M.N.O. 1—30,000—16-10-58.

MADRAS RECORD OFFICE.

Government of Madras.

Revenue DEPARTMENT.

G.O. No.	1021	Press Mis.
316-17 Dated	15-4-1869	

Not to be folded or roughly handled

Proceedings of the Madras Government, Revenue Department,
15th April 1869.

No. 316. Read the following Proceedings of the Madras Government in the Public Works Department :—

Passing orders on the letter from the Collector of Malabar forwarding papers on the subject of the Palayad and Katampalli dams in the Kurambranad Talook. } (Here enter 7th April 1869, No. 1,134.)

No. 317. ORDER THEREON, 15th April 1869, No. 1,021.

Irrigation, No. 9. COMMUNICATED to the Revenue Board.

(True Extract.)

(Signed) H. WELLESLEY,
Acting Under Secretary to Government.

To the Board of Revenue, with Proceedings Public Works Department, No. 1,134.

Erd. F. R. Bantleman.

No. 179. Read the following letter from the Collector of Malabar, to the Secretary to Government, Public Works Department, dated Calicut, 5th March 1869, No. 28 :—

* Collector to Government, 7th July 1868. G. O., dated 24th July 1868, No. 2,378.
† Dated 4th February 1869, No. 114.
‡ Dated 2nd March 1869, No. 39.

1. Adverting to the correspondence noted,* I have the honour to forward letters from the Superintending Engineer, 7th Division,† and my Sub-Collector,‡ on the subject of the Palayad and Katampalli dams in the Kurumbranad talook of this district.

From 19th February 1866 to 7th January 1867.
From 29th April 1867 to 26th September 1867.

2. The dates noted show that the estimates for the works were delayed for some time in my office, partly because I knew there were no funds, and partly from oversight. This I regret, especially considering the sequel. I have only to submit that the estimates were not of especial emergency or importance. Still they should not have escaped notice.

They were sanctioned under G. O., dated 23rd October 1867. It was arranged that the works should be carried out by the Revenue Department. The Superintending Engineer ordered Rupees 695 to be placed at the disposal of the Revenue Department on the 1st November 1867.

3. January and February are the best months for such work to be undertaken, and orders were sent on the 22nd January to the Tahsildar of Kurumbranad to commence the works; but he was not able, owing to press of other work, to visit the spot till the middle of February. He applied at once to the Department Public Works for plans and advice. On the 7th March an Overseer was sent to assist the Tahsildar. No plan seems to have been furnished. The Overseer considered revised estimates necessary and prepared them. They were received by the Sub-Collector on the 12th and 18th March, and on the 19th idem that officer directed the Tahsildar to proceed with the works on these revised estimates.

4. It has been subsequently questioned whether the estimates required revision or not. On this point I beg reference to the portions of the enclosures noted. I think it clear they did require revision. But whatever opinion may be come to on that point now, the Overseer's opinion at the time was clear; the season for work was then far advanced, the amounts involved were petty, and, under the circumstances, I think the Sub-Collectorwas quite right in acting as he did, *i. e.*, in ordering the Tahsildar to go on with the work as recommended by the Overseer deputed to assist him.

Superintending Engineer's letter, paragraph 5.
Sub-Collector's letter, paragraph 5.

5. Several minor points raised in the Superintending Engineer's letter are explained by the Sub-Collector's letter enclosed, and I have entered reference to the explanations in the margin of Colonel Walker's communication.

Colonel Walker complains of the manner in which his refusal to pay the balance of the Government contribution to the workmen employed was brought before Government by me. He thinks I might have advanced the money; but I thought and think that his disbursement of it under such protest as he deemed necessary was the most natural course to be pursued.

Vide Sub-Collector's letter, paragraph 2.

He also supposes that there was a balance of Rupees 45 of the Ryot's contribution unspent, but in this he is mistaken.

In one letter, from the Sub-Collector to me, there was a hasty expression with regard to the Superintending Engineer's action, and inadvertently I forwarded this letter in original, as it contained a long report of the matter of the dams, to Colonel Walker, without noticing the objectionable phrase. When Colonel Walker animadverted on the expression, I apologized for it, and disclaimed any intentional discourtesy on my own part or on that of the Sub-Collector. I think, therefore, this point might have been allowed to rest.

6. Finally, I most fully allow that generally it would require very strong grounds indeed to justify a Revenue Officer in ordering departure, on the advice of an Overseer, from an estimate committed to the Revenue Department for execution, when the original estimate had been sanctioned by the Superintending Engineer.

But in such petty works as those under notice, I must repeat that I cannot think the Sub-Collector was in any way to blame in proceeding on the revised estimates as he did. Such blame as the delay in getting estimates formally sanctioned deserves, rests principally with me; but the works were really so comparatively insignificant in themselves, that I think it will be allowed the matter might have escaped notice in almost any office. If the Superintending Engineer is right in thinking I should have advanced the balance of money due to the workmen, instead of requesting him to pay it, and, on his refusal, referring to Government in order that he should be directed to pay that money from the sanctioned funds, then my reference to Government at the time was unnecessary, and the Superintending Engineer was not to blame. But I made the reference in good faith. I believed it was the Superintending Engineer's refusal that kept the people out of their dues; and inconvenience and hardship was caused to them thereby. If my premises were right, my conclusion was right. If my premises were wrong, the inconvenience and hardship were not attributable to the Superintending Engineer, and I regret that, thinking they were, I attributed them to him.

From the Superintending Engineer, 7th Division, to the Collector of Malabar, dated Tellicherry, 4th February 1869, No. 114.

1. I have the honour to request that you will be so good as to submit, for the information of Government, the following remarks on the subject of their Order No. 2,378, of 24th July, to accompany the full report promised by you in paragraph 3 of your letter printed with that Order.

2. From the rough drafts of the estimates, they appear to have been made by the Range Officer on the requisition of the Sub-Collector on the 13th February 1866. They were forwarded to me with your letter No. 970, of 26th April 1867, (too late for execution in that calendar year,) and submitted by you for sanction, in conformity with my recommendations, on the 26th September 1867. A sum of Rupees 695, out of the total of Rupees 8-2-4-3 contributed by Government, (being all the funds at the time available,) was ordered by me, under date the 1st November, to be paid to you by the Range Officer; and the remainder was to be supplied at a latter date. The long interval between the preparation of the estimates and their sanction, alluded to in the 1st paragraph of your letter to Government, during which the dams had sustained greater damage, was entirely due to your own retention of the papers; and this, I think, should have been fairly stated.

3. From November 1867 to February 1868, no action seems to have been taken, and as you had expressly desired that the work should be carried out by the Revenue officials, no action was

expected to be taken by the Public Works Officers. On the 19th February 1868 the Kurumbranad Tahsildar applied to the Calicut Range Officer for the plan of the work, and for assistance in carrying it out. Mr. Supervisor Grime was at that time in charge of Calicut Range in addition to the Palghaut Range, in consequence of Lieutenant Manwaring's absence on service in Abyssinia. He could not, therefore, inspect the works himself, as they lay at the northern extremity of his double charge, and he deputed Overseer Vedamuttu to give the assistance required. The Overseer visited the dams on the 7th and 11th March, and to use his own words "prepared revised estimates to suit the sanctioned amounts."

4. As stated in your letter to Government, the Sub-Collector took on himself the responsibility of acting on estimates so revised, forwarding them to you on the 28th March, as you state "with intimation of his order, for submission to the Superintending Engineer." They bear your simple endorsement to me of the 29th April (one month latter), "For approval," without a word of explanation of the circumstances under which the revision had been necessitated, or how it had been carried out. On the 2nd May I called on the Range Officer for report, which was made under date the 11th May. I had then to call for the original estimates, and to institute a close comparison of both sets to find out the nature of the alterations made; and in my letter to your address of the 19th June, I stated very fully the reasons why I could not make the payment called for by you, and my opinion that it should be advanced by those who took on them the responsibility of the work. One result of my investigation was Overseer Vedamuttu's removal from the talook which had so long been his home. as a mark of my disapprobation of his unauthorized proceedings.

5. I consider your Department answerable to Government for the delay throughout November and December 1867, and January to 19th February 1868, in neglecting to call on the Public Works Department for revision of estimates, which delay alone led to unauthorized action and the failure of the Katampalli dam. That any revision of the estimate for that (the larger work) was absolutely necessary, is denied by the Cannanore and Calicut Range Officers (Messrs. Bailey and Nordmann, whom I deputed to report on the subject. Their joint opinion is that "had the "work been carried out as originally proposed, "it would in all probability have stood, without injury, the very exceptional flood there has been "in the river this monsoon, the loss of water-way by the change having been 300 square-feet." They state, moreover, that "so far as they are able to judge, the work as carried out was not according to the revised estimate. the masonry allowed for rebuilding the abutment having apparently "been used for facing the new earth work." Not that they lay any stress on this, for the reduction of water-way allowed was fatal. But in your letter to Government you have stated that the works were completed on the new estimates, which statement I cannot reconcile with the entry on the bill for the Katampalli dam, of "600 stones" (equivalent to 300 cubic feet of masonry) "not having been used, as the dam was destroyed in the beginning of June."

See paragraph 5 of the Sub-Collector's letter to Collector, dated 2nd March 1869, No. 39 Enclosure No. 2. (Initialed) G. A. B.

See paragraph 1 of the Sub-Collector's letter as above. (Initialed) G. A. B.

6. And this brings me to the consideration of the manner in which you have laid before Government the subject of my refusal to pay for unsanctioned work. You load me with the responsibility of having caused "extreme inconvenience and hardship" to the workmen employed; and in doing so, you take up the point of view assumed by the Sub-Collector in his letter to your address, wherein he takes the liberty of characterizing my conduct as "extraordinary and unjustifiable." I would now desire of you, in reporting to Government, frankly to relieve me of the onus of your charge; on the two-fold consideration that it was quite competent to you, and the natural course, to order an advance of the money pending the decision of Government; and secondly, that Rupees 45 out of Rupees 167-11-7, the private contribution to the Kattampalli dam still remain unspent, in spite of your statement that "all money subscribed by the Ryots has been expended, of course." That sum presumedly was at Mr. Logan's disposal to relieve the distress which he attributed to my action; and I trust it will now be credited as a recovery to the

See paragraph 2 of the Sub-Collector's letter as above. (Initialed) G. A. B.

Government contribution ; part of the work also appears to have been given on contract to the Kokallur Adigari : probably a man largely interested in the cultivation, and well able to wait for his money. The more I look into the matter the less justification do I find of your Sub-Collector's action before and since the execution of the work, and of the manner in which you have brought my name before Government in connexion with it.

See last part of paragraph 3 of the Sub-Collector's letter as above.

(Initialed) G. A. B.

From the Sub-Collector of Malabar, to the Collector of Malabar, dated on Circuit at Kuttuparamba, 2nd March 1869, No. 39.

1. In reply to your Memorandum No. 405, dated 19th ultimo, I have the honour to observe with reference to the remark in the concluding portion of paragraph 5 of the Superintending Engineer's letter No. 114, dated 4th ultimo, that the 600 stones alluded to were collected (under Overseer Vedamuttu's directions for the purpose of constructing a sluice at the southern end of the Katampalli dam, to enable the ryots, whose lands lie below it, to irrigate their fields. The construction of this sluice seems to have been omitted in the original estimate, for what reasons, I don't know, as the ryots would (in the event of the dam having stood) have had either to breach the bund at the southern end, or to construct a sluice such as was proposed. The work, as per the revised estimate, and as pointed out by the Overseer, was, I believe, fully carried out, and the Tahsildar applied to me to obtain an additional grant from Government for the purpose of making this sluice, as it was not then known that there would be a saving on the whole work. Thinking, however, that the people most interested should, under supervision, construct this sluice themselves, I wrote to the Tahsildar to that effect, and did not make an application for more funds. As it turned out, if all the money sanctioned for the work had been put at my disposal at the time, the construction of this sluice (which was an essential portion of the dam) could have been effected from savings on the whole work.

Regarding the remark in paragraph 5 of the Superintending Engineer's letter.

2. Regarding the next point alluded to in your Memorandum, viz., how Rupees 45 of the private contribution remained unspent, the Superintending Engineer seems to have been misled by a mistake made in the final bill for the work, which was submitted to the Calicut Range Officer for the usual certificate. The saving of Rupees 45 on the whole work is a portion of the last sum of Rupees 127-4-5 received from you in August last, and sanctioned in G. O. (Public Works Department) No 2,378, dated 24th July 1868. The whole of the first sum received from you, Rupees 435 (out of Rupees 695) for the two works (Palayad and Katampalli), and the whole of the private contribution, Rupees 167-11-7, was spent by the 4th May 1868, the last sum of Rupees 8-15-7 having been disbursed from the treasury on that day. With reference to the Superintending Engineer's final remark in paragraph 6 of his letter, he is wrong in presuming that the Kokallur Adigari is largely interested in the work. None of his lands are irrigated by water from the Katampalli dam. He is, however, as well able to wait for his money as any man not in indigent circumstances can be supposed able to wait for money which he has worked for and earned.

Regarding the remark in paragraph 6 of the Superintending Engineer's letter.

3. Having explained the points to which you called my attention, I beg to be allowed to make some observations regarding the matter now under discussion, as I conceive that otherwise the Superintending Engineer's letter may lead to an incomplete view being taken of it.

4. The order for Rupees 695, alluded to in paragraph 2 of the Superintending Engineer's letter, was received by me on 17th January 1868, and forwarded to the Tahsildar on the 22nd idem. The Tahsildar being then busy did not visit the works till the 14th and 16th February : on the 17th he wrote to Captain Bailey at Cannanore (who had framed the estimate) to send him the plan, and some one to show what there was to be done. On the 19th he received a reply, directing

Delay in commencing the work.

him to apply to the Range Officer at Calicut, and on the same day he applied by report to the Calicut Range Officer to the same effect as previously to the Cannanore Range Officer. To this no reply was received, and after the Tahsildar had again written, the Overseer Vedamuttu arrived on 7th March, inspected the works Palayad and Katampalli, on 9th and 13th idem ; prepared revised estimates, which were received by me on the 12th and 18th respectively, and on the 19th March the Tahsildar was ordered by me to go on with the works. The estimates were forwarded to you on 28th March.

5. The Superintending Engineer says in his letter of 4th ultimo, paragraph 5, "That any revision of the estimate for that (the larger work) was absolutely necessary, is denied by the Cannanore and Calicut Range Officers (Messrs Bailey and Nordmann), whom I deputed to report on the subject." If you will refer to the Overseer Vedamuttu's report No. 27, dated 11th May, which is included in the correspondence herewith returned, you will observe that he found on inspecting the dam that "The earthen embankment had been breached in two other places during those two intervening years, besides the one in the estimate to be built with stone revetment," and further on he says, "A large hole, about 150 feet long 35 feet wide and 15 feet deep, has been made by the side of the permanent dam * * * * by the rush of water through these breaches during the last two years ; and found it was necessary to fill it, at least one-third of it, to secure the permanent one from being damaged." All of which refers to the large breach in the natural bank of the stream a little to the south of the calingulah, alluded to in my previous letter of 10th August. The filling up of this large breach ; the measurement of which in the revised estimate was 45 feet by 45 feet by 18 feet, though the actual space was larger, was certainly not included in the original estimate as you may see on perusing it. The Range Officers say in their report, that if the work had been carried out as originally proposed, the dam would in all probability have stood ; but in saying so they are clearly forgetting that a breach of 45 feet by 45 feet by 18 feet was unprovided for in the original estimate. It is clear that some alterations of the estimate was required, and that being so the Tahsildar adopted the natural course in applying to the Range Officer for assistance. Again, the Range Officers say "So far as they are able to judge, the work as carried out was not according to the revised estimate, the masonry allowed for rebuilding the abutment having apparently been used for facing the new earthwork." To which I reply that, as will appear further on in this report, the original estimate, unaccompanied by a plan, was liable to misinterpretation, and was misinterpreted by Overseer Vedamuttu, who does not seem to have been aware that by the original estimate it was intended to move back the southern abutment of the calingulah some 30 feet, and did not, in preparing the revised estimate, intend that it should be moved back.

Necessity for a revised estimate for Katampalli dam.

6. I quote the following portions of the Superintending Engineer's letter to you, No. 114, dated 4th ultimo:—"The Overseer * * * prepared revised estimates to suit the sanctioned amounts," (paragraph 3). "As stated in your letter to Government, the Sub-Collector took on himself the responsibility of acting on estimates so revised" — "in my letter to your address of the 19th June, I stated very fully the reasons why I could not make the payment called for by you, and my opinion that it should be advanced by those who took on them the responsibility of the work," (paragraph 4). "I consider your Department answerable to Government for the delay throughout November and December 1867, and January to 19th February 1868, in neglecting to call on the Public Works Department for revision of estimates, which delay alone led to unauthorized action and the failure of the Katampalli dam," (paragraph 5). Further on it is stated, as the result of the Calicut and Cannanore Range Officers' investigation of the causes of failure of the larger work, the Katampalli dam, that "the reduction of waterway allowed was fatal." The cause of failure of the work, as ascertained by the Officers deputed by the Superintending Engineer for the purpose of investigating it, is, you will therefore perceive, the same as that mentioned by me in paragraph 3 of my letter to you, No. 208, dated 10th August last. The Superintending Engineer's reasons for refusing to sanction the revised estimates for both works were as follows :—(*Vide* his letter to you, No. 32, dated 19th June 1868), "He" (meaning

Actual cause of the failure of the Katampalli dam was an insufficient allowance of waterway, not the reduction of the thickness of masonry in the revised estimate.

Overseer Vedamuttu) " has ventured to reduce the thickness of the masonry throughout, simply in order that he might bring the whole cost of the work within the limits of the sanction" ; " he appears to me to have seriously endangered the stability of the works thereby," (paragraph 2). This, the Superintending Engineer's sole objection to the revised estimates (it should be remembered) applied equally to the Palayad dam, which stood, and the Katampalli dam, which succumbed to the very heavy flood in June last. From the above it will be seen that the actual failure of the Katampalli dam was caused by quite another mistake than that made by the Overseer in revising the estimates : and I think it follows that if the mistake, which was undoubtedly made in not allowing sufficient waterway for the stream in a very heavy flood, can be shown to have arisen (as I think it can) from want of clearness in the original estimate, and other causes which the Revenue Department could not have avoided, it is the Public Works Department, and not the Revenue Department, which is responsible for the failure of the Katampalli dam.

7. It is agreed on all hands that the actual cause of failure of the Katampalli dam was an insufficient allowance of waterway for the stream.

The Overseer did not point out that the estimate provided for additional 300 feet of waterway.

In paragraph 3 of my letter to you, No. 208, dated 10th August last, I informed you that I was quite unconscious that any mistake as regards the waterway of the dam had been made when I visited the work then in progress, in April last, and until after the receipt of the copy of the Superintending Engineer's letter of the 19th June, and after I had seen a rough sketch of what Captain Bailey, who prepared the estimate, had proposed to do to the dam. Subsequently to that I again visited the work with the Tahsildar, and it was quite evident to me, on my explaining Captain Bailey's design to him, that up to that moment he too had been in ignorance of what the work provided for in the estimate really was. It should be remembered that when I visited the work in April it was for the first time, and I think it was quite natural that what appeared to Captain Bailey so obvious an alteration as that proposed in the waterway should not have occurred to me so readily as to Captain Bailey, who had annually seen the dam breached, and who had repaired it for years previously. I asked the Tahsildar whether the Overseer who had been deputed by the Calicut Range Officer to advise him as to the carrying out of the work had not pointed out the alteration required in the calingulah of the dam, and the following is his official reply on the subject :—" When the Overseer, Vedamuttu, consulted with me personally about carrying out the work, he did not point out that the abutment should be removed backwards, so as to allow additional 300 feet of waterway for the stream as your honour showed me in August last and mentioned in the order, nor did he afterwards point it out to the Revenue Inspector who carried out the work when he visited the work while in progress."

8. It will thus be seen that the Overseer himself did not understand what was designed in the estimate, and when the matter comes to be looked into it is apparent that this misinterpretation of the design was owing—

Explanation of the Overseer's mistake.

I. Chiefly to there being no plan. The Tahsildar applied both to Captain Bailey, who prepared the estimate, and to the Calicut Range Officer for the plans of both the works, Palayad and Katampalli, but was unable to obtain them if they existed at all.

II. To the Overseer's inability to interpret correctly the estimate of which copy was forwarded to you with my letter No. 208, dated 10th August last. In the estimate the words " Abutment southern side" are used, referring to the southern side *of the calingulah*, but this must have been interpreted by the Overseer as meaning the southern side *of the dam*, as under his directions that portion of the earthwork was faced inside and out with masonry, and he directed the men carrying it out to do the same to some other portions of the embankment which seemed to require it most, to prevent the wash of the stream and of the monsoon rains from injuring the earthwork. The heading of the estimate for " increasing the waterway" was doubtless interpreted by him as referring merely to the 300 cubic yards of cutting laterite rock, a portion of the design which was carried out under contract.

Proceedings of the Madras Government, Public Works Department, 7th April 1869.

9. Looking at these facts, I consider that little blame can attach to the Revenue Department for carrying out the work as it did in accordance with the directions of the Overseer who was deputed by the Calicut Range Officer to advise the Tahsildar, and I think that I am justified in assuming from the stability of the Palayad dam, that if the design of the original estimate had been carried out, even though the thickness of the masonry had been reduced, the work would have, like the Palayad dam, successfully withstood the June floods. It could be said, doubtless, that the Overseer's mistake might have been discovered had less delay in applying for revised estimates taken place, but that proceeds on the assumption that the Range Officer would have visited the work while in progress, which he certainly did not do between 19th February and the date of completion of the work, though I think it was his business to visit it and see that all was going on right.

Concluding remarks.

No. 180. ORDER THEREON, 7th April 1869, No. 1,134.

IRRIGATION, No. 8.

1. Ordered that these papers be communicated to the Commission on Public Works.

2. Colonel Walker will report whether the breach in the Katampalli dam has been repaired, and if not he will adopt early measures for the restoration of the work.

(True Extract.)

Colonel, R. E.,
Secretary to Government.

To the Commission on Public Works.
" Collector of Malabar.
" Superintending Engineer, 7th Division.
" Revenue Department.

Ex 1021.
Comm^r to the
Revenue Board

Exd. S. T. Augustin.

15 apl 69

Rev. Dept.
No. 1124

Govt. of 1869: Madras.

PUBLIC WORKS.

To

THE COMMISSION on PUBLIC WORKS.

&c. &c. &c.

Dated April, 7th.

Recd. " " 9 "

G. O., 7th April 1869, No. 1,134.

APRIL.

Nos. 179-180

Paluyad and Katampalli dams.—Passing orders on the letter from the Collector of Malabar forwarding papers on the subject of the Paluyad and Katampalli dams in the Kurambranad talook.

With Order
No 1021-15 Apl