M.R.O. 1—20,002—12-8-65.

(1) Number of Pages 4

(2) Date of repair 26.2.66

(3) Initials of the Referencer

MADRAS RECORD OFFICE

GOVERNMENT OF MADRAS

Rev. DEPARTMENT

G.O. No. 137
B.P. No.

Press
Mis.

Dated 19.7.1873

196 .

Not to be folded or roughly handled

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Proceedings of the Madras Government, Public Works Department,
9th July 1873.

Read the following papers :—

No. 142. Endorsement of the Acting Secretary to Government, Revenue Department, dated 9th June 1873.

From J. GROSE, Esq., Secretary to the Board of Revenue, to the Honourable R. A. DALYELL, Acting Secretary to Government, Revenue Department, dated Madras, 26th May 1873, No. 869.

I AM directed to urge that the orders now in force requiring the calingulahs of tanks to be kept clear may be reconsidered, especially with regard to North Arcot, before the monsoon commences.

2. It has come to the knowledge of the Board that great excitement is felt on the subject in North Arcot. Several tanks were breached in May, and the Collector issued orders that all calingulahs should be cleared before the rains of the north-east monsoon commenced. This order was disobeyed in many cases, because it would, in ordinary seasons, such as they naturally expected, cause great loss to the ryots; but, as it happened, the rains of the north-east monsoon were extraordinarily heavy, many more tanks breached, and many officials were punished, because the calingulahs were still dammed up when the tanks burst. As might be expected, the orders for clearing the calingulahs are now more stringently enforced than ever, and the officials are in a dilemma, believing that if they remove the dams before the rains begin, and the rains are only as heavy as usual, great loss, and no gain, will accrue to the people, whilst if they do not remove the dams, they will be severely punished.

3. The order now in force is that issued in Extract Minutes of Consultation, dated 27th January 1859, Public Works Department, No. 250. All village officers are to be warned against the practice of putting ring-dams in front of calingulahs, and informed that they will be held responsible for any damage so occasioned. The North Arcot order goes beyond this; but being easy to promulgate and understand, and certain to insure safety, it is vigorously supported by the Public Works officials of the district, who press for it to be carried out in its entirety in all villages.

4. The people urge, with truth, that the calingulahs are almost all constructed on a lower level than the tank will bear; that sufficient water for the land irrigated by the tank is not stored, unless the level is raised by damming the calingulah; that this has always been the practice; that it can be done with perfect safety, proper precautions being taken for removing the dam when the water rises too rapidly; and that great loss will result if such dams are altogether prohibited. It is admitted that when rain is extraordinarily heavy and the water rises very rapidly, a moment comes when there is danger, and the dam should be removed at once.

5. The Board think that the order that all calingulahs shall be cleared before the monsoon should be modified. It should be inquired what height of dam should be allowed in each separate tank, and what circumstances will render its removal necessary, and some particular official should be charged with the responsibility.

6. I am therefore to suggest that the officers of the Public Works Department should be directed to consider the circumstances of each tank in communication with the officers of the Revenue Department, and that it should be determined once for all under what conditions dams may be placed across the calingulah.

TRANSFERRED to the Public Works Department.

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

No. 368C.

No. 143. *Note by the Chief Engineer for Irrigation.*

THE Board of Revenue in their Secretary's letter, No. 869 of the 26th ultimo, urge the modification of the orders requiring all calingulahs of tanks to be cleared before the setting in of the monsoon, on the ground that this rule is likely to entail loss; and they suggest that it should be ascertained for each tank what height of dam on the calingulah crest should be allowed, and what circumstances should be deemed to render its removal necessary.

2. I regret much that I am unable to recommend the adoption of the Board's proposal. So long as tanks depend for their safety on calingulahs of the old native pattern, that is on a work consisting of a crest of masonry below the proper full tank level, in which upright stones are inserted to facilitate the damming of the water, the material used for stopping the spaces between the stones should invariably be removed before the setting in of the periodical rains, because—

1*st*.—it very frequently happens that the monsoon sets in with a heavy fall of rain;

2*ndly*.—the calingulahs are very generally of insufficient capacity to discharge the flood waters if any damming be allowed;

3*rdly*.—the material used for damming the calingulahs in one season often becomes hard and difficult to remove, and this should therefore be done before an emergency arises;

4*thly*.—if the character of the rain-fall in any season be moderate, there is no difficulty in preventing any material loss of water by then proceeding to close the spaces between the upright stones.

To the points mentioned in paragraph 4 of the Board's letter, it may be answered that it is only in one sense true that the calingulahs (that is their masonry crests) are almost all constructed on a lower level than the tank will bear. Water may undoubtedly be generally retained above the crest level, but there is a certain level beyond which the water should not be allowed to rise, and the discharging level when water has to be discharged must be more or less below this maximum; that there is no question of the propriety of raising the level of the water above the crest, if the proper time for doing this be taken, and this time is generally immediately after the first burst of the monsoon; that such dams should not be altogether prohibited and, if in any case this has been done, the orders should be modified. The Order of the 27th January 1859, No. 250, referred to placing a ring-bund in front of the calingulah of the Oobulnaidoo tank at Muddenapully, and this, apart from the special circumstances of the tank, at the time, it having been just restored, was altogether improper; paragraph 23, Chapter XI., of the Public Works Code, contains a similar prohibition, but I do not understand this to extend to forbidding the spaces between upright stones to be closed up to a moderate height as soon as the first violence of the monsoon rains is over, and up to full tank level when the probability of another heavy fall of rain has passed away. Altogether, then, I fail to see any reason why the custom of requiring the entire clearance of calingulahs

before the commencement of the rains should not be enforced. The head of the village should be held responsible that this is done, and therefore that according to the character of the monsoon much or little of the spaces between the stones is closed.

3. While recommending, however, that existing orders should be strictly enforced, it is necessary to mention that it has long been recognized by the Public Works Officers that flush waste weirs without any upright stones, and of sufficient length to discharge with safety maximum floods, are the proper means of preventing the breaching of tanks. Many such escapes have been constructed; and, as fast as the funds available and the strength of the district establishments will admit, improvements of this kind will be carried out.

4. I need only add that an examination in detail of all the tanks in the country, as suggested by the Board, for the purpose of ascertaining to what height temporary dams might be placed above the masonry crests of the calingulahs, would take many years, while it would generally be impracticable to indicate the circumstances necessitating the removal of such dams, otherwise than by directing that when the tank is full, or nearly so, he discharging power of the calingulah should be kept in excess of the quantity of water coming into the tank.

OOTACAMUND, 17*th June* 1873. (Signed) J. JULLINS, Lieut.-Colonel, R.E.,
Chief Engineer for Irrigation.

No. 144. ORDER THEREON, 9th July 1873, No. 1,766.

IRRIGATION, No. 10.

THE Government consider that it would be unsafe to modify the orders requiring all calingulahs with upright stones to be cleared before the setting in of the monsoon rains, and these orders should therefore be strictly and universally enforced, the village authorities being held responsible that this precaution is taken some time before the commencement of the monsoon. Afterwards, as pointed out by the Chief Engineer for Irrigation, the closing of the spaces between the upright stones may, according to the character of the season, be more or less rapidly proceeded with, care being taken that the materials used for this purpose are cleared away again whenever the quantity of water coming into a tank is so considerable as to raise the water level too high for safety.

2. The attention of all District Engineers will be called to the necessity for substituting flush escapes, which will be self-regulating, for the old pattern of calingulah, as fast as circumstances will allow, and all new waste weirs should be of this description.

(True Extract.)

Lieut.-Colonel, R.E.,
Joint Secretary to Government.

To the Chief Engineer for Irrigation.
To all District Engineers.
To the Revenue Department.

Exd. S. T. Austin.

10 Spare Copies.

No. 2139

Govt. of [1873] Madras.

PUBLIC WORKS.

To

THE CHIEF ENGINEER FOR IRRIGATION

&c., &c., &c.

Dated July 9th.

Recd. July 18th 73 Encl.

G. O., 9th July 1873. No. 1,766.

JULY.

Nos. 142-144

137
15.2.74

Tank Calingulahs.—Passing orders on Note by the Chief Engineer for Irrigation on letter from the Secretary to the Board of Revenue requesting a modification of the orders requiring all calingulahs of tanks to be cleared before the setting in of the monsoon rains.

Walter Elliot
10th July 1873

12-8-65.