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MADRAS RECORD OFFICE

Government of Madras

Public Works

DEPARTMENT

G.O. No.	980	Press
B.P. No.		Mis.
Dated	15-4	1874
		195

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
15th April 1874.*

Read the following papers :—

No. 156. Read the following Proceedings of the Madras Government in the Public Department, dated 10th December 1873, No. 1,267.

No. 157. Memorandum from Lieutenant-Colonel J. MULLINS, R.E., Chief Engineer for Irrigation, to Colonel G. W. WALKER, R.E., Secretary to Government, Public Works Department, dated Fort St. George, 14th January 1874, No. 34.

THE work in connection with the effective drainage of the villages in the Godavery Delta, which the Government desire to have at once taken up in earnest, and for which an annual provision of one lakh of rupees in the Budget of the Irrigation Department has been ordered to be made, is of great magnitude, and it appears to me to be certain that no satisfactory progress will be made unless Government can make available the services of two or three young officers to carry on the investigations, and afterwards carry out the necessary works.

2. During my recent tour I had an opportunity of seeing much of the Eastern Delta during and after a considerable, but by no means extraordinary, rain-fall; and though much has been done to improve the drainage of the lands generally, with all the attention that can be given to this important subject, it will still take several years before the works already sanctioned can be completed. The general expenditure in the delta is very large, and labour is not very abundant. It would be difficult and hazardous to stop the improvement works, because, as may be readily understood, they hang together, and alterations in one place necessitate the early completion of the corresponding alterations elsewhere. This work in some directions is not getting on as fast as is desirable, because the requisite superintendence is not available, and though, possibly, some works here and there may be postponed without serious inconvenience to the cultivation, it is not probable that any material alteration of the programme of work for 1874-75 could be effected.

3. During the rains of the latter part of October many complaints, which were well-founded enough, of the submergence of lands were made by the ryots, and I myself saw very large tracts of country in the western part of the Eastern Delta entirely under water to a depth of several feet. Very little could be done immediately to alter this state of affairs, because the main drain, the Takee, is at present utterly inadequate to the discharge of the flood waters. These floods were to but a very small extent due to canal water. To render this drain really effective two or probably three seasons' work will be necessary, and it is now being taken up in earnest. Although the ryots did not complain of the state of their villages, there can be no doubt that the inundations must have affected these likewise; but so far as I am able to judge it is the exception rather than the rule that the delta canals have obstructed the village drainage. This point, however, can be determined only by the detailed investigations which will be made.

4. To relieve the areas occupied by villages from rain-fall water is from a professional point of view a matter of no great difficulty, where the villages occupy,

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15th April 1874.*

as is usually the case, relatively the highest ground in the neighbourhood. Each village must have levels taken all over its site, each street must be levelled and drained, and all hollows must be filled up. Then the boundary of the village site must be connected with the nearest branch drain. The work will involve a good deal of interference with private or village property, but with the help of the Revenue and Village Officers probably no great difficulty will be experienced. It is municipal in character, and particular private interests will have to give way to the common benefit of the village.

5. In order to make a commencement, I would propose that an officer with three survey parties be at once organized, and that he be instructed to take up a group of villages, say, twelve or fifteen to begin with, ascertain exactly their circumstances and what is required to render them as dry as their locality will admit, and to prevent any stagnation of water within the boundaries of their sites, and then arrange for carrying off the drainage into the nearest branch drain. From this first group some idea will be obtained as to the nature and cost of the work to be done, as also of the source whence funds for the necessary outlay should be obtained. Wherever drainage has been obstructed by irrigation works, agricultural funds may be reasonably and properly used to provide a remedy, but it should not be overlooked that from these funds already the main and subsidiary drainage is being carried out, and yet irrigation water is but a very unimportant fraction of the drainage water to be carried off, and in strict equity the greater part of even this charge might therefore be removed from the Irrigation Budget. The Eastern Delta completion estimates provide Rupees 4,69,300, and the Western Delta estimates Rupees 2,87,750, for this purpose.

6. With the village maps of the Revenue Survey to work upon such progress as will throw a good deal of light upon the subject may be achieved, and whether Government are to provide for the work from Imperial Funds, or Local Funds are to bear the cost, the first thing is to ascertain what is wanted and to estimate its cost.

No. 158.

ORDER THEREON, 15th April 1874, No. 980.

CIVIL WORKS, No. 18.

To make a practical commencement with the work of village drainage, as determined on in paragraph 4 of

G. O., in the Public Department, No. 1,267, of 10th December 1873, the District Engineer of the Godavery will at once, as suggested in paragraph 5 of memorandum by the Chief Engineer for Irrigation, avail himself of the services of the Engineer Officer attached to his district for special duty, in supervising the work of three survey parties, to be systematically employed in levelling throughout a group of villages, which he will select in communication with the Collector. He will report, through the Chief Engineer for Irrigation, on the strength and cost of these survey parties, as he takes them up, on a permanent engagement from year to year, and the Chief Engineer for Irrigation will hold at his disposal, from month to month, from the Agricultural Reserve, a standing advance of Rupees 5,000 to provide for these establishments and for the immediate execution of the works

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which their levels shall have shown to be necessary, such as the levelling and drainage of streets, the filling up of hollows, and the connection of the village drainage channels so defined with the nearest irrigation branch drain.

2. To accelerate the progress of the work the Engineer Officer allotted to the Kistna District for special duty, will be transferred temporarily with his establishment to the Godavery District on return of Lieutenant Campbell from privilege leave, and will be placed in charge of a second set of survey parties on another group of villages to be similarly selected by the Collector and Engineer; and the results of their operations shall be reported annually for the information of Government, accompanied by illustrative surveys, up to the 30th June of each year.

(True Extract.)

(Signed) G. W. WALKER, Colonel, R.E.,
Secretary to Government.

To the District Engineer, Godavery.
" Chief Engineer for Irrigation.
" District Engineer, Kistna.
" Public Department.
" Revenue do.
" Officiating Controller of Public Works Accounts.

Exd. S. T. Austin.

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Memorandum

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and after a considerable, but by no means extraordinary, rain fall; and, though much has been done to improve the drainage of the lands generally, with all the attention that can be given to this important subject, it will still take several years before the works already sanctioned can be completed. The general expenditure in the Delta is very large, and labour is not very abundant. It would be difficult and hazardous to stop the improvement works because, as may be readily understood, they hang together, and alterations in one place necessitate the early completion of the corresponding alterations elsewhere. This work in some directions is not getting on as fast as is desirable, because the requisite superintendence is not available, and, though, possibly, some works here and there may be postponed without serious inconvenience to the cultivation, it

it is not probable that any material alteration of the programme of work for 1874-75 could be effected.

3 During the rains of the latter part of October many complaints, which were well founded enough, of the submergence of lands were made by the ryots, and I myself saw very large tracts of country in the western part of the Eastern Delta entirely under water to a depth of several feet. Very little could be done immediately to alter this state of affairs because the main drain, the Takee, is at present utterly inadequate to the discharge of the flood waters. These floods were to but a very small extent due to Canal water. To render this drain really effective 2 or probably 3 seasons' work will be necessary, and it is now being taken up in earnest. Although the ryots did not complain of the state of their villages, there can be no doubt that the inundations must

must have affected these likewise, but so far as I am able to judge it is the exception rather than the rule that the Delta Canals have obstructed the Village drainage. This point however can be determined only by the detailed investigations which will be made.

4 To relieve the areas occupied by Villages from rain-fall water is from a professional point of view a matter of no great difficulty, where the villages occupy, as is usually the case, relatively the highest ground in the neighbourhood. Each village must have levels taken all over its site, each street must be levelled and drained, and all hollows must be filled up. Then the boundary of the village site must be connected with the nearest branch drain. The work will involve a good deal of interference with private or village property, but with the help of the Revenue and Village Officers probably no great difficulty will be experienced. It is Municipal in character, and particular

93
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not be overlooked that from these funds already the main and subsidiary drainage is being carried out, and yet irrigation water is but a very unimportant fraction of the drainage water to be carried off, and in strict equity the greater part of even this charge might therefore be removed from the Irrigation Budget. The Eastern Delta completion estimates provide Rupees 4,69,300 and the Western Delta estimates Rupees 2,87,750 for this purpose.

b. With the Village maps of the Revenue Survey to work upon, such progress as will throw a good deal of light upon the subject may be achieved, and whether Government are to provide for the work from Imperial Funds or

thing is to ascertain what is wanted and to estimate its cost.

St. George
5 January 1874

Columbians
Chief Engineer for

To
The Secretary to Government

Proceedings of the Madras Government.
Read the following

1. From Secy. Public Dept. No 1267. 10th December 1873.
2. The Surgeon General I. M. D. No 492. 19th do - do -
3. Secy. P. D. No 26. 13th January 1874.
4. Chief Eng^r for Irrigation. Memo No 34. 14th Jan 1874.

The papers recorded
+ 4 disposed of 1st 11th 1874. 15th 1874.
2nd 1874. 15th 1874.
3rd 1874. 15th 1874.
4th 1874. 15th 1874.

These proceedings leave
no doubt that, whatever
the proximate or direct
causes of the prevalence
of fever at certain times
of the year in the Mofussil
very little, great benefit
may be expected to result
from the drainage of the
villages, and that it is
on all accounts desirable
that no time should be
lost

P. D. 1874. 10th Dec 1873.
Secy. Public Dept.

No 372.

Chief Eng^r for Irrigation
Memo No 34
14th Jan 1874.

Surgeon General I. M. D.
No 492. 19th do - do -

Secy. P. D. No 26.
13th Jan 1874.

10/10/74

10/10/74

10/10/74

lost in commencing
improvements of the
sanitary condition of
these villages, seeing
that under the most
favourable circumstances
the detailed drainage
of so considerable an
area will occupy a
great many years.

2. The restricted
amount of the funds
which the Government
of India have been
able to make available
for agricultural works
under Part II, in 1875,
has obliged the Govt.
to

15
to omit any special
provision in the Budget
for minor drainage
works, but this circumstance
need not be the cause of
delay in making a
commencement, because
the conditions of the
villages to be drained
have yet to be ascertained
and reported on, and the
estimates for the works
found necessary prepared,
so that it is not probable
that any large outlay
will be practicable
during the current year.

3. The Chief Engineer
for Irrigation has pro-
posed

proposed that the ser-
vices of two young
officers should be devoted
to the investigation and
subsequent supervision
of these minor drainage
works, and the Govt.
concurs in the opinion
expressed by you that
it would be satisfactory
progress, and the design-
ing of the works in
an efficient and econom-
ical manner it will
be absolutely necessary
to provide adequate con-
servation. It is however
clear that any large in-
crease in expenditure
is not practicable, and

17
as it will be necessary
in the first place to
obtain a better under-
standing than is now
possible of the nature
and extent of the work
to be done, it is thought
that probably no time
will be lost, but rather
waste of time avoided,
if, in the first instance,
one Assistant Engineer
be detailed for the duty
of making a complete
enquiry into the require-
ments of one portion of
one of the sections of the
Belt, somewhat in the
manner suggested in
para 5 of the Chief Engineer's
Memorandum.