

Revenue (1897) Department.

Misc.
ROUTINE SERIES.

G.O., No. 2057

DATED 22 April

[Despatch Abstract.]

Coming to the Board of Revenue G.O.
Public Works Department stating that
consideration of the Krishnagiri Project
will not be finally abandoned, but will
be taken up again when the Tank
Restoration Scheme investigation of the
Perniar minor basin is completed.

BACK PAPERS.

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

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.
600	3789/97		30.9.98 12.8.97				

IRRIGATION.

Government { 1897 } of Madras. PUBLIC WORKS.

On 27/4/97

Recd.

Enclosures

Regd.

Spare copies

1897.

G.O., No. 309 I., 22nd March 1897.

Comms No: 2057 dtd 22nd April 1897

Communicated to the

Board of Revenue.

MARCH.

Handwritten signature

List

To
17 Mr. Board of Rev. Secy.
RS
Des. 27-4-97

Krishnagiri Project

22-4-97

Stating that consideration of the — will not be finally abandoned, but will be taken up again when the Tank Restoration Scheme investigation of the Penniar minor basin is completed.

Handwritten signature

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Irrigation.

READ—the following papers :—

From H. H. O'CONNELL, Esq., Executive Engineer, Salem Division, to the Superintending Engineer, IV Circle, dated 28th July 1896, No. 273 S.E.

In continuation of my No. 232 S.E., dated 2nd July 1896, asking for a surveyor to continue the investigation of the Krishnagiri project, I have the honour to state that I have since gone further into the matter and consider that the project is hopeless and would recommend that it be dropped.

2. I enclose abstract of discharges over the Nedungal anicut for the last five years, from which it will be seen that nothing like the amount of water calculated on by Major Romilly is available. He calculated that 15,428 millions of cubic feet were available, but the discharges over the anicut, which is 10 miles below the site of proposed dam, show that nothing like this amount is available. I find that of the stations at which rainfall registers were kept on which he based his calculations, only two are in the catchment basin, viz., Hosūr and Krishnagiri. He has included the Shevaroy Hills in his catchment basin, but they lie a long way below the site of proposed dam. I think, therefore, that his average rainfall on which he based his calculations is all wrong.

3. I am quite sure there is not enough water to warrant the execution of this project, and an inspection of the country round showed that, if the dam were built, it would be very costly to distribute the water from it.

4. I therefore request that this reference may be omitted in future from the unanswered reference list.

ENCLOSURE.

ABSTRACT of the calculation of discharges of water passed over the anicut and through sand sluices at Nedungal for the last five official years in millions of cubic feet.

Month.	1891-92.		1892-93.		1893-94.		1894-95.		1895-96.	
	Discharge over the anicut.	Discharge through sand sluice.	Discharge over the anicut.	Discharge through sand sluice.	Discharge over the anicut.	Discharge through sand sluice.	Discharge over the anicut.	Discharge through sand sluice.	Discharge over the anicut.	Discharge through sand sluice.
April ..	..	..	..	..	37.99	..	..	..	..	..
May ..	..	..	216.09	..	252.33	..	126.91	..	90.89	..
June ..	246.73	..	420.78	..	686.02	..	327.61	..	..	..
July ..	..	..	267.58	..	816.42	..	11.81	44.67	..	..
August ..	..	..	1,998.20	..	..	..	1,150.92	..	..	..
September ..	..	..	..	..	610.07	..	11.81	..	525.57	326.62
October ..	236.92	..	550.68	..	4,613.74	..	164.01	493.85	6,718.22	419.01
November ..	..	..	61.27	..	2,554.43	..	..	..	1,977.23	164.14
December ..	..	..	..	..	..	..	..	..	..	..
January ..	..	..	..	..	..	..	..	..	..	..
February ..	..	..	..	..	..	..	..	..	..	..
March ..	..	..	11.81	..	..	..	..	..	..	..
Total ..	492.65	..	3,556.35	..	9,570.94	..	1,792.97	478.52	8,311.91	909.77
Grand Total ..	492.65	..	3,556.35	..	9,570.94	..	2,271.49	..	9,221.68	..

No. 150/I.

Copy forwarded to the Chief Engineer for Irrigation with the information that the undersigned concurs with Mr. O'Connell and with a request that this reference may now be excluded from the unanswered reference list.

3rd August 1896.

(Signed) J. HANNAN,
Supg. Engineer, IV Circle.

Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), Mis. No. 5881, dated 21st November 1896.

Read—again Board's Proceedings, Mis. No. 4557, dated 17th September 1896.

Abstract.—Forwarding to the Collector of Salem for report Government Order, Revenue Department, Mis. No. 3481, dated 28th August 1896, regarding the abandonment of the Krishnagiri reservoir project, Salem district.

Read—also the following letter from the Collector of Salem, dated 8th October 1896, No. 5466 :—

I have the honour to return the enclosures received with Board's Proceedings (Revenue Settlement), Mis. No. 4557, dated 17th September last, and to report as follows.

2. The resolution refers to the proposed Krishnagiri reservoir project. This appears to have been originally recommended upon the ground that there was an available surplus in the Penniar river of about 15,500,000,000 cubic feet, whereas the present Executive Engineer calculates that the maximum available surplus at a spot 10 miles below the proposed anicut during the last five years is about 9,500,000,000 cubic feet. It is pointed out to me that these years may not be a good guide in the matter owing to bad seasons prevailing. The district average rainfall is about 31.5 inches, which is almost the same as that for the taluks of Hosūr and Krishnagiri, which is 32.12. The actuals for the two recording stations in the basin of the Penniar above the site of the proposed dam, omitting 1890 (which was a little below the average) as the Executive Engineer gives no figures for that year, are—

	Hosūr.	Krishnagiri.	Discharge in millions of cubic feet.	Official year.
Average—				
1870 to 1889 ..	32.86	31.39	..	1891-92
1891 ..	22.56	23.55	482.65	1892-93
1892 ..	27.47	36.02	3,556.35	1893-94
1893 ..	30.43	38.30	9,570.94	1894-95
1894 ..	31.57	33.39	2,271.49	1895-96
1895 ..	32.51	31.88	9,221.68	..

The figures for 1894 do not seem easily reconcilable with those for 1893 and 1895, but I notice that it is stated in 1884 by the Chief Engineer that it is very difficult to gauge the discharge at Nedungal. As surmised by the Board, the last five years have been below the average at Hosūr, but, strange to say, four of these have been above the average at Krishnagiri. This, however, can have had little effect upon the surplus, as the portion of the river basin in Krishnagiri taluk is, I roughly calculate from a map, perhaps about one-eighth of the part in Hosūr taluk, to say nothing of the catchment area in Mysore. Admitting this, the figures supplied do seem to prove that a surplus of 15,500 millions of cubic feet is not available. If that be so, the question arises whether the surplus that is available may not be put to use. I regret I can give no opinion upon this subject.

3. In view of the remarks of the Chief Engineer for Irrigation that there would be a possible failure "on the grounds of want of agricultural population and capital, as has been found to be the case under the Barur project," it may be thought that

nothing should be done even if some use could be found for available water. But I beg to point out that having recently spent some days at Barur, I am by no means sure that that project has a hopeless future before it. I have not the figures before me—expecting a detailed report—but since the Barur project has been completed, I think 3,000 acres of dry lands have been taken up and are now cultivated as dry. When definite orders are passed as to the grouping of the irrigation sources, main supply channel, tanks and channels from the tank, as to which I made detailed enquiries, I would not be surprised if most, if not all, of the above 3,000 acres which are commanded by the scheme, be not converted into wet. From this year forward the supply of water will be on a much more sound basis. Hitherto all the sluices were of one size—2 feet square, no matter what the extent of cultivation was under them, leading to much waste. Now their size is regulated by the amount of cultivation they have to irrigate. In short the Barur project has attracted both population and cultivation. There is a steady increase in the population of the district, and this is accompanied by a slackening of the ties that originally kept surplus population from moving where labour was more in demand. The number of labourers that go to and from various coffee estates, the fortunes that can be made by a little steady work at the Kolar gold fields have strongly tended in this direction. In Krishnagiri especially, there are cases of Pariahs even who have acquired much land out of their savings at the gold fields. Krishnagiri taluk in 1891 had not nearly recovered the loss of its population caused by the famine of 1876-77; and where there is more scope for expansion, the quicker the expansion will be. Krishnagiri lost 29 per cent. of its population between 1871 and 1881, increased by 26 per cent. between 1881 and 1891, and even this was 10½ per cent. below its population in 1871.

4. Whether the reservation of forests will permanently increase the rainfall in the catchment basin of the Penniar river is another question that might be considered before it be finally decided to abandon for ever a project which, if successful, would be of great benefit indirectly and directly to the district and so to the Presidency.

Resolution—Mis. No. 5881, dated 21st November 1896.

The Collector's letter read above will be submitted to Government with reference to its order No. 3481, dated 28th August 1896.

2. In its order No. 696 I., dated 30th July 1884, the Government considered "that the investigations made by Captain Romilly, R.E., sufficiently proved that an extensive reservoir might be formed at Krishnagiri at a cost which would be remunerative," and accordingly authorized "the preparation of detailed plans and estimates," remarking at the same time that "there can be no doubt that the work would prove of immense benefit to a part of the country which has suffered greatly in times of scarcity." The project was based on the assumption that there would be a total quantity of 15,428 millions of cubic feet of water available from the Penniar for storage in the proposed reservoir, and that this quantity would suffice to irrigate, in years of ordinary rainfall, an area of 500,000 acres, in addition to the extent already irrigated, and in a famine year, probably, for half that extent.

3. The papers received with the Government order under reply show that Major Romilly over-estimated the quantity of water available in the river, and that this was due to his having taken into account the rainfall at some stations which are outside the catchment basin. It is further stated that the discharges of the river, as recorded at the Nedungal anicut, which is 10 miles below the site of the proposed reservoir, during the last five years, give the total quantity available there at only 9,500 millions of cubic feet and that the nature of the country round is such that if a dam were built it would be very costly to distribute the water from it.

4. The condemnation of the project is thus mainly based on the calculation of the discharges of the river during the past five years, but unfortunately those years were more or less exceptionally unfavourable to cultivation and cannot be taken as a safe guide in the matter. The average rainfall at Hosūr and Krishnagiri, which are the only rain-recording stations in the catchment basin of the reservoir, is 32.86 and 31.39 inches, respectively. The fall at Hosūr was more or less below the average

during each of the five years 1891 to 1895. At Krishnagiri, however, the fall was more or less above the average in four of the five years; but the portion of the river basin in the Krishnagiri taluk is estimated by the Collector to be only about one-eighth of that in Hosūr. A part of the catchment basin also lies in the Mysore territory. Even if the total available quantity is not likely to be 15,500 millions of cubic feet, it may be large enough to justify the project being carried out. This question, however, cannot be answered without fresh investigation and estimates, especially as the Executive Engineer is of opinion that even if a dam were constructed, the distribution of water would be very costly.

5. With regard to the Chief Engineer's opinion formed on the experience of the Barur project that this project may fail for want of agricultural population and capital, the Collector points out that the case of the Barur project is not so hopeless as the Chief Engineer seems to think. The Collector has reason to believe that the Barur project has attracted both population and cultivation (capital) and thinks that in this respect the Krishnagiri project is likely to be attended with a larger measure of success. This project was the offspring of Mr. H. S. Thomas, one of the very ablest Revenue officers in the service. The Board knows from personal experience that the tract in question is one which largely requires additional irrigational facilities and is confident that population will follow irrigation. The value of such a work is by no means to be solely judged by the percentage which it pays on cost of construction. The Periyar project would hardly stand such a test.

The Board concurs in the Collector's view that the project should not be finally condemned without some further investigations.

(True Copy and Extract.)

(Signed) R. V. SRINIVASIAH,
Secretary.

G.O., Mis. No. 23, Revenue, dated 4th January 1897.

Read—again G.O., Mis. No. 3481, dated 28th August 1896.

ABSTRACT.—Referring to the Board of Revenue for report as to whether it concurs with the proposal to abandon the Krishnagiri reservoir project (endorsement of the Public Works Department, dated 19th August 1896).

Read—also Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), dated 21st November 1896, Mis. No. 5881.

Order—Mis. No. 23, Revenue, dated 4th January 1897.

Transferred to the Public Works Department, with an expression of concurrence in the Board's remarks.

(True Extract.)

(Signed) LIONEL DAVIDSON,
Under Secretary to Government.

No. 45 I.

Note by the Chief Engineer for Irrigation.

Captain F. J. Romilly, R.E., worked out data for the Krishnagiri project in the Salem district, which was for the formation of a reservoir by a masonry dam across the Penniar in 1884, and in G.O., No. 696 I., dated 30th July 1884, detailed plans and estimates were called for.

2. The general idea was for a reservoir to irrigate 50,000 acres to cost about 40 lakhs. It was then estimated that 15,428 millions cubic feet of water would be available for storage.

3. The Executive Engineer, Salem division, reported on the project in July last and was supported by the Superintending Engineer in considering that the investigations should be dropped as the water in the river was insufficient.

4. In Proceedings of Madras Government, Revenue Department, Mis. No. 23, dated 4th January 1897, the Collector gives his reasons for desiring further investigation, and in this is supported by the Revenue Board and Government in the Revenue Department.

5. It is considered that the project need not, under the circumstances, be finally abandoned, but nothing effective can be done in investigating it until the Tank Restoration Scheme investigation of the whole Penniar minor basin is completed.

24th February 1897.

(Signed) W. HUGHES,
Chief Engineer for Irrigation.

ORDER—No. 309 L., dated 22nd March 1897.

Consideration of the Krishnagiri project will not be finally abandoned, but will be taken up again when the Tank Restoration Scheme investigation of the Penniar minor basin is completed.

(True Extract.)

W. Hughes

Under Secretary to Government,
Irrigation Branch.

To the Superintending Engineer, IV Circle.
" Chief Engineer for Irrigation.
" Chief Engineer for Irrigation, T.R.S.
" Examiner, Public Works Accounts.
" Revenue Department.

20/6

Ed. T. K. Narayana Aiyangar.

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READ AGAIN G.O., No.
189

DATED

CURRENT No.

ENCLOSURES TO O. No.

ORDER OF GOVERNMENT

A A A A A A A

LETTER OF GOVERNMENT

STATEMENT WITH DUTY

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