

(1) Number of pages _____

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MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

G.O. No.	628-29(9)	Press
B.P. No.		Mis.
Dated	10-3-	C2761 195

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
10th March 1874.*

Read the following papers :—

No. 216. From Major W. CHRYSTIE, R.E., Officiating Under Secretary to the Chief Commissioner of Mysore, Public Works Department, to Lieutenant-Colonel J. MULLINS, R.E., Chief Engineer for Irrigation, Madras, dated Bangalore, 23rd December 1873, No. 538-3271.

I AM directed to inform you that the Government of India have drawn the attention of the Officiating Chief Commissioner to the very large volume of water, 1 cubic foot to 30 acres, assumed by the Superintending Engineer for Irrigation in Mysore, as necessary for rice cultivation, and has desired that application should be made to you for information regarding the circumstances under which 60 acres in Kurnool are cultivated with rice for every cubic foot per second of discharge in the canal.

2. Mr. Gordon will feel obliged by your informing him whether this high rate of duty per cubic foot of water is general for all the lands under the channels: whether absorption and evaporation during the flow of the water along channel is included, also allowance for leakage through embankments, &c.; whether the tail water from the fields is picked up and again utilized for irrigation; and, in short, whether 60 acres of land are irrigated for every cubic foot of water passing the head sluice.

3. In this province, we are wholly unable to obtain anything like so large a duty from the water; but, generally, the soil is gravelly, the transverse slope high, and tail water is rarely picked up and re-utilized. Any explanation which you may be able to offer regarding the cause of the difference (Mysore being cooler with consequently less evaporation than Kurnool) will be gladly received, and I am to suggest that details regarding the nature of the soil irrigated in Kurnool, the underlying sub-soil, position of the land as to drainage, &c., would be interesting and probably instructive.

No. 934-C.

MEMORANDUM.

THIS office has no information at hand as to the data on which it has been concluded that under the Kurnool Canal the irrigating duty of a cubic foot of water per second is 60 acres of rice cultivation, but, if the papers whence this information was obtained be referred to, the circumstances will be ascertained.

2. The papers on experimental rice cultivation would probably be of some use to the Irrigation Department in Mysore, and I would suggest, therefore, that a copy of each of the Proceedings of Government, as per margin, be forwarded.

G. O., No. 2,333,	dated 24th July 1866.
" " 2,813,	" 4th Sept. "
" " 3,034,	" 21st Sept. "
" " 1,676,	" 4th June 1867.
" " 3,668,	" 26th Nov. "
" " 3,756,	" 2nd Dec. 1868.
" " 1,609,	" 5th July 1870.
" " 872-A,	" 30th March 1872.
" " 1,458,	" 13th June "
" " 30,	" 8th Jan. "

3. In the deltas of the Godavery and Kistna the canals are designed to carry 2 cubic yards of water per acre per hour, and this is equivalent to 1.5 cubic foot per second per 100 acres or one

Proceedings of the Madras Government, Public Works Department
10th March 1874.

cubic foot a second for 66½ acres. This quantity has hitherto been found ample, and I have recently been assured that, in the Western delta of the Godavery, the irrigating duty of a cubic foot a second in the low-lying lands is likely to be considerably higher, and that consequently the water carried by the canals when fully brought under regulation is likely to suffice for a larger area than was originally intended. The soil of the delta is alluvial, and the absorption is consequently generally not large; but little of the land irrigated is much more than 30 feet above high water level.

FORT ST. GEORGE,
27th December 1873.

(Signed) J. MULLINS, Lieut.-Colonel, R.E.,
Chief Engineer for Irrigation.

No. 217.

ORDER THEREON, 10th March 1874, No. 623.

IRRIGATION, No. 2.

ORDERED that the following letter
be sent:—

(Here enter No. 629, dated 10th March 1874.)
(True Extract.)

Colonel, R.E.,
Secretary to Government.

To the Chief Engineer for Irrigation.

Exd. E. C. Shunker.
Spare Copies

Gobt. of 1874 Madras.
PUBLIC WORKS.

To

THE CHIEF ENGINEER FOR IRRIGATION.

Dated March 10th.

Recd.

Encl.

G. O., 10th March 1874, No. 628.

MARCH

Nos. 216-217

PUBLIC WORKS DEPARTMENT,
FORT ST. GEORGE, 10th March 1874.

No. 218.

No. 629.

From

COLONEL G. W. WALKER, R.E.,
Secretary to the Government of Madras,
Public Works Department.

To

THE CHIEF COMMISSIONER OF MYSORE,
Public Works Department.

IRRIGATION, No. 22.

SIR,—I am directed to acknowledge the receipt of the Officiating Under Secretary's letter, No. ⁵³³/₃₂₇₁, of the 23rd December 1873, and in reply to state that the Chief Engineer for Irrigation is unaware from what papers the information regarding the irrigating duty of the water-supply of the Kurnool Canal has been obtained, and he is unable therefore to give the particulars asked for. In the Godavery and Kistna Deltas, the canals are designed to carry two cubic yards per acre per hour, and this quantity, which is equivalent to the irrigating duty of 66 $\frac{2}{3}$ acres for each cubic foot per second, has been found to be ample. The soil of the deltas is alluvial.

G. O., No. 2,333, dated 24th July 1866.
" 2,813, " 4th Sept. "
" 3,034, " 21st Sept. "
" 1,676, " 4th June 1867.
" 3,668, " 26th Nov. "
" 3,756, " 2nd Dec. 1868.
" 1,609, " 5th July 1870.
" 872-A, " 30th March 1872.
" 1,458, " 13th June "
" 30, " 8th Jan. "

2. I am also directed to transmit a copy of the Proceedings of this Government, as per margin, which His Excellency the Governor in Council hopes may be of some use to the Irrigation Department in Mysore, as throwing light upon the quantity of water required for rice cultivation.

I have the honour to be,

Sir,

Your most obedient servant,

Colonel, R.E.,
Secretary to Government.

Exd. E. C. Shunker.
Spare Copies

Gobt. of (1874) Madras
PUBLIC WORKS.

To

THE CHIEF COMMISSIONER OF MYSORE,

Dated March 10th.

Recd.

Encl

G. O., 10th March 1874, No 220

MARCH

No. 218

Intimating that the Chief Engineer for Irrigation is unaware from what papers the information regarding the irrigating duty of the water supply of the Kurnool Canal has been obtained, and is therefore unable to furnish the particulars required and for which certain papers bearing upon the duty for rice cultivation.

No 530
3271

Mysore Chief Commr. Officer
P. H. D. Irrigation Branch
Mangalore 29th December 1873.

The Chief Engineer
for Irrigation, Madras.

Sir,

I am directed to inform you that the Government of India have drawn the attention of the Offg. Chief Commissioner to the very large volume of water, 1 Cubic foot to 30 acres, assumed by the Superintending Engineer for Irrigation in Mysore as necessary for rice cultivation, and has desired that application should be made to you for information regarding the circumstances under which 60 acres in Kurnool are cultivated with rice for every cubic foot per second of discharge in the Canal. 2. Mr Gordon will feel obliged by your informing him whether this high rate of duty per cubic foot of water, is general for all the lands under the Channels, whether absorption and evaporation causing the flow of the water along

a long channel is included, also allowance for leakage through embankments &c, whether the tail water from the fields is picked up and again utilized for irrigation, and in short, whether 60 acres of land are irrigated for every Cubic foot of water passing the Head Sluice.

3. In this Province, we are wholly unable to obtain anything like so large a duty from the water; but generally, the soil is gravelly, the transverse slope high, and tail water is rarely picked up and reutilized. Any explanation which you may be able to offer regarding the cause of the difference, (Mysore being cooler with consequently less evaporation than Kurnool,) will be gladly received, & I am to suggest that details regarding the nature of the soil, the underlying sub-soil, position of the lands, as to drainage &c would be interesting and probably instructive.

Bangalore
23rd Decr/73

Ed. 122

I have the honor to be
Sir,
Yours most obedt Servt
W B Moryett Major R.E.
Offg. Under Secy to the
Chief Commr of Mysore. P. B. D.

Cle's No. 2255

Hydrographic Survey Station

530 1873/74

From the Office of the Secy
to the Chief Com of
the Survey

to the Chief Engineer
for Irrigation

23rd Decr/73

27th Decr/73

Appld for information
regarding the
circumstances
under which 60 acres
in Kurnool are culti-
vated with view
for every cubic foot
per second of
discharge in
the Canal.

G. W. 31. 1/74
12th 17 10 11

No. 934 C

Memorandum

Encls

Letter No. 538

23 Decr 73

Under Secy to
Commissioner of
Irrigation

This office has no information
at hand as to the data on
which it has been concluded
that under the Kurnool Canal
the irrigating duty of a cubic
foot of water per second is
60 acres of rice cultivation,
but, if the papers whence this
information was obtained be
referred to, the circumstances
will be ascertained.

2. The papers on experimen-
tal rice cultivation would pro-
bably be of some use to the
Irrigation Department in Mysore,
and I would suggest therefore

that a copy of each of
the Proceedings of Go-
vernment as per margin
be forwarded

G.O. 12333	dated 24 July 1866
2813	4 Sept. "
3034	21 Sept. "
1676	4 June 1867
3668	26 Nov. "
3756	2 nd Decr 1868
1609	5 July 1870
872 A	30 March 1872
1458	13 June "
30	8 Jan'y "

3. In the Deltas of the
Godavary

Godavary and Krishna the
canals are designed to carry
2 cubic yards of water per
acre per hour, and this
is equivalent to 1.5 cubic
feet per second per 100 acres
or 1 cubic foot a second per
 $66\frac{2}{3}$ acres. This quantity
has hitherto been found am-
ple, and it has recently
been ascertained that, in the
Western Delta of the Goda-
vary, the irrigating duty
of a cubic foot a second
in the low lying lands
is likely to be considerably
higher, and that consequent-
ly the water carried by the
canals when fully brought
under regulation is likely
to suffice for a larger area
than

than was originally intend-
ed. The soil of the Delta is
alluvial, and the absorption
is consequently generally not
large. But little of the land
irrigated is much more
than 30 feet above high
water level.

Fort St. George. }
27 December 1873. }
Chief Engr for Irrigation

To The Secretary to Govt
P. W. &

Proceedings of the Madras Govt.
Read the following:-

The Chief Engineer } (H. E. Rogers 27 Dec 1873)
for Navigation }

AE No 629 of

Sir,
I am directed to
acknowledge the receipt
of the Officiating Under
Secretary's letter, No $\frac{535}{3271}$
of the 23^d December 1873,
and

and

The Clerk

for England

To The Secretary
of the Board of
Education

Ms. A. 9.34.2.

W. A. R.

States is well be-
lieved from such ex-
perience to the humane
impression that he
is no more than
that paper the in-
formation regarding
the irregularity of
the work supply of
the first most small
has been obtained.

Office of the
Coroner for the County of Essex

and in reply to state that
 the Chief-Engineer for
 Irrigation is unaware
 from what papers the in-
 formation regarding the
 irrigating duty of the water
 supply of the Kurnool
 Canal has been obtained,
 and he is unable therefore
 to give the particulars asked
 for. In the Godavery and
 Krishna Deltas the Canals
 are designed to carry 2 cubic
 yards per acre per hour,
 and this quantity, which
 is equivalent to the irriga-
 -ting duty of $66\frac{2}{3}$ acres for
 each cubic foot per second,
 has been found to be ample.
 The soil of the Deltas
 is

is alluvial.

2

I am also directed

to transmit a Copy of

the Proceedings of His

* G. O. No 2333 of 24th July 1866 Government as per mar.

. 2813 " 4th Sept " - give, which His Ex-

. 3034 " 21st Sept " - cellency the Governor in

. 1676 " 4th June 1867 - Council Resolves may be

. 3668 " 26th Nov " of some use to the Irr-

. 3756 " 2nd Decr 1868 - gation Department, in

. 1609 " 5th July 1870 - Mysore, as throwing

. 872 A " 30th March 1872 - light upon the quantity

. 1458 " 13th June " of water required for

. 30 " 8th January " rice cultivation.

Wm. 6/1/74

G. M. W.

Desp^d with L. Copies with
 the Prot^s alluded to. 12/3/74.

From the Officiating Under Secretary to the Chief
Commissioner of Mysore dated 23rd December 1873 ^{No 538}
3271

Memorandum from the Chief Engineer for
Irrigation dated 27th December 1873
No 934 C.

For Order.

In letter No 538
3271

dated 23rd December 1873 the
Officiating Under Secretary
to the Chief Commissioner
of Mysore, under direc-
tion of the Government
of India, referred for the
opinion of the Chief En-
gineer for Irrigation the
question of the precise
quantity of water required
for

Circular
I am not sure how
the Govt. deal with
such cases
I am desired by
Mr. Stiff direct
27/12 (M)

per second to irrigate a given
area of rice cultivation. In
reply Colonel Mullins drafted
a letter in his capacity as Joint
Secretary to Government afford-
ing such information as
is available, under the orders
of His Excellency the Governor
in Council.

The Government
of Mysore having apparently
called for Colonel Mullins'
personal opinion as Chief
Engineer for Irrigation on
certain professional points,
it seems doubtful whether
the reply should go from
Government.

Colonel Mullins
explains that he is not at
present

present in direct commu-
-nication with the Officers
of other Governments, and
that he believes the Govern-
-ment formerly objected
to any direct correspondence.
No orders on the subject
however appear to be on
record.

The question is ac-
-cordingly submitted for
the views of the Honorable
Mr. Robinson.

G.M.

57. 11/1
★
Oct. of 1874 Madras.

PUBLIC WORKS.

The Chief Engineer for
Irrigation
&
The Chief Commissioner
of Mysore

Dated

Recd.

Encl. 1/2

G. O. 10th clause No. 628

629.

Nos. 216-217 & 218

Ordered that the
Chief Commissioner of
Mysore be addressee of
regarding the irrigating
duty of the water
supply of the Kurnool
Canal —

31/1