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Financial (1895) Department.

ORDINARY MS.

G.O., No. 677

Dated 9th Sept. 1895.

INDEXED.

[Despatch Abstract.]

SANITATION

Directing the Accountant-General to place the sum of Rs.5000 at the disposal of the Sanitary Engineer from the revision in the current year's budget under 45.Civil Works -- Civil Officers for improving the sanitary condition of the town of Cuddapah .

At

BACK PAPERS.

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

FURTHER PAPERS.

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

12TH AUGUST 1895, No. 1311 M., LOCAL AND MUNICIPAL.

GOVERNMENT OF MADRAS.

LOCAL AND MUNICIPAL DEPARTMENT.

READ—the following paper :—

From J. A. JONES, Esq., MEM. INST. C.E., F.R.S.E., Joint Secretary to the Sanitary Board, to the Chief Secretary to Government, dated Ootacamund, 25th June 1895, No. T-56.

[Cuddapah Drainage.]

I have the honour to submit a resolution of the Sanitary Board in reference to the sanitary improvement of the town of Cuddapah.

ENCLOSURE.

GOVERNMENT OF MADRAS.

Sanitary Board Office.

At a meeting of the Sanitary Board held at Ootacamund on the 13th June 1895.

PRESENT :

The Hon'ble Col. J. PENNYCUICK, R.E.—*President*.
 Surgn.-Lieut.-Col. W. G. KING, M.B., C.M., D.P.H., Sanitary Commissioner.
 J. A. JONES, Esq., MEM. INST. C.E., F.R.S.E., Sanitary Engineer.

Read G.O., dated 7th February 1895, No. 182 M., Local and Municipal, in reference to the sanitary improvement of the town of Cuddapah.

Resolved that Government be informed that the Board, having met as above and discussed the various proposals made by the Collector, the Sanitary Commissioner and the Sanitary Engineer in reference to the above, are of opinion that the unhealthiness of the town of Cuddapah is due to the prevalence in a very marked degree of malarial fever. They consider that the town site is contaminated with the active agent of malaria, namely, the *plasmodium malarie*, and that its propagation has been greatly facilitated by the commonly recognized factors of heat, organic matter and moisture in the soil. Both organic matter and moisture are provided by the numerous pervious cess-pools which exist throughout the town, and by means of which, in default of a sewerage system, the inhabitants attempt to get rid of their sullage water. A second obvious cause of moisture is the obstruction to the sub-soil water overflow by conditions which are enumerated below in describing the preventive remedial measures the Board would recommend for adoption. As a result of this obstruction, fluctuation of the sub-soil water occurs, ensuring with the rise the filling of the soil voids and displacement of air, and with its subsidence ingress of air. These are conditions which would favour the propagation and distribution of the malarial protozoan, and in the presence of organic matter of the type above suggested would afford a pabulum that would in all probability not only aid its propagation as to numerical strength, but bring about intensification of its toxic activity. The remedial measures must therefore take the direction of attempting to deprive the malarial germ of favourable

environment, and this can be best secured, as ascertained by experience in sanitary works hitherto directed against malaria, by preventing undue accumulation of organic matter and inhibiting extensive disturbances of sub-soil air and water. To these ends they advise that the following measures be taken for the improvement of the sanitary condition of the town :—

(1) That the Patha Cuddapah tank by percolation and prevention of the free outfall of the sub-soil water has the effect of causing great fluctuation of the sub-soil water level and that the abandonment of the tank is desirable ; that this can be effected without loss of revenue by carrying on the lately-constructed channel (which now fills the tank) along the sluices of the said tank, and the Board recommend that this be done ; that the bund of the tank should be breached so that no obstruction should exist to the free outfall of surface drainage from the town ; that the Public Works Department should be called upon to prepare the necessary plans and estimates for submission to Government in order to carry out these objects.

(2) That it is desirable to afford means for carrying off the sub-soil water from under the town ; that it is also desirable that the town should be drained and the existing sewage cess-pools which abound in the town removed, and therefore recommend that a scheme should be drawn up by the Sanitary Engineer to Government for these purposes ; the Board consider that these two objects can best be attained by a pipe system of sewerage, under which trenches should be cut and filled with gravel through which the sub-soil water will percolate, both the sewage and sub-soil water being carried to appropriate outlets. It is probable that pumping may be required, and the amount of pumping power to be provided for raising the sub-soil water may be taken for the purpose of an estimate as that necessary to raise the quantity of rainfall falling over double the town area, or, say, over five square miles ; the sewage to be disposed of over a suitable area of land which will be under-drained and furnished with sewage filters beyond the present Patha Cuddapah tank. The bed of this tank, after its abolition as a tank, should be allotted for dry cultivation only.

(3) That, at present, the existence of the Dongal Cheruvu does not influence the rise and fall of the sub-soil water to such an extent as to render its abolition desirable, but that, at some future time, when the results of the works already proposed have been in operation for some time, it may be desirable to reconsider this opinion ; the Board also consider that the execution of the sanctioned open drainage channel may, in the meantime, be delayed.

(4) That it is desirable to resection the bed of the Booga river above the existing anicut, which should be removed, the channel from the anicut to the Patha Cuddapah tank being closed or used for a line of sewers as may be hereafter found necessary.

(5) That in view of the fact that the malarial germ is capable of being conveyed to the system of the human being both by air and water, it is advised that the existing public water-supply should be supplied with effective filter beds.

(6) That the design of these works, except those in regard to the extension of the channel to the Patha Cuddapah tank sluices, be entrusted to the Sanitary Engineer to Government.

(7) That the funds already allotted by Government for the drainage of Cuddapah, viz., Rs. 74,000, be made available :

- (i) for making borings and further surveys in connection with the scheme as now decided ; for this purpose Rs. 5,000 will be sufficient ;
- (ii) for the works in connection with the abandonment of the Patha Cuddapah tank, which it will be possible to carry out this year if Government approve at an early date of the measures suggested.

(8) The Board, in conclusion, would point out to Government that, if the scheme is to be executed by the Sanitary Engineer, additional establishment of an expensive character will be necessary and that constant and effective supervision by the Sanitary Engineer is not possible ; the Board strongly recommend Government to consider the advisability of amalgamating the department of the Sanitary Engineer

with that of the Public Works, so that greater attention may be given by the Sanitary Engineer to investigation, advice and design, and the larger and more elastic staff of the Public Works Department made available for the execution of works and improved supervision.

ORDER—dated 12th August 1895, No. 1311 M., Local and Municipal.

The Public Works Department will be requested to prepare and forward to Government the plans and estimates necessary for carrying out the first of the Sanitary Board's recommendations, and the Sanitary Engineer will be requested to similarly prepare estimates for the works suggested in the Board's recommendations, Nos. (2), (4) and (5).

2. The cutting of the sanctioned drainage channel may, for the present, be postponed.

3. A sum of Rs. 5,000 will be made available from the budget provision for the drainage of Cuddapah for the purposes referred to in recommendation No. (7)(i) of the Sanitary Board.

4. With reference to the concluding portion of its resolution, the Board will be informed that the question of the amalgamation of the Sanitary Engineer's Department with the Public Works Department is now under the consideration of Government.

(True Extract.)

J. F. PRICE,
Chief Secretary.

To the Joint Secretary to Sanitary Board.

- " Public Works Department.
- " Revenue Department.
- " Judicial Department.
- " Financial Department.
- " Sanitary Commissioner.
- " Sanitary Engineer.
- " Collector of Cuddapah.

Editors' Table.

Exd. C. Rajagopaul.

Gobt of {1895} Madras.
LOCAL AND MUNICIPAL.

Issued

Recd.

Encl.

G.O., 12th August 1895, No. 1311 M.

AUGUST.

Sanitation.

Passing orders on the proposals of the Sanitary Board for improving the sanitary condition of the town of Cuddapah.

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(True Extract.)

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To the Joint Secretary to Sanitary Board.

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- „ Sanitary Engineer.
- „ Collector of Cuddapah.

Editors' Table.

Exd. C. Rajagopaul.

CURRENT NO. 3/59

Financial Dept.

Govt of {1895} Madras.

LOCAL AND MUNICIPAL.

4842: 13.3-95 dtm }
1822: 7.2-95.1 } SC.
1107.7A: 15-12-94 mil }

C.S.

mm

Order. 89th September 1895, No 677.

Communicated to the Acct.

Genl. who will, with ref: to para 3 of
the pro., place the necessary sum
of Rs 5000 at the disposal of the
San'y. Engineer from the provision
in the current year budget
under 45 Civil Works - Civil Officers

C.S.
5/9/95 11/6/95 12/5/95

L. H. Dept (C)

Acct. Genl (SC)

P. C. in my. fr. m. to

AUGUST.

Sanitation.

Passing orders on the proposals of the Sanitary
Board for improving the sanitary condition of
the town of Cuddapah.

WITH ORDER

When given for copying _____
When copied _____ 189
When examined _____
When signed _____

READ AGAIN G.O., No.
189

DATED

CURRENT No.

ENCLOSURES TO G. No.

ORDER OF GOVERNMENT

LETTER OF GOVERNMENT.

STATEMENT WITH DITO.

PAPERS NOT FILED UP, BEING MEANT FOR DESPATCH
IN ORIGINAL.

N.B.

A = Copy in full.
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