	2,636,674	49,730	622	12,068	17,739	4,069	86·2	73·6	79·9	83	E.; & calm.	305
	1892 ...	2,636,674	61,770	8,225	11,695	20,118	6,116	93·4	66·3	80·3	80	...	212
	1891 ...	2,636,674	50,332	5,385	6,485	17,808	5,103	93·9	64·8	80·8	80	...	130
	1890 ...	2,351,152	41,250	4,603	391	18,158	4,227	94·0	64·5	80·0	80	...	126
	1889 ...	2,351,152	38,168	489	1,267	17,993	4,403	95·3	66·0	80·7	80	...	156
South Canara.	1894 ...	1,052,002	22,522	129	182	9,514	1,374	87·1	73·9	80·5	80	E.; calm.	60
	1893 ...	1,052,002	20,176	544	173	7,722	1,269	86·1	73·6	79·9	83	E.; & calm.	62
	1892 ...	1,052,002	23,447	1,266	485	8,766	1,563	95·3	64·5	80·3	83	...	62
	1891 ...	1,052,002	19,721	357	147	7,618	1,359	96·8	63·5	81·1	83	...	48
	1890 ...	955,595	25,333	...	63	10,303	2,439	94·8	65·0	80·2	82	...	72
	1889 ...	955,595	20,013	353	354	6,005	1,779	93·8	60·5	80·4	83	...	68

of the different Districts comprised in the Madras Presidency, &c.—continued.

Rainfall in inches.	Average quantity in seers per rupee of the chief food-grains in general use in the districts.				Remarks.
	Rice (2nd sort).	Cholum.	Cumbu.	Ragi.	
42·20	13·7	...	21·5	20·5	Rainfall was much less than in 1893. Food grains much cheaper. Death-rate was 23·1 against 18·8 in 1893. Cholera and fevers were prevalent to a greater extent, the rates being 2·0 and 7·0 per mille, respectively, against 0·6 and 5·9 in 1893.
49·13	10·5	13·8	16·8	16·8	
29·34	10·8	16·8	18·5	17·2	
40·68	11·4	15·4	19·0	18·3	
33·45	11·5	16·8	20·4	21·9	
33·19	14·1	20·2	23·5	24·1	
31·56	11·7	19·9	17·6	23·6	Rainfall far below 1893 and 1892. Food grains much cheaper. Death-rate was 16·8 against 17·2 in 1893. Decrease occurred under all heads except cholera.
39·91	10·7	15·8	15·1	20·2	
36·84	10·1	16·2	12·6	16·7	
27·96	10·3	17·1	15·0	21·4	
30·43	11·6	23·7	21·6	28·7	
39·79	13·1	27·7	24·5	32·8	
32·04	11·6	19·9	18·7	23·2	Rainfall much less than in 1893. Prices of food grains easier. Death-rate was 17·6 against 17·8 in 1893.
39·27	10·1	18·3	16·9	20·4	
30·48	9·3	15·7	15·4	17·4	
43·74	10·7	18·8	19·4	21·5	
30·21	12·8	22·7	24·4	28·7	
36·12	13·4	26·1	23·5	30·3	
22·85	11·9	18·9	19·6	21·6	Rainfall much lower than in 1893. Prices of food grains were slightly lower than in 1893 and 1892. Death-rate was 16·9 against 18·5 in the preceding year. Decrease occurred under all heads.
32·18	10·3	16·1	17·4	18·3	
21·25	10·0	16·3	17·4	17·0	
21·59	11·1	17·9	18·8	20·6	
25·03	12·2	20·6	22·2	26·2	
26·69	13·4	22·0	24·2	26·3	
29·01	11·4	17·7	20·3	20·8	Rainfall far below that recorded in 1893. Food grains cheaper. Death-rate was 22·4 against 23·5 in 1893.
43·02	9·7	14·6	15·5	16·5	
23·86	9·4	15·0	15·2	15·9	
30·71	10·6	17·0	17·3	19·0	
33·90	10·6	18·4	19·1	21·5	
33·11	12·5	21·5	21·9	25·4	
38·67	13·5	...	17·2	22·0	Rainfall much lower than in 1893. Prices of food grains easier. Death-rate was 26·7 against 27·1. The mortality under cholera and small-pox greatly decreased and that from fevers and dysentery and diarrhœa slightly increased.
53·45	10·2	13·0	15·8	16·2	
28·68	10·7	...	16·3	17·8	
48·41	12·5	25·4	20·5	21·2	
39·89	13·3	18·1	21·7	22·1	
36·18	14·4	20·5	25·7	27·5	
32·35	10·8	18·8	17·2	20·9	Rainfall less than in 1893. Food grains cheaper. Death-rate was 21·2 against 17·7 in 1893. Except small-pox increase occurred under all heads, especially cholera.
35·39	9·7	14·7	13·4	17·2	
20·47	9·9	14·3	14·3	15·7	
36·19	11·2	17·1	16·6	19·4	
28·82	10·8	18·9	17·8	22·1	
28·22	13·1	24·1	21·7	26·0	
19·86	11·3	17·3	15·6	19·4	Rainfall much less than in 1893. Rice was cheaper. Death-rate was 26·9 against 21·2 in 1893. Cholera, fevers and dysentery and diarrhœa prevailed to a large extent. The mortality from cholera was greater by five times than in 1893.
26·70	10·0	...	...	...	
15·36	9·9	...	...	...	
40·61	10·5	...	...	...	
18·78	10·3	...	...	...	
22·86	12·5	...	...	...	
59·29	9·1	17·1	15·8	17·5	Rainfall far below that recorded during 1893. Prices of food grains cheaper than in 1893. Death-rate was 23·6 against 21·2 in 1893. Deaths from fevers and 'other causes' slightly increased.
84·81	8·6	16·4	15·9	16·2	
58·77	8·2	13·3	13·2	13·7	
65·50	8·8	15·8	14·4	15·6	
62·46	9·6	20·0	16·0	19·6	
77·40	10·7	19·8	16·9	20·4	
104·43	11·2	...	...	...	Rainfall greater than in 1893. Rice was cheaper. Death-rate was 15·4 against 18·9. The mortality from small-pox (1·3) was much less than that recorded in 1893 (4·6.)
99·28	10·6	...	...	18·9	
143·06	10·2	...	...	17·8	
103·92	10·6	...	...	20·8	
91·90	10·9	...	...	22·0	
125·53	12·3	...	...	20·4	
143·75	13·1	...	...	...	Rainfall less than in 1893. Prices of rice cheaper. Death-rate was 21·4 against 19·2 in 1893. Fever and dysentery and diarrhœa prevailed to a larger extent, especially the former.
144·66	11·8	...	...	19·0	
175·88	11·5	...	...	16·6	
116·49	12·1	...	...	19·0	
132·56	13·3	...	...	21·6	
168·90	12·5	...	...	21·4	

VITAL STATISTICS.

GENERAL POPULATION.

REGISTRATION.

6. No addition to the area under registration was made during the year, so that of a total of 35,630,440 according to the census returns, only 33,733,121 have been kept under a system of observation.

7. Districts containing large zemindari tracts still yield the most faulty statistics. The attention of Collectors in the Ganjám, Nellore, Vizagapatam, Cuddapah, Gódávari, and Malabar districts was called by Government during the year to the desirability of attempting to secure more reliable results. Their replies showed that practically nothing beyond what is now being done can be effected, until more power is given to the Collector over kurnams in zemindari areas under the Madras Proprietary Estates Village Service Act. It will save discussion of the various considerations in connection with registration in the body of this report, if I refer, for further particulars, to the memorandum furnished by me to Government on this subject, which is given in appendix A.

8. According to the registration returns, the natural increase of the total population has been 789,570, against an estimate of 1,914,512—based on the intercensal rate of increase. In municipalities, excluding six towns where the census showed a decrease of the population was in progress, on applying the same calculation, the natural increase is shown to be 6,801, against an estimate of 84,022. This, if, indeed, proof of a well-acknowledged fact were requisite, demonstrates how very poor are existing registration arrangements. The following table exhibits the necessary comparisons :—

Districts.	Census population of 1891.	Estimated population on 31st December 1894.	Population on 31st December 1894, according to registration results.	Municipalities.	Census population of 1891. ‡	Estimated population on 31st December 1894.	Population on 31st December 1894, according to registration results. ‡
Anantapur ...	708,549	753,482	730,276	Chicacole ...	(18,241)	*	(18,385)
				Berhampur ...	25,653	26,487	26,442
				Parlákimedi ...	16,390	16,801	17,226
				Vizagapatam ...	34,487	36,245	35,100
Bellary ...	911,514	990,912	941,448	Bimlipatam ...	9,827	10,351	9,913
				Vizianagram ...	30 881	32,359 †	31,167
				Anakapalle ...	17,010	17,832 †	17,466
Chingleput ...	1,136,928	1,203,241	1,177,853	Cocanada ...	40,553	42,494 †	40,780
				Rajahmundry...	28,397	30,024	28,550
				Ellore	29,382	31,215	29,325
Coimbatore ...	2,004,839	2,156,502	2,076,310	Masulipatam ...	38,809	40,352	38,762
				Guntúr ...	23,359	24,962	23,607
Cuddapah ...	1,272,072	1,334,906	1,280,424	Bezwada ...	20,741	21,738 †	20,405
				Nellore ...	29,336	30,070	29,626
				Ongole ...	10,860	11,573	11,154
Ganjám ...	1,896,803	1,956,658	1,942,348	Madras ...	452,518	471,693	442,927
				Conjeevaram ...	42,548	44,762	43,340
Gódávari ...	2,078,782	2,200,700	2,096,463	Cuddalore ...	47,355	48,903	49,064
				Chidambaram...	(18,640)	*	(18,450)
				Trichinopoly ...	90,609	93,088	88,445
Kistna ...	1,855,582	1,989,355	1,913,265	Srírangam ...	21,632	22,390	21,501
				Tanjore ...	(54,390)	*	(54,083)
				Kumbakónam.	54,307	56,013	53,351
Kurnool ...	817,811	878,480	826,732	Máyaveram ...	23,765	24,047	23,976
				Negapatam ...	59,221	61,452	58,380
				Mannárgudi ...	20,395	20,786	20,467
Madras ...	452,518	471,693	442,927	Madura ...	87,428	91,860	88,246
				Periyakulam ...	(16,363)	*	(16,679)
				Dindigul ...	20,203	21,172 †	20,645

Note.—The above figures include Europeans and Eurasians.

* In the cases of these towns the census population of 1891 showed a decrease in comparison with that of 1881, and it has, therefore, been thought desirable to omit any estimate.

† Where there has been so great an increase, owing to prosperity and consequent immigration as to render the rate of increase open to doubt, it has been considered advisable to adopt Mr. Stuart's annual normal rate of 12·49 per mille.

‡ Figures within brackets have been omitted in calculating totals in these columns.

Districts.	Census population of 1891.	Estimated population on 31st December 1894.	Population on 31st December 1894, according to registration results.	Municipalities.	Census population of 1891.‡	Estimated population on 31st December 1894.	Population on 31st December 1894, according to registration results.‡
Madura ...	1,573,837	1,696,323	1,630,584	Palni	16,940	17,756 †	17,573
				Tinnevelly ...	24,768	25,388	25,030
				Palamcottah ...	18,686	18,970	19,097
Malabar ...	2,641,928	2,761,350	2,660,971	Tuticorin ...	25,107	26,309 †	24,927
				Kurnool ...	24,376	26,133	23,809
Nellore ...	1,463,736	1,568,393	1,497,627	Cuddapah ...	(17,379)	*	(16,371)
				Bellary ...	59,467	61,945	60,085
				Ádóni	26,243	27,866	26,710
Nilgiris ...	99,797	103,380	101,061	Anantapur ...	6,994	7,322 †	7,102
				Vellore ...	44,925	46,962	46,822
North Arcot ...	2,180,487	2,334,405	2,254,157	Gudiyáttam ...	18,747	19,601	19,009
				Walajapet ...	10,485	10,523	10,967
				Tirupati ...	14,242	14,649	13,990
Salem	1,962,591	2,126,037	2,051,919	Salem	67,710	71,089	70,266
				Vániyambádi ...	(15,838)	*	(16,918)
South Arcot ...	2,162,851	2,312,868	2,214,442	Tiruppattúr ...	16,499	17,439	17,296
				Coimbatore ...	46,383	49,586	47,769
South Canara...	1,052,359	1,092,422	1,096,941	Erode	12,330	12,922 †	12,407
				Karúr	10,750	11,409	11,104
Tanjore ...	2,228,114	2,266,729	2,243,244	Ootacamund ...	15,053	16,247	15,526
				Coonoor ...	6,049	6,334 †	6,134
				Mangalore ...	40,922	42,888 †	41,807
Tinnevelly ...	1,916,095	2,006,143	1,949,875	Tellichery ...	27,196	28,271	27,997
				Calicut ...	66,078	69,890	65,985
Trichinopoly ...	1,372,717	1,438,480	1,399,818	Palghat ...	39,481	40,756	40,113
				Cochin ...	17,601	18,390	17,349
Vizagapatam ...	1,943,211	2,005,174	1,994,006	Cannanore ...	27,418	27,824	28,128
Total ...	33,733,121	35,647,633	34,522,691	Total ...	1,960,116	2,044,138	1,966,917

Note.—The above figures include Europeans and Eurasians.

* In the cases of those towns the census population of 1891 showed a decrease in comparison with that of 1881 and it has, therefore, been thought desirable to omit any estimate.

† Where there has been so great an increase owing to prosperity and consequent immigration as to render the rate of increase open to doubt, it has been considered advisable to adopt Mr. Stuart's annual normal rate of 12·49 per mille.

‡ Figures within brackets have been omitted in calculating totals in these columns.

9. Taking into consideration the various criticisms passed by myself and the Deputy Sanitary Commissioner on the subject of registration as conducted by individual municipalities in our inspection reports, the promises made by the municipalities concerned, and the Orders of Government thereon, there is reason to hope that efforts are being made by these bodies to secure better results. Still, at the best, these cannot be considered otherwise than highly unsatisfactory. The compulsory clauses on this subject are, I find, worked with very great leniency, the usual rule being that on a case of birth or death being discovered, the guardian is desired to attend at the registrar's office by the subordinate who discovers the occurrence. If the case then be duly registered usually the matter ends; so that in several municipalities, there is little compulsion about the matter. Instances where delinquents are not discovered under this system must be numerous.

10. If registration results alone were trusted to, it would appear that in the following municipal towns the inhabitants are dying out:—Madras, Ellore, Masulipatam, Bezwada, Chidambaram, Cochin, Trichinopoly, Srírangam, Tanjore, Kumbakónam, Negapatam, Tuticorin, Kurnool, Cuddapah, Tirupati, and Calicut. Of these, the last Census Report (1891 by Mr. H. A. Stuart) would go to show that Chidambaram, Tanjore and Cuddapah are really undergoing diminution of population. As to Cuddapah, it can easily be understood that with a birth-rate of only 15·8 and a death-rate of 34·2 this must occur; but in the case of the others named, careless registration can alone reasonably account for the result. Even taking the remaining municipalities, the total natural increase of the population according to registration is only 3·4 per mille of the census population, against a normal rate (Stuart) of 12·49 per mille.

11. The following statement, however, shows that there has been considerable activity in the matter of prosecuting defaulters, under the Compulsory Registration clauses of Act No. IV of 1884:—

Towns.	Number of cases in which penalties were inflicted for omitting to register births and deaths.	
	Births.	Deaths.
Anantapur	..	..
Ádóni	29	17
Bellary	16	3
Conjeeveram	..	..
Coimbatore	2	..
Erode	2	..
Karúr	..	..
Cuddapah	5	2
Berhampur	..	..
Chicacole	4	..
Parlákimedi	..	..
Cocanada	33	16
Ellore	..	..
Rajahmundry	..	..
Bezwada	34	17
Guntúr	5	3
Masulipatam	41	40 *
Kurnool	..	..
Dindigul	..	..
Madura	..	..
Palni	..	..
Periyakulam	8	..
Calicut	37	20 *
Cannanore	..	..
Cochin	..	..
Palghat	5	1
Tellicherry	43	..
Nellore	37	8
Ongole	3	2 *
Coonoor	..	..
Ootacamund	..	..
Gudiyáttam	..	..
Tirupati	11	1
Vellore	..	..
Walajapet	1	8
Salem	5	20
Tiruppattúr	5	2
Vániyambádi	16	27 *
Chidambaram	..	..
Cuddalore	9	1
Mangalore	..	..
Kumbakónam	35	30
Mannárgudi	68	94
Máyavaram	11	13
Negapatam	17	5
Tanjore	2	1
Palamcottah	4	1
Timevelly	33	16
Tuticorin	37	27
Srírangam	13	5
Trichinopoly	..	..
Anakápalle	..	..
Bimlipatam	..	..
Vizagapatam	..	..
Vizianagaram	..	..
Madras	..	..
Total	571	380

12. A few extracts from inspection reports of District Medical and Sanitary Officers and weekly diaries of Deputy Inspectors of Vaccination, affording instances of defects observed in the conduct of registration by kurnams, are appended for information:—

* Represents number of cases prosecuted.

Name, rank and designation of reporting officer.	Taluk.	Village.	Remarks under registration.
Surgeon-Major C. Adams, District Sanitary Officer, Anantapur.	Hindúpur ...	Purgi ...	A kurnam collects the information. Defective. Several children under one year were found not to be on the register. In poor condition. The births are shown for the year 1893 as 39 and the deaths as 48 for a population of 4,023.
	Gooty ...	Timmencherla ...	A kurnam is supposed to collect this information, but he evidently does nothing. He states that he has been acting since 17th August 1893 and sent in a *nil* report for November and December (1893). This he cannot produce. The following represents the kurnam's work for over five months:— Deaths. Births. September 1893 ... 1 2; October " ... 1 ...; November " ... *Nil* return.; December " ... ; January 1894 ... 2 ...; February " *Nil* up to date 11th February 1894. In less than two hours' time spent in this village I found 12 children under one year (6 of them being under six months) none of whose names could be found in his register. Two cases of death which were reported to me as having occurred last month in the same house were unregistered. He keeps his register in separate sheets, some of which he has apparently lost or does not wish to show, and altogether he seems to me not to understand the importance of correct registration.
Surgeon-Major H. M. Hakim, District Sanitary Officer, Anantapur.	Penukonda ...	Penukonda ...	Kurnam collects the information. Very defective. Eight cases of births were discovered, and not a single case was found in the register. Clean in outward appearance.
Surgeon-Major Marsden, District Sanitary Officer, Gódávari.	Rámachandrapuram.	Gollamamidada ...	Appears defective, *e.g.*, three deaths from cholera were known by the Hospital Assistant to have occurred last March, and yet the kurnam has put them down amongst 'all other causes.'
Surgeon-Major Adams, District Sanitary Officer, Madura.	Dindigul	Ammayanáyakkanúr.	..... The other munsiff seems to keep his register badly, writes on a small piece of paper, and when a case of birth or death is not found in his register says it is not in his part of the village.
	Sivaganga ...	Karailaidi ...	Is a very worthless as a record. Two children, vaccinated in February 1894, died in this village. There is no record in the death register. The midwives' cases are not shown in the birth register .....
Surgeon-Major Thomas, District Sanitary Officer, Kistna.	Vissannapet division.	Tiruvur	Registration is carried on by the Agency Village officers, who being all zemindari servants are very little under the control of Government officers, with the result that registration is very defective.
Surgeon-Major H. Hyde, District Sanitary Officer, South Arcot.	Vriddhachalam ...	Vriddhachalam ...	By kurnam badly kept. For the present month the entries are made only in pencil; they have evidently been hurriedly filled in before being brought. The kurnam is a very old man and deaf and appears to know nothing about his records, but apparently gets them written up by some one else.
	Tiruvannámalai ...	Tiruvannámalai ...	By kurnam. With the present system I cannot see how it can be otherwise than defective. The kurnam is dependant for his information on the toties, barber women, dhobies. Register badly kept. Full of alterations.
K. Seetharamaswámi, Acting Deputy Inspector of Vaccination, Rajahmundry.	Yernagudem ...	Madhavaram ...	The registration of births of the village of Madhavaram is defective, as the kurnam has not registered seven births ..... aged 6, 7, 6, 5, 4, 5 and 8 months.

Name, rank and designation of reporting officer.	Taluk.	Village.	Remarks under registration.
K. Seetharamaswámi, Acting Deputy Inspector of Vaccination, Rajahmundry.	Yernagudem ...	Polavaram ...	The registration of births of the village of Polavaram is defective, as the kurnam has not registered three births .... aged 4, 5 and 1 month. He was once before reported by me for not registering four births.
	Do. ...	Lakkavaram ...	The registration of births of the village of Lakkavaram is defective, as the kurnam has not registered eight births, aged 3, 7, 4, 6, 6, 6, 3 and 5 months.
Sutwaji Rao, Deputy Inspector of Vaccination.	Nellore ...	Gungavaram ...	Registers from January 1894 not written. Kurnam says that he did not do so for want of printed forms and for not having any births and deaths. (Remark made on 18th July 1894.)
Krishnan, Deputy Inspector of Vaccination, No. II Vaccine Circle, South Canara.	Uppinangadi ...	Kalka ...	Written up to date. I detected one birth in Kalka village, which was not entered by the potel in his register.
	Kasaragod ...	Kumbdagi ...	There were five deaths in July and five deaths in August that were entered as deaths from fever, but the acting potel says there is no fever at present.
Ananthakrishna Pillay, Deputy Inspector of Vaccination, Sáttúr Range.	Sáttúr ...	Masarapatri ...	One birth was found omitted in April 1894.
	Srívilliputtúr ...	Kothankulam ...	One birth was found omitted in June 1894.

13. In support of the view advanced by me in paragraph 3 of my report embodied in G.O., No. 1066 L., dated 9th May 1892, that registration might, to some extent, be made self-paying, if it were ruled that horoscopes would not, after a certain date, be accepted as sufficient legal evidence in cases of disputed age, I have gathered statements as to the fees collected by municipalities for certificates of birth granted under section 249 (4) of the District Municipalities Act. The total is, as might be expected, very trivial, namely, Rs. 254-8-0, equal to a charge of As. 8 upon 509 cases of search; but I think it affords evidence that if the system were fostered by suitable measures, natives, who are notoriously fond of litigation, would thoroughly appreciate a method of registration having legal value.

BIRTHS.

14. There was a total of 933,059 births registered throughout the Presidency; of these 68,716 were reported by municipalities, and 864,343 by rural areas. In the former, the male to female births was in the proportion of 104·1 to 100 females, in the latter it was 104·6 to 100 females.

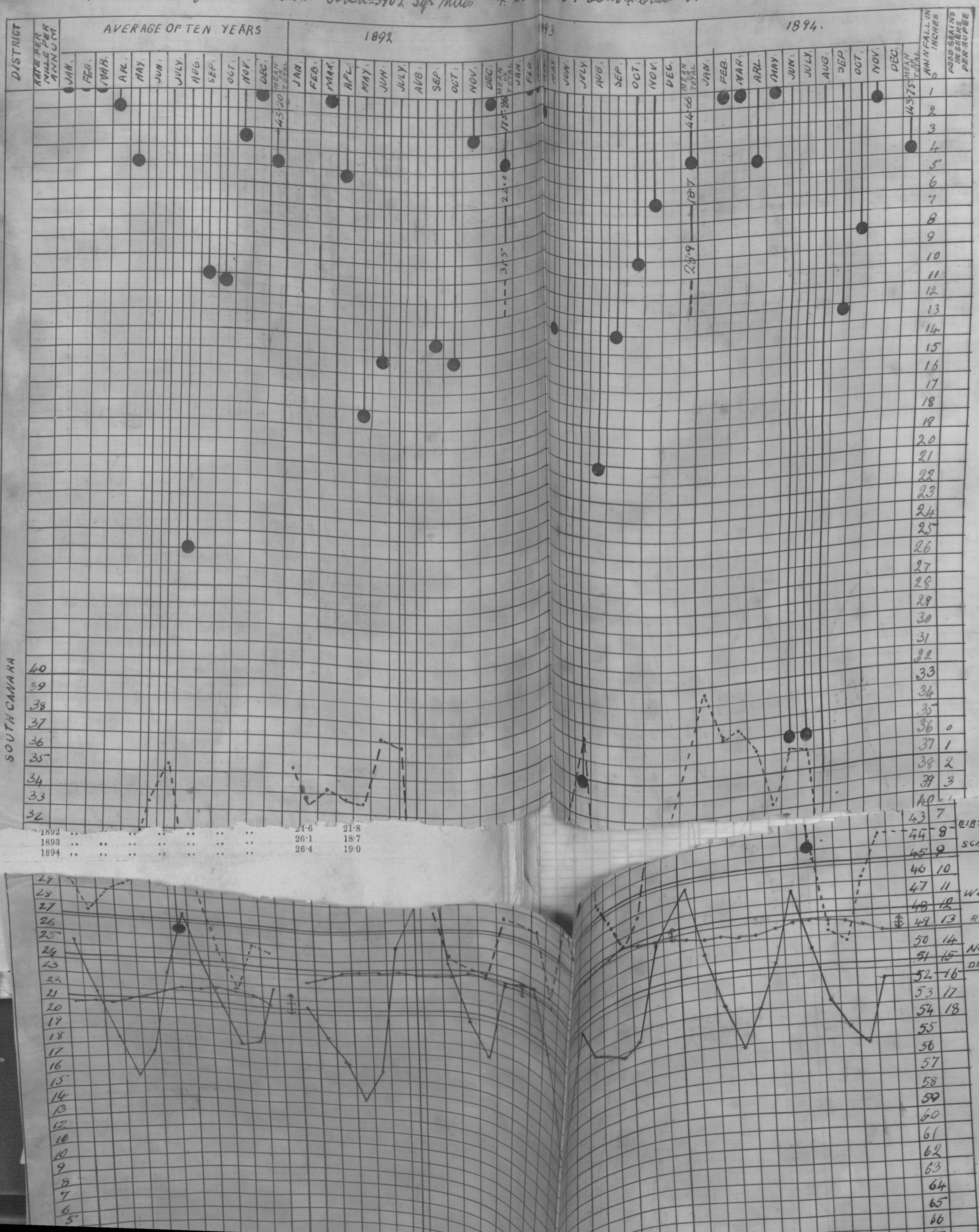
15. Reckoned on the total estimated population of the Presidency, exclusive of Europeans and Eurasians (of whom, according to the census, there were 39,942), the birth-rate was 26·4 per mille of the population and the death-rate 19·0. In the following table, the rates for the last fourteen years are shown:—

Years.	Birth-rate.	Death-rate.
1881	24·4	15·8
1882	24·9	15·8
1883	25·6	17·9
1884	26·4	21·2
1885	25·9	19·8
1886	26·5	17·6
1887	26·5	18·9
1888	25·7	18·4
1889	26·3	20·1
1890	26·8	19·5
1891	27·3	22·0
1892	24·6	21·8
1893	26·1	18·7
1894	26·4	19·0

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 1894 compared with 1892 and 1893 and the average of the ten years ending 1891

Census population of 1891 = 1056081. ✻ Area = 3902 Sqr. miles ✻ Class B = 61·08 ℗ Cent ✻ Class G. = 11·43 ℗ Cent.

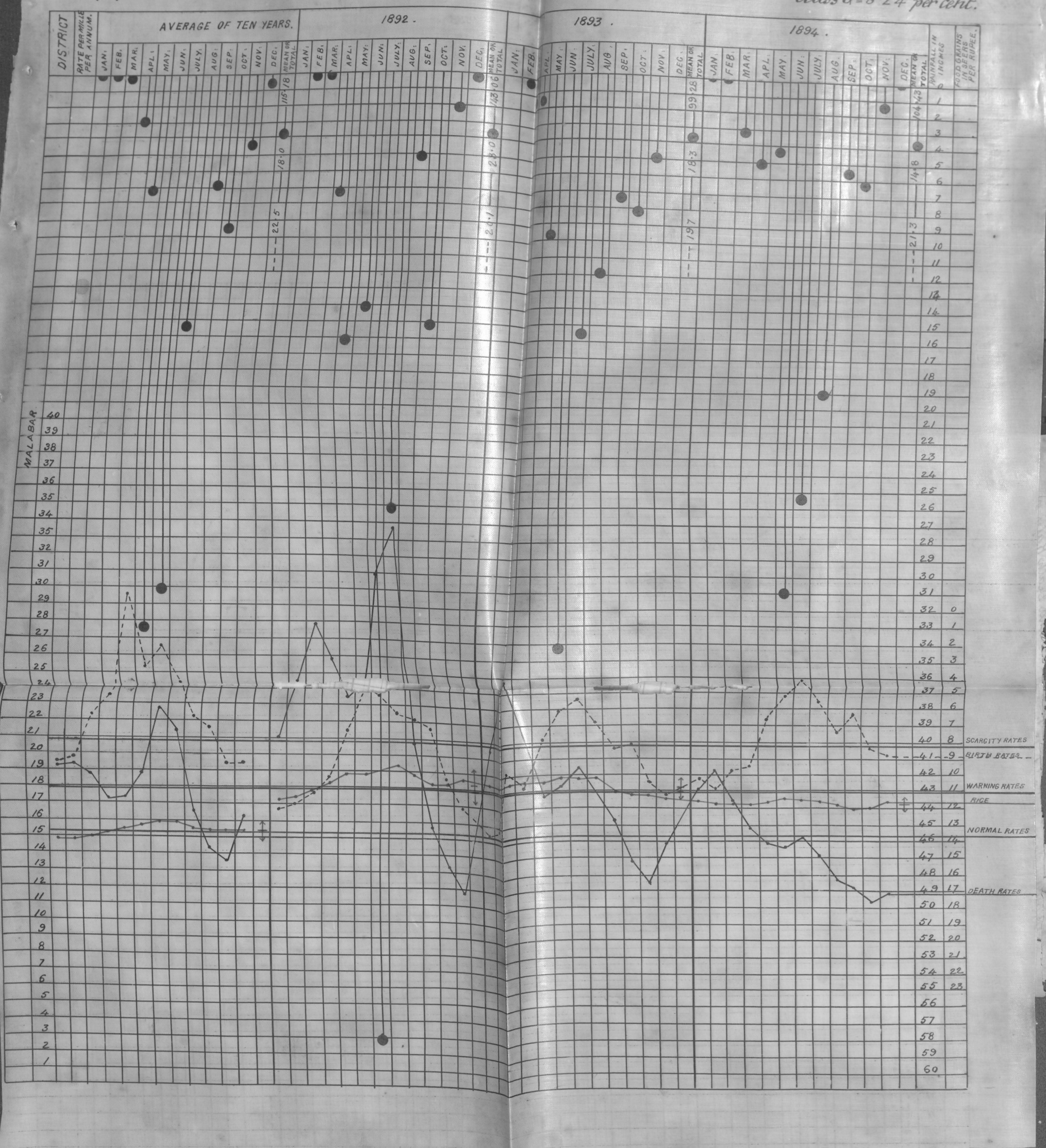


1892	..	..	..	..	..	..	..	24·6	21·8
1893	..	..	..	..	..	..	..	26·1	18·7
1894	..	..	..	..	..	..	..	26·4	19·0

No 21

Diagram showing the Birth and Death Rates per Mille per annu in the District of Malabar with Rainfall and prices of food (Rice) during the year 1894, compared with 1892 and 1893 nd the average of the ten years ending 1891.

Census population of 1891=2652565. Ared = 5585 Sqr. Miles. Class B=56·15 per Cent. Class G=8·24 per cent.



No 20

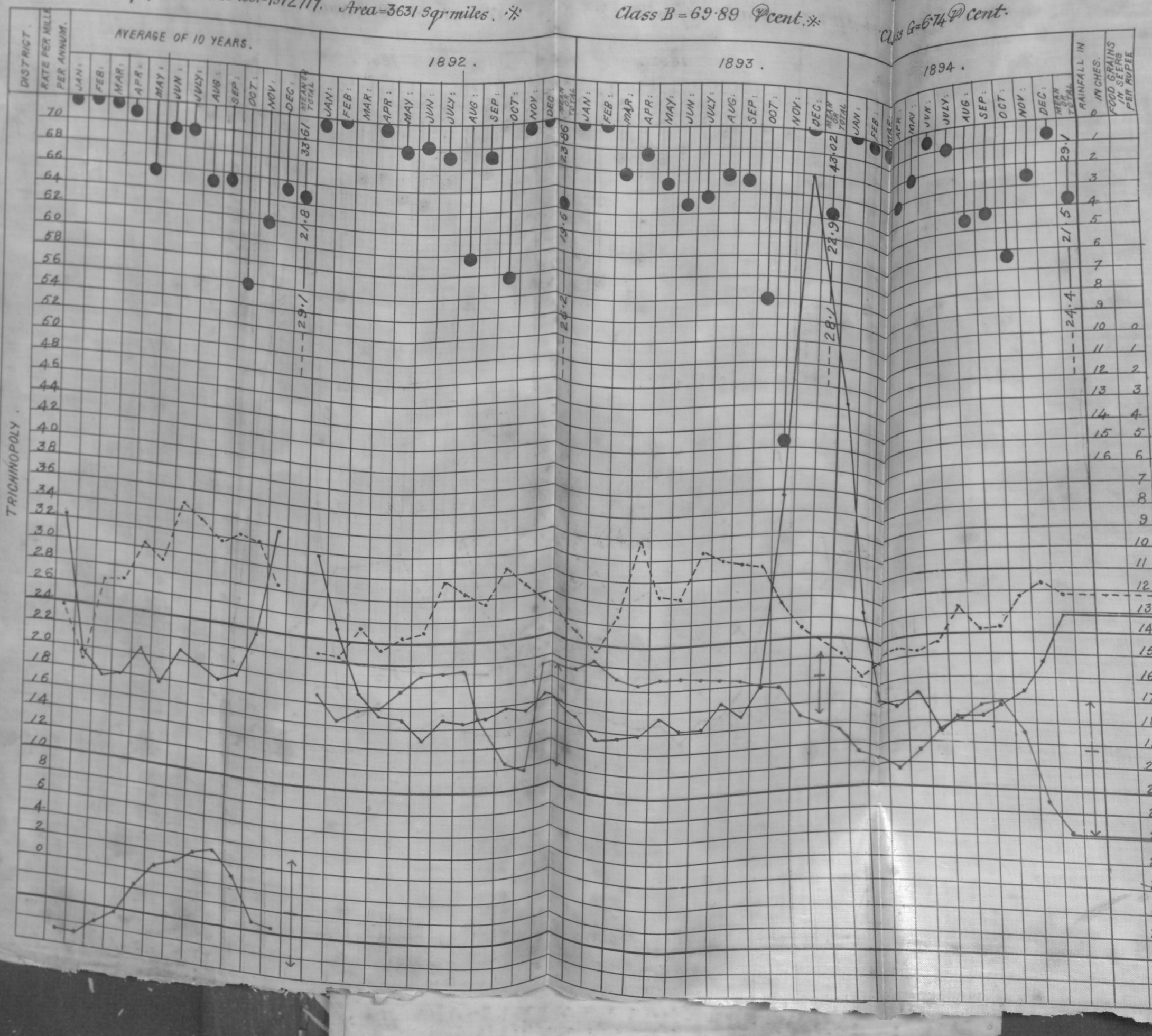
Diagram showing the Birth and Death Rates per Mille per Annum in the District of Nilgiris with Rainfall and prices of food (Rice) during the year 1894 Compared with 1892 and 1893 and the average of the ten years ending 1891.

Census population of 1891 - 99797. Area 957 Sq. Miles. Class B = 58·67 percent. Class G = 11·55 percent.

No 16

Diagram showing Birth and Death Rates per Mille per Annum in the District of Trichinopoly with Rainfall and prices of food (CUMBU) during the year 1894 compared with 1892 and 1893 and the average of the ten years ending 1891.

Census population of 1891=1372717. Area=3631 Sqr miles. ※ Class B=69·89 ℘ cent. ※ Class G=6·74 ℘ cent.



No 17

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 1894 compared with 1892 and 1893 and the average of ten years ending 1891.

Census population of 1891 = 2228114. Area = 3709 Sq^r Miles. Class B = 61·02 ℘ Cent Class G = 7·27 ℘ Cent.

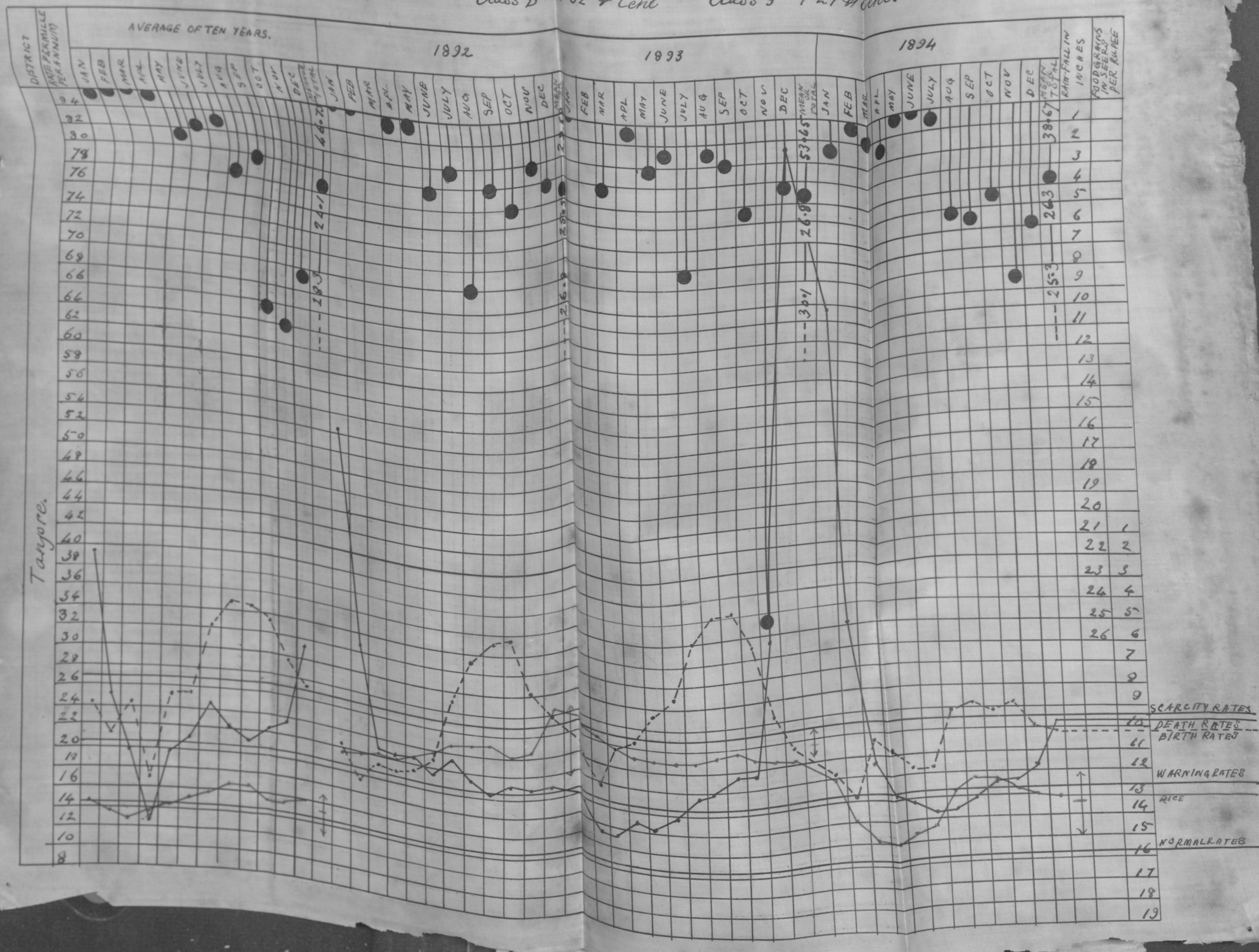
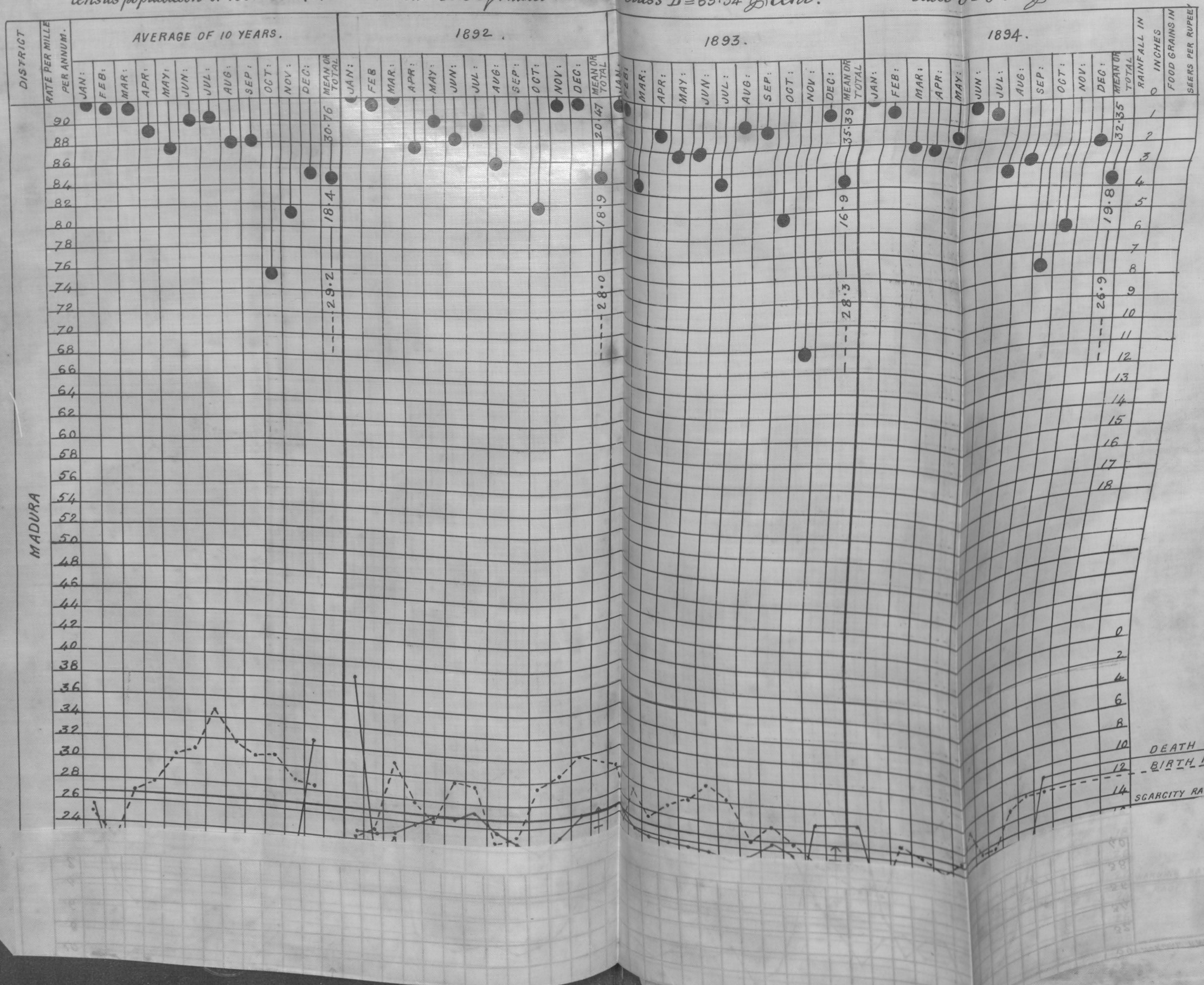


Diagram Showing the Birth and Death Rates per mille per annum in the District of Madura, with Rainfall and prices of food (RAGI) during the year 1894. Compared with 1892 and 1893, and the average of the ten years ending 1891.

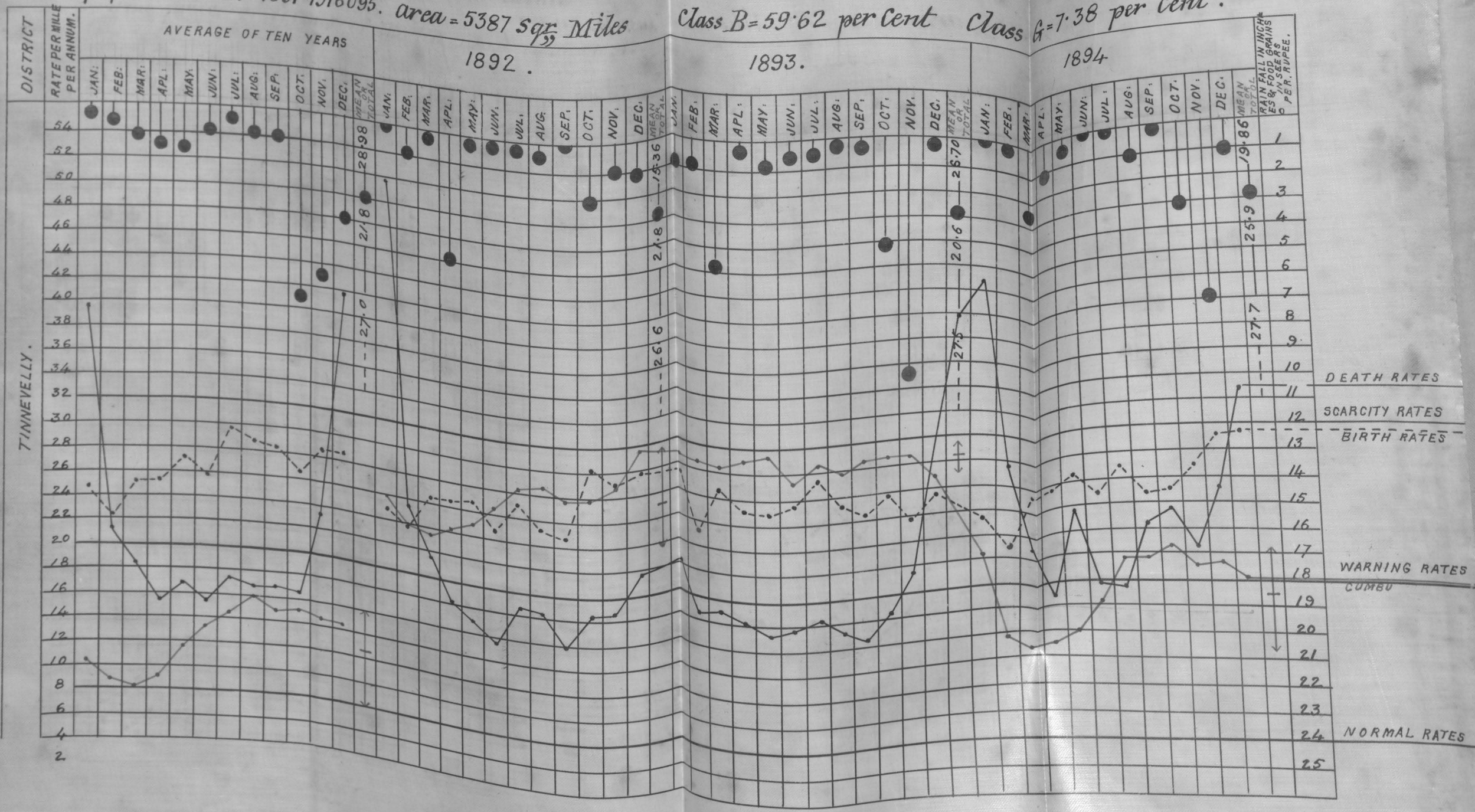
Census population of 1891 = 2608404. Area = 8808 sq. miles. Class B = 65.54 ₰ cent. Class G = 9.32 ₰ cent.



No 19

Diagram showing the Birth and Death Rates per Mille per annum in the District of Tinnevelly with Rainfall and prices of food (Cumbu) during the year 1894, compared with 1892 and 1893, and the average of the ten years ending 1891.

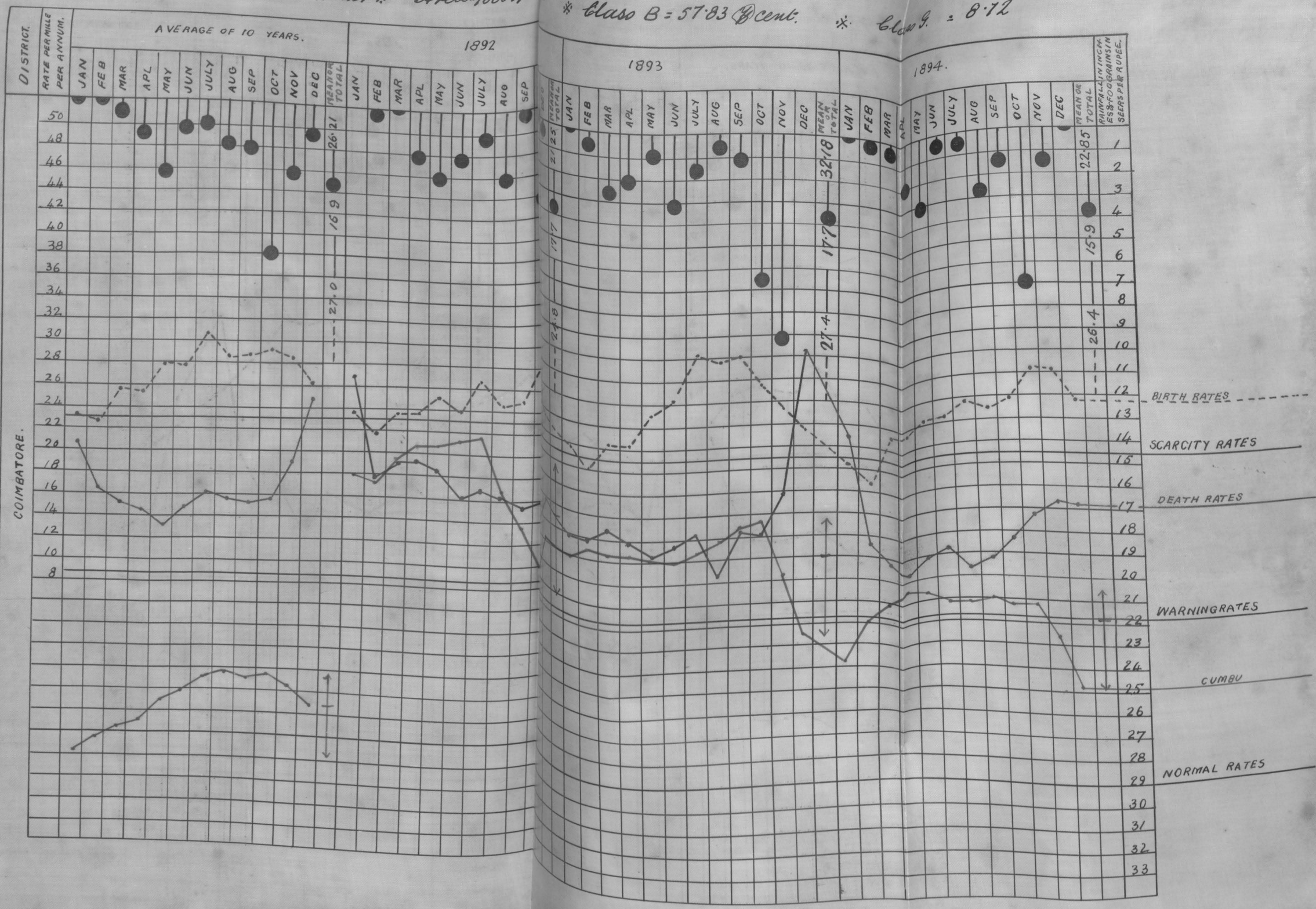
Census population of 1891=1916095. area = 5387 sqr Miles Class B=59·62 per Cent Class G=7·38 per Cent.



...and Death Rates ... per annum ...

prices of food (Cumbu) during the year 1894 compared with 1892 and 1893 and the average of the ten years ending 1891.

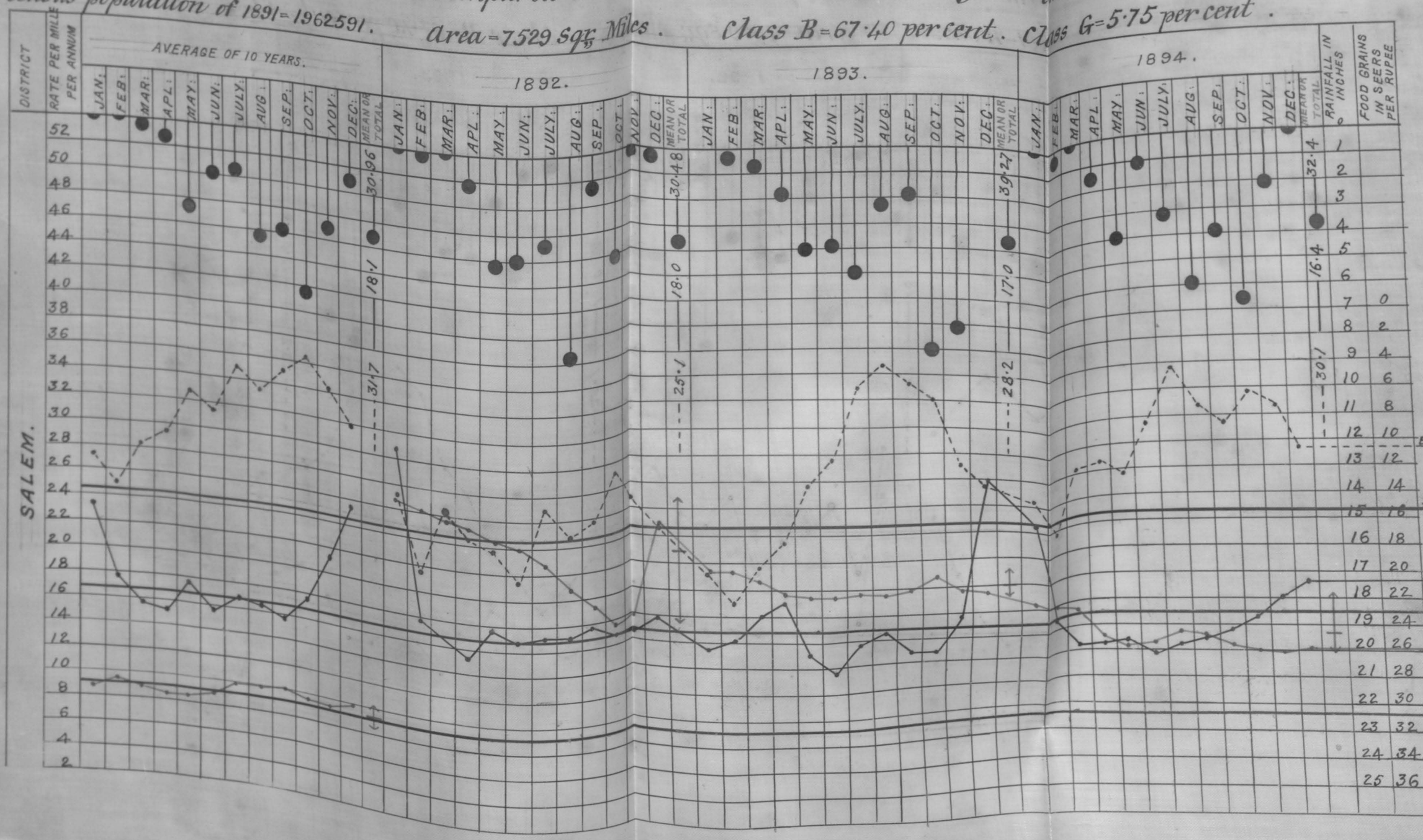
Census population of 1891 = 2004839 ※ Area = 7860 Sqrs ... ※ Class B = 57·83 ⅌ cent. ※ Class G. = 8·72



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 1894 compared with 1892 and 1893 and the average of the ten years ending 1891.

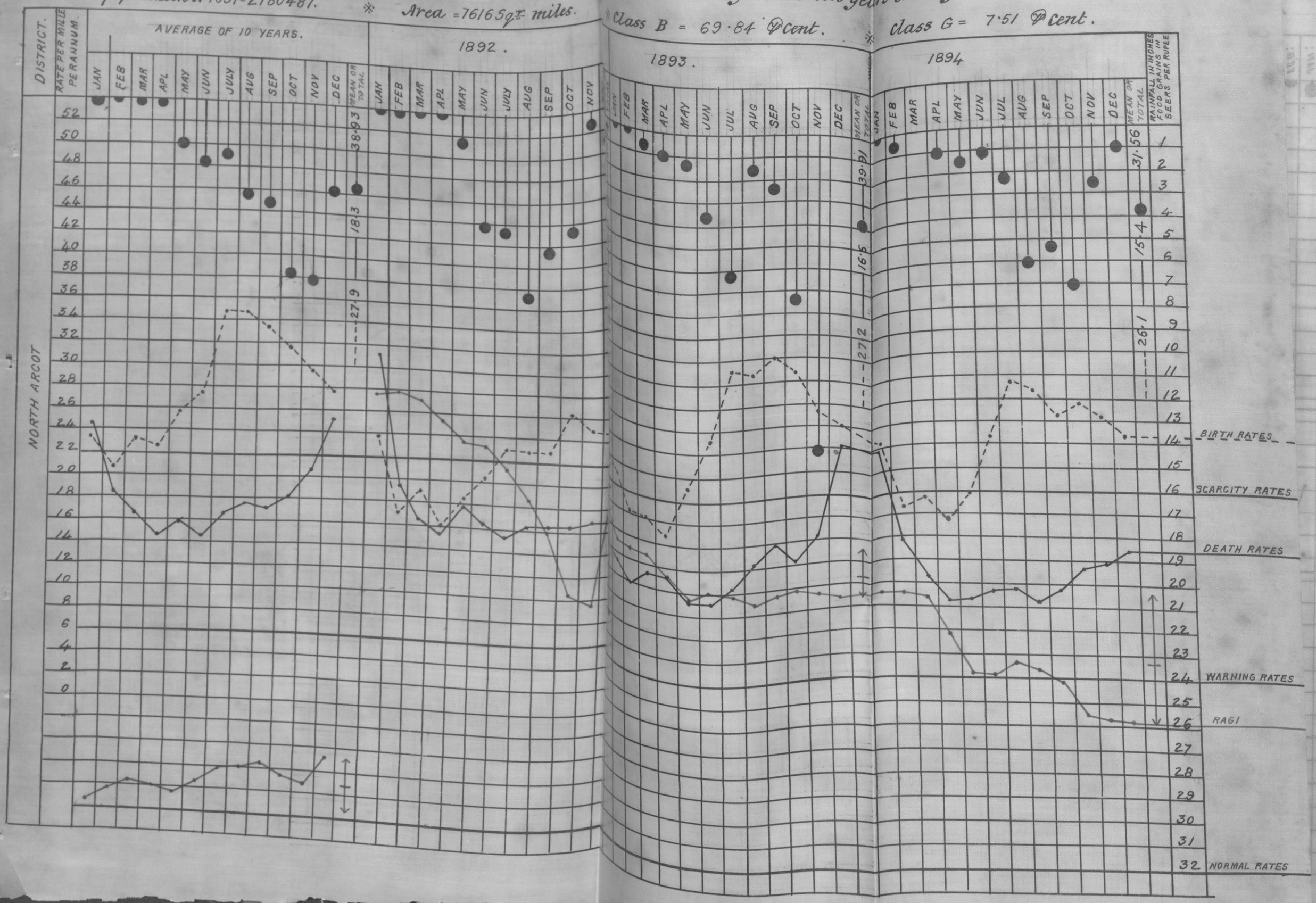
Census population of 1891 = 1962591. Area = 7529 sqr Miles. Class B = 67·40 per cent. Class G = 5·75 per cent.



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 1894 compared with 1892 and 1893 and the average of the ten years ending 1891.

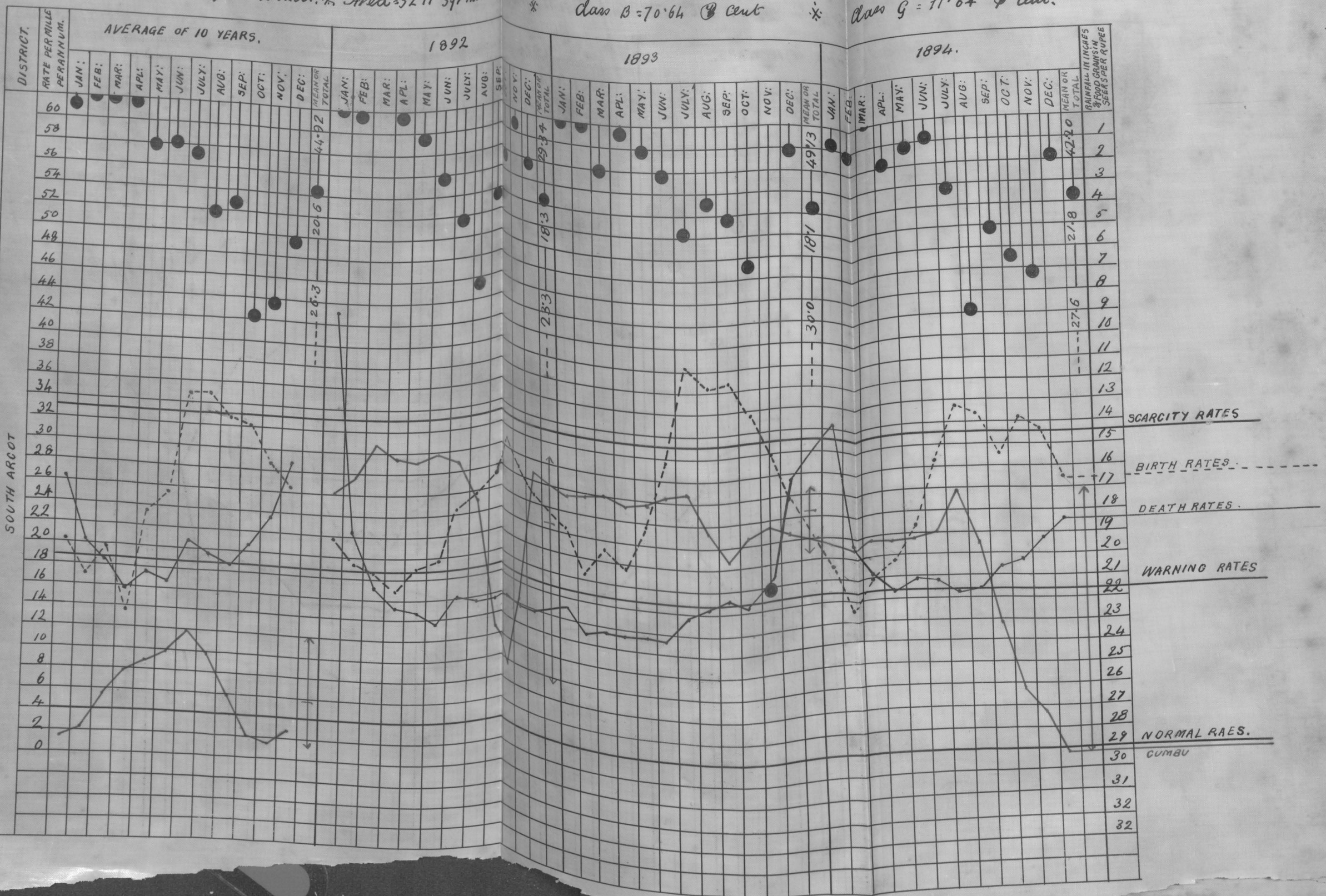
Census population of 1891 = 2180487. * Area = 7616 Sq. miles. % Class B = 69·84 Per cent. * Class G = 7·51 Per cent.



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 1894 compared with 1892 and 1893 and the average of the ten years ending 1891.

Census population of 1891 = 2162851. ※ Area = 5271 sqr miles ※ Class B = 70·64 ℗ Cent ※ Class G = 11·64 ℗ Cent.



No 11

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 1894 Compared with 1892 and 1893 and the average of the ten years ending 1891

Census population of 1892 = 452518 ✻ Area = 29 Sqr: miles ✻ Class B = 3·94 Per Cent ✻ Class G = 24·42 Per Cent

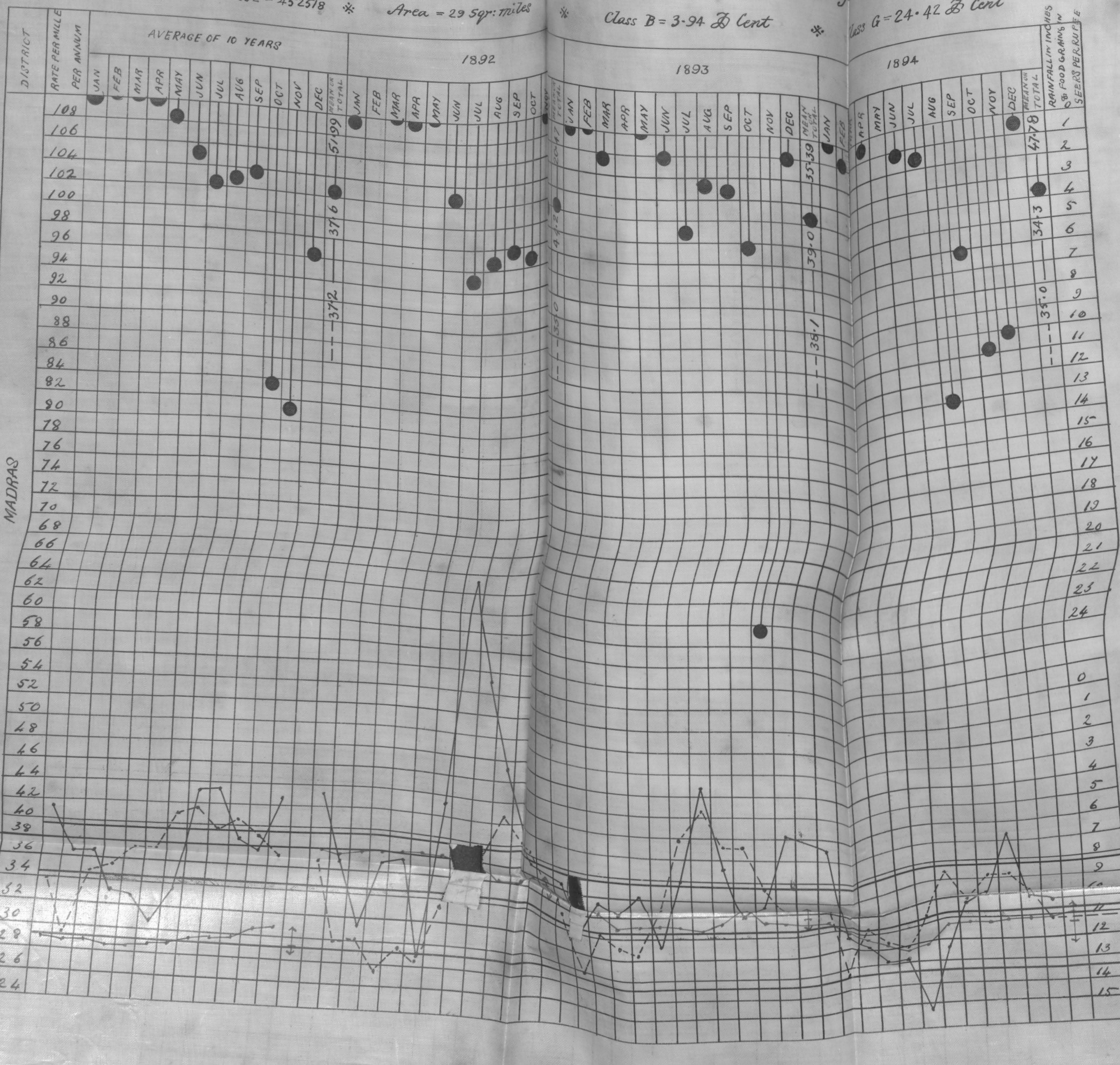
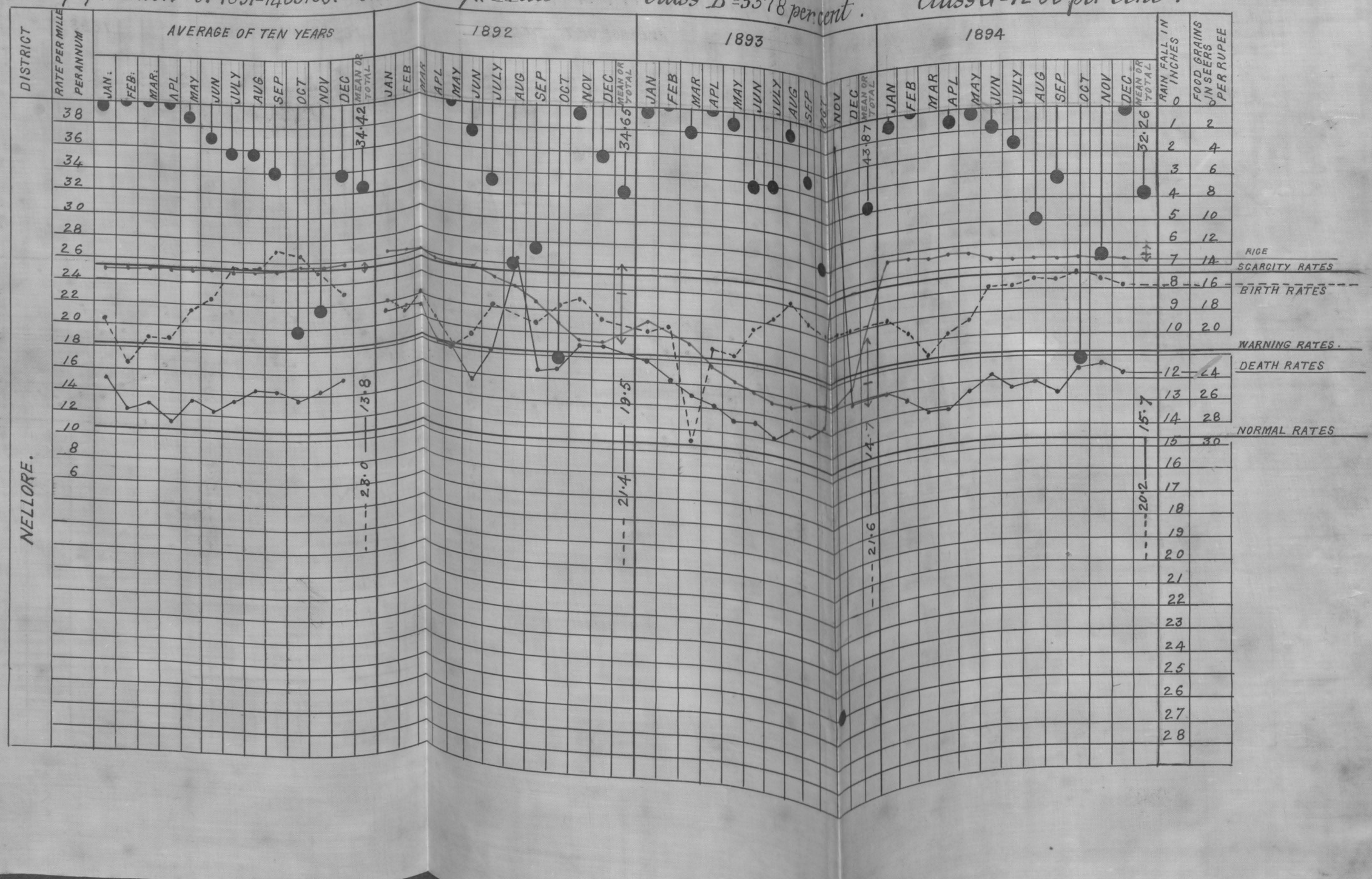


Diagram Shewing the Birth and Death Rates per Mille per annum in the District of Nellore with Rainfall and prices of food (Rice) during the year 1894. compared with 1892 and 1893, and the average of the ten years ending 1891.

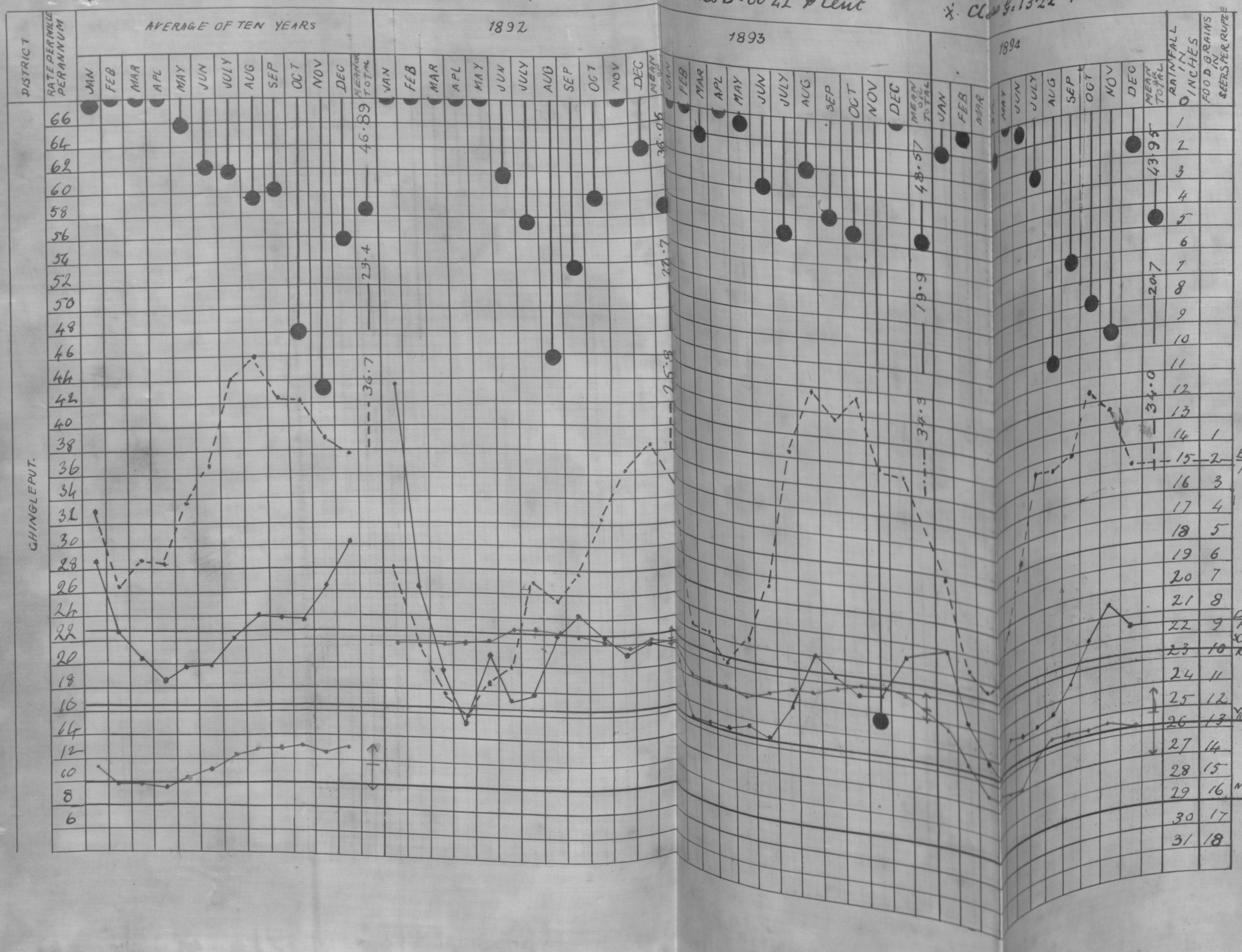
Census population of 1891=1463736. Area=8765 Sqr. Miles Class B=53·78 per cent. Class G=12·00 per cent.



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 1892 and 1893 compared with 1894 and the average of ten years ending 1891.

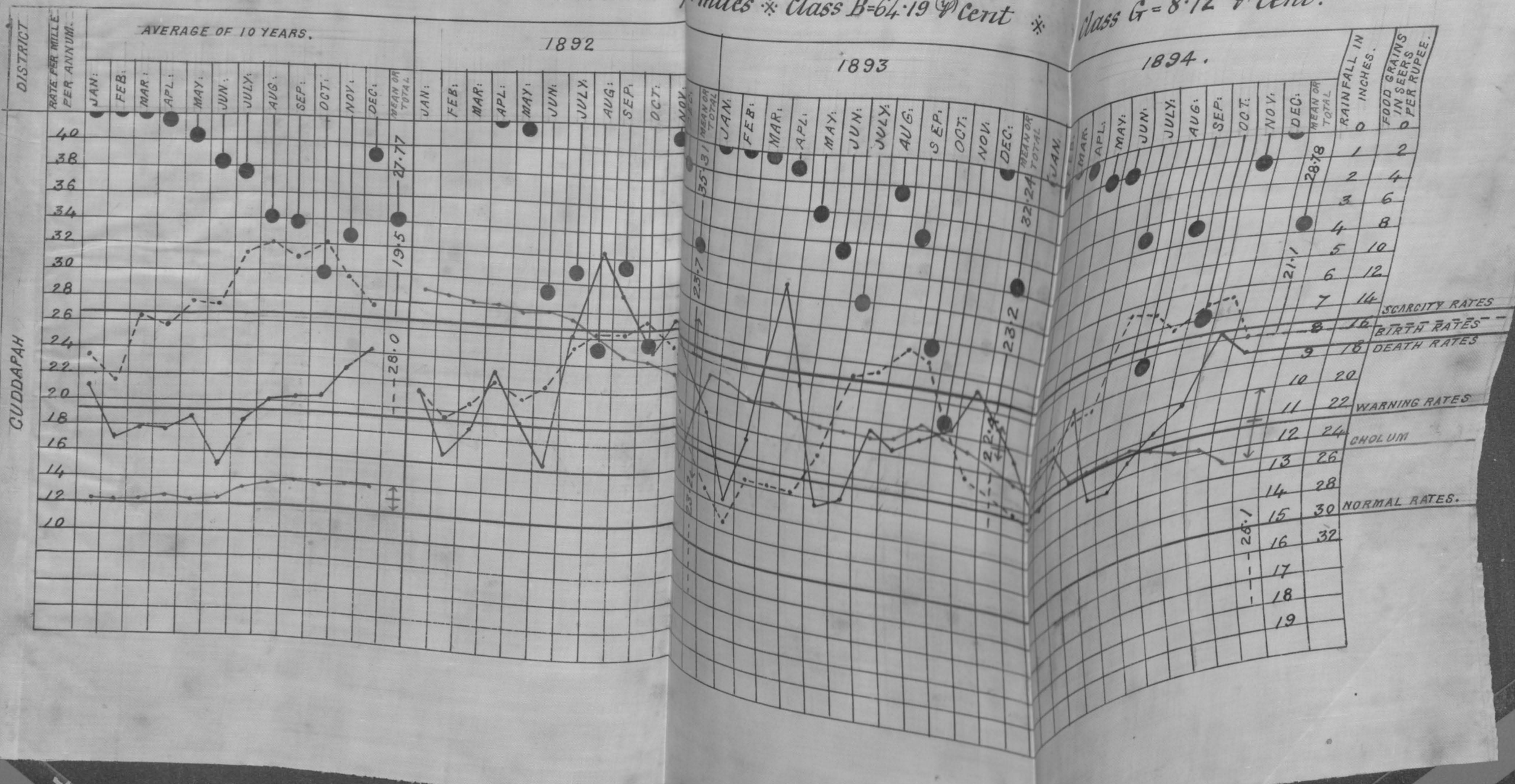
Census population of 1891 = 1136928 * Area = 2842 Sqr Miles * Class B = 60·42 P Cent * Class G = 13·22 P Cent.



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 1894 compared with 1892 and 1893 and the average of the ten years ending 1891.

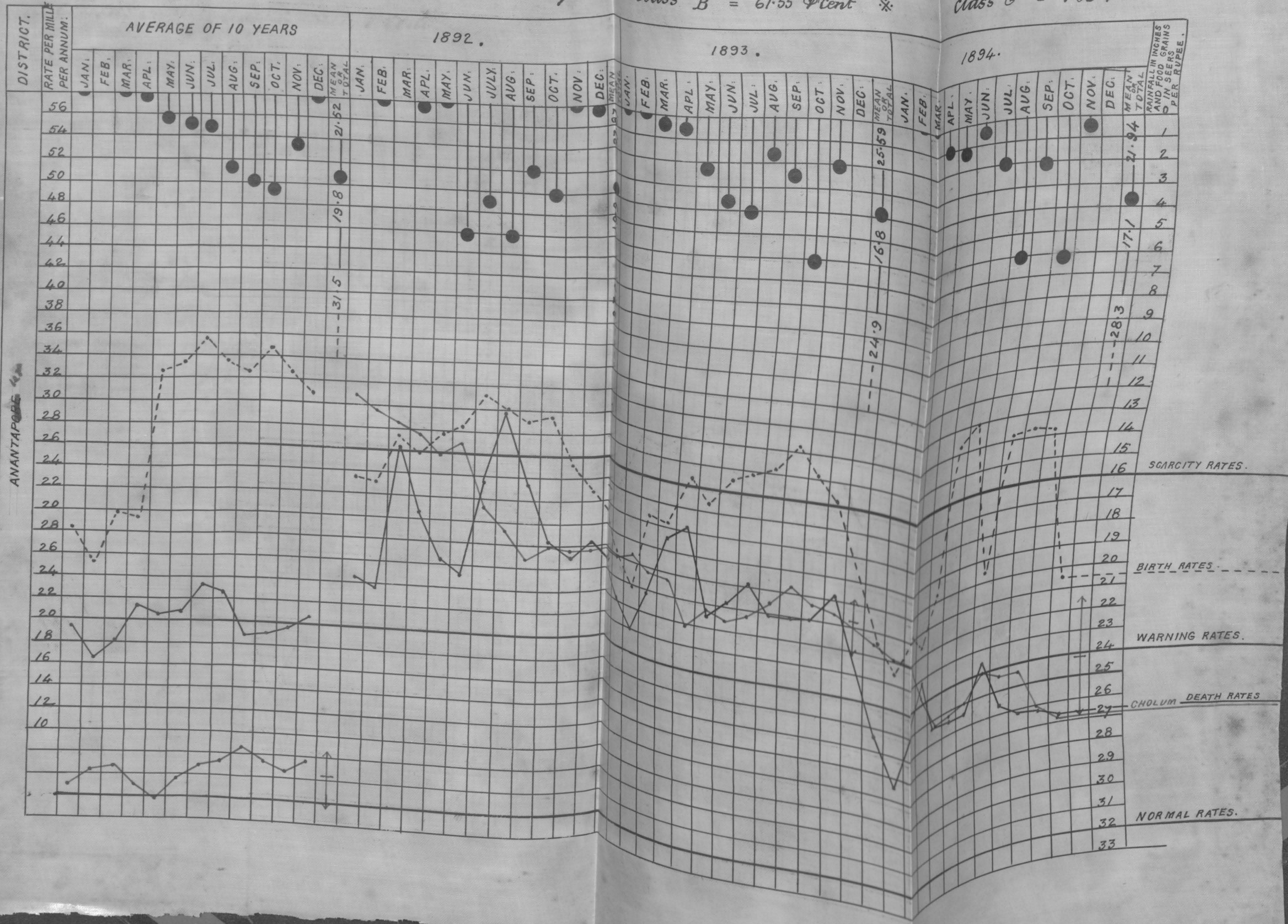
Census population of 1891=1272072. Area=8722 Sq. miles * Class B=64·19 ℘ Cent * Class G=8·12 ℘ Cent.



No 7

Diagram showing the Birth and Death Rates per Mille per annum in the District of Anantapore with Rainfall and prices of food (CHOLUM) during the year 1894 compared with 1892 and 1893 and the average of the ten years ending 1891.

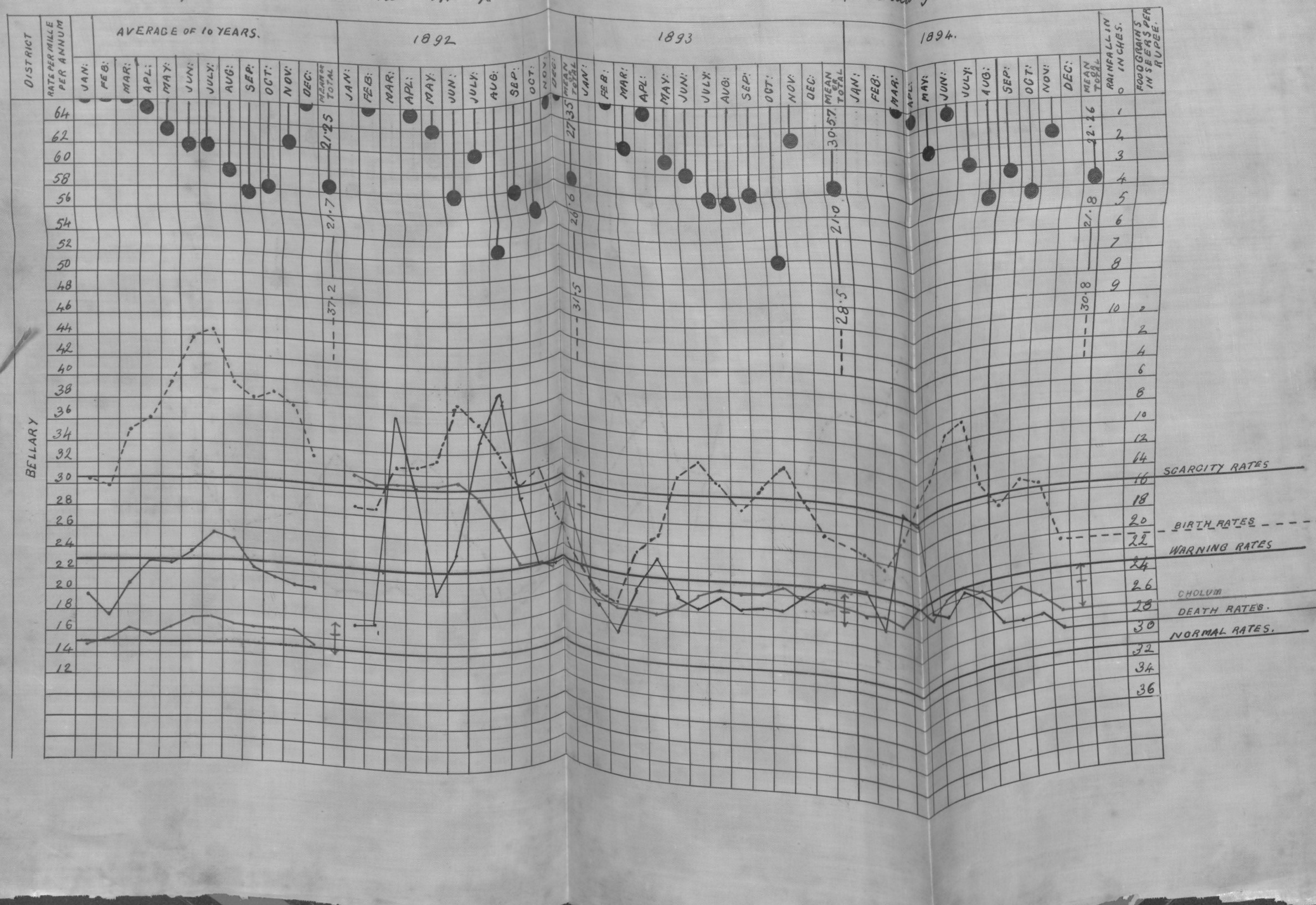
Census population of 1891 = 708549. * Area = 5275 Sqr miles * Class B = 61·55 ℘ Cent * Class G = 7·96 ℘ Cent.



No 6

Diagram showing the Birth and Death Rates per Mille per annum in the District of Bellary with Rainfall and prices of food (Cholum) during the year 1894 compared with 1892 and 1893 and the average of the ten years ending 1891

Census population of 1893 = 900126 * Area = 5975 Sq. miles * Class B = 66·08 P. Cent * Class G = 7·90 P. cent.



DISTRICT

KURNOOL

RATE P.M. MILLE PER ANNUM.

AVERAGE OF 10 YEARS

1892

1893

1894.

JAN: FEB: MAR: APL: MAY: JUN: JULY: AUG: SEP: OCT NOV: DEC: MEAN TOTAL

62 60 58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22 20 18 16 14 12 10

23·7 — 36·1 — 46·17

30·5 — 34·2 — 38·96

29·6 — 22·3 — 30·43

29·5 — 28·57

RAIN FALL IN INCHES.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 16 18 20 22 24 26 28 30 32 34

FOOD GRAINS IN SEERS PER RUPEE.

0 2 4 6 8 10 12 14

SCARCITY RATES

BIRTH RATES

WARNING RATES

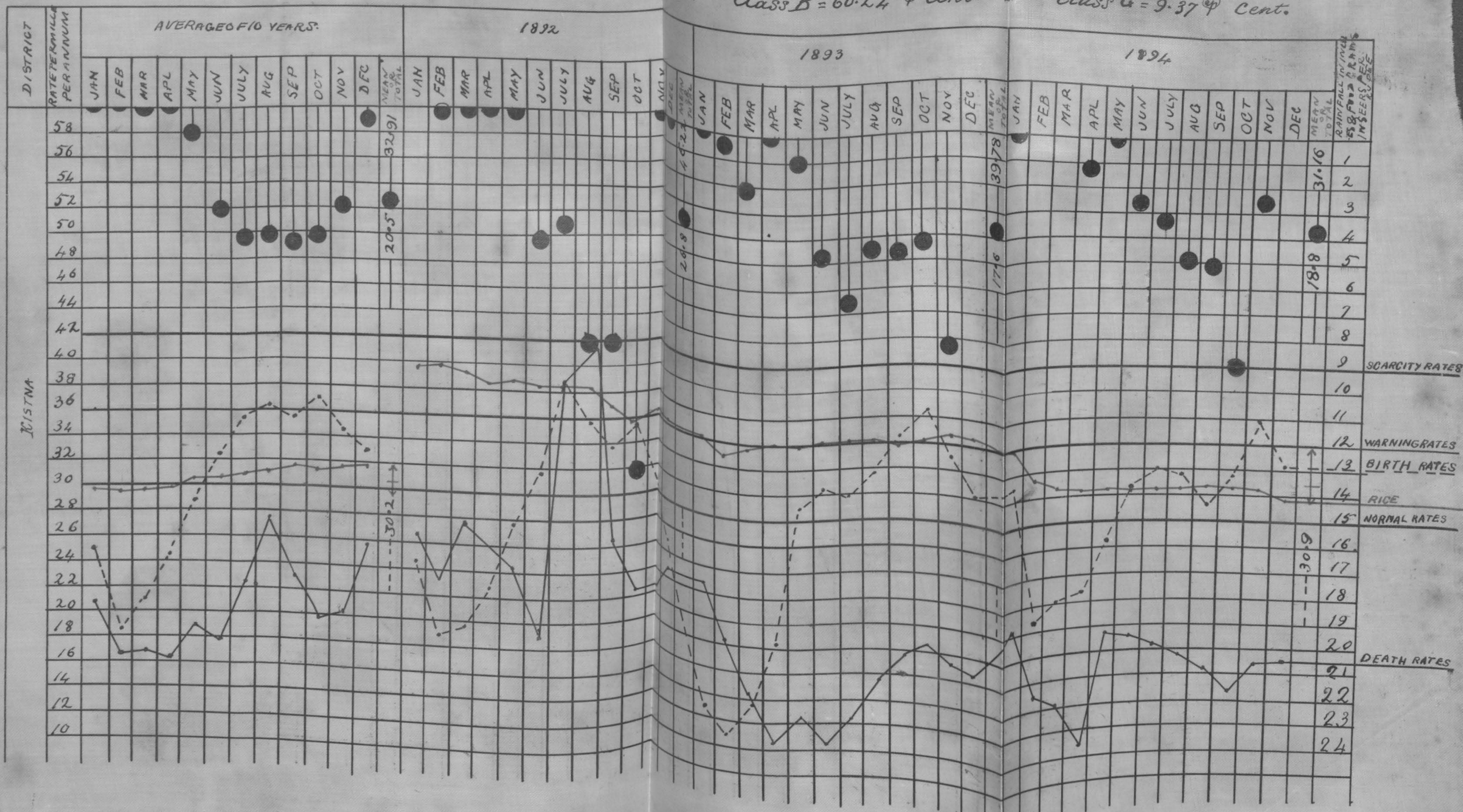
DEATH RATES

CHOLUM

NORMAL RATES.

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 1894 compared with 1892 and 1893 and average of the ten years ending 1891.

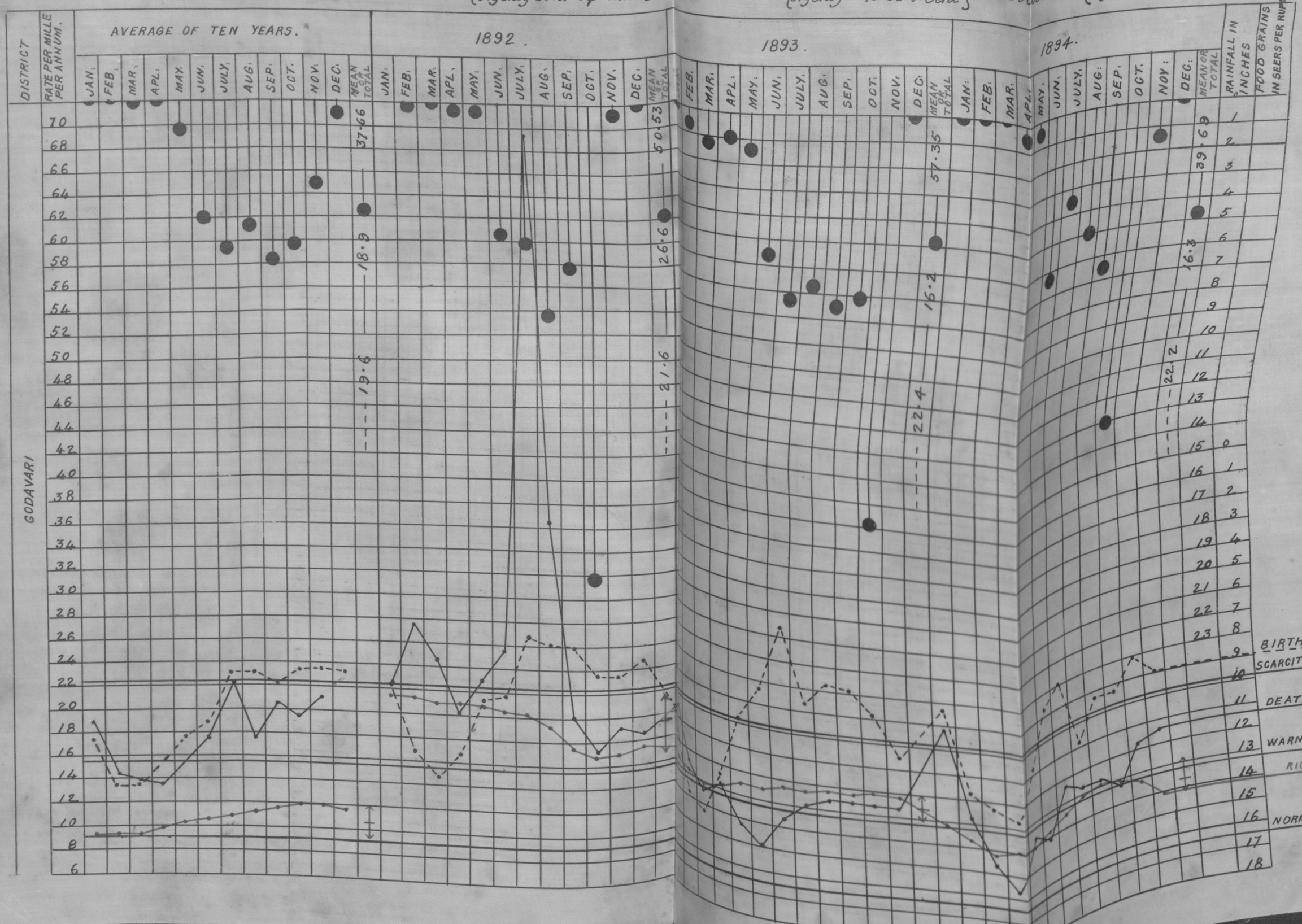
Census population of 1891 = 1855582 * Area = 8397 Sq^re miles * Class B = 60.24 ℗ Cent * Class G = 9.37 ℗ Cent.



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 1894 compared with 1892 and 1893 and the average of the ten years ending 1891.

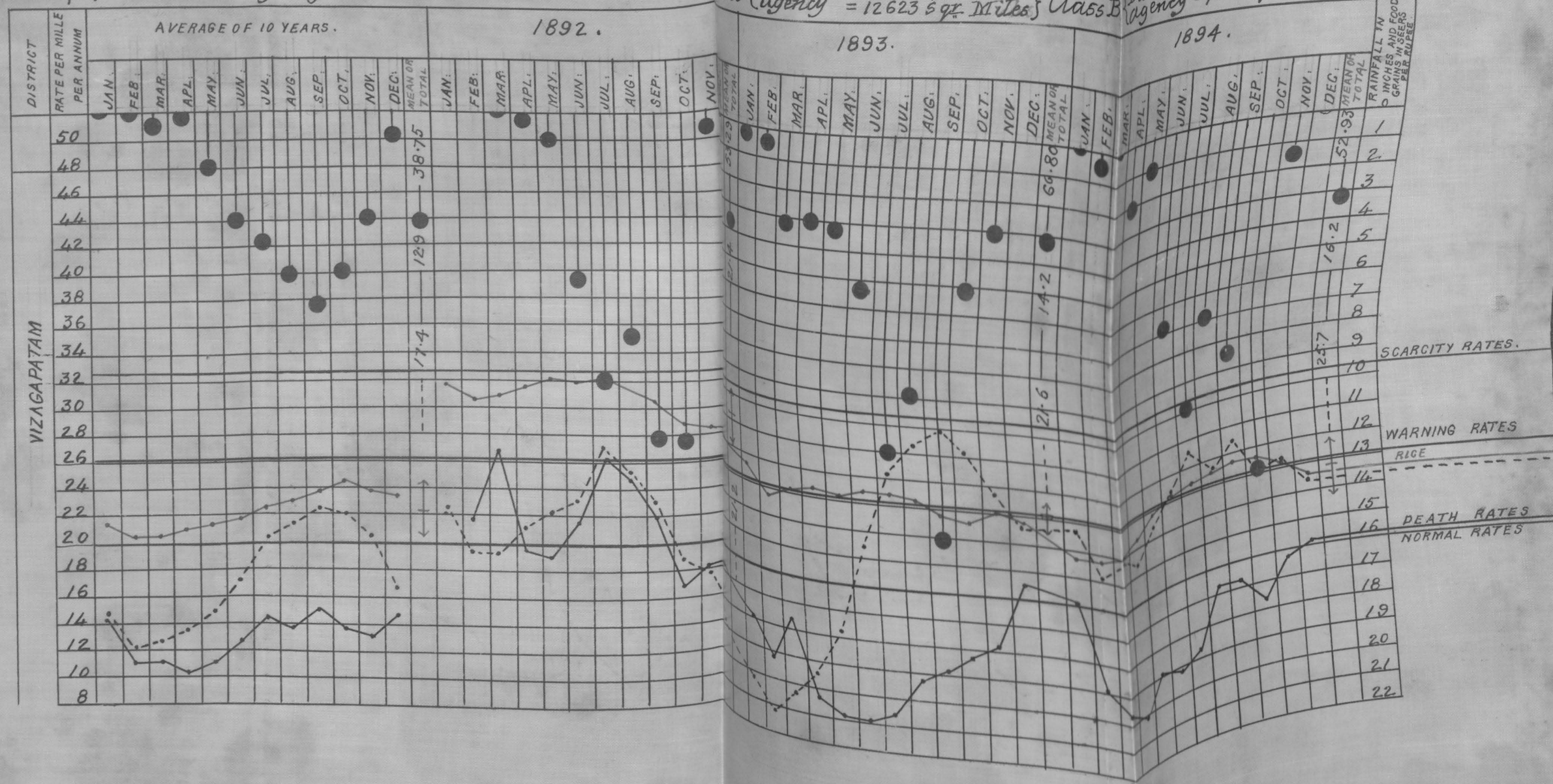
Census population of 1891 = {DISTRICT = 1951645. AGENCY = 127137.} Area {DISTRICT = 4796 Sqr Miles Agency = 3061 Sqr Miles.} Class B {DISTRICT = 59·07 ℘ Cent Agency = 75·56 ℘ Cent} Class G {DISTRICT = 11·90 ℘ Cent Agency = 7·24 ℘ Cent}



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 1894 compared with 1892 and 1893 and the average of the ten years ending 1891.

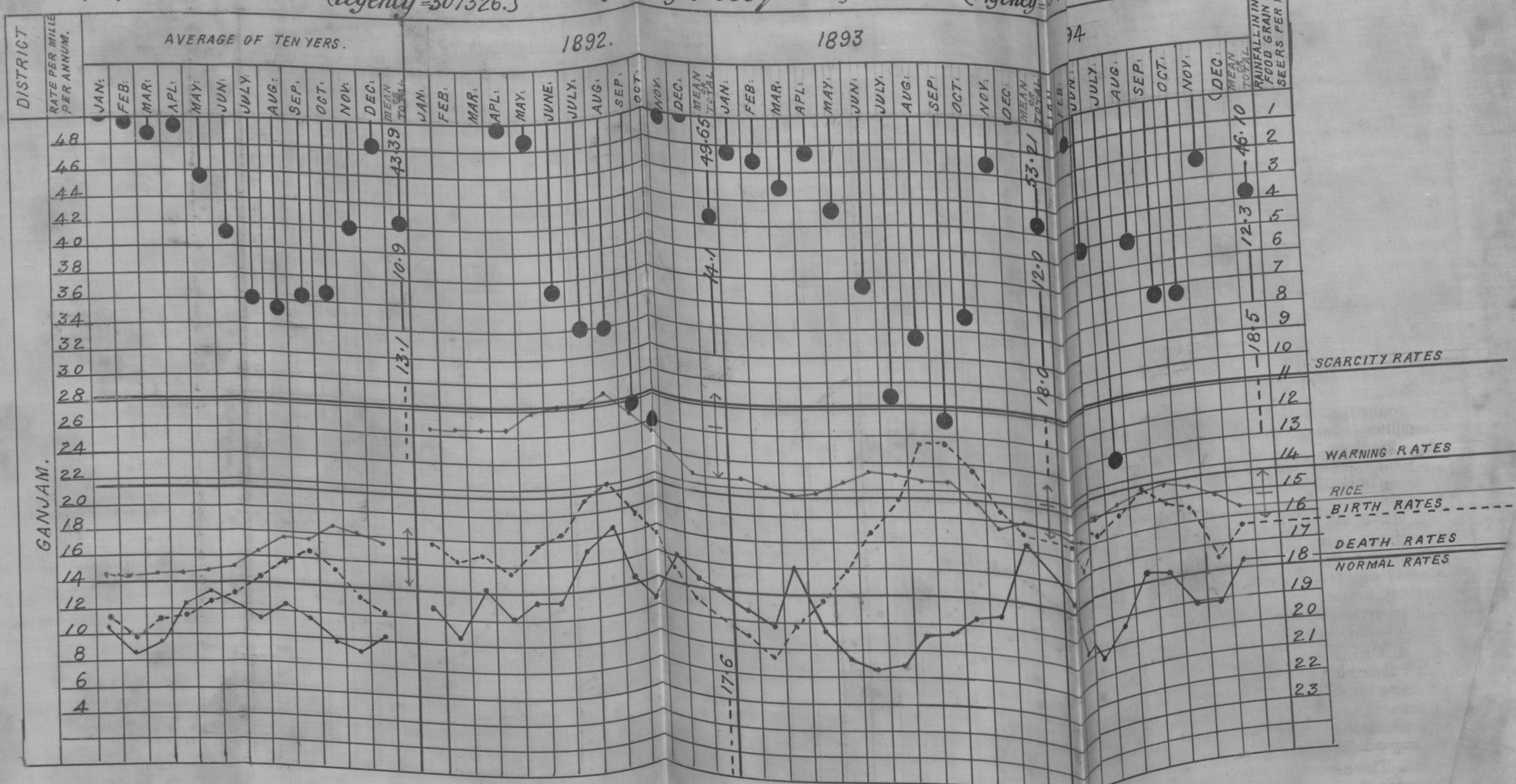
Census population {District = 1943211. Agency = 859781.} Area {District = 4619 Sq. Miles Agency = 12623 Sq. Miles} Class B {District = 57·56 Per cent Agency = 70·04 Per cent} Class G {District = 13·52 Pct Agency = 15·95 Pct}



No 1

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 1894 compared with 1892 and 1893 and the average of ten years ending 1891.

Census population of 1891 {District = 1589477. Agency = 307326.} Area {District = 4887. Sqr. miles Agency = 3483 Sqr miles} Class B. {District 53. Agency = 9·73} Class S {District = 16·74 Pcent Agency = 4·91 Pcent}



THIRTY-FIRST ANNUAL REPORT

OF THE

SANITARY COMMISSIONER FOR MADRAS,

1894.

SECTION I.

METEOROLOGY OF THE YEAR.

Information given under SECTION V, GENERAL POPULATION.

SECTION II.

(*a*) EUROPEAN ARMY.

SECTION III.

(*a*) NATIVE ARMY.

SECTION IV.

(*a*) JAILS.

SECTION VII.

(*b*) VACCINATION.

SECTION VIII.

(*a*) SANITARY WORKS—MILITARY.

(*a*) Omitted by Order of Government, dated 20th April 1888, No. 419, Public.

(*b*) Omitted by Orders of Government, dated 12th July 1886, No. 1455, and 3rd May 1888, No. 465, Public, and reported upon separately.

SECTION V.

GENERAL POPULATION.

RAINFALL.

1. The total average rainfall for all districts amounted to 25·21 inches during the south-west monsoon, and 12·69 inches during the north-east. This represents an increased amount during the former of 1·44 inches, and a decrease in the latter of 4·35 inches when compared with the decennial average. Classed according to groups, as explained in paragraph 1 in last year's annual report of this office, the East Coast Central and East Coast South were most markedly affected by decreased receipt during the north-east monsoon. The North Midland group fared well in both monsoons, as did also the East Coast North. In the South-Western group, which normally receives a heavy supply during the south-west monsoon, Malabar (as in 1893) and Nilgiris received less than the normal amount. The result has been that the inhabitants of the Nilgiris district are at present in doubt as to their water-supply, whilst in Malabar—a district with a normal annual rainfall of about 115 inches—for the first time in the Palghat taluk since 1876, it has become a matter of care that the supplies of wells exhibit diminution, as also the volumes of the minor streams. Seeing that the immediately adjoining district of South Canara, which is also subject to the full force of the south-west monsoon, has neither during 1893 nor 1894 exhibited any diminution of the enormous rainfall received, it can but be imagined that on both occasions deflection of the current occurred, owing to local disturbances. In respect to individual districts, the following twelve yielded less than the decennial average during both monsoons :—

Nilgiris,	Tanjore,	Madras,	South Arcot,
Malabar,	North Arcot,	Coimbatore,	Nellore, and
Tinnevelly,	Trichinopoly,	Chingleput,	Kistna.

2. Omitting Anantapur where the difference was trivial, in no less than 16 districts less than normal was received during the north-east monsoon, viz., Ganjám, Chingleput, Madras, Nellore, North Arcot, Tanjore, South Arcot, Trichinopoly, Madura, Tinnevelly, South Canara, Malabar, Nilgiris, Salem, Coimbatore and Cuddapah. In no instance, did the failure of either monsoon in any of the districts amount to a receipt of less than two-thirds of their respective decennial averages.

TABLE CONTRASTING THE MONTHLY RAINFALL IN INCHES IN THE MADRAS PRESIDENCY DURING 1892, 1893 AND 1894, WITH THE AVERAGE OF PREVIOUS TEN YEARS ENDING 1891, DISTRIBUTED ACCORDING TO MONSOON CURRENTS.

Table contrasting the Monthly Rainfall in Inches in the Madras Presidency during 1892, 1893 *and* 1894,

with the Average of previous ten years ending 1891, *distributed according to Monsoon Currents.*

Groups.	Number.	Districts.	Number of places of observation.	North-East Monsoon.		Inter-Monsoon.†										South-West Monsoon.									
				January.*		February.		March.		April.		May.		Total.		June.		July.		August.		September.		Total.	
				Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.
East Coast, North.	1	Vizagapatam.	26	Average of 10 years		0·14	0·2	0·23	0·5	0·75	1·1	0·45	0·8	2·26	3·9	3·83	6·5	4·26	6·9	5·09	9·4	6·42	10·1	7·59	9·8	23·36	36·2
				1892		...	...	...	...	0·03	...	0·82	2·5	1·12	3·0	1·97	5·5	6·89	11·5	10·11	15·0	8·68	13·0	12·19	14·5	37·87	54·0
				1893		0·65	1·1	0·97	2·2	3·60	6·7	3·23	3·3	3·27	6·0	11·72	19·3	5·67	8·1	11·27	15·6	9·07	14·9	14·25	15·1	40·26	53·7
				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	7·15	11·1	10·16	14·4	7·15	1·2	8·77	13·7	33·23	40·4
	2	Ganjám ...	19	Average of 10 years		0·10	0·2	0·47	0·9	0·90	2·0	0·56	1·2	2·49	3·7	4·52	8·0	4·59	6·6	7·29	10·5	7·69	11·7	7·01	10·2	26·58	39·0
				1892		...	...	0·01	...	0·48	2·0	1·02	3·0	1·53	5·0	11·90	18·1	6·80	10·0	8·05	11·0	8·49	13·0	11·47	13·0	34·81	47·0
				1893		1·51	1·8	1·97	2·7	2·90	5·0	1·65	2·4	3·87	6·2	11·90	18·1	6·33	6·3	11·03	13·9	8·33	13·4	11·94	14·1	37·63	47·7
				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	5·25	8·4	13·41	16·3	5·42	9·5	7·63	13·1	31·71	47·3
	3	Gódávari ...	22	Average of 10 years		0·08	0·1	0·05	...	0·29	0·3	0·22	0·4	1·41	2·2	2·05	3·0	5·25	6·4	6·69	9·1	5·65	7·8	7·03	7·3	24·62	30·6
				1892		...	...	0·02	...	...	...	0·27	1·0	0·40	2·0	0·87	3·0	5·97	9·0	6·29	10·0	9·86	14·0	7·39	10·0	29·51	43·0
				1893		0·03	...	0·77	1·2	1·57	2·0	1·20	1·8	1·69	2·9	5·26	7·9	5·96	5·5	7·53	9·8	7·00	11·3	7·79	10·1	28·28	36·7
				1894		0·20	0·5	0·05	...	...	...	0·93	1·9	0·86	0·2	2·04	2·6	6·76	8·0	3·82	7·4	5·16	8·5	6·87	9·8	22·61	33·7
	4	Kistna ...	13	Average of 10 years		0·08	0·1	0·07	...	0·37	0·4	0·15	0·4	1·20	1·9	1·87	2·8	4·40	6·3	5·46	8·9	5·24	8·2	5·72	7·8	20·82	31·2
				1892		...	...	0·09	...	...	...	0·26	...	0·37	1·0	0·72	1·0	5·94	10·0	5·15	8·0	9·71	12·0	9·38	11·0	30·18	41·0
				1893		0·37	0·8	0·72	1·3	2·37	3·1	0·39	0·7	1·19	2·1	5·04	8·0	4·95	5·4	6·82	10·8	4·82	7·4	4·95	10·5	21·54	34·1
				1894		0·35	0·5	...	...	...	...	1·50	1·7	0·40	1·2	2·25	3·4	2·97	6·1	3·59	5·5	5·03	9·1	5·21	9·5	16·80	30·2
	5	Chingleput.	16	Average of 10 years		0·50	0·7	0·09	0·3	0·14	0·2	0·23	0·5	1·42	1·7	2·38	3·4	3·13	4·9	3·37	6·1	4·61	7·6	4·07	5·8	15·18	24·4
				1892		0·01	...	0·01	...	0·01	...	0·14	1·0	0·23	1·0	0·45	2·0	3·79	5·0	5·84	9·0	11·49	14·0	7·25	9·0	28·37	37·0
				1893		0·18	0·7	0·31	0·5	1·38	2·0	0·35	0·4	0·72	1·9	2·94	5·5	3·23	6·1	5·12	9·4	2·54	5·8	4·37	6·9	15·26	28·2
				1894		1·24	1·5	0·62	1·2	...	...	1·53	1·7	0·12	0·2	3·51	4·6	0·88	2·2	2·76	5·6	10·48	13·9	6·50	9·0	20·62	30·7
East Coast, Central.	6	Madras ...	1	Average of 10 years		0·43	1·9	0·07	0·4	0·13	0·8	0·41	0·7	1·02	2·0	2·06	5·8	10·25	10·1	12·73	10·1	6·35	5·5	29·33	25·7
				1892		0·25	...	...	...	...	...	0·43	2·0	...	...	0·68	2·0	4·52	7·0	0·14	1·0	2·58	4·0	7·24	12·0
				1893		0·33	1·0	0·05	...	1·63	1·0	...	...	0·24	1·0	2·25	3·0	4·97	5·0	25·01	17·3	0·39	0·9	30·37	23·2
				1894		0·39	1·0	1·14	2·0	...	...	0·86	2·0	...	...	2·39	5·0	8·22	9·8	9·68	11·2	1·92	2·8	19·82	23·8
	7	Nellore ...	18	Average of 10 years		0·39	0·5	0·12	0·1	0·14	0·1	0·23	0·5	0·92	1·2	1·80	2·4	2·81	9·8	4·09	15·1	3·99	13·8	3·47	10·5	14·36	49·2
				1892		0·01	...	0·12	...	...	...	0·02	...	0·45	1·0	0·60	1·0	4·02	12·0	7·82	22·0	7·29	22·0	6·29	10·0	25·42	66·0
				1893		0·27	0·6	0·06	0·3	1·30	1·6	0·17	0·6	0·71	1·7	2·51	4·8	1·24	5·0	4·90	8·0	2·45	7·0	2·90	6·0	11·49	26·0
				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	1·54	2·0	1·89	4·0	13·24	14·0	6·41	10·0	23·08	30·0
	8	North Arcot.	19	Average of 10 years		0·28	0·4	0·10	0·2	0·21	0·4	0·39	0·6	2·22	3·0	3·20	4·6	1·72	3·1	2·24	4·8	2·39	4·4	3·19	5·4	9·54	17·7
				1892		0·01	...	0·22	...	0·03	...	0·48	1·0	1·39	3·0	2·13	4·0	1·83	6·0	3·71	6·0	7·60	11·0	6·53	8·0	19·67	31·0
				1893		0·12	0·6	0·30	0·6	0·86	1·3	1·23	2·4	1·49	3·6	4·00	8·5	3·19	4·1	3·11	5·8	0·99	2·5	2·66	5·4	9·95	17·8
				1894		0·18	0·6	0·88	1·3	...	...	1·23	1·9	1·92	3·8	4·21	7·6	1·05	2·5	1·83	3·1	5·09	9·9	3·53	5·8	11·50	21·3
	9	Tanjore ...	23	Average of 10 years		0·64	1·2	0·42	0·6	0·30	0·2	0·51	1·0	2·78	3·5	4·65	6·5	3·08	4·7	2·75	4·5	4·57	6·7	4·83	6·3	15·23	22·2
				1892		0·16	1·0	0·32	1·0	...	...	0·19	3·0	0·48	1·0	1·15	6·0	5·31	7·0	5·71	8·0	9·41	13·0	6·58	8·0	27·01	36·0
				1893		0·11	0·6	0·09	0·1	3·41	3·6	0·79	1·5	2·55	3·5	6·95	9·3	3·66	6·1	6·37	8·2	1·73	3·5	2·41	4·5	14·17	22·3
				1894		1·84	2·4	0·59	1·7	1·11	2·0	1·95	2·6	0·56	1·5	6·05	10·2	1·41	2·9	2·54	5·9	6·28	10·8	5·68	7·1	15·91	26·7
East Coast, South.	10	South Arcot.	17	Average of 10 years		0·64	1·1	0·22	0·4	0·23	0·2	0·33	0·5	2·40	2·9	3·82	5·1	2·01	3·5	1·98	3·6	4·05	6·0	3·45	4·8	11·49	17·9
				1892		0·14	...	0·26	...	0·01	...	0·42	1·0	1·23	2·0	2·06	3·0	3·59	4·0	2·89	5·0	8·10	12·0	3·08	4·0	17·66	25·0
				1893		0·21	0·8	0·21	0·4	2·33	2·8	0·51	1·0	1·13	2·2	4·39	7·2	1·82	3·6	7·56	8·9	1·85	3·1	2·23	4·5	13·46	20·1
				1894		1·05	1·4	1·48	1·6	0·19	0·1	2·10	2·4	1·56	3·0	6·38	8·5	0·40	1·1	0·95	2·5	5·54	9·1	5·93	7·3	12·82	20·0
	11	Trichinopoly.	11	Average of 10 years		0·37	0·9	0·30	0·5	0·37	0·6	0·97	1·2	3·48	4·3	5·49	7·5	2·15	4·0	2·63	4·3	5·30	7·6	4·93	6·1	15·01	22·0
				1892		0·23	1·0	0·21	..	...	...	0·87	1·0	1·52	3·0	2·83	5·0	3·30	5·0	5·14	6·0	8·11	12·0	4·60	6·0	21·15	29·0
				1893		0·03	0·2	0·12	0·3	2·44	2·8	1·55	2·3	2·92	5·0	7·06	10·6	2·41	4·6	5·10	8·1	3·66	4·9	4·42	5·4	15·59	23·0
				1894		0·29	0·8	0·58	1·0	0·65	1·9	3·33	3·5	2·31	3·8	7·16	10·1	1·03	2·0	3·55	6·3	9·14	12·3	5·63	7·5	19·35	28·1
South-eastern.	12	Madura ...	20	Average of 10 years		0·41	0·8	0·61	0·7	0·61	1·3	1·79	2·5	2·52	3·7	5·94	9·0	1·50	2·3	1·45	2·1	3·93	5·2	3·67	5·3	10·55	14·9
				1892		0·04	...	0·66	1·0	0·09	...	2·75	5·0	1·03	2·0	4·57	8·0	1·36	3·0	1·93	4·0	6·84	9·0	1·82	3·0	11·95	19·0
				1893		0·60	1·1	0·59	1·3	3·96	5·0	1·45	2·8	2·33	3·9	8·93	14·1	3·72	4·4	3·48	5·7	2·40	3·6	2·87	4·2	12·47	17·9
				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	0·77	1·3	1·19	2·0	4·87	7·8	4·57	5·5	11·40	16·6
	13	Tinnevelly ...	19	Average of 10 years		0·51	1·1	0·93	1·3	1·38	2·1	1·72	3·0	1·91	3·2	6·45	10·7	1·16	2·1	1·02	1·9	2·31	3·9	2·26	3·8	6·75	11·7
				1892		0·16	...	1·28	2·0	0·12	...	5·31	5·0	0·75	1·0	7·62	8·0	2·39	3·0	1·30	3·0	3·76	6·0	1·02	2·0	8·47	14·0
				1893		1·09	1·6	1·03	1·7	5·06	8·1	0·65	1·8	1·04	2·6	8·87	15·8	2·21	3·5	3·78	6·0	1·02	1·5	1·44	2·7	8·45	13·7
				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	0·59	1·2	0·93	1·7	3·64	6·3	3·04	4·8	8·20	14·0
																		1·03	2·5	0·65	1·8	1·03	2·1	1·13	2·1	3·84	8·5
																		0·64	2·0	0·59	2·0	0·88	2·0	0·17	1·0	2·28	7·0
																		0·87	2·2	0·80	1·9	0·47	1·1	0·67	1·3	2·81	6·5
																		0·18	0·7	0·24	0·8	1·38	2·1	0·42	1·1	2·22	4·7

North-East Monsoon.								Grand Total.	
October.		November.		December.		Total.			
Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.
6·28	7·5	4·22	4·4	1·06	1·4	11·56	13·3	38·75	56·0
12·63	10·0	0·82	1·0	...	...	13·45	11·0	53·29	79·5
5·57	8·4	3·25	5·0	...	...	8·82	13·4	60·80	86·4
13·02	7·4	1·92	3·2	...	...	14·94	10·6	52·93	59·0
6·96	7·4	4·23	3·9	1·10	1·1	12·29	12·4	43·39	59·4
12·56	10·0	0·75	1·0	...	...	13·31	11·0	49·65	63·0
7·69	7·7	1·99	3·7	...	...	9·68	11·4	59·21	77·2
7·68	11·9	2·70	3·6	0·01	...	10·39	15·5	46·10	70·8
6·48	6·8	3·79	3·3	0·72	0·7	10·99	10·8	37·66	44·4
20·02	14·0	0·13	...	...	...	20·15	14·0	50·53	60·0
7·39	9·8	16·28	8·5	0·14	0·3	23·81	18·6	57·35	63·2
13·31	12·3	1·72	3·1	0·01	...	15·04	15·4	39·69	51·7
5·41	7·3	4·09	3·6	0·72	0·9	10·22	11·8	32·91	45·8
14·93	12·0	0·22	1·0	0·17	...	15·32	13·0	46·22	55·0
4·53	7·7	8·63	7·8	0·04	0·1	13·20	15·6	39·78	57·7
9·14	10·1	2·97	4·2	...	...	12·11	14·3	31·16	47·9
10·25	10·1	12·73	10·1	6·35	5·5	29·33	25·7	46·89	53·5
4·52	7·0	0·14	1·0	2·58	4·0	7·24	12·0	36·06	51·0
4·97	5·0	25·01	17·3	0·39	0·9	30·37	23·2	48·57	56·9
8·22	9·8	9·68	11·2	1·92	2·8	19·82	23·8	43·95	59·1
13·66	16·1	14·80	14·7	7·11	9·6	35·57	40·4	51·99	95·4
13·66	11·0	0·96	1·0	4·74	5·0	12·30	17·0	38·40	85·0
5·52	5·0	23·47	19·0	1·25	3·0	30·24	27·0	43·98	56·0
11·02	11·0	10·55	13·0	0·74	3·0	22·31	27·0	47·78	62·0
10·33	9·2	9·39	7·4	3·36	3·6	23·08	20·2	34·42	40·3
11·74	11·0	0·23	...	2·41	2·0	14·38	13·0	34·65	45·0
6·15	7·5	25·19	15·4	0·07	0·1	31·41	23·0	43·87	45·6
11·30	8·9	6·87	7·7	0·38	1·2	18·55	17·8	32·26	43·5
8·07	8·8	8·31	7·6	4·12	4·1	20·50	20·5	38·93	47·3
5·25	6·0	0·68	1·0	1·77	3·0	7·70	10·0	36·84	50·0
7·56	8·7	14·18	12·8	0·01	...	21·75	21·5	39·91	52·4
7·36	11·0	2·97	1	1·11	1·9	11·44	19·0	31·56	53·3
10·67	12·0	11·23	10·8	8·71	8·9	30·61	31·7	46·75	56·1
4·47	6·0	2·30	4·0	3·10	6·0	9·87	16·0	28·68	47·0
4·81	6·0	24·63	18·6	3·60	5·5	33·04	30·1	53·45	59·5
4·81	7·5	8·94	14·0	6·05	9·0	19·80	30·5	38·67	60·7
10·09	10·2	9·46	9·3	6·54	5·9	26·09	25·4	44·92	52·5
2·72	4·0	0·88	2·0	2·53	3·0	6·13	9·0	29·34	41·0
6·61	6·1	21·29	16·8	1·25	1·6	29·15	24·5	49·13	54·7
6·93	8·8	7·52	9·7	2·02	3·8	16·47	22·3	42·20	58·9
8·37	11·1	5·44	7·9	3·76	5·1	17·57	24·1	33·61	46·5
7·56	8·0	0·48	1·0	1·04	3·0	9·08	12·0	23·86	36·0
8·27	7·7	15·03	14·5	0·19	0·8	23·49	23·0	43·02	51·5
6·63	10·5	2·90	7·0	0·92	2·5	10·45	20·0	29·01	46·7
8·59	10·4	5·69	7·7	3·79	5·2	18·07	23·3	30·76	44·0
5·80	7·0	0·84	1·0	0·79	2·0	7·43	10·0	20·47	32·0
5·50	8·6	11·63	13·3	0·88	1·7	18·01	23·6	35·39	51·4
7·97	9·9	6·03	9·9	2·29	4·1	16·29	23·9	32·35	49·6
7·72	10·1	6·74	8·7	4·23	5·6	18·69	24·4	28·98	43·6
2·70	6·0	1·33	3·0	1·43	3·0	5·46	12·0	15·36	27·0
4·60	7·2	9·88	11·6	0·54	1·4	15·02	20·2	26·70	42·5
3·41	5·3	7·17	9·2	1·36	4·0	11·94	18·5	19·86	32·6

* The rainfall of this month should be classed with the north-east monsoon of the previous year;
† Dr. Bellew.

but, as the report deals with the calendar year its inclusion under the 'Inter-monsoon' period is unavoidable.

Table contrasting the Monthly Rainfall in Inches in the Madras Presidency during 1892, 1893 *and* 1894,

Groups.	Number.	Districts.	Number of places of observation.	North-east Monsoon.		Inter-Monsoon.†									
				January.*		February.		March.		April.		May.		Total.	
				Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.
South-western.	14	South Canara.	9												
		Average of 10 years		0·15	0·2	0·02	...	0·08	0·1	1·21	2·4	4·28	6·2	5·74	8·9
		1892		...	...	...	...	0·01	...	4·53	8·0	17·87	16·0	22·41	24·0
		1893		...	...	0·03	0·1	0·11	0·3	1·55	2·3	13·15	12·1	14·84	14·8
		1894		...	...	0·82	0·6	0·74	1·1	4·23	5·6	0·62	1·4	6·41	8·7
	15	Malabar ...	16												
		Average of 10 years		0·16	0·2	0·19	0·3	0·66	1·5	3·05	4·8	7·48	8·9	11·54	15·7
		1892		...	...	0·09	...	0·87	2·0	7·47	14·0	16·47	16·0	24·90	32·0
		1893		0·21	0·2	0·62	1·2	1·98	2·7	1·97	4·2	10·02	11·4	14·80	19·7
		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
	16	Nilgiris ...	11												
		Average of 10 years		0·54	1·0	0·84	1·4	1·39	2·8	3·25	6·7	5·40	9·8	11·42	21·7
		1892		0·01	...	0·73	2·0	0·28	1·0	5·48	10·0	4·85	11·0	11·35	24·0
		1893		0·35	1·0	3·99	2·7	7·04	7·2	2·33	4·8	6·22	11·1	19·93	26·8
		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
South Midland.	17	Salem ...	18												
		Average of 10 years		0·19	0·5	0·08	0·3	0·53	0·8	1·00	1·8	3·74	5·8	5·54	9·2
		1892		...	...	0·54	1·0	0·20	...	1·32	3·0	4·70	8·0	6·76	12·0
		1893		0·13	0·3	0·80	1·3	1·13	2·3	2·28	4·1	4·48	7·4	8·82	15·4
		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
	18	Coimbatore.	16												
		Average of 10 years		0·21	0·4	0·17	0·3	0·62	1·1	1·80	2·4	3·52	5·7	6·32	9·9
		1892		...	...	0·82	1·0	0·12	...	2·45	5·0	3·99	7·0	7·38	13·0
		1893		0·11	0·2	0·86	1·4	2·91	3·3	2·35	4·2	2·16	4·4	8·39	13·5
		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
North Midland.	19	Cuddapah ...	14												
		Average of 10 years		0·07	0·1	0·04	0·1	0·18	0·3	0·46	0·6	1·09	2·1	1·84	3·2
		1892		...	...	...	...	...	...	0·23	1·0	0·76	2·0	0·99	3·0
		1893		0·14	0·4	0·26	0·7	0·34	0·9	0·70	1·6	2·08	4·2	3·52	7·8
		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
	20	Bellary ...	11												
		Average of 10 years		0·08	0·2	0·01	...	0·11	0·4	0·66	1·4	1·55	3·1	2·41	5·1
		1892		...	...	0·03	...	...	...	0·54	2·0	1·14	3·0	1·71	5·0
		1893		...	...	0·33	0·5	2·13	3·4	0·45	1·1	2·77	4·3	5·68	9·3
		1894		...	...	...	...	0·22	0·4	0·91	2·9	2·47	3·9	3·60	7·2
	21	Kurnool ...	12												
		Average of 10 years		0·04	0·1	...	...	0·14	0·2	0·46	0·9	0·90	1·9	1·54	3·1
		1892		...	...	...	...	0·03	...	0·37	1·0	0·79	2·0	1·19	3·0
		1893		0·26	0·5	0·19	0·3	2·22	3·7	0·16	0·5	1·13	3·5	3·96	8·5
		1894		0·15	0·3	...	...	...	...	0·74	1·6	0·88	2·8	1·77	4·7
	22	Anantapur..	11												
		Average of 10 years		0·05	0·2	...	...	0·14	0·2	0·46	1·0	1·50	2·7	2·15	4·1
		1892		...	...	0·04	...	...	...	0·76	2·0	0·64	2·0	1·44	4·0
		1893		0·03	0·2	0·16	0·7	0·76	1·7	0·99	1·5	2·41	4·5	4·35	8·6
		1894		...	...	0·03	0·1	0·07	0·4	1·15	2·3	1·42	3·0	2·67	5·8
		Total ...	342												
		Average of 10 years		0·28	0·5	0·23	0·4	0·44	0·8	0·92	1·6	2·52	3·8	4·39	7·1
		1892		0·46	0·1	0·26	0·4	0·82	0·1	1·70	3·3	2·83	4·2	6·07	8·1
		1893		0·32	0·6	0·66	1·0	2·34	3·2	1·18	2·1	3·07	4·8	7·57	11·7
		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

* 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.

with the Average of previous ten years ending 1891, *distributed according to Monsoon Currents*—continued.

South-West Monsoon.										North-East Monsoon.								Grand Total.	
June.		July.		August.		September.		Total.		October.		November.		December.		Total.			
Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.
41·49	25·6	45·99	28·6	25·36	24·4	10·41	15·9	123·25	94·5	10·65	12·0	2·99	4·3	0·57	0·8	14·21	17·1	143·20	120·5
14·82	20·0	68·03	31·0	39·69	31·0	13·95	22·0	136·49	104·0	14·19	15·0	2·72	3·0	0·07	...	16·98	18·0	175·88	146·0
43·14	25·0	37·50	30·3	20·52	25·9	13·20	16·1	114·36	97·3	9·39	12·7	6·07	6·5	...	...	15·46	19·2	144·66	131·3
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
33·65	24·6	31·48	26·0	15·87	18·4	7·11	11·9	88·11	81·5	9·84	12·9	4·70	6·4	0·99	1·8	15·53	21·1	115·18	118·3
14·87	20·0	58·40	29·0	21·41	26·0	5·69	15·0	100·37	90·0	15·24	15·0	2·41	4·0	0·14	...	17·79	19·0	143·06	141·0
34·65	25·4	15·99	24·5	12·39	19·7	7·63	12·1	70·66	81·7	8·51	12·0	5·31	8·5	...	...	13·82	20·5	99·28	121·9
31·16	25·0	25·78	26·4	19·33	23·6	5·91	10·8	82·18	85·8	6·51	10·2	1·60	3·0	0·12	0·3	8·23	13·5	104·43	118·7
9·34	14·2	14·87	16·2	9·07	14·0	6·31	12·3	39·59	56·7	11·85	14·0	6·04	7·8	3·53	4·5	21·42	26·3	72·43	104·7
6·03	12·0	13·59	16·0	9·57	17·0	4·24	8·0	33·43	53·0	9·84	15·0	2·01	3·0	2·14	3·0	13·99	21·0	58·77	98·0
11·60	15·2	12·37	18·3	9·39	11·5	7·02	10·5	40·38	55·5	11·83	17·5	12·57	14·9	0·10	0·4	24·50	32·8	84·81	115·1
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
2·27	4·3	2·04	3·9	4·62	6·5	4·18	6·0	13·11	20·7	6·52	9·3	3·97	6·0	1·82	2·8	12·31	18·1	30·96	48·0
4·59	7·0	3·66	7·0	8·14	12·0	1·82	4·0	18·21	30·0	4·21	7·0	0·43	1·0	0·87	2·0	5·51	10·0	30·48	52·0
4·28	7·3	5·30	8·1	2·64	4·6	2·39	3·9	14·61	23·9	8·37	10·4	7·46	10·0	0·61	0·1	15·84	20·5	39·27	59·8
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
1·59	3·3	1·24	3·2	2·17	4·2	2·32	4·4	7·32	15·1	7·31	9·3	3·51	6·0	1·75	2·8	12·57	18·1	26·21	43·1
2·09	5·0	1·23	3·0	3·93	7·0	0·79	2·0	8·04	17·0	4·83	8·0	0·41	1·0	0·79	2·0	6·03	11·0	21·25	41·0
3·52	6·5	1·96	4·3	0·96	2·2	1·26	2·0	7·70	15·0	6·78	10·2	9·30	10·7	0·01	0·1	16·09	21·0	32·18	49·5
0·90	1·6	0·91	2·4	3·09	6·0	11·77	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
2·01	4·0	2·53	4·9	4·13	6·5	4·35	5·9	13·02	21·3	6·33	7·8	4·95	5·2	1·63	2·3	12·91	15·3	27·77	39·8
6·67	8·8	3·65	6·0	8·93	13·0	5·35	18·0	24·60	45·8	8·30	11·0	0·32	1·0	1·10	2·0	9·72	14·0	35·31	62·0
3·47	5·7	5·38	8·2	1·62	3·4	2·84	5·4	13·31	22·7	6·43	9·1	8·98	11·4		...	15·41	20·5	32·24	51·0
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	0·7	8·88	13·9	28·78	44·3
2·23	4·7	2·20	6·5	3·48	6·2	4·52	7·1	12·43	24·5	4·17	6·2	2·03	2·9	0·21	0·5	6·41	9·6	21·25	39·2
4·50	8·0	2·36	5·0	8·00	12·0	4·21	9·0	19·07	34·0	5·86	9·0	0·71	1·0	...	...	6·57	10·0	27·35	49·0
3·15	5·2	4·13	8·7	4·50	8·1	4·04	6·3	15·82	28·3	7·37	9·7	1·70	4·5	...	...	9·07	14·2	30·57	51·8
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
3·14	5·0	4·18	7·7	4·98	7·2	4·93	7·0	17·23	26·9	4·92	6·0	2·05	3·4	0·43	0·8	7·40	10·2	26·17	40·2
6·06	9·0	4·23	7·0	9·37	15·0	7·31	13·0	26·97	44·0	10·51	10·0	0·17	...	0·12	...	10·80	10·0	38·96	57·0
3·50	6·3	6·31	8·1	4·11	6·3	3·91	7·3	17·83	28·0	5·65	5·8	2·99	5·3	...	...	8·64	11·1	30·43	47·6
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
1·70	3·5	1·98	4·4	3·75	5·5	4·21	5·7	11·64	19·1	4·73	6·6	2·64	3·8	0·36	1·0	7·73	11·4	21·52	34·6
6·74	7·0	4·68	7·0	6·51	11·0	3·48	7·0	21·41	32·0	4·10	8·0	0·21	...	0·70	1·0	5·01	9·0	27·87	45·0
3·91	4·7	4·25	9·1	1·96	4·7	2·79	3·7	12·91	22·2	6·23	9·7	2·10	5·9	...	...	8·33	15·6	25·59	46·4
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
6·11	6·9	6·87	8·4	5·94	8·6	4·85	7·3	23·77	31·2	8·14	9·6	6·04	6·6	2·86	3·4	17·04	19·6	45·20	57·9
5·69	8·9	10·66	10·7	10·36	14·2	6·22	9·6	32·93	43·4	9·15	10·0	9·08	1·5	1·20	1·9	19·43	13·4	58·43	65·1
7·12	7·6	7·73	10·5	4·76	7·5	4·92	7·2	24·53	32·8	6·77	8·8	11·68	11·0	0·38	0·7	18·83	20·5	50·93	65·0
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

PRICES OF FOOD.

3. The steady tendency to diminution of the heavy prices of grain experienced during 1892 and 1893, which exhibited itself towards the close of the latter year continued with but little fluctuation during 1894. No district showed an increase of price of the staple food grains with the exception of Bellary, where the purchaser received 24 tolahs of cholum less per rupee on the annual average than in 1893. This was probably due to caution in the local markets, subsequent to October, owing to receipt of slightly less rain than in the previous year—not, however, below the average of the last ten years—and to partial failure of crops in certain taluks. Although, in the case of all food-grains the purchasing power of the rupee was greater throughout the Presidency than in the previous three years, in no district was the 'normal rate' estimated by the Board of Revenue reached; nor, on the other hand, were the average prices for the ten previous years touched. As shown in the preceding remarks on rainfall, notwithstanding the total supply to the Presidency received was less than the decennial average, the year under review cannot be regarded as affording an important contrast with conditions likely to recur year by year. This being so, the question naturally arises as to whether the prices of grains will ever again touch the 'normal rate.' The matter is one as to which a very broad enquiry into the various details affecting the prosperity of the people would have to be made to come to any satisfactory conclusion, and would be beyond my sphere. Gauged roughly, it is found that with an estimated increase of 1,914,512 people since last census, there has been an increase of area under wet cultivation of 482,249 acres, and of dry cultivation of 2,127,970 acres. Export of grains has increased from 627,603 maunds in 1891 to 677,114 maunds in 1894. Facilities of railway communication have greatly increased of late years throughout the Presidency. In 16 districts of a total of 22, or in an area of 106,439 square miles of a total of 141,189 square miles of the Presidency, the wages of the labouring classes in the last six months of 1894 show an increase when compared with the same period of 1891, the farm labourer receiving a total monthly average of Rs. 5-6-2 and the carpenter Rs. 15-3-1, against Rs. 4-15-1 and Rs. 14-6-6, respectively, in the former period. Emigration has increased from 155,466 in 1891 to 208,370 in 1894; but, although during a period of want, this would have a special significance by a sudden rise, a gradual increment by no means implies poverty. The native does not emigrate as the European with the object of making a permanent home in a new colony; he regards it as a method of making money, which is duly spent on his return home after a short absence.

4. On the whole, I am inclined to think that food grains are not likely to again reach their old rates, as their dearness is probably an expression of the levelling up of prices of various districts following better facilities of exchange of articles of commerce, and diversion of labour from the field to the large towns on account of manufactures—results that may more or less directly be ascribed to the better railway communication placed at disposal.

5. There was, during 1894, no fluctuation of the prices of food-grains sufficient to justify the ascribing of any connection between these and the birth and death rates—*vide* diagrams on this subject from No. 1 to No. 22 attached.