Proceedings of the Madras Government, Revenue Department, 2nd September 1873.

No. 1. Read the following Proceedings of the Board of Revenue, dated 23rd July 1873, No. 1,364 :—

Read the following Official Memorandum from J. B. PENNINGTON, Esq., Acting Collector of Trichinopoly, to J. GROSE, Esq., Secretary to the Board of Revenue, dated 10th June 1873, No. 109 :—

THE Collector of Trichinopoly has the honour to forward, with reference to the Board's Official Memorandum, No. 524, dated the 12th April 1872, the accompanying copy of Mr. Banbury's report on the irrigation wants of the district, together with his own observations.

ENCLOSURE No. 1.

From G. BANBURY, Esq., Collector of Trichinopoly, to A. MACGREGOR, Esq., Acting Secretary to the Board of Revenue, dated 29th December 1868, No. 266.

ADVERTING to the Board's Proceedings, No. 7,514, dated 18th November 1867, I have the honour to report upon the wants of this province in respect to irrigation-works.

2. There are at present no projects of irrigation, the construction of which has been postponed from want of funds or from any other cause.

3. In the village of Kannanur and taluq of Museri, there are two reservoirs constructed probably by former Governments, but long since in ruins. Being completely silted up, their beds have been, for upwards of 20 years, cultivated with dry grain. The annexed statement gives the present and proposed income under each of these heads and the probable amount required for their restoration :—

Works.	Present Income.	Proposed Income.	Difference.	Probable Amount required for Restoration.
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Royanery tank	260 4 0	752 0 0	491 12 0	4,000 0 0
Iyapillay do.	257 14 0	797 4 0	540 0 0	4,500 0 0

4. In order to ascertain whether these tanks might be advantageously restored, a reference was made to the Department of Public Works for investigation and opinion.

5. Levels have accordingly been taken concerning the Royanery tank, and the results show that the deep bed is 8 feet above the level of the land under the tank ; that its tendency to silt is apparently more than ordinarily great ; and that the artificial bund has already approached that limit to which it could be raised without danger. These circumstances certainly condemn the restoration of this reservoir ; but I still defer expressing my conclusive decision in this respect, pending the proposed inspection of the locality by the Superintending Engineer, probably in January next, and the further scrutiny of the Executive Range Officer who took the levels above adverted to, and who has promised to look again into this matter.

6. As regards the Iyapillay tank, the detailed examination of the locality has not as yet taken place, nor any opinion expressed concerning it by the Department of Public Works.

7. In the taluq of Wudiarpolliem, there are the ruins of an ancient large tank, called Ponnairy. The Tahsildar and the Deputy-Collector, in whose charge that taluq is situated, strongly advocate the restoration of this reservoir, stating that the project would bring under wet cultivation a large extent, viz., some 4,000 acres of dry land, yielding a clear profit of 8,000 Rupees per annum in round numbers. I will shortly communicate to the Board the result of my correspondence with the Department of Public Works upon this subject.

8. Captain Oakes is generally of opinion that in 99 out of 100 tanks, which have been destroyed by silt, should not be restored, as the same process which destroyed the tank originally must, in the course of time, destroy the tank formed by raising the artificial bund, and that the funds that could be spared for restoring the abandoned tanks might be far more usefully and profitably employed by rendering most secure and capacious the existing tanks, which are not subject to such rapidly deteriorating influences as are those which have been destroyed. I certainly agree with him in this opinion, but we will have each case determined upon its respective merits, and submit proposals to the Board in all feasible instances. I may here mention incidentally that, with regard to the annual repairs of tanks, we are much hampered by the Standing Rule which restricts the outlay to five years' revenue. The assessment is now so light that the sum-total of the five years' beriz is, in most cases, altogether inadequate to carry out the required work.

9. The under-mentioned fresh works were recommended as promising projects of irrigation:—

(1.) Formation of reservoirs connected with the Iyar, and utilizing the large volume of water brought down by that river, and now flowing into the Cauvery.

(2.) Formation of an extensive reservoir at the foot of the Patchamalay Hills.

(3.) Better irrigation of the Cutlay Maganum.

10. The first-mentioned scheme includes the Jambery and Taligay tanks.

11. The Jambery is situated to the west of the river Taligyar, and at the foot of the Kollimalay Hills. The extent under cultivation is some 1,100 acres. It is proposed to convert this tank into a large reservoir by raising the bund throughout and excavating a feeding channel from the Taligyar.

12. The existing source of supply includes a drainage area of about 8 square-miles, and this could be supplemented by the excavation of the proposed feeding channel, making in all 35 square-miles of hilly country, subject to frequent falls of rain as the available drainage area, while the [illegible] to carry off the surplus.

13. The proposed site is a large basin with a moderate inclination of the bed. The Executive Engineer reports that an enormous volume of water could be stored without raising the bund to an excessive height. Not only would the extent of the present cultivation be considerably increased, but, from its situation on the highest level, the reservoir could well supplement the supply to the under-mentioned six tanks situated below it:—

	Tanks.
Alathurampatty	2
Marady	1
Yairampoody...	1
Vencatachalapuram...	1
Reddymalay...	1

14. Under the circumstances above explained, this work commends itself as a very promising project; and if Captain Oakes, who has promised to express his opinion after an inspection of the locality, concurs in the feasibility of enlarging the reservoir in the manner proposed, I will obtain the necessary details, and submit them for the consideration of the Board.

15. The Taligay tank is a small reservoir of ancient construction, and is situated at the source of the river of the same name, which, rising in the gorge between the Patchamalays and Kollimalays, and receiving numerous tributaries from both ranges, assumes the name of Iyar. This tank is much silted up, and could hardly irrigate 35 acres in its present state. By raising the bund, restoring the calingulah, and making thorough repairs, 200 acres could probably be brought under cultivation. A detailed examination will shortly be made, and, if the tank be restored, the waste lands, now covered with jungles on the line of the road, now under construction, from Trichinopoly to the Salem frontiers, via Toriore, will be cleared, and, it is to be hoped, become gradually populated.

16. Scheme No. II., known as Mr. Puckle's Pokkini Project, has in view the formation of an extensive reservoir at the foot of the Patchamalay Hills. In August 1863, Mr. Puckle, when Deputy-Director of Revenue Settlement, strongly recommended this undertaking.

17. A few miles due west of the Perambalur Cusbah, two spurs of the Patchamalay embrace a valley of some 5 miles in length by 4 or 5 in breadth. This valley contains seven villages, and a total ayacut of 15,000 acres. The soil is represented to be rich and loamy, and some 8,000 acres are nearly a dead level.

18. At the head of the above valley, six branches of the Konary river run down in as many gorges of the hills, and bring such an abundant supply of water at certain seasons, that it is probable that a tank of almost any size might be filled in a single day. These waters run at present to waste, and but a small portion thereof is diverted to irrigation purposes.

19. About a mile from the eastern slope of the Patchamalay range, there is an isolated hill about equi-distant from the two spurs that enclose the valley. Mr. Puckle suggested the scheme of connecting this rock with the two spurs by an artificial bund, of a mile in length, on either side, and intercepting the drainage to form a reservoir with a water-spread of some 4 or 5 square-miles. The Patchamalay range would almost surround it on three sides, and on the fourth side the rock would form the centre of the bund connected by the proposed artificial junctions.

20. This project when completed would, however, not only irrigate some 3,200 acres, but would also regulate the water-supply of a chain of six important tanks, lying one below the other.

21. A survey appears to have been made by the then engineers, but no report or estimate was forwarded, and the subject dropped ever since.

22. Mr. Lawford, the present Executive Engineer, has now examined the locality; but his report speaks most unfavourably of the feasibility of the scheme. He considers that the site is physically unsuited to the purposes of a reservoir, the ground sloping in each direction down to the foot of the artificial bund; that the supply, which must be derived entirely from the drainage area of about ten square-miles upon the summit of the hills, rising probably not less than 1,200 feet [illegible] most likely prevail over the [illegible] velocity that no surplus calingulah, with a manageable head, could provide for the discharge. No artificial bund, however strong, could withstand these torrents. While expressing serious apprehensions regarding the success of this undertaking, which may very probably result in considerable loss of life and property, Mr. Lawford advocates the propriety of projects of this description being carefully examined and considered by at least two experienced officers. The details of Mr. Lawford's examination are before the Superintending Engineer, and that officer has reserved his opinion, pending a personal inspection of the locality, which he hopes to make in January of the present year.

23. The third scheme refers to the improvement of the irrigation of the Cutlay Maganum.

Letter from Acting Secretary, Board of Revenue, Department Public Works, to Collector of Trichinopoly, 31st May 1841, No. 309.
From Collector of Trichinopoly to Board, 29th July 1841.
Extract Board's Proceedings, Department Public Works, 18th October 1841, No. 527.
From Collector to Board, 1st November 1841.
Extract Minutes Consultation, 14th February 1843, No. 151.

I beg to refer the Board to the correspondence as per margin, recognizing the imperfect state of the irrigation of this Maganum, and recommending the formation of reservoirs supplied from the Cauvery. The Mirassidars complain of the present insufficient irrigation from the Ambravatty, and pray for an early provision for cutting a channel from the Cauvery for the better irrigation of their lands.

24. The Superintending Engineer, to whom a reference was made upon the subject, states that the cost of cutting a channel from the Cauvery at once condemns the work.

25. The channels, which, it was proposed, might be extended to supply the Cutlay Maganum are the Vengal and the Calingaroyen, terminating, respectively, nine and fourteen miles west of the Ambravatty, in the Coimbatore District. The country through which the extension would have to pass is represented to be altogether unfavourable for the formation of a channel. Even, if the extension had actually been carried out to the Ambravatty, at a cost of some 40,000 Rupees, the channels would have to be taken across that river and the formation of coramboo would probably cost 2,000 or 3,000 Rupees annually, whilst the return that might be expected from the improvement of the supply amounts to only 500 Rupees.

28. Captain Oakes proposes to supplement the supply to Cutlay by increasing the capacity of Veerarakiem Tank, which receives the drainage of a large area of country in the Coimbatore District. He is now having some levels taken, in view to ascertaining whether the Veerarakiem and Poodoocota tanks could be connected and formed into one tank. By connecting the two reservoirs and closing the valley between them, he considers that a very considerable reservoir might be formed, and with its aid it may be possible to obtain a double crop from the Cutlay lands. The cost of the work will probably be about 5,000 or 6,000 Rupees.

27. Independent of the above, the local officers have brought to notice several other projects to improve the food-producing powers of the district, an abstract of which is given below. I will have them carefully examined in the course of time and communicate with the Board :—

Taluq.	Project.	Proposed Income.	Proposed Expenditure	Remarks.
		RS.	RS.	
Wudiarpollien Taluq.	Formation of an anicut across the Chinnar, in the limits of Sivaramapuram.	13,000	20,000	.....
	Formation of an anicut across the Vellar, in the limits of Samudrasolapuram.	8,000	60,000	It is reported that this anicut would improve the lands in the South Arcot District.
	Formation of an anicut across the Coleroon, near the limits of Tirumanur.	28,000	70,000	.....
Trichinopoly.	Constructing two calingulahs to Mangaram.	500	3,000	.....
	Forming a reservoir in the village of Moollikambur, and utilizing the waters of the jungle-stream called Manjacopoo.	No additional revenue is expected, but the projects would secure the present revenue.	1,000	When the supply in the Wyacondan channel falls off, this reservoir might be used to water the crops in that village.
	Forming a reservoir and utilizing the waters of the Coryar.		6,500	This would supply water to the eastern villages depending on the Wyacondan.
	Removing the head sluice of the supplying channel of the Nachikurchi village to the west of the present head.	.....	300	This transfer would serve to irrigate the lands better than at the present.
	Removing the head sluice of the supplying channel of the Viroopatchipuram.	.....	1,000	
	Providing a new head sluice to the Ramavoyatalay channel.	.....	1,500	The present head being seven miles off the coramboo, much inconvenience is at present felt for diverting water into it.

28. Herewith I beg to submit Taluqwar Statements, showing the area of the ayacut and of the cultivation under each new work for the last three years.

(True Copy.)

(Signed) J. B. PENNINGTON,
Acting Collector.

P.S.—I AM personally acquainted with only two of the projects described, and the only one which, in my opinion, promises to be fairly remunerative, is that for a supplemental reservoir in the Coryar near Trichinopoly to improve the supply to the eastern end of the Wyacondan channel

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during the dry weeks towards the end of the season when the crops are said to be often in great danger of failing.

2. Major Vertue agrees with me in thinking that this project is fully deserving of more patient consideration than it appears to have received at the hands of the late Superintending Engineer ; and I would suggest that he should be called upon for his opinion as to its probable cost, etc., now that the railway is in progress.

3. It could, of course, have been made much more economically in 1866-67, when proposed by Colonel Greenaway.

4. A careful inquiry* would have to be made to ascertain exactly what amount of land is generally in urgent want of water, and what further extent of land might be expected to come under irrigation if the supply was improved in the manner proposed ; but it would probably be difficult to prove that the work would be directly remunerative, and I should not be very anxious to begin it, unless the ryots, who are said to suffer from want of water, come forward with a voluntary subscription.

* NOTE.—I will have this done on learning that the scheme has been referred to the District Engineer.

5. No doubt a part of the voluntary irrigation-cess might fairly be applied to this work as an undoubted improvement to the channel generally, and as a valuable contribution to the security of the ryots' crops.

TRICHINOPOLY, (Signed) J. B. PENNINGTON,
10th June 1873. Acting Collector.
To the Secretary to the Board of Revenue.

SUBMITTED for the information of Government.

2. In 1867 the Board called upon Collectors to report upon the wants of their respective districts in regard to irrigation works, and the replies received were submitted to Government for their information from time to time ; but the letter received from the Trichinopoly District in 1868 appears to have been mislaid in the Board's Office. A copy of it is now forwarded by Mr. Pennington with a few remarks of his own.

3. The Board recommend that the report be referred to the District Engineer for his remarks, through the Department of Public Works. None of the works in the district appear to have been neglected for want of funds.

No. 2. ORDER THEREON, 2nd September 1873, No. 933.

Irrigation, No. 1.

ORDERED accordingly that the District Engineer, Trichinopoly, be requested, through the Public Works Department, to submit his remarks on the foregoing reports.

(True Extract.)

(Signed) R. A. DALYELL,
Acting Secretary to Government.

To the Board of Revenue.
,, the Public Works Department.

Exd. F. R. Bantleman.

Revenue 1873 Sept
No 2370

1873.

Board of Revenue,

MADRAS.

PROCEEDINGS, 23RD JULY 1873, No. 1,364.

Despd 5 Augt 73. Encl. 5
× Rule Mr Dept

SO 2 September 73 No 933

Received 8 August 73

JULY.

No. 1,364.

Irrigation-works.—Letter from Collector of Trichinopoly forwarding, with his remarks, report of late Collector, Mr. Banbury, on wants of district in regard to — submitted to Government, with recommendation that report be referred to District Engineer for remarks.

Watts Arden

Revenue 28th Augt 2 Sept

No 933.

Ordered accordingly that the District Engineer be requested to submit his remarks on the proposals contained in the accompanying report.

Chief Secretary

27 Aug

To Public Works Dept
Mr Dept with 5 Encls

2nd Sept 73

To Revenue Dept