Public Works (1896) Department.

G.O., No. 65/66 I

DATED 18-1-96

[Despatch Abstract.]

Kistna delta system. Approving the recommendation of the Chief Engineer for Irrigation that application be made to the Govt. of India for the total existing sanction for direct charges for the —, being increased from Rs 1,39,19,784 to Rs 1,49,03,784.

The Govt. of India addressed.

[P.W. 26
1,000—23-10-96.]

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.
							9

FURTHER PAPERS.

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

No. 65 I., 18th January 1896.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigatio
Account

Read—the following papers :—

From Major W. L. C. BADDELEY, R.E, Superintending Engineer, II Circle, to the Chief Engineer for Irrigation, dated Bezwada, 16th December 1895, No. 1999 K.S.

With reference to paragraph 2 of you memo. No. II/142 K.S., dated 3rd September 1895, I have the honour to report at, when submitting the statement of revised completion estimates for the Kistna del system, printed with G.O. No. 857 I., dated 11th October 1893, only the works whi were considered necessary were included, and the balance of the estimates, togetr with the savings on completed works, were added to the balance for unforeseen wos of the system. The whole of the balance for unforeseen works has, as you are are, been used up on the works carried out recently for the extension of irrigation, a it is now accepted that the ultimate area of 475,000 acres must be very largely ineased—probably to more than 600,000 acres.

2. It is impossible now to strike out any the works in the statement, and until they are fully completed or abandoned, it willot be possible to say what savings may be effected.

3. The provision originally made in thetatement for the drains is necessary, and owing to the extension of irrigation nowoing on, it is doubtful whether there will be any saving under this head. In the estern division it is certain that very heavy expenditure under the head of drainagust be incurred, if cultivation is to be extended to large areas of land that are now aste owing to submersion.

4. It is necessary, if irrigation is to bextended, to carry out many additional works which were not provided for in the rsed statement both in the Eastern and Western divisions, and if these works are ncarried out all further extension must stop.

5. In these circumstances, I beg you wbe so good as to obtain the sanction of Government for a sum of Rs. 8,00,000 beingranted under unforeseen works of the Kistna delta system to meet the outlay on various sub-projects proposed to be carried out with the object of extending irrion. The return from the expenditure proposed will certainly be very high—probat at least 15 per cent. on capital outlay.

6. No expenditure will be incurred agai this amount except on duly sanctioned estimates under 49. Capital. Each sub-prot will be worked out and sent up for sanction in the same manner as in the caof the Pedalanka channel sanctioned in G.O. No. 467 I., dated 20th June 1894 that there will always be a proper check upon the capital expenditure of the system. It would, however, be impossible at this stage to completely revise thhole estimate for the Kistna system as no one can at present accurately fix the linto which irrigation may safely be extended, and provided each proposal for exsion is carefully considered and steps at the same time taken to steadily improve existing sources of supply and means of distribution, there can be no risk whaer in forming a fund for "unforeseen works," which can be drawn upon as requi

No. 8 I.

Note by the Chif Engineer for Irrigation.

In his despatch No. 9, dated 9th February 1882, printed in Proceedings of Madras Government, No. 291 I., daed 28th March 1882, the Secretary of State accorded sanction to the completion estimates of the Kistna delta system. The probable unexpended balance of this sanction on 1st April 1896 will be Rs. 25,47,931 as shown below :—

—	mount of anctioned estimate.	Outlay to end of 1894–95.	Grant for 1895–96.	Total probable outlay up to 31st March 1896.	Probable balance on 1st April 1896.
	RS.	RS.	RS.	RS.	RS.
Works	107,30,994	83,19,173	4,29,168	87,48,341	19,82,653
Establishment	25,07,268	19,74,088	93,832	20,67,920	4,39,348
Tools and plant	6,68,043	5,45,859	15,000	5,60,859	1,07,184
Loss by exchange	20,000	9,929	..	9,929	10,071
Total ..	39,26,305	1,08,49,049	5,38,000	1,13,87,049	25,39,256
Less receipts on capital account	6,521	15,196	..	15,196	— 8,675
Total, Direct charges ..	,39,19.784	1,08,33,853	5,38,000	1,13,71,853	25,47,931

2. In the statements printed in roceedings of Madras Government, No. 857 I., dated 11th October 1893, for the rpose of obtaining an extension of sanction, Rs. 3,75,257 were provided for unfeseen works from the savings then effected. The extension last sanctioned by thGovernment of India in its letter No. 300 I., dated 28th December 1893, printed iProceedings of Madras Government, No. 34 I., dated 17th January 1895, will expiren the 1st April 1898. In the meantime, the amount provided for unforeseen work has been exhausted. In his letter No. 1148 K.S., dated 23rd August 1895, the Serintending Engineer, II Circle, represented the necessity for an additional sum beg made available under this head, as it would be absolutely useless to attempt to reve the whole estimate at this stage, for no one is in a position to fix the ultimate aa of the system, but the yearly increase in acreage and revenue points to the nessity of having a sum available under unforeseen works against which small piects to be grafted on the main system can be sanctioned.

3. In his subsequent letter No. 19 K.S., dated 16th December 1895, appended to this note, the Superintending Engeer urges that a sum of Rs. 8 lakhs may be provided for unforeseen works, and fohe reasons assigned therein the undersigned strongly recommends that the sanctiof the Government of India thereto may be obtained under paragraph 14, chapter Volume II, Public Works Department Code. Including the percentage for establishnt, the excess over the existing sanction will be Rs. 9,84,000, or Rs. 4,07,978 belowhe limit of 10 per cent. which can be sanctioned by the Government of India.

4. It may be here remarked thate data upon which the size of the head sluices and main canals of the system were calated was two cubic yards per acre, or a duty of 66 acres per cubic foot per second. his, it was calculated, could be maintained for the ultimate proposed area of irrigati of 470,000 acres throughout the irrigation season, except for about 40 days in threar. Experience, however, has proved that, owing to the heavy clayey nature of tdelta soil and care taken in the distribution of the water and its utilization by theots, that a duty of 90 acres per cubic foot per second may be reckoned upon, pointito an ultimate development of no less than 700,000 acres or 50 per cent. in excef the originally calculated irrigable area.

5. The area irrigated according tie last returns for the fasli 1304 (1894–95) was 519,976 acres and the net return r paying interest charges was 9·08 per cent. on the total capital outlay to the end oat year, thus fully realizing the anticipations held by the originators of this magnint scheme of irrigation, which, after paying interest at 4 per cent. on the capitoutlay, has already repaid to Government Rs. 1·33 for every rupee borrowed. It is therefore earnestly hoped that, as the remunerative character of the system will not be affected by the small addition to the capital account now applied for, sanction thereto may be given at an early date, so that the execution of small projects for the extension of irrigation, which are either now under contemplation or may be taken in hand later on, may not have to be kept in abeyance for want of funds, but may be proceeded with as soon as the estimates for them have been sanctioned by Government.

(Signed) R. R. E. DRAKE-BROCKMAN, Col., R.E.,
10th January 1896. Chief Engineer for Irrigation.

Order—No. 65 I., dated 18th January 1896.

The recommendation of the Chief Engineer for Irrigation is approved.

2. The following letter will be sent.

[Here enter No. 66 I., dated 18th January 1896.]

(True Extract.)

Under Secy. to Govt., P.W.D.,
Irrigation Branch.

To the Chief Engineer for Irrigation.
" Superintending Engineer, II Circle.
" Examiner, Public Works Accounts.
" Revenue Department.

Exd. T. K. Narayana Aiyangar.

Spare Copies

IRRIGATION.
ACCOUNT.

Govt. of {1896} Madras.

PUBLIC WORKS.

Dated January, 18th.

Recd. *Encl.*

G.O. No. 65 I., 18th Jan. 1896.

JANUARY.

Kistna Delta System

Approving the recommendation of the Chief Engineer for Irrigation that application be made to the Government of India for the total existing sanction for direct charges for the — being increased from Rs. 1,39,19,784 to Rs. 1,49,03,784.

6

my sanction

IRRIGATION.
ACCOUNT.

Govt. of {1896} Madras.

PUBLIC WORKS.

Dated January, 18th.

Recd. *Encl.*

No. 66 I., 18th January 1896.

JANUARY.

Kistna Delta System

Requesting sanction to the total existing sanction for direct charges for the — being increased from Rs. 1,39,19,784 to Rs. 1,49,03,784.

No. 66 I., 18TH JANUARY 1896.

PUBLIC WORKS DEPARTMENT.

Irrigation.
Account.

LETTER—from

Colonel R. R. E. DRAKE-BROCKMAN, R.E.,
Secretary to the Government of Madras,
Public Works Department,
Irrigation Branch,

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,
PUBLIC WORKS DEPARTMENT.

SIR,

In forwarding herewith a copy of Proceedings of Madras Government, No. 65 I., dated 18th January 1896, I am directed to request that under paragraph 14, chapter V, Volume II, Public Works Department Code, the Government of India will be pleased to accord sanction to the total existing sanction for direct charges for the Kistna delta system being increased from Rs. 1,39,19,784 to Rs. 1,49,03,784, the increase being absolutely necessary to admit of improvements not originally provided for being proceeded with for the extension of irrigation in the delta.

I have the honour to be,
Sir,
Your most obedient servant,

Colonel, R.E.,
Secretary to Govt., P.W.D.,
Irrigation Branch.

MADRAS,
18th January 1896.

Exd. T. K. Narayana Aiyangar.
Spare Copies

No 8 I of 10-1

Read the following:—

From Supt Engr R Circle, No. 1999 K.S., d/ 16.12.95

48

Note by the Chief Engr. for Irrigation

In his despatch No. 9, d/ 9th Feb/82, printed in P.W.G. No. 291 I., of 28 Mar/82, the Secretary of State accorded sanction to the completion estimates of the Kistna Delta system. The probable unexpended balance of this sanction on 1st April /96 will be Rs 2547,931 as shown below.—

	Amount of sanctioned Estimate	Outlay to end of 1894-95	Grant for 1895-96	Total probable outlay up to 31 Mar/96	Probable balance on 1st April/96.
	Rs.	Rs.	Rs.	Rs.	Rs.
Works.	107.30.994	83.19.173	4.29.168	87.48.341	19.82.653
Establishment.	25.07.268	19.74.088	93.832	20.67.920	4.39.348
Tools & Plant.	6.68.043	5.45.859	15.000	5.60.859	1.07.184
Loss by Exchange.	20.000	9.929	.	9.929	10.071
Total	139.26.305	108.49.049	5.38.000	113.87.049	25.39.256
Less receipts on Capital Account.	6.521	15,196	..	15.196	- 8.675
Total, Direct Charges	139.19.784	108.33.853	5.38.000	113.71.853	25.47.931

2. In the statements printed in P.W.G. No. 857 I., d/ 11 Oct/93, for the purpose of obtaining an extension of sanction, Rs 3,75,257 were provided for unforeseen works from the saving then effected. The extension last sanctioned by the Govt of India in its letter, No 300 I., d/ 28th Dec/93, printed in

sanction

P.W.G. No 34 I., d/ 17 [illegible] will expire on the 1st April/96. In the meantime, the amount provided for unforeseen works has been exhausted. In his letter, No 1148 I.S., d/ 23d Augt /95, the Supdg Engr II Circle, represented the necessity for an additional sum being made available under this head, as it would be absolutely useless to attempt to revise the whole estimate at this stage for no one is in a position to fix the ultimate area of the system, but the yearly increase in acreage & revenue points to necessity of having a sum available under unforeseen works against which, small projects to be grafted on the main system, can be sanctioned.

3. In his subsequent letter, No 1999 K.S., of 16th Dec /95, appended to this note, the Supg. Engr urges that a sum of Rs 8 lakhs may be provided for unforeseen works, & for the reasons assigned therein, the undersigned strongly recommends that the sanction of the Govt of India thereto may be obtained under para 14, Chapter V, Vol II, P. W. D. Code, Dec/93, printed

ny sanctio
be Rs 9,84,000
Rs 4,07,978 below
the limit of 10 per cen
which can be
sanctioned by the
Govt of India.

4. It may be here
remarked that the
data upon which the
size of the head slui
& main canals of th
system were calculat
was 2 cubic yards
per acre, or a dis
of 66 acres per cub
foot per second;
This it was calcu
could be maintain
for the ultimate
pleased
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total existing
tion for direct
charges for

Execution of small

P. W. CU INT No. 243

~~Hon'ble Mr. [illegible]~~
~~Hon'ble Mr. [illegible]~~

—

Kistna Delta System.
Application for increasing existing sanctioned amount for — Endsl
Recd: 10.1.96

No 291 G./28-3-82 ✓
" 857 G. " 11-10-93 ✓
" 34 G. " 17-1-94 ✓
" 467 G. " 20-6-94 ✓
" 734 G. " 10-9-95 ✓

F.E.G.
18/1

To

The Secy to Govt. Rev Dept
for favor of Counter-initials

Issue

B R
M. E. I

18.1.96

No. 1999 R.S.

Supg: Engineer's Office,
2nd Circle Bezwada,
16th December 1895.

18

From

Major W. L. C. Baddeley R.E.
Supg. Engineer,
2nd Circle,

To

The Chief Engineer,
For Irrigation,
Madras.

Sir,

With reference to para 2 of your Memo No. II/142 R.S. dy 3rd Septr 95, I have the honour to report that when submitting the statement of revised completion estimates for the Kistna Delta System printed with G.O. No 857 I dy 11th Octor 1893, only the works which were considered necessary were included, and the balance of the estimates together with the savings on completed works were added to the balance for unforeseen works of the System. The whole of the balance for unforeseen works has, as you are aware,

aware, been used up on the works carried out recently for the extension of irrigation, as it is now accepted that the ultimate area of 475,000 acres must be very largely increased probably to more than 600,000 acres.

2. It is impossible now to strike out any of the works in the statement and until they are fully completed or abandoned it will not be possible to say what savings may be effected.

3. The provision originally made in the statement for the drains is necessary, and owing to the extension of irrigation now going on it is doubtful whether there will be any saving under this head. In the Western Dn it is certain that very heavy expenditure under the head of drainage must be incurred, if cultivation is to be extended to large areas of land that are now waste owing to submersion

4. It is necessary if irrigation is to be extended, to carry out many additional works which were not provided for in the revised statement both in the Eastern & Western Divisions, and if these works are not carried out all further extension must stop.

5. In these circumstances, I beg you will be so good as to obtain the sanction of Government for a sum of Rs 8[illegible]0,000 being granted under unforeseen works of the Kistna Delta System to meet the outlay on the various sub projects proposed to be carried out with the object of extending irrigation. The return from the expenditure proposed will certainly be very high, probably at least 15% on capital outlay.

6. No expenditure will be incurred against this amount except on duly sanctioned estimates under 49. Capital. Each sub project will be worked out and sent up for sanction in the same manner as in the case of the Pedalanka Channel sanctioned in G.O. No 467 I dy 20.6.1894 so that there will always be a proper check upon the capital expenditure of the main system. It would, however, be impossible at

at this stage to completely revise the whole estimate for the Kistna System as no one can at present accurately fix the limit to which irrigation may safely be extended, and provided each proposal for extension is carefully considered and steps at the same time taken to steadily improve the existing sources of supply and means of distribution there can be no risk whatever in forming a fund for "unforeseen works" which can be drawn upon as required.

I have the honour to be,
Sir,
Your most obt. Servant,
W. V. Buckley
Major R.E.
Supg Engineer, II Circle.

J.W.

3

CHIEF ENGINEER
FOR IRRIGATION.
18 DEC. 95
No. 262K

From

The Supdg Engineer,
2nd Circle.

P.W.E. 1
~~Q~~ 248/86

To

The Chief Engineer,
For Irrign:
Madras.

No. 1999 K.S.
16.12.95.

Kistna Delta System
Requests to obtain
Sanction of Govt: for
the grant of 8 lakhs of
Rupees required for
works in the — under
the Circumstances explained.