Archives I - 10,006—16-8 77.

(1) Number of pages 34

26. (2) Date of repair 5-3-87

(3) Initials of the Referencer [illegible]

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

FINANCIAL. DEPARTMENT

G.O. No. 676. Press.
~~B.P. No.~~ Mis.

Dated 21-4-1881 ~~197~~.

17/18

Com

Not to be folded or roughly handled

17

676
1

GOVERNMENT OF MADRAS.

FINANCIAL DEPARTMENT.

21st April 1881, No. 676.

Municipal—Sanitary.

Read again—

G.O., dated 23rd February 1881, *No.* 246, *Public.*

ORDER THEREON, 21st April 1881, No. 676.

The Right Honorable the Governor in Council resolves to refer to the Board of Revenue for opinion the annexed extracts from letters received from Mr. Price, Collector of Chingleput, containing suggestions for a modified Municipal Law to be applied to large villages and small towns.

---

(1) *Extract from Mr. Price's letter regarding the Sanitary Condition of the Saidápet Circle quoted at paragraph* 501 *of the Sanitary Commissioner's Report for* 1878.

"The sanitary condition of the circle is decidedly not good. Dirt reigns supreme in the villages. Efforts have been made, and are being extended, to keep the larger towns clean by means of a regular Conservancy Establishment. The result has been that in some places a good deal of filth, which would otherwise have been allowed to fester and breed foul odours, and very probably disease, has been safely disposed of. Want of funds, amounting to actual insolvency, has, however, prevented an extension of this good work, and of the equally important one of digging draw-wells, the water of which cannot be polluted. More might be done if there was any public spirit or appreciation of even the rudiments of sanitation amongst the people themselves; but there is none, and the system which hangs around the neck of revenue officials, hereditary village headships, involving the appointment and retention of what are *de facto* Collectors and Magistrates of villages,—persons who are as careless as they are frequently incompetent,—is a fatal bar to any progress. Written orders are mere waste paper, and the revenue officers have so much other work to attend to now-a-days that there is no time to go about in the smaller villages prosecuting with doubtful legality the owners of offending "middens." What is wanted is some kind of minor Municipal Act shorn of its Lighting, Police, Toll-bars, Commissioners, Office Establishments, and other like expensive appendages,—a law, in fact, which will allow of the raising in any village, say, of 1500 or 2000 inhabitants, of a tax the proceeds of which can be devoted to keeping the place clean, digging wells for the public use, &c. What now goes to sanitation from Local Funds,—I mean by this conservancy establishments and such like,—ought, in my opinion, to go to hospitals, dispensaries, &c., which are for the general good, actual cleansing work being made more a matter of localised taxation than it is."

(2) *Extract from Mr. Price's letter to the Secretary to the Board of Revenue, dated* 19*th October* 1880, *No.* 95 (*paragraph* 10).

"I have for a considerable period been impressed with the opinion, which I find, from personal communication, to be shared by Surgeon-General Cornish, that what is required in this Presidency with regard to towns and villages which are too small to warrant their being, with any chance of financial success, constituted Municipalities, is a sort of minor Municipal Act, the chief object of which should be the levy of a rate upon the houses contained within such areas for the purpose of sanitation, improving streets, &c.

Lighting, Municipal Schools, Police, and a Commission are not, in my opinion, wanted. If one has a Municipality, these and many other kindred wants, or rather supposed wants, have to be provided for. I may not be sufficiently advanced for the age, but I fail to see the necessity for lamps all over a place where the people go to bed by 8 o'clock, for schools to be paid for out

of taxes from a limited area when they are used by the general population, for Police to be paid for in the same way when they are employed for work fairly chargeable upon the whole taluk, or for costly establishments to realise taxes which are pretty nearly eaten up in paying for their collection. What is desirable is that where there is any considerable congeries of people who do not contribute much to the Local Funds of the Circle, those funds should be relieved by some means or the other from the charges of keeping the place where these assemblies are in a proper sanitary condition; and this, I submit, can be best brought about by the means which I suggest, and which, I believe, would be found perfectly effective, and a simpler way of dealing with the question than forcing upon the people of the country a European institution which, after lingering out a brief and unsatisfactory existence, must eventually succumb to insolvency and disappear, leaving the last state of things in the area concerned worse than the first."

(True Extract.)

R. DAVIDSON,
Chief Secretary.

To the Board of Revenue.

Exd F. R. Bantleman.

676/2

Govt. of {1881} Madras.

FINANCIAL.

To

THE BOARD OF REVENUE.

Dated April, 21*st*.

Issued

Recd. *Encl.*

G.O., 21*st April* 1881, *No.* 676.

APRIL.

Municipal—Sanitary. — Extracts from letters received from Mr. Price, Collector of Chingleput, containing suggestions for a modified Municipal Law to be applied to large villages and small towns, referred to the Board of Revenue for opinion.

[Office-paper Form.]

FINANCIAL DEPARTMENT.

626/3

Papers in hand down to date:—

No. 1 of

Note by the Private Secy. to Govr. Pendleton to report thereon

No. 2 of

DRAFT ORDER.

~~NOTE FOR ORDERS.~~

9th April 1881

No. 676

The Right Honble the Governor in Council refers to report to the Board of Revenue for opinion the annexed extracts from letters received from Mr. Price Collector of Chingleput containing suggestions for a modified Municipal Law to be applied to large villages and small towns. Copy

Encl. Jr. 3. 81

Appendix

~~Appendix A~~

(1) Extract from Mr Price's letter regarding the sanitary condition of the Laidapet Circle quoted at para 501 of the Sanitary Commissioners report for 1878:—

"The sanitary condition of the Circle is decidedly not good. Dirt reigns supreme in the villages. Efforts have been made and are being extended to keep the larger towns clean by means of a regular conservancy establishment. The result has been that in some places a good deal of filth which would otherwise have been allowed to fester ——

and

626/4 2P

and breed foul odours, and very probably disease, has been safely disposed of. Want of funds, amounting to actual insolvency, has, however, prevented an extension of this good work, and of the equally important one of digging drain wells, the water of which cannot be polluted. More might be done if there was any public spirit or appreciation of even the rudiments of sanitation amongst the people themselves; but there is none, and the

Pgs 6 & 7

system which hangs
around the neck of
revenue officials, here-
ditary village head-
ships, involving the
appointment and reten-
tion of whatever, de
facto, Collectors and
Magistrates of villages -
persons who are ex
careless as they are
frequently incompetent,
is a fatal bar to any
progress. Written orders
are mere waste paper,
and the revenue officers
have so much other work
to attend to now-a-days,
that there is no time

to

670/5 30

to go about in the
smaller villages, prosecuting
with doubtful legality
the owners of offending
"middens". What is
wanted is some kind
of minor Municipal Act
for some of the lighting, police,
toll-bars, Commissioners,
office establishments,
and other like expensive
appendages, a law, in
fact, which will allow
of the raising in any
village, say of 1,500
or 2,000 inhabitants,
a tax the proceeds
of which can be devoted
to keeping the place

clean

clean, digging wells
for the public use &c.
what now goes to assist
him from local funds
– I mean by this conse
vancy establishments,
and such like – ought,
in my opinion, to go to
hospitals, dispensaries &c.,
which are for the general
good, actual cleansing
work being made more
a matter of localized
taxation than it is."

(2) Extract from Mr. Price's letter to the Secretary to the B.P. of Health dated 19 Oct 1850 ch. 9 (para 10)

"I have for a consider
-able period been im-
pressed with the opinion,
which I find, from personal
communication, to be
shared

626/6 45

shared by Surgeon Gen.
Cornish, that what is
required in this Presi-
dency with regard to
towns & villages which
are too small to warrant
their being, with any
chance of financial
success, constituted
Municipalities, is a
sort of minor Munici-
pal Act, the chief
object of which should
be the levy of a rate
upon the houses contain-
ed within such areas
for the purpose of
sanitation, improving
streets

streets &c.

Lighting, Municipal schools, Police, and a Commission are not, in my opinion, wanted. If one has a Municipality, these and many other kindred wants, or rather supposed wants, have to be provided for. I may not be sufficiently advanced for the age, but I fail to see the necessity for lamps all over a place where the people go to bed by 8 o'clock, for schools to be paid for out of taxes from a limited

area

area when they are used by the general population, for Police to be paid for in the same way when they are employed for work fairly chargeable upon the whole taluq, or for costly Establishments to realize taxes which are pretty nearly eaten up in paying for their collection. What is desirable is that where there is any considerable conjeries of people who do not contribute

much

much to the Local
Funds of the Circle,
those funds should
be relieved by some
means or the other from
the charges of keeping
the place where these
assemblies are in a
proper sanitary condi-
tion and this, I submit,
can be best brought
about by the means
which I suggest, and
which I believe would
be found perfectly
effective, and a
simpler way of dealing
with

5716/8/68

with the question
than forcing upon the
people of the country
an European institu-
tion which, after
lingering on a brief
and unsatisfactory
existence, must eventual
ly succumb to inani-
tion and disappear,
leaving the last state
of things in the areas
concerned worse than
the first."

I am
Sir
Your ob.
81.3.81

Board of Revenue
~~all collectors~~

Desp 3/5

1
31.3.81

Financial Department.

Sanitary improvement of villages

Under Disposal Docket.

Papers to be read in Proceedings:—

Ajmi P.O. of 23 Feb. 1881. no. 246 Public.

M 12/4/81 R 21/4/81

Madras 117 No 182 Miscl 1881

676/9

Memorandum of the Army Sanitary Commission on the Report of the Sanitary Commissioner for Madras for 1878.

Mr. Cornish's Report for 1878 is almost of necessity a continuation, in part, of his Report on the famine of preceding years, the effects of which on the public health and population of the Presidency he has endeavoured to trace to their ultimate results.

He has clearly shown that famine diminishes population not only by increased mortality, but by reduction in the birth-rate, and the only remaining questions in regard to the results of the late famine are those connected with the estimates of actual loss.

These are to a great extent arrived at by calculation, but there is one fact regarding Salem district showing the actual numbers missing from among the people (out of the population of 1871, which was 1,966,995), and of this number, without apparently making any allowance f natural increase, there had disappeared up to March 1878 no fewer tha 407,099 persons.

2. The total population in districts more or less subject to famine o the census of 1871 is given at 17,259,290, and of this number the calculated losses, including the fact about Salem, amounted to 2,400,567, exclusive of augmented numbers which on an average increase of one per cent. per annum would necessitate an addition to the losses of 862,960. The actual and calculated loss from all famine incidents, including epidemics, would thus on Mr. Cornish's data exceed 3¼ millions, or above 18 per cent. of the district population. The facts are very startling, but, as already stated, most of them are calculated.

There is, however, the actual registration, which shows that "in the "two years 1877–78, moreover, we actually registered 1,318,673 more "deaths and 444,780 fewer births than the mean of two years' previous "registration, and these figures alone show a decrease of population in "two years of 1,763,453 in the Madras Presidency."

There can be no doubt about the deaths registered, and leaving aside the diminished birth-rate, the minimum possible mortality up to the latest date in the Report from famine and its accompanying epidemics of cholera, fevers, bowel complaints, small-pox, &c., must be set down at 1,318,673 deaths.

3. But the actual diminution of the population will not be known until after the census of 1881. In the meantime many deaths will have been registered properly due to famine after the scarcity had altogether disappeared. No considerations besides the mere recital of the facts as Mr. Cornish has given them are required to enforce the necessity for dealing administratively with the whole question of famines before, and not after, the calamity has actually overtaken the people, and towards this end he has collected some important information shewing the relation between the actual food prices and the death-rates. These have been transferred to diagrams in the Report, and their general result is thus stated:—

"A considerable variation in prices of food within limits may occur "without the public health or the mortality tables showing any evidence "of pressure on the por. It is a point of some practical importance to "ascertain what those limits are. It would seem then, that with rice at "from 30 to 40 lbs. er rupee in ordinary years, there is no relation

"between the mortality and the lower and higher price; but when the "price rises from 1½ to 2 rupees for the 30 lbs., there is a distinct corre- "spondence between the mortality rates and advancing prices of food. "The commoner food staples of ragi, cholum, and cumboo in ordinary "years are sold at from 60 to 80 or 90 lbs. the rupee, but when the "prices of these grains rise so as to permit of the purchase of only from "30 to 40 lbs. per rupee, such a rate cannot long be maintained without "a corresponding rise in the mortality with all descriptions of food; the "diagrams show a close relation between the sudden rise of provisions "presaging a famine and sudden rise of mortality." It is further shown that when generally high prices rule, a slight increase of the price may under certain circumstances be followed by increased death-rates. "It "is," says Mr. Cornish, "now abundantly clear that the poorer members "of the population cannot obtain a sufficiency of food to maintain health "and life when a rupee will only purchase from 15 to 20 lbs. of rice, or "double that quantity of common grains which form the main bulk of "the local consumption. *Market prices rising above these rates after "adverse seasons and diminished rainfall mean mischief to the people.*"

4. In fact, famine, as was shown in Mr. Cornish's previous Report, is a term including many factors, of which the central one is diminishing food supplies, and comparisons, such as those given in the present Report, go a long way towards the establishment of sound principles on the subject, and, as Mr. Cornish says, "as a whole place before the statist and political economist facts of the very highest importance."

5. During 1878 the food prices continued to fall, but up to the end of the year they were two or three times greater than they were three or four years previously; while the registered mortality in all the districts, with one exception, was higher in 1878 than it had been in the five years ending 1876, before the famine began.

The following abstract gives the totals for the whole Presidency:—

Famine Districts, 1877.

Population.	Deaths per 1,000.		
	5 Years ending 1876.	1877.	1878.
18,416,953 - -	19·1	67·	28·2

Non-Famine Districts.

10,710,252 - -	1·6	24·8	27·1

The food prices for the same years were as follows:—

Average for Madras Presidency. Imperial seers per rupee.

	Second Sort Rice.	Cholum.	Ragi.
5 years - -	13·4	27·3	25·9
1877 - - -	9·2	9·7	10·7
1878 - - -	9·2	14·9	11·3

The facts require no comment, except that they show how the consequences of scarcity may continue some time after "famine" has ceased, and that recovery from its results is by no means a rapid process either as regards the price of food or public health.

676/10

626/10

6. If the registered births can be taken as approximately accurate they will afford the following comparisons, showing that sterility is a more enduring consequence of famine than deaths is:—

	Births per 1,000.
1875 - - - -	21·1
1876 - - - -	21·6
1877 - - - -	16·3
1878 - - - -	11·9

There is no reason to question the facts registered; the point to be arrived at is, whether all the births were entered on the returns during the last two years?

On comparing the birth-rates in famine and non-famine districts before and since the famine year 1877, the registration gives the following results per 1,000:—

	Five Years ending 1876.	1878.
Famine districts -	20·0 -	8·8
Non-famine districts -	19·9 -	17·2

Were the registration ever approximately accurate these figures would be sufficient to justify Mr. Cornish in his view of the effects of famine on population, and its influence, not only in reducing population by premature death, but by causing sterility to the extent of adding about a third to the loss by deaths.

7. We shall next discuss the vital statistics for 1878. Excluding the losses of population due to the famine, the calculated population for 1878 is 29,127,205, and the registered deaths out of this number amounted to 810,921, or 27·8 per 1,000, against 1,556,312 during the previous famine year, a ratio of 53·2 per 1,000, showing a death-rate in 1878 of nearly one half the ratio of 1877.

8. The following were the total deaths registered from the chief causes for the group of years, including the famine, which began in the end of 1876:—

Years.	Cho	Small-pox.	Fevers.	Bowel Complaints.	Total Deaths.
1874 - -	:	48,343	226,220	37,993	516,848
1875 - -	94,	24,775	252,042	37,484	641,260
1876 - -	148,	23,469	230,092	38,176	680,384
1877 - -	357,	88,321	469,241	133,366	1,556,312
1878 - -	47,	56,360	374,443	48,083	810,921

This abstract shows, more fully than the facts stated above, the influence of famine not only on death-rates but on death-causes, and it will be seen that neither class of ratios has fallen to the previous year's averages, except cholera, which we showed in our remarks on last year's Madras Report to be connected with other causes besides scarcity. The table shows the progress for four years of a great cholera epidemic, which still existed in 1878. The two groups of diseases included under the general heads of "fevers" and "bowel complaints" which were shown in last year's Report, the former to be indirectly, the latter directly, the result of famine, still continued in 1878 to yield excessive death-rates, showing apparently the continued influence of deficient food in lowering the vital stamina of the people and inducing chronic diseased condition of the digestive organs. Practically, therefore, in discussing the statistics of 1878 these must be considered in their relation to the famine of 1876–77, but another year's returns at least will be necessary before an adequate conception can be formed of the results of this great calamity as a whole to the public health.

9. In the meantime we must deal with the present year's facts.

Cholera.—Epidemic cholera, which had declined towards the close of the year 1877, passed onwards into 1878, and gave the following monthly deaths in the latter year :—

	Cholera Deaths.
January	4,439
February	1,985
March	2,981
April	2,726
May	4,160
June	5,368
July	8,343
August	7,525
September	5,432
October	1,659
November	983
December	1,566

There were 25,463 cholera deaths among males, and 21,704 among females, in all 47,167, equal to a death-rate of 1·6 per 1,000, or just double the average of five years preceding the famine years.

Deaths were registered from cholera in all the districts, and in 211 registration circles out of 227, showing general prevalence of the disease, but, as in other epidemics, only a minority of the population groups was attacked, for out of 47,325 villages 5,218, or about 11 per cent., reported cholera deaths during the year. Cholera prevailed chiefly in Ganjam, Visagapatam, Godaveri, and Kistna, in the towns and districts of which about a fifth part of the population of the province yielded above 62 per cent. of the cholera deaths.

10. The Sanitary Commissioner has given the cholera statistics of all the districts in detail, but a few practical points only appear to call for remark.

The town of Guntoor escaped the epidemic altogether, although surrounded by it. The population is 17,984, and it may be suggested that this is one of the cases which might be inquired into, and the results of a sanitary examination of it compared with those obtained for the town of Masulipatam, cited by Mr. Cornish, in which 252 deaths were reported out of a population of 36,015. It is scarcely unusual for a large population to escape that possibly some light on the epidemic history might be obtained by a comparison between the topographical position, subsoil, water-supply, and general sanitary state of the towns.

In Bellary district the most severely affected taluq was Hospet, into which it was supposed cholera had been introduced by pilgrims at Humphi festival, whence the epidemic spread over the district. The evidence is as follows :—"The Deputy Collector, in reporting the "occurrence, distinctly states that cholera appeared yesterday in epidemic "form in the town of Hospet, amongst those who had returned from the "Humphi festival, in which place I hear two cases have occurred." The principal day of the festival was on 17th April, and 30,000 strangers were assembled at Humphi. The hospital assistant on duty says that "until 19th April the place was healthy. On the 20th, when most of "the pilgrims and bandirs had left the station, cholera made its appear-"ance. A Mahomedan bazaar-man, who had been to the feast at "Narraickary, whence he came direct to Humphi, was the first attacked. "Within four days seven deaths were recorded from cholera at Humphi." It can scarcely be said that the facts prove that Humphi festival was the cause of the outbreak, and there are no reliable facts to show what was the course of cholera, before or after the festival, for there is a discrepancy of a whole month, in a number of the Bellary taluqs, between the dates of attack on the map and those given in the printed table

attached to the map. According to the former the epidemic was in Bellary district before the Humphi fair, and according to the latter in the subsequent month. If proof had been decisive evidence of cholera having broken out at the festival, there might have suggested the propriety of instituting a searching inquiry into the sanitary arrangements which had led to such a result.

There were nine deaths from cholera in the bazaar at Ootacamund, and Mr. Cornish, who was then at the time, states that the affected people "were living in the lowest part, where the drainage was defective and "insanitary conditions abounding."

11. *Cholera among British troops.*—As we have dealt with this subject on other papers, it will only be necessary to state, as part of the year's history, that out of a total strength of 10,366, there were 43 cases and 28 deaths from cholera, mostly in July, August, and September, and that 18 of the cases and 12 deaths took place among 2,471 men at Secunderabad.

12. *Native troops,* with a strength of 25,496, yielded 106 cholera attacks and 53 deaths, chiefly in May, July, September, and October.

13. The *jail population,* numbering 21,364, had 262 cholera admissions and 110 deaths, most at the earlier months of the year, including July.

The ratios of attacks and deaths among all classes of the population in 1878 were as follows :—

	Cholera Ratios per 1,000.	
	Attacks.	Deaths.
British troops	4·08	2·6
Native "	4·1	2·3
Jails	12·2	5·1
Civil population	—	1·6

At first sight the results for the Armies are not satisfactory, but it must be borne in mind that there is cholera among the civil population was the falling wave of an epidemic which, during 1877, cut off 12·2 per 1,000, and it is probable that the death-rate among troops and prisoners was due mainly to locality rather than to merely epidemic causes. Mr. Cornish states that "in all cases the jail population kept free of cholera "until the epidemic had appeared in the neighbouring towns," and when this condition was established it would appear from the facts about individual jails that agglomeration of prisoners within a limited area and insanitary conditions were paralizing causes of the disease.

14. The following experience of Kurnool jail is, of course, not new as to fact, but it affords a good example for guidance. There were 721 prisoners in the jail, who yielded in all 37 attacks and 17 deaths from cholera. Cholera broke out in the town of Kurnool on 2nd June, and continued until 7th November, and during this period 351 persons died out of a population of 25,441, or a death-rate of 13·8 per 1,000. The jail, which is situated in the town, yielded a death-rate of 23·5 per 1,000. It was attacked on 1st June, simultaneously with the town. Both were included in the same epidemic stroke. Up to 19th June, the jail had yielded 19 cases. "All hygienic precautions to cope with epidemic "within the jail area proving useless, the prisoners were marched to a "camp, on a hill 450 feet high 3½ miles from the town. Two cases "took place on the transit, and two on the night of arrival, and the "disease at once ceased."

The jail was fumigated, whitewashed, and new floored, and was reoccupied by the prisoners after an absence of three weeks. But five days

British troops.—The mean strength of European troops in 1878 was 10,528. The deaths were 233, or 22·1 per 1,000, the highest death-rate since 1869, in which year it was 23·2 per 1,000. The admission-rate in 1878 was 1,379·7, the constantly sick 65·8, and the invaliding 45·7 per 1,000; all above the usual averages. Of disease causes, fevers gave 3,720 admissions and 26 deaths, the precise nature of which cannot be stated on account of discussions still in progress as to the real nature of these Madras fevers.

Cholera gave rise to 43 cases and 28 deaths, chiefly at Secunderabad and Kamptee. Apoplexy and sunstroke diseases, directly or indirectly connected with intemperance, caused 28 deaths, against an average of 11 deaths during the last 10 years, and the rum ration still exists.

Venereal diseases occasioned 2,562 admissions to hospital,—the largest number recorded. The admission-rates per 1,000 were as follows:—

Primary syphilis - - -	111·32
Secondary ditto - - -	20·64
Gonorrhœal diseases - -	115·18
All classes - -	247·14

Mr. Cornish attributes this result "to complete disarrangement of "family life in the lower classes of Natives caused by the famine." If this view be correct, we may look for a considerable reduction in the venereal admissions rates, since the famine has passed away. Time will show.

21. *Native troops.*—The strength of the Native troops on 1st January 1878 was 30,210, and at the end of the year 30,509. The hospital admissions were 20,239, and the deaths in and out of hospital given in the weekly medical returns were 340, exclusive of 72 deaths on furlough and sick leave.

The ratio per 1,000 were:—

Admissions - - - -	793·2
Daily sick - - - -	29·7
Death in and out of hospital -	13·3
Invaliding - - - -	52·6

The admissions and daily sick-rates were higher than in some preceding years, but the death-rate did not much exceed the average, although it was higher than in several recorded years. The deaths, with very few exceptions, were due to fevers, cholera, and bowel diseases (dysentery and diarrhœa).

22. The statistical accounts of both Armies are followed by the usual notes on sanitary condition of the stations, cantonments, bazaars, &c. These are 38 in number, and none of them is given with sufficient detail to call for a remark. Generally they show that improvement has been making progress, but in some of them greater attention appears to be called for in drainage, water-supply, conservancy among the Native population, and similar matters.

The only recommendation we can make is one which has probably been already carried out by the Sanitary Commissioner himself, viz., that, when any defect mentioned in the notes appears to him from his local knowledge to require remedy, the attention of the authorities should forthwith be called to it. So far, indeed, as can be learned from these notes, properly directed local labour, without increase of cost, would remedy most of the alleged defects. As regards one station, Secunderabad, at which the troops have suffered from cholera and enteric fever, no sufficient account of its sanitary condition is given in the statement abstract. It is, however, stated that the drainage requires improvement, that there are patches of wet cultivation and small tanks which become marshes in wet weather, that the water-supply is "pronounced indifferent by

"analysis," in other words that it is not wholesome; and then follows a statement which is sufficient to justify the repetition of a recommendation we have frequently made for submitting this entire station to an exhaustive sanitary survey. It is this:—"With the exception of the "prevalence of cholera and fevers the general health of the whole may "be said to have been fair." The death-rate among British troops at this station in 1878 was 25 per 1,000, one half of which was due to cholera, enteric fever, dysentery, and diarrhœa.

23. *Jails.*—The sanitary history of Madras jails affords points of great interest in relation to the famine of 1877. In former years the death-rates were very high. In 1866 and the three preceding years the average death-rate among prisoners was nearly 11½ per cent. Then followed a period of advancing sanitary improvement, and for the subsequent nine years the death-rate averaged 32·2 per 1,000. The first impress of the famine was felt in 1876, and the prison death-rate rose to 42·4 per 1,000. The famine year 1877 filled the prisons to overcrowding with a miserable starved population, many of whom committed offences for the purpose of being fed in prison after the famine had done its work on them. The death-rate in the famine year rose to 175·4 per 1,000, but in years preceding sanitary work in prisons the rate had exceeded 12½ per cent. In the year 1878 the people still suffered from the effects of scarcity, and the mortality was 125·4 per 1,000, nearly the same as it was in 1865–66. Towards the end of 1878 the mortality had, however, fallen to one half what it was in January, so that it is to be hoped the results of food scarcity will by this time have disappeared from the jail statistics. It may be interesting to place side by side the jail death-rates from cholera, dysentery, and diarrhœa for the same periods:—

Years.	Average Ratio per 1,000.		
	Cholera.	Dysentery.	Diarrhœa.
1863—66 - -	23·1	15·4	26·4
1867—75 - -	1·4	5·4	6·2
1876 - -	10·0	7·7	5·3
1877 - - -	25·7	32·1	50·1
1878 - -	5·1	15·0	28·2

On looking at these figures, and at the same time making allowance for sanitary improvements in jails, it almost appears as if the lower death-rates, 1867 to 1875, were due to improved dietary, which ceased to act when the prisoners committed in 1876 and 1877 were already suffering from starvation, and the great reduction in these death causes in 1878 appears to foreshadow a return to low death-rates when the famine and its consequences are past.

The fever mortality in jails was as follows:—

	Total Deaths.
Enteric fever - - -	10
Continued fever - -	11
Intermittent - - -	101
Remittent - - -	17
	149

or about 7 per 1,000. The result, according to the Sanitary Commissioner, showing that, like the civil population, the prisoners suffered from the markedly malarious and unhealthy character of the year 1878.

The disease causes of the famine year 1877 were still acting, although in a markedly less degree, among both classes. In both years the same

fact was observed, that the death-rates differed enormously in different jails. The extremes in 1877 were 7·5 at Guntoor and 647·2 per 1,000 in Coimbatore district jail. The lowest death-rate, 7·1 per 1,000 in 1878, was returned from Masulipatam, and the highest, 384·4 per 1,000, was again returned from Coimbatore district jail. There appears to be something radically wrong about this jail, for during the seven years preceding the famine it returned a death-rate of 65·8 per 1,000, the highest rate, with a single exception (Tanjore, 76·9 per 1,000), of all the Madras jails.

24. *Municipalities.*—There were 49 municipal towns on the list during the year; one was removed from the list, and another was added. These towns have an aggregate population of 1,620,480 on the census of 1871. Their birth-rate was 25·3 per 1,000, while the death-rate was 38·5 per 1,000. In the famine year the birth-rate was 27·2, and the death-rate 69·1 per 1,000.

The total available income of these towns was 175,536*l.*, of which 70,535*l.*, or 40·1 per cent., was spent on sanitary improvements, or about 10½*d.* per head of the population.

A new form of sanitary report was adopted for these municipal towns during the year, and some further information about their sanitary defects is given. These appear to be very much of the same character everywhere. Cesspits appear to be in general use, and whenever this is the case there is no security for pure water being supplied from any well within a house compound. In some towns river water is used, and in others wells or tanks are the sources of supply.

Drainage is chiefly confined to the surface, and no house drains appear to have been introduced.

The principal work carried out has been cleansing, and this in the present state of the funds is one of the most important. In several towns cleansing appears to be on the whole well carried out. At one town, Tinnevelly, the proceedings are described in the following words:—"The streets and lanes are swept and cleared twice a day, and the "sweepings and rubbish are burnt in a cinerator. The ashes are mixed "with the night-soil and buried in pits outside the town, and sold by "public auction as manure to the people, who know the value of the "compost. At a sale at which the Sanitary Commissioner was present "during his tour of inspection, a pit containing 150 bandy-loads of six "months' manure was sold for Rs. 180." This example may be of use elsewhere. Some good work was, besides, accomplished in other directions, and there were no epidemics in this town, the population of which is alone 21,000.

In many of these municipal towns the residue of effects of famine were present during the year, and added to the death-rates. In all of them sanitary measures are more or less carried out, but the subject is evidently new. The great point is that municipal authorities exist, and that they are learning the importance to local interests of protecting the public health.

25. *Local Fund Circles.*—These are rural circles, and include small towns and villages. There are 34 such circles in the Presidency, among which forms of report similar to those adopted for municipal towns were introduced during the year, but 26 only sent in reports.

The population of the 34 circles is given in the tables at 28,745,279, being in fact that of the rural districts of the Presidency. They are very poor, as may be estimated from the fact that their total available revenue, one third of the land cess, is only 131,148*l.*, and of this 30,506*l.*, or 23·2 per cent., is devoted to sanitary work. Not much can be done with such a sum among so great a population, but even this only shows the average of sanitary expenditure. One circle, Tellicherry, only spends 1·8 per cent. of its income for the protection of its health, while Negapatam Circle spends 98·2 per cent.

The reports from the circles are much of the same character as those

676/14 1 2 676/14

for the municipal towns. The chief measures in use have been cleansing, improving the water sources, and simple surface drainage, in small towns and in a certain small proportion of the villages. The result of them is rather to show how much requires to be done.

26. Perhaps the most important statement in the Local Fund Circle reports, as coming from a Native gentleman, is that supplied for Saidapet Circle, by the Vice-President, Mr. Ruthnavallee Chetty, the Assistant Collector, because it gives a Native estimate of the extent of the evils to be dealt with, the difficulties to be encountered, and also the legislative remedies required. He says:—"The sanitary condition of "the circle is decidedly not good. Dirt reigns supreme in the villages. "Efforts have been made and are being extended to keep the larger "towns clean by means of a regular conservancy establishment. The "result has been that in some places a good deal of filth, which would "otherwise have been allowed to fester and breed foul odours, and very "probably disease, has been safely disposed of. Want of funds, "amounting to actual insolvency, has, however, prevented an extension "of this good work, and of the equally important one of digging draw-"wells, the water of which cannot be polluted. More might be done if "there was any public spirit or appreciation of even the rudiments of "sanitation amongst the people themselves; but there is none, and the "system which hangs round the neck of revenue officials, hereditary "village headships, involving the appointment and retention of what are, "*de facto*, collectors and magistrates of villages—persons who are as "careless as they are frequently incompetent, is a fatal bar to any pro-"gress. Written orders are mere waste paper, and the revenue officers "have so much other work to attend to now-a-days, that there is no "time to go about in the smaller villages, prosecuting with doubtful "legality the owners of offending middens;" and his proposed remedy is "some kind of minor Municipal Act shorn of its lighting, police, toll "bars, Commissioners, office establishments, and other like expensive "appendages, a law, in fact, which will allow of the raising in any "village, say of 1,500 or 2,000 inhabitants, of a tax the proceeds of "which can be devoted to keeping the place clean, digging wells for the "public use, &c. What now goes to sanitation from local funds—I "mean by this conservancy establishments, and such like—ought, in my "opinion, to go to hospitals, dispensaries, &c., which are for the general "good, actual cleansing work being made more a matter of localized "taxation than it is."

27. Somewhat similar proposals to these have been made in reports from other parts of India. Their substance is simply this. Every inhabitant of an Indian village should keep his house and surroundings in a healthy state, or he should contribute towards the cost of having it done for him. The principle is a perfectly sound one, for it cannot be supposed that the cleaning work of every household all over India should be paid for out of the general revenues of the country, while the benefit of village property, which would unquestionably be the result of real sanitary work, should at the same time be reaped by the present proprietor without outlay.

We should go beyond our proper function if we said more on the subject, but when a Native officer has expressed himself in this way, we have thought it right to call attention to his statement, and also to the general principles on which village and small town improvements can be carried out at the least cost, as proposed in our suggestions on the subject, printed in Volume XI. of the Indian Sanitary Reports.

28. Before leaving this subject it appears to be necessary to notice certain remarks of the Sanitary Commissioner, which are directly connected with village sanitary work, dealt with in these "suggestions." He says:—"In village sanitation there are two things which might to a "great extent be managed under the direction of the village officials, but

"which in practice are found to be exceedingly difficult to carry into "execution with effect. Every village ought to have (1) clean water "for domestic purposes, and (2) arrangements for the removal of human "and animal excrementitious matters. In the matter of water-supply "a great deal has been done from time to time, but it does not seem "practicable to teach the present generation the consequences of fouling "their wells."

This is connected with the use of open dipping wells and tanks.

"And again, in regard to village conservancy, the habits of the people "are very difficult to alter. The Army Sanitary Commission seem to "think that it is a very simple matter to get the people to keep their "cattle outside their houses. We have not found it so simple in this "part of India; village communities originally clustered their houses "together for mutual protection from robbers and wild beasts, and, until "the ryots can be induced to built their homesteads on their lands, I am "afraid that the village home must also be the home of the cattle. . . .

"After many years of close and practical acquaintance with village "life in India, I am entirely in accord with His Excellency the Viceroy "in Council, 'that the Government must be content to advance slowly "'in the path of rural sanitary reform,' and I would further add that "too much must not be expected of the present generation, whose "hereditary ignorance and prejudices are not to be changed by any rules "or regulations we may draw up for their guidance."

29. The opinion of the Government of India implies slow advance, but still an advance. Does the view of the Sanitary Commissioner go as far? Does it not rather lead to the conclusion that at present village sanitary improvement is all but hopeless? and hence follows the question, that as the real sanitary work in India is village work, is the existing sanitary organization of any real use to the country? We put these questions because they are suggested not only by Mr. Cornish's view, but also by similar views we have had to deal with on other papers.

The whole subject was considered by the Royal Commission on the Sanitary State of the Indian Army, and they proposed Executive Commissions to deal with all Indian sanitary questions, and not merely reporting Commissioners.

Without in the slightest degree undervaluing the reporting work which has been done, may not the question be fairly asked whether it has been followed by corresponding practical action? Mr. Cornish appears to consider that it has not, and that trusting solely to the people for the adoption of advice given them has been to a great extent a failure.

If we are to be guided by experience, it may be safely affirmed that whatever advance has taken place in sanitary improvement in England within the last 40 years has, in the first instance at least, been accomplished in the teeth not only of apathy, ignorance, and prejudice, but of resistance to change of habits, and to expenditure of money. An unhealthy house in an English town is not only a menace to its neighbours, but its proprietor in former times would have made no scruple of using his private interest against the public good. And so in India; an unhealthy village liable to be attacked by cholera is a menace to all its neighbours, whatever its own interest may be, and both house and village require to be dealt with on public as well as private grounds, whatever amount of apathy, prejudice, and private interest may be in the way. Similar difficulties must be encountered and overcome in improving the public health everywhere. Every sanitary improver knows this, and in his work takes it into account, but he goes on with his work notwithstanding.

30. Mr. Cornish's statement that the villagers might be supplied with pure water, and the villages kept clean by the village officials, if these officers would help in the work, comprehends the whole of the case to be dealt with. The Assistant Collector of Saidapet Circle has, as a

626/15

Native officer, stated how in his opinion the work might be forwarded. Surely it is worth while to try to do it in some such way. We have been very glad to find it stated on other papers that village proprietors have in some instances done their duty in this matter with success, not only in improving the health of the people, but in amending their habits.

31. If some general Act were passed, such as the one proposed by the Assistant Collector, to be applied locally from time to time, a beginning could be made with a single Circle, and in this way the great work of freeing the working population of India from epidemics would be initiated.

It is evident that for any such purposes the present reporting work has not been successful, as was clearly foreseen by the Indian Army Sanitary Commission. Mr. Cornish himself is fully alive to the importance of these questions, and, as we have freely stated the defects of the present sanitary system in Madras Presidency, we cannot enforce our views more strongly than by citing what he himself says on the subject in his "Personal Proceedings." "I may here express my conviction," he says, "that the village communal system which obtains in Southern "India, and on which the proper administration of the country mainly "depends, is not so perfect in practice as it may appear on paper, and "that efficient sanitary administration of the rural districts, the duties "and emoluments of the inferior village servants, at least, require "revision. At present it seems to be nobody's business to see to the "cleanliness of a village, yet nothing could be more simple, under a "communal system, than to fix the duties and responsibilities of such "sanitary service as may be needful for the health and comfort of the "village populations. Every village has in theory one or more sweepers, "whose public duties ought to be those of scavengers for the community, "but who do not perform their assigned duties, and it seems only right "that some inquiry should be made in regard to the emolument and "position of such servants, and why the original uses of such servants "have been lost sight of."

32. It would appear from this statement that a cleansing staff already exists, the duties of which require to be organized on a proper footing, and extended to the cleansing of cattle sheds in houses. Our proposal for the removal of cattle from houses is in reality a proposal for rendering the cleansing of cattle stalls about houses unnecessary. Another method of dealing with the difficulty is suggested by the Collector of Tinnevelly, namely, to encourage the ryots to build homesteads on their lands instead of concentrating their cattle at night in the villages. This would be a better way of dealing with the matter apparently than housing the cattle on the lands, which Mr. Cornish informs us cannot be safely and generally adopted on account of wild beasts and thieves. In the meantime it is evident that any organization for the cleansing and removal of village sewage must include cleansing of cattle accommodation and the removal of manure to a safe listance.

In so far as regards the village water-supply, there is nothing in the present Report to show that the proposals we have made on this subject in our suggestions already referred to would not meet the requirements of nearly all the cases.

33. On the general subject we have much satisfaction in quoting the following paragraph from Mr. Cornish's "Personal Proceedings," in the hope that it points to commencing improvement in villages:—"As a "practical contribution towards the question of village sanitation, it may "be mentioned that the entire staff of Deputy Inspectors of Vaccination, 38 in number, are now required to report in regard to each "village they visit; first, the number of births and deaths registered "during the previous month; second, the condition of the water-supply; "third, the condition as to cleanliness, drainage, &c.; and, fourth, the

" prevailing diseases, if any. The returns are made out in tabular form " for each month, and a copy is sent direct to the President of the Local " Fund Circle for such action as he may deem necessary;" and here is a first result of these inspections.

" So far as we have gone the complaints are almost universal as to " the uncleanly condition in which villages are kept, and especially to " the accumulation of manure heaps in the streets or back-yards, and the " defilement of the waste lands around village sites by human excre- " ment."

This is just what might have been expected, and it may with safety be affirmed that whenever such a condition of village sites is formed the water-supply can scarcely be safe for use. We wish every success to this new advance in sanitary work, which is, indeed, of our own proposal, but all depends of what comes of it, that is, the practical use which is made of the facts by the executive authority.

The value of reporting *per se* is well enough known by this date, and it seems doubtful whether any more of it is worth the trouble unless it leads to real work.

34. It will be seen that much of the present year's Madras Report is devoted to gathering up the remains of the famine history of 1877, and to the sanitary statistics of the year. Not much of it deals with real executive work, for little work of this class appears to have been done, and not much of what has been done has apparently been brought to the knowledge of the Sanitary Commissioner. But nevertheless this Report has a special interest, for just as last year's Report brought out the whole famine history of 1877, so does the present Report raise in a very practical manner the entire question of village sanitation. We now know more precisely what the defects are, and we are now informed that authorities exist quite competent to deal with all the really important sanitary questions in villages, provided only that these authorities are better organized, and required to discharge their duties.

It is here that the work of improving these villages passes, as it were, from the Sanitary Commissioner to the Government, and the real practical question which requires to be answered is whether sanitary improvement is to be commenced with the machinery which already exists, and which, so far as anything appears to the contrary, can be rendered sufficient for the purpose, or whether we are to wait until, in the progress of future generations, the undivilized habits of centuries shall have been eliminated,—whether, in short, we are to cross the river as it is, or wait till it runs past.

So far as we are concerned, we have placed in our suggestions the cheapest and simplest necessary sanitary measures for meeting the cases revealed in the Indian reports. And we would now add that no fact has appeared in any Indian report to justify the view that progress in their application cannot at once be entered on.

This is the function of the executive and local officers of villages, and improved village administration, if begun, would come under the Sanitay Commissioner and his reporting officers, who ought to be able to tell us year by year, not only the number of children born and of losses by deaths, but also the nature and amount of real improvement in the health and habits of the people, which had taken place during the year.

26th April 1880.

2-4-74

Govt. of 1881 Madras.

Bryaffairs

Jail

DISPOSED OF

21 APL 81

BY G. O. No. 676

17

G.O. 188 , No.

~~Nos.~~

Jumul - Sanitary &c

tracts from letters received from Mr Price, Collector of Chingleput, containing suggestions for a modified Jumut law to be applied to large villages and small towns, referred to the Wd. of Revr. for opinion.

Archives I - 10,006—16-8 77.

(1) Number of pages 34

26. (2) Date of repair 5-3-87

(3) Initials of the Referencer [illegible]

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

FINANCIAL. DEPARTMENT

G.O. No. 676. Press.
~~B.P. No.~~ Mis.

Dated 21-4-1881 ~~197~~.

17/18

Com

Not to be folded or roughly handled

17

676
1

GOVERNMENT OF MADRAS.

FINANCIAL DEPARTMENT.

21st April 1881, No. 676.

Municipal—Sanitary.

Read again—

G.O., dated 23rd February 1881, *No.* 246, *Public.*

ORDER THEREON, 21st April 1881, No. 676.

The Right Honorable the Governor in Council resolves to refer to the Board of Revenue for opinion the annexed extracts from letters received from Mr. Price, Collector of Chingleput, containing suggestions for a modified Municipal Law to be applied to large villages and small towns.

---

(1) *Extract from Mr. Price's letter regarding the Sanitary Condition of the Saidápet Circle quoted at paragraph* 501 *of the Sanitary Commissioner's Report for* 1878.

"The sanitary condition of the circle is decidedly not good. Dirt reigns supreme in the villages. Efforts have been made, and are being extended, to keep the larger towns clean by means of a regular Conservancy Establishment. The result has been that in some places a good deal of filth, which would otherwise have been allowed to fester and breed foul odours, and very probably disease, has been safely disposed of. Want of funds, amounting to actual insolvency, has, however, prevented an extension of this good work, and of the equally important one of digging draw-wells, the water of which cannot be polluted. More might be done if there was any public spirit or appreciation of even the rudiments of sanitation amongst the people themselves; but there is none, and the system which hangs around the neck of revenue officials, hereditary village headships, involving the appointment and retention of what are *de facto* Collectors and Magistrates of villages,—persons who are as careless as they are frequently incompetent,—is a fatal bar to any progress. Written orders are mere waste paper, and the revenue officers have so much other work to attend to now-a-days that there is no time to go about in the smaller villages prosecuting with doubtful legality the owners of offending "middens." What is wanted is some kind of minor Municipal Act shorn of its Lighting, Police, Toll-bars, Commissioners, Office Establishments, and other like expensive appendages,—a law, in fact, which will allow of the raising in any village, say, of 1500 or 2000 inhabitants, of a tax the proceeds of which can be devoted to keeping the place clean, digging wells for the public use, &c. What now goes to sanitation from Local Funds,—I mean by this conservancy establishments and such like,—ought, in my opinion, to go to hospitals, dispensaries, &c., which are for the general good, actual cleansing work being made more a matter of localised taxation than it is."

(2) *Extract from Mr. Price's letter to the Secretary to the Board of Revenue, dated* 19*th October* 1880, *No.* 95 (*paragraph* 10).

"I have for a considerable period been impressed with the opinion, which I find, from personal communication, to be shared by Surgeon-General Cornish, that what is required in this Presidency with regard to towns and villages which are too small to warrant their being, with any chance of financial success, constituted Municipalities, is a sort of minor Municipal Act, the chief object of which should be the levy of a rate upon the houses contained within such areas for the purpose of sanitation, improving streets, &c.

Lighting, Municipal Schools, Police, and a Commission are not, in my opinion, wanted. If one has a Municipality, these and many other kindred wants, or rather supposed wants, have to be provided for. I may not be sufficiently advanced for the age, but I fail to see the necessity for lamps all over a place where the people go to bed by 8 o'clock, for schools to be paid for out

of taxes from a limited area when they are used by the general population, for Police to be paid for in the same way when they are employed for work fairly chargeable upon the whole taluk, or for costly establishments to realise taxes which are pretty nearly eaten up in paying for their collection. What is desirable is that where there is any considerable congeries of people who do not contribute much to the Local Funds of the Circle, those funds should be relieved by some means or the other from the charges of keeping the place where these assemblies are in a proper sanitary condition; and this, I submit, can be best brought about by the means which I suggest, and which, I believe, would be found perfectly effective, and a simpler way of dealing with the question than forcing upon the people of the country a European institution which, after lingering out a brief and unsatisfactory existence, must eventually succumb to insolvency and disappear, leaving the last state of things in the area concerned worse than the first."

(True Extract.)

R. DAVIDSON,
Chief Secretary.

To the Board of Revenue.

Exd F. R. Bantleman.

676/2

Govt. of {1881} Madras.

FINANCIAL.

To

THE BOARD OF REVENUE.

Dated April, 21*st*.

Issued

Recd. *Encl.*

G.O., 21*st April* 1881, *No.* 676.

APRIL.

Municipal—Sanitary. — Extracts from letters received from Mr. Price, Collector of Chingleput, containing suggestions for a modified Municipal Law to be applied to large villages and small towns, referred to the Board of Revenue for opinion.

[Office-paper Form.]

FINANCIAL DEPARTMENT.

626/3

Papers in hand down to date:—

No. 1 of

Note by the Private Secy. to Govr. Pendleton to report thereon

No. 2 of

DRAFT ORDER.

~~NOTE FOR ORDERS.~~

9th April 1881

No. 676

The Right Honble the Governor in Council refers to report to the Board of Revenue for opinion the annexed extracts from letters received from Mr. Price Collector of Chingleput containing suggestions for a modified Municipal Law to be applied to large villages and small towns. Copy

Encl. Jr. 3. 81

Appendix

~~Appendix A~~

(1) Extract from Mr Price's letter regarding the sanitary condition of the Laidapet Circle quoted at para 501 of the Sanitary Commissioners report for 1878:—

"The sanitary condition of the Circle is decidedly not good. Dirt reigns supreme in the villages. Efforts have been made and are being extended to keep the larger towns clean by means of a regular conservancy establishment. The result has been that in some places a good deal of filth which would otherwise have been allowed to fester ——

and

626/4 2P

and breed foul odours, and very probably disease, has been safely disposed of. Want of funds, amounting to actual insolvency, has, however, prevented an extension of this good work, and of the equally important one of digging drain wells, the water of which cannot be polluted. More might be done if there was any public spirit or appreciation of even the rudiments of sanitation amongst the people themselves; but there is none, and the

Pgs 6 & 7

system which hangs
around the neck of
revenue officials, here-
ditary village head-
ships, involving the
appointment and reten-
tion of whatever, de
facto, Collectors and
Magistrates of villages -
persons who are ex
careless as they are
frequently incompetent,
is a fatal bar to any
progress. Written orders
are mere waste paper,
and the revenue officers
have so much other work
to attend to now-a-days,
that there is no time

to

670/5 30

to go about in the
smaller villages, prosecuting
with doubtful legality
the owners of offending
"middens". What is
wanted is some kind
of minor Municipal Act
for some of the lighting, police,
toll-bars, Commissioners,
office establishments,
and other like expensive
appendages, a law, in
fact, which will allow
of the raising in any
village, say of 1,500
or 2,000 inhabitants,
a tax the proceeds
of which can be devoted
to keeping the place

clean

clean, digging wells
for the public use &c.
what now goes to assist
him from local funds
– I mean by this conse
vancy establishments,
and such like – ought,
in my opinion, to go to
hospitals, dispensaries &c.,
which are for the general
good, actual cleansing
work being made more
a matter of localized
taxation than it is."

(2) Extract from Mr. Price's letter to the Secretary to the B.P. of Health dated 19 Oct 1850 ch. 9 (para 10)

"I have for a consider
-able period been im-
pressed with the opinion,
which I find, from personal
communication, to be
shared

626/6 45

shared by Surgeon Gen.
Cornish, that what is
required in this Presi-
dency with regard to
towns & villages which
are too small to warrant
their being, with any
chance of financial
success, constituted
Municipalities, is a
sort of minor Munici-
pal Act, the chief
object of which should
be the levy of a rate
upon the houses contain-
ed within such areas
for the purpose of
sanitation, improving
streets

streets &c.

Lighting, Municipal schools, Police, and a Commission are not, in my opinion, wanted. If one has a Municipality, these and many other kindred wants, or rather supposed wants, have to be provided for. I may not be sufficiently advanced for the age, but I fail to see the necessity for lamps all over a place where the people go to bed by 8 o'clock, for schools to be paid for out of taxes from a limited

area

area when they are used by the general population, for Police to be paid for in the same way when they are employed for work fairly chargeable upon the whole taluq, or for costly Establishments to realize taxes which are pretty nearly eaten up in paying for their collection. What is desirable is that where there is any considerable conjeries of people who do not contribute

much

much to the Local
Funds of the Circle,
those funds should
be relieved by some
means or the other from
the charges of keeping
the place where these
assemblies are in a
proper sanitary condi-
tion and this, I submit,
can be best brought
about by the means
which I suggest, and
which I believe would
be found perfectly
effective, and a
simpler way of dealing
with

5716/8/68

with the question
than forcing upon the
people of the country
an European institu-
tion which, after
lingering on a brief
and unsatisfactory
existence, must eventual
ly succumb to inani-
tion and disappear,
leaving the last state
of things in the areas
concerned worse than
the first."

I am
Sir
Your ob.
81.3.81

Board of Revenue
~~all collectors~~

Desp 3/5

1
31.3.81

Financial Department.

Sanitary improvement of villages

Under Disposal Docket.

Papers to be read in Proceedings:—

Ajmi P.O. of 23 Feb. 1881. no. 246 Public.

M 12/4/81 R 21/4/81

Madras 117 No 182 Miscl 1881

676/9

Memorandum of the Army Sanitary Commission on the Report of the Sanitary Commissioner for Madras for 1878.

Mr. Cornish's Report for 1878 is almost of necessity a continuation, in part, of his Report on the famine of preceding years, the effects of which on the public health and population of the Presidency he has endeavoured to trace to their ultimate results.

He has clearly shown that famine diminishes population not only by increased mortality, but by reduction in the birth-rate, and the only remaining questions in regard to the results of the late famine are those connected with the estimates of actual loss.

These are to a great extent arrived at by calculation, but there is one fact regarding Salem district showing the actual numbers missing from among the people (out of the population of 1871, which was 1,966,995), and of this number, without apparently making any allowance f natural increase, there had disappeared up to March 1878 no fewer tha 407,099 persons.

2. The total population in districts more or less subject to famine o the census of 1871 is given at 17,259,290, and of this number the calculated losses, including the fact about Salem, amounted to 2,400,567, exclusive of augmented numbers which on an average increase of one per cent. per annum would necessitate an addition to the losses of 862,960. The actual and calculated loss from all famine incidents, including epidemics, would thus on Mr. Cornish's data exceed 3¼ millions, or above 18 per cent. of the district population. The facts are very startling, but, as already stated, most of them are calculated.

There is, however, the actual registration, which shows that "in the "two years 1877–78, moreover, we actually registered 1,318,673 more "deaths and 444,780 fewer births than the mean of two years' previous "registration, and these figures alone show a decrease of population in "two years of 1,763,453 in the Madras Presidency."

There can be no doubt about the deaths registered, and leaving aside the diminished birth-rate, the minimum possible mortality up to the latest date in the Report from famine and its accompanying epidemics of cholera, fevers, bowel complaints, small-pox, &c., must be set down at 1,318,673 deaths.

3. But the actual diminution of the population will not be known until after the census of 1881. In the meantime many deaths will have been registered properly due to famine after the scarcity had altogether disappeared. No considerations besides the mere recital of the facts as Mr. Cornish has given them are required to enforce the necessity for dealing administratively with the whole question of famines before, and not after, the calamity has actually overtaken the people, and towards this end he has collected some important information shewing the relation between the actual food prices and the death-rates. These have been transferred to diagrams in the Report, and their general result is thus stated:—

"A considerable variation in prices of food within limits may occur "without the public health or the mortality tables showing any evidence "of pressure on the por. It is a point of some practical importance to "ascertain what those limits are. It would seem then, that with rice at "from 30 to 40 lbs. er rupee in ordinary years, there is no relation

"between the mortality and the lower and higher price; but when the "price rises from 1½ to 2 rupees for the 30 lbs., there is a distinct corre- "spondence between the mortality rates and advancing prices of food. "The commoner food staples of ragi, cholum, and cumboo in ordinary "years are sold at from 60 to 80 or 90 lbs. the rupee, but when the "prices of these grains rise so as to permit of the purchase of only from "30 to 40 lbs. per rupee, such a rate cannot long be maintained without "a corresponding rise in the mortality with all descriptions of food; the "diagrams show a close relation between the sudden rise of provisions "presaging a famine and sudden rise of mortality." It is further shown that when generally high prices rule, a slight increase of the price may under certain circumstances be followed by increased death-rates. "It "is," says Mr. Cornish, "now abundantly clear that the poorer members "of the population cannot obtain a sufficiency of food to maintain health "and life when a rupee will only purchase from 15 to 20 lbs. of rice, or "double that quantity of common grains which form the main bulk of "the local consumption. *Market prices rising above these rates after "adverse seasons and diminished rainfall mean mischief to the people.*"

4. In fact, famine, as was shown in Mr. Cornish's previous Report, is a term including many factors, of which the central one is diminishing food supplies, and comparisons, such as those given in the present Report, go a long way towards the establishment of sound principles on the subject, and, as Mr. Cornish says, "as a whole place before the statist and political economist facts of the very highest importance."

5. During 1878 the food prices continued to fall, but up to the end of the year they were two or three times greater than they were three or four years previously; while the registered mortality in all the districts, with one exception, was higher in 1878 than it had been in the five years ending 1876, before the famine began.

The following abstract gives the totals for the whole Presidency:—

Famine Districts, 1877.

Population.	Deaths per 1,000.		
	5 Years ending 1876.	1877.	1878.
18,416,953 - -	19·1	67·	28·2

Non-Famine Districts.

10,710,252 - -	1·6	24·8	27·1

The food prices for the same years were as follows:—

Average for Madras Presidency. Imperial seers per rupee.

	Second Sort Rice.	Cholum.	Ragi.
5 years - -	13·4	27·3	25·9
1877 - - -	9·2	9·7	10·7
1878 - - -	9·2	14·9	11·3

The facts require no comment, except that they show how the consequences of scarcity may continue some time after "famine" has ceased, and that recovery from its results is by no means a rapid process either as regards the price of food or public health.

676/10

626/10

6. If the registered births can be taken as approximately accurate they will afford the following comparisons, showing that sterility is a more enduring consequence of famine than deaths is:—

	Births per 1,000.
1875 - - - -	21·1
1876 - - - -	21·6
1877 - - - -	16·3
1878 - - - -	11·9

There is no reason to question the facts registered; the point to be arrived at is, whether all the births were entered on the returns during the last two years?

On comparing the birth-rates in famine and non-famine districts before and since the famine year 1877, the registration gives the following results per 1,000:—

	Five Years ending 1876.	1878.
Famine districts -	20·0 -	8·8
Non-famine districts -	19·9 -	17·2

Were the registration ever approximately accurate these figures would be sufficient to justify Mr. Cornish in his view of the effects of famine on population, and its influence, not only in reducing population by premature death, but by causing sterility to the extent of adding about a third to the loss by deaths.

7. We shall next discuss the vital statistics for 1878. Excluding the losses of population due to the famine, the calculated population for 1878 is 29,127,205, and the registered deaths out of this number amounted to 810,921, or 27·8 per 1,000, against 1,556,312 during the previous famine year, a ratio of 53·2 per 1,000, showing a death-rate in 1878 of nearly one half the ratio of 1877.

8. The following were the total deaths registered from the chief causes for the group of years, including the famine, which began in the end of 1876:—

Years.	Cho	Small-pox.	Fevers.	Bowel Complaints.	Total Deaths.
1874 - -	:	48,343	226,220	37,993	516,848
1875 - -	94,	24,775	252,042	37,484	641,260
1876 - -	148,	23,469	230,092	38,176	680,384
1877 - -	357,	88,321	469,241	133,366	1,556,312
1878 - -	47,	56,360	374,443	48,083	810,921

This abstract shows, more fully than the facts stated above, the influence of famine not only on death-rates but on death-causes, and it will be seen that neither class of ratios has fallen to the previous year's averages, except cholera, which we showed in our remarks on last year's Madras Report to be connected with other causes besides scarcity. The table shows the progress for four years of a great cholera epidemic, which still existed in 1878. The two groups of diseases included under the general heads of "fevers" and "bowel complaints" which were shown in last year's Report, the former to be indirectly, the latter directly, the result of famine, still continued in 1878 to yield excessive death-rates, showing apparently the continued influence of deficient food in lowering the vital stamina of the people and inducing chronic diseased condition of the digestive organs. Practically, therefore, in discussing the statistics of 1878 these must be considered in their relation to the famine of 1876–77, but another year's returns at least will be necessary before an adequate conception can be formed of the results of this great calamity as a whole to the public health.

9. In the meantime we must deal with the present year's facts.

Cholera.—Epidemic cholera, which had declined towards the close of the year 1877, passed onwards into 1878, and gave the following monthly deaths in the latter year :—

	Cholera Deaths.
January	4,439
February	1,985
March	2,981
April	2,726
May	4,160
June	5,368
July	8,343
August	7,525
September	5,432
October	1,659
November	983
December	1,566

There were 25,463 cholera deaths among males, and 21,704 among females, in all 47,167, equal to a death-rate of 1·6 per 1,000, or just double the average of five years preceding the famine years.

Deaths were registered from cholera in all the districts, and in 211 registration circles out of 227, showing general prevalence of the disease, but, as in other epidemics, only a minority of the population groups was attacked, for out of 47,325 villages 5,218, or about 11 per cent., reported cholera deaths during the year. Cholera prevailed chiefly in Ganjam, Visagapatam, Godaveri, and Kistna, in the towns and districts of which about a fifth part of the population of the province yielded above 62 per cent. of the cholera deaths.

10. The Sanitary Commissioner has given the cholera statistics of all the districts in detail, but a few practical points only appear to call for remark.

The town of Guntoor escaped the epidemic altogether, although surrounded by it. The population is 17,984, and it may be suggested that this is one of the cases which might be inquired into, and the results of a sanitary examination of it compared with those obtained for the town of Masulipatam, cited by Mr. Cornish, in which 252 deaths were reported out of a population of 36,015. It is scarcely unusual for a large population to escape that possibly some light on the epidemic history might be obtained by a comparison between the topographical position, subsoil, water-supply, and general sanitary state of the towns.

In Bellary district the most severely affected taluq was Hospet, into which it was supposed cholera had been introduced by pilgrims at Humphi festival, whence the epidemic spread over the district. The evidence is as follows :—"The Deputy Collector, in reporting the "occurrence, distinctly states that cholera appeared yesterday in epidemic "form in the town of Hospet, amongst those who had returned from the "Humphi festival, in which place I hear two cases have occurred." The principal day of the festival was on 17th April, and 30,000 strangers were assembled at Humphi. The hospital assistant on duty says that "until 19th April the place was healthy. On the 20th, when most of "the pilgrims and bandirs had left the station, cholera made its appear-"ance. A Mahomedan bazaar-man, who had been to the feast at "Narraickary, whence he came direct to Humphi, was the first attacked. "Within four days seven deaths were recorded from cholera at Humphi." It can scarcely be said that the facts prove that Humphi festival was the cause of the outbreak, and there are no reliable facts to show what was the course of cholera, before or after the festival, for there is a discrepancy of a whole month, in a number of the Bellary taluqs, between the dates of attack on the map and those given in the printed table

attached to the map. According to the former the epidemic was in Bellary district before the Humphi fair, and according to the latter in the subsequent month. If proof had been decisive evidence of cholera having broken out at the festival, there might have suggested the propriety of instituting a searching inquiry into the sanitary arrangements which had led to such a result.

There were nine deaths from cholera in the bazaar at Ootacamund, and Mr. Cornish, who was then at the time, states that the affected people "were living in the lowest part, where the drainage was defective and "insanitary conditions abounding."

11. *Cholera among British troops.*—As we have dealt with this subject on other papers, it will only be necessary to state, as part of the year's history, that out of a total strength of 10,366, there were 43 cases and 28 deaths from cholera, mostly in July, August, and September, and that 18 of the cases and 12 deaths took place among 2,471 men at Secunderabad.

12. *Native troops,* with a strength of 25,496, yielded 106 cholera attacks and 53 deaths, chiefly in May, July, September, and October.

13. The *jail population,* numbering 21,364, had 262 cholera admissions and 110 deaths, most at the earlier months of the year, including July.

The ratios of attacks and deaths among all classes of the population in 1878 were as follows :—

	Cholera Ratios per 1,000.	
	Attacks.	Deaths.
British troops	4·08	2·6
Native "	4·1	2·3
Jails	12·2	5·1
Civil population	—	1·6

At first sight the results for the Armies are not satisfactory, but it must be borne in mind that there is cholera among the civil population was the falling wave of an epidemic which, during 1877, cut off 12·2 per 1,000, and it is probable that the death-rate among troops and prisoners was due mainly to locality rather than to merely epidemic causes. Mr. Cornish states that "in all cases the jail population kept free of cholera "until the epidemic had appeared in the neighbouring towns," and when this condition was established it would appear from the facts about individual jails that agglomeration of prisoners within a limited area and insanitary conditions were paralizing causes of the disease.

14. The following experience of Kurnool jail is, of course, not new as to fact, but it affords a good example for guidance. There were 721 prisoners in the jail, who yielded in all 37 attacks and 17 deaths from cholera. Cholera broke out in the town of Kurnool on 2nd June, and continued until 7th November, and during this period 351 persons died out of a population of 25,441, or a death-rate of 13·8 per 1,000. The jail, which is situated in the town, yielded a death-rate of 23·5 per 1,000. It was attacked on 1st June, simultaneously with the town. Both were included in the same epidemic stroke. Up to 19th June, the jail had yielded 19 cases. "All hygienic precautions to cope with epidemic "within the jail area proving useless, the prisoners were marched to a "camp, on a hill 450 feet high 3½ miles from the town. Two cases "took place on the transit, and two on the night of arrival, and the "disease at once ceased."

The jail was fumigated, whitewashed, and new floored, and was reoccupied by the prisoners after an absence of three weeks. But five days

British troops.—The mean strength of European troops in 1878 was 10,528. The deaths were 233, or 22·1 per 1,000, the highest death-rate since 1869, in which year it was 23·2 per 1,000. The admission-rate in 1878 was 1,379·7, the constantly sick 65·8, and the invaliding 45·7 per 1,000; all above the usual averages. Of disease causes, fevers gave 3,720 admissions and 26 deaths, the precise nature of which cannot be stated on account of discussions still in progress as to the real nature of these Madras fevers.

Cholera gave rise to 43 cases and 28 deaths, chiefly at Secunderabad and Kamptee. Apoplexy and sunstroke diseases, directly or indirectly connected with intemperance, caused 28 deaths, against an average of 11 deaths during the last 10 years, and the rum ration still exists.

Venereal diseases occasioned 2,562 admissions to hospital,—the largest number recorded. The admission-rates per 1,000 were as follows:—

Primary syphilis - - -	111·32
Secondary ditto - - -	20·64
Gonorrhœal diseases - -	115·18
All classes - -	247·14

Mr. Cornish attributes this result "to complete disarrangement of "family life in the lower classes of Natives caused by the famine." If this view be correct, we may look for a considerable reduction in the venereal admissions rates, since the famine has passed away. Time will show.

21. *Native troops.*—The strength of the Native troops on 1st January 1878 was 30,210, and at the end of the year 30,509. The hospital admissions were 20,239, and the deaths in and out of hospital given in the weekly medical returns were 340, exclusive of 72 deaths on furlough and sick leave.

The ratio per 1,000 were:—

Admissions - - - -	793·2
Daily sick - - - -	29·7
Death in and out of hospital -	13·3
Invaliding - - - -	52·6

The admissions and daily sick-rates were higher than in some preceding years, but the death-rate did not much exceed the average, although it was higher than in several recorded years. The deaths, with very few exceptions, were due to fevers, cholera, and bowel diseases (dysentery and diarrhœa).

22. The statistical accounts of both Armies are followed by the usual notes on sanitary condition of the stations, cantonments, bazaars, &c. These are 38 in number, and none of them is given with sufficient detail to call for a remark. Generally they show that improvement has been making progress, but in some of them greater attention appears to be called for in drainage, water-supply, conservancy among the Native population, and similar matters.

The only recommendation we can make is one which has probably been already carried out by the Sanitary Commissioner himself, viz., that, when any defect mentioned in the notes appears to him from his local knowledge to require remedy, the attention of the authorities should forthwith be called to it. So far, indeed, as can be learned from these notes, properly directed local labour, without increase of cost, would remedy most of the alleged defects. As regards one station, Secunderabad, at which the troops have suffered from cholera and enteric fever, no sufficient account of its sanitary condition is given in the statement abstract. It is, however, stated that the drainage requires improvement, that there are patches of wet cultivation and small tanks which become marshes in wet weather, that the water-supply is "pronounced indifferent by

"analysis," in other words that it is not wholesome; and then follows a statement which is sufficient to justify the repetition of a recommendation we have frequently made for submitting this entire station to an exhaustive sanitary survey. It is this:—"With the exception of the "prevalence of cholera and fevers the general health of the whole may "be said to have been fair." The death-rate among British troops at this station in 1878 was 25 per 1,000, one half of which was due to cholera, enteric fever, dysentery, and diarrhœa.

23. *Jails.*—The sanitary history of Madras jails affords points of great interest in relation to the famine of 1877. In former years the death-rates were very high. In 1866 and the three preceding years the average death-rate among prisoners was nearly 11½ per cent. Then followed a period of advancing sanitary improvement, and for the subsequent nine years the death-rate averaged 32·2 per 1,000. The first impress of the famine was felt in 1876, and the prison death-rate rose to 42·4 per 1,000. The famine year 1877 filled the prisons to overcrowding with a miserable starved population, many of whom committed offences for the purpose of being fed in prison after the famine had done its work on them. The death-rate in the famine year rose to 175·4 per 1,000, but in years preceding sanitary work in prisons the rate had exceeded 12½ per cent. In the year 1878 the people still suffered from the effects of scarcity, and the mortality was 125·4 per 1,000, nearly the same as it was in 1865–66. Towards the end of 1878 the mortality had, however, fallen to one half what it was in January, so that it is to be hoped the results of food scarcity will by this time have disappeared from the jail statistics. It may be interesting to place side by side the jail death-rates from cholera, dysentery, and diarrhœa for the same periods:—

Years.	Average Ratio per 1,000.		
	Cholera.	Dysentery.	Diarrhœa.
1863—66 - -	23·1	15·4	26·4
1867—75 - -	1·4	5·4	6·2
1876 - -	10·0	7·7	5·3
1877 - - -	25·7	32·1	50·1
1878 - -	5·1	15·0	28·2

On looking at these figures, and at the same time making allowance for sanitary improvements in jails, it almost appears as if the lower death-rates, 1867 to 1875, were due to improved dietary, which ceased to act when the prisoners committed in 1876 and 1877 were already suffering from starvation, and the great reduction in these death causes in 1878 appears to foreshadow a return to low death-rates when the famine and its consequences are past.

The fever mortality in jails was as follows:—

	Total Deaths.
Enteric fever - - -	10
Continued fever - -	11
Intermittent - - -	101
Remittent - - -	17
	149

or about 7 per 1,000. The result, according to the Sanitary Commissioner, showing that, like the civil population, the prisoners suffered from the markedly malarious and unhealthy character of the year 1878.

The disease causes of the famine year 1877 were still acting, although in a markedly less degree, among both classes. In both years the same

fact was observed, that the death-rates differed enormously in different jails. The extremes in 1877 were 7·5 at Guntoor and 647·2 per 1,000 in Coimbatore district jail. The lowest death-rate, 7·1 per 1,000 in 1878, was returned from Masulipatam, and the highest, 384·4 per 1,000, was again returned from Coimbatore district jail. There appears to be something radically wrong about this jail, for during the seven years preceding the famine it returned a death-rate of 65·8 per 1,000, the highest rate, with a single exception (Tanjore, 76·9 per 1,000), of all the Madras jails.

24. *Municipalities.*—There were 49 municipal towns on the list during the year; one was removed from the list, and another was added. These towns have an aggregate population of 1,620,480 on the census of 1871. Their birth-rate was 25·3 per 1,000, while the death-rate was 38·5 per 1,000. In the famine year the birth-rate was 27·2, and the death-rate 69·1 per 1,000.

The total available income of these towns was 175,536*l.*, of which 70,535*l.*, or 40·1 per cent., was spent on sanitary improvements, or about 10½*d.* per head of the population.

A new form of sanitary report was adopted for these municipal towns during the year, and some further information about their sanitary defects is given. These appear to be very much of the same character everywhere. Cesspits appear to be in general use, and whenever this is the case there is no security for pure water being supplied from any well within a house compound. In some towns river water is used, and in others wells or tanks are the sources of supply.

Drainage is chiefly confined to the surface, and no house drains appear to have been introduced.

The principal work carried out has been cleansing, and this in the present state of the funds is one of the most important. In several towns cleansing appears to be on the whole well carried out. At one town, Tinnevelly, the proceedings are described in the following words:—"The streets and lanes are swept and cleared twice a day, and the "sweepings and rubbish are burnt in a cinerator. The ashes are mixed "with the night-soil and buried in pits outside the town, and sold by "public auction as manure to the people, who know the value of the "compost. At a sale at which the Sanitary Commissioner was present "during his tour of inspection, a pit containing 150 bandy-loads of six "months' manure was sold for Rs. 180." This example may be of use elsewhere. Some good work was, besides, accomplished in other directions, and there were no epidemics in this town, the population of which is alone 21,000.

In many of these municipal towns the residue of effects of famine were present during the year, and added to the death-rates. In all of them sanitary measures are more or less carried out, but the subject is evidently new. The great point is that municipal authorities exist, and that they are learning the importance to local interests of protecting the public health.

25. *Local Fund Circles.*—These are rural circles, and include small towns and villages. There are 34 such circles in the Presidency, among which forms of report similar to those adopted for municipal towns were introduced during the year, but 26 only sent in reports.

The population of the 34 circles is given in the tables at 28,745,279, being in fact that of the rural districts of the Presidency. They are very poor, as may be estimated from the fact that their total available revenue, one third of the land cess, is only 131,148*l.*, and of this 30,506*l.*, or 23·2 per cent., is devoted to sanitary work. Not much can be done with such a sum among so great a population, but even this only shows the average of sanitary expenditure. One circle, Tellicherry, only spends 1·8 per cent. of its income for the protection of its health, while Negapatam Circle spends 98·2 per cent.

The reports from the circles are much of the same character as those

676/14 1 2 676/14

for the municipal towns. The chief measures in use have been cleansing, improving the water sources, and simple surface drainage, in small towns and in a certain small proportion of the villages. The result of them is rather to show how much requires to be done.

26. Perhaps the most important statement in the Local Fund Circle reports, as coming from a Native gentleman, is that supplied for Saidapet Circle, by the Vice-President, Mr. Ruthnavallee Chetty, the Assistant Collector, because it gives a Native estimate of the extent of the evils to be dealt with, the difficulties to be encountered, and also the legislative remedies required. He says:—"The sanitary condition of "the circle is decidedly not good. Dirt reigns supreme in the villages. "Efforts have been made and are being extended to keep the larger "towns clean by means of a regular conservancy establishment. The "result has been that in some places a good deal of filth, which would "otherwise have been allowed to fester and breed foul odours, and very "probably disease, has been safely disposed of. Want of funds, "amounting to actual insolvency, has, however, prevented an extension "of this good work, and of the equally important one of digging draw-"wells, the water of which cannot be polluted. More might be done if "there was any public spirit or appreciation of even the rudiments of "sanitation amongst the people themselves; but there is none, and the "system which hangs round the neck of revenue officials, hereditary "village headships, involving the appointment and retention of what are, "*de facto*, collectors and magistrates of villages—persons who are as "careless as they are frequently incompetent, is a fatal bar to any pro-"gress. Written orders are mere waste paper, and the revenue officers "have so much other work to attend to now-a-days, that there is no "time to go about in the smaller villages, prosecuting with doubtful "legality the owners of offending middens;" and his proposed remedy is "some kind of minor Municipal Act shorn of its lighting, police, toll "bars, Commissioners, office establishments, and other like expensive "appendages, a law, in fact, which will allow of the raising in any "village, say of 1,500 or 2,000 inhabitants, of a tax the proceeds of "which can be devoted to keeping the place clean, digging wells for the "public use, &c. What now goes to sanitation from local funds—I "mean by this conservancy establishments, and such like—ought, in my "opinion, to go to hospitals, dispensaries, &c., which are for the general "good, actual cleansing work being made more a matter of localized "taxation than it is."

27. Somewhat similar proposals to these have been made in reports from other parts of India. Their substance is simply this. Every inhabitant of an Indian village should keep his house and surroundings in a healthy state, or he should contribute towards the cost of having it done for him. The principle is a perfectly sound one, for it cannot be supposed that the cleaning work of every household all over India should be paid for out of the general revenues of the country, while the benefit of village property, which would unquestionably be the result of real sanitary work, should at the same time be reaped by the present proprietor without outlay.

We should go beyond our proper function if we said more on the subject, but when a Native officer has expressed himself in this way, we have thought it right to call attention to his statement, and also to the general principles on which village and small town improvements can be carried out at the least cost, as proposed in our suggestions on the subject, printed in Volume XI. of the Indian Sanitary Reports.

28. Before leaving this subject it appears to be necessary to notice certain remarks of the Sanitary Commissioner, which are directly connected with village sanitary work, dealt with in these "suggestions." He says:—"In village sanitation there are two things which might to a "great extent be managed under the direction of the village officials, but

"which in practice are found to be exceedingly difficult to carry into "execution with effect. Every village ought to have (1) clean water "for domestic purposes, and (2) arrangements for the removal of human "and animal excrementitious matters. In the matter of water-supply "a great deal has been done from time to time, but it does not seem "practicable to teach the present generation the consequences of fouling "their wells."

This is connected with the use of open dipping wells and tanks.

"And again, in regard to village conservancy, the habits of the people "are very difficult to alter. The Army Sanitary Commission seem to "think that it is a very simple matter to get the people to keep their "cattle outside their houses. We have not found it so simple in this "part of India; village communities originally clustered their houses "together for mutual protection from robbers and wild beasts, and, until "the ryots can be induced to built their homesteads on their lands, I am "afraid that the village home must also be the home of the cattle. . . .

"After many years of close and practical acquaintance with village "life in India, I am entirely in accord with His Excellency the Viceroy "in Council, 'that the Government must be content to advance slowly "'in the path of rural sanitary reform,' and I would further add that "too much must not be expected of the present generation, whose "hereditary ignorance and prejudices are not to be changed by any rules "or regulations we may draw up for their guidance."

29. The opinion of the Government of India implies slow advance, but still an advance. Does the view of the Sanitary Commissioner go as far? Does it not rather lead to the conclusion that at present village sanitary improvement is all but hopeless? and hence follows the question, that as the real sanitary work in India is village work, is the existing sanitary organization of any real use to the country? We put these questions because they are suggested not only by Mr. Cornish's view, but also by similar views we have had to deal with on other papers.

The whole subject was considered by the Royal Commission on the Sanitary State of the Indian Army, and they proposed Executive Commissions to deal with all Indian sanitary questions, and not merely reporting Commissioners.

Without in the slightest degree undervaluing the reporting work which has been done, may not the question be fairly asked whether it has been followed by corresponding practical action? Mr. Cornish appears to consider that it has not, and that trusting solely to the people for the adoption of advice given them has been to a great extent a failure.

If we are to be guided by experience, it may be safely affirmed that whatever advance has taken place in sanitary improvement in England within the last 40 years has, in the first instance at least, been accomplished in the teeth not only of apathy, ignorance, and prejudice, but of resistance to change of habits, and to expenditure of money. An unhealthy house in an English town is not only a menace to its neighbours, but its proprietor in former times would have made no scruple of using his private interest against the public good. And so in India; an unhealthy village liable to be attacked by cholera is a menace to all its neighbours, whatever its own interest may be, and both house and village require to be dealt with on public as well as private grounds, whatever amount of apathy, prejudice, and private interest may be in the way. Similar difficulties must be encountered and overcome in improving the public health everywhere. Every sanitary improver knows this, and in his work takes it into account, but he goes on with his work notwithstanding.

30. Mr. Cornish's statement that the villagers might be supplied with pure water, and the villages kept clean by the village officials, if these officers would help in the work, comprehends the whole of the case to be dealt with. The Assistant Collector of Saidapet Circle has, as a

626/15

Native officer, stated how in his opinion the work might be forwarded. Surely it is worth while to try to do it in some such way. We have been very glad to find it stated on other papers that village proprietors have in some instances done their duty in this matter with success, not only in improving the health of the people, but in amending their habits.

31. If some general Act were passed, such as the one proposed by the Assistant Collector, to be applied locally from time to time, a beginning could be made with a single Circle, and in this way the great work of freeing the working population of India from epidemics would be initiated.

It is evident that for any such purposes the present reporting work has not been successful, as was clearly foreseen by the Indian Army Sanitary Commission. Mr. Cornish himself is fully alive to the importance of these questions, and, as we have freely stated the defects of the present sanitary system in Madras Presidency, we cannot enforce our views more strongly than by citing what he himself says on the subject in his "Personal Proceedings." "I may here express my conviction," he says, "that the village communal system which obtains in Southern "India, and on which the proper administration of the country mainly "depends, is not so perfect in practice as it may appear on paper, and "that efficient sanitary administration of the rural districts, the duties "and emoluments of the inferior village servants, at least, require "revision. At present it seems to be nobody's business to see to the "cleanliness of a village, yet nothing could be more simple, under a "communal system, than to fix the duties and responsibilities of such "sanitary service as may be needful for the health and comfort of the "village populations. Every village has in theory one or more sweepers, "whose public duties ought to be those of scavengers for the community, "but who do not perform their assigned duties, and it seems only right "that some inquiry should be made in regard to the emolument and "position of such servants, and why the original uses of such servants "have been lost sight of."

32. It would appear from this statement that a cleansing staff already exists, the duties of which require to be organized on a proper footing, and extended to the cleansing of cattle sheds in houses. Our proposal for the removal of cattle from houses is in reality a proposal for rendering the cleansing of cattle stalls about houses unnecessary. Another method of dealing with the difficulty is suggested by the Collector of Tinnevelly, namely, to encourage the ryots to build homesteads on their lands instead of concentrating their cattle at night in the villages. This would be a better way of dealing with the matter apparently than housing the cattle on the lands, which Mr. Cornish informs us cannot be safely and generally adopted on account of wild beasts and thieves. In the meantime it is evident that any organization for the cleansing and removal of village sewage must include cleansing of cattle accommodation and the removal of manure to a safe listance.

In so far as regards the village water-supply, there is nothing in the present Report to show that the proposals we have made on this subject in our suggestions already referred to would not meet the requirements of nearly all the cases.

33. On the general subject we have much satisfaction in quoting the following paragraph from Mr. Cornish's "Personal Proceedings," in the hope that it points to commencing improvement in villages:—"As a "practical contribution towards the question of village sanitation, it may "be mentioned that the entire staff of Deputy Inspectors of Vaccination, 38 in number, are now required to report in regard to each "village they visit; first, the number of births and deaths registered "during the previous month; second, the condition of the water-supply; "third, the condition as to cleanliness, drainage, &c.; and, fourth, the

" prevailing diseases, if any. The returns are made out in tabular form " for each month, and a copy is sent direct to the President of the Local " Fund Circle for such action as he may deem necessary;" and here is a first result of these inspections.

" So far as we have gone the complaints are almost universal as to " the uncleanly condition in which villages are kept, and especially to " the accumulation of manure heaps in the streets or back-yards, and the " defilement of the waste lands around village sites by human excre- " ment."

This is just what might have been expected, and it may with safety be affirmed that whenever such a condition of village sites is formed the water-supply can scarcely be safe for use. We wish every success to this new advance in sanitary work, which is, indeed, of our own proposal, but all depends of what comes of it, that is, the practical use which is made of the facts by the executive authority.

The value of reporting *per se* is well enough known by this date, and it seems doubtful whether any more of it is worth the trouble unless it leads to real work.

34. It will be seen that much of the present year's Madras Report is devoted to gathering up the remains of the famine history of 1877, and to the sanitary statistics of the year. Not much of it deals with real executive work, for little work of this class appears to have been done, and not much of what has been done has apparently been brought to the knowledge of the Sanitary Commissioner. But nevertheless this Report has a special interest, for just as last year's Report brought out the whole famine history of 1877, so does the present Report raise in a very practical manner the entire question of village sanitation. We now know more precisely what the defects are, and we are now informed that authorities exist quite competent to deal with all the really important sanitary questions in villages, provided only that these authorities are better organized, and required to discharge their duties.

It is here that the work of improving these villages passes, as it were, from the Sanitary Commissioner to the Government, and the real practical question which requires to be answered is whether sanitary improvement is to be commenced with the machinery which already exists, and which, so far as anything appears to the contrary, can be rendered sufficient for the purpose, or whether we are to wait until, in the progress of future generations, the undivilized habits of centuries shall have been eliminated,—whether, in short, we are to cross the river as it is, or wait till it runs past.

So far as we are concerned, we have placed in our suggestions the cheapest and simplest necessary sanitary measures for meeting the cases revealed in the Indian reports. And we would now add that no fact has appeared in any Indian report to justify the view that progress in their application cannot at once be entered on.

This is the function of the executive and local officers of villages, and improved village administration, if begun, would come under the Sanitay Commissioner and his reporting officers, who ought to be able to tell us year by year, not only the number of children born and of losses by deaths, but also the nature and amount of real improvement in the health and habits of the people, which had taken place during the year.

26th April 1880.

2-4-74

Govt. of 1881 Madras.

Bryaffairs

Jail

DISPOSED OF

21 APL 81

BY G. O. No. 676

17

G.O. 188 , No.

~~Nos.~~

Jumul - Sanitary &c

tracts from letters received from Mr Price, Collector of Chingleput, containing suggestions for a modified Jumut law to be applied to large villages and small towns, referred to the Wd. of Revr. for opinion.