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MADRAS RECORD OFFICE.

Government of Madras.

Public works DEPARTMENT.

G.O. No. 2937	Press Mis.
82-83	
Dated 3 12 1870	

Not to be folded or roughly handled

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*Proceedings of the Madras Government, Public Works Department,
3rd December 1870.*

No. 82. Read the following Proceedings of the Board of Revenue, dated 19th November 1870, No. 6,748:—

Read the following letter from the Officiating Collector of the Kistna District, to the Acting Secretary to the Board of Revenue, dated Masulipatam, 11th October 1870, No. 4,486.

In continuation of my letter, dated 1st August 1870, No. 3,667, recorded in Board's Proceedings, dated 18th August 1870, No. 5,363, I have the honour to forward, herewith, a letter from the Executive Engineer, 7th Range, dated 31st August 1870, No. 378, giving a report of the effects of the heavy flood of the 3rd August in the Divi Division.

2. In this letter, Captain Smalley stated that the Superintending Engineer has arranged for Lieutenant Campbell's employment in November next on the project of an aqueduct over the Kistna, between Mopedevy and Avanegadda, to irrigate the Divi Division, but as this work cannot be at least begun for another year, he suggested the following improvements for the protection of the Division from high freshes:—

(1.) That a quantity of rough stone should be brought down from Seetana-garam and deposited at the heads of all the supply channels as well as at the head of all tanks to enable the villagers to regulate the supply better. The stone would come into use hereafter for building sluices.

(2.) That the river bunds should be thoroughly repaired throughout, well above the flood-mark of the year.

(3.) That planting lunka grass on all exposed positions on the river banks should be largely practised. Stone groynes are perhaps needed in places, but they are expensive. These will not interfere with the proposed aqueduct and channels; on the contrary, they are necessary accompaniments to such works.

(4.) That the villages which cannot be brought within the river banks and villages in the lunkas in the river should be bounded around.

(5.) That the tanks and tank channels be kept up as they are till the aqueduct channels are opened.

3. I accordingly addressed the Superintending Engineer asking that in the event of his approval of these proposals that he would be good enough to let me know whether funds were available, in order that the work might be put in hand at once, and I requested that he would call for the preparation of the estimates.

4. In his letter, dated 13th September 1870, No. 193, Colonel Moberly reported that in January 1869 he gave Mr. McAlpine instructions to prepare survey and estimates which would cover all that Captain Smalley considered requisite; that he does not know how that gentleman thinks his proposals can be carried out till the Government sanction the plans, etc., which constitute a very essential part of the Divi Irrigation Project; that that Division has been in much the same condition for some years past, but all the officers concerned have thought it better to complete the upper works before they undertake any change in Divi; that when the surveys, etc., are completed, he (Colonel Moberly) will submit them to Government, but that he sees no reason for any exceptional procedure in the present case.

5. I enclose copy of a statement prepared by the Tahsildar of Bunder Talook showing the estimated amount of loss caused by the recent flood in the Divi Division amounting to Rupees 6,168-10-0, and I would strongly deprecate the postponement of the simple measures proposed by Captain Smalley for protection against flood in future, until the whole Divi Irrigation Scheme is matured and

functioned. I would call at once for estimates for the works and have them executed without loss of time, charging the cost to Works or Repairs, Agricultural.

From Captain H. SMALLEY, R. E., Executive Engineer in charge of No. 7 or Masulipatam Range, to the Officiating Collector of the Kistna District, dated 31st August 1870, No. 378.

My Overseer having arrived on the 27th instant on emergency to repair the damage done by the late high fresh in the river on the 4th instant has been completed. The whole island is now safe from inundation by ordinary freshes, and the tanks have nearly all got a full supply for the season.

2. Having personally inspected all the work whilst in progress on my late tour, I am satisfied that all that was absolutely necessary has been done, and as cheaply and quickly as possible. I have to thank the Tahsildar of Bunder for his services in putting into operation Act No. I. of 1858 before his arrival at Avanegadda; there was great dilatoriness on the part of the villagers in coming forward to work at the needful repairs in the neighbourhood of their villages, but a few punishments under the Act had a most salutary effect in producing labour. I think the danger to human life and even to cattle was much exaggerated by the Deputy Tahsildar in his reports. There were high broad banks in the neighbourhood of Avanegadda and Puvitigadda (the only two villages where there can be said to have been any approach to danger of life) where people and cattle could and did take refuge whilst the inundation was at its height, as also in the temple at Avanegadda. The flood only lasted eighteen hours at its highest, and subsided rapidly; the heavy rain at Kurnool telegraphed down and which caused us to fear for the safety of the people in Divi coming just after the flood of the 4th, appears to have been only local, and to have affected the Kistna but little, as since the 4th the river has never risen much again; it has repeatedly risen a little, but always has fallen again soon. It is expected to continue in this way till the end of next month, but no more heavy freshes are expected. The height of inundation in Avanegadda was 10 inches above that of 1868. At the time of the eclipse of the sun, which did much damage to Divi, etc. The Jonna crops about the island, also the rice-seed beds in every part of the island, that a flood like this laden with silt passing over it as fertilizer, and that the crops again sown will be undoubtedly very remunerative. As to the houses, several have suffered, chiefly in Avanegadda. The different places at which the flood entered were as follows. The head-sluice at the head of the Savurnnamukhy channel which supplies Avanegadda tanks was turned and the river water rushed down; this at its height, breached its banks and flooding the country on each side of it. The river banks too at Puligaddah and Avanegadda were breached, and through each of these channels below Avanegadda on each side the flood entered freely, there being no head-sluices and breached their banks and in many instances the tanks under them. The river banks were also breached at Viswanadapully, and the flood had free access below this village, the tanks never having been repaired since the cyclone of 1864 and the request of the villagers, in order that the salt might be washed out of their lands. On the side the river the bank was breached at Nalapully in many places, some of them very large, and the country was flooded through them up to the Bunder canal. I think that many of these breaches might have been prevented by a little self-help on the part of the different villagers in the neighbourhood of their respective villages, but there has not been the slightest attempt on their part in any one village in the island of Divi to look after the maintenance of their tanks and channels. Besides the cattle-crossings never being repaired by them, palmyra sluices are put in the tank banks wherever they please in the most rough manner, and in consequence of breaches often occur in these places; then, if they want earth anywhere, they think nothing of cutting into a bank and weakening it, so as to invite a breach and other similar malpractices. Indeed, I believe, cuts are often purposely made in the river and channel banks, in order to let the freshes pass over their land. There is only one Goomastah of this Department in the island, and he is unable to put a stop to all these irregularities, the distribution of water being left to the villagers themselves. Besides these, however, the tanks and supply channels are exposed to the danger of being breached every year for want of masonry head-sluices, surplus escapes, and now unable to close the channel heads from the river when their tanks are full and to retain all

the water in the tank as the fresh subsides. The only head-sluice in the island is that of Avanegadda, Suvurnamukhy, and that this year was turned by the water breaching the banks round it. The only irrigation sluices in the island are two in the Bharadavarapully Veeranna tank, and two in Kodur Vuddu tank, and the ryots appear to prefer using palmyra sluices to using these. As to the river banks, they were much injured in 1868, and though repaired are not so strong as they ought to be to resist such freshes as that of this year. The river also by encroaching at Puliguddah and other places has much weakened the banks. And, lastly, when a flood breaks in, there are no drainage channels with tidal sluices to carry it off quickly. The village of Avanegadda especially is situated so low that water lies there till it evaporates; it has no means of passing away. No doubt the island has been much neglected; nothing has been done to supply the wants I have pointed out, on the grounds apparently that some day or other it would be all brought under a channel from the anicut by means of an aqueduct over the branch of the Kistna between Mopidavy and Avanegadda, and that things might go on as they were till then. The Superintending Engineer has now arranged for Lieutenant Campbell to be employed on this project in November next, and it is to be hoped it may be sanctioned before long, as no doubt it will be far the best thing for the island possible; but as work could not be begun for another year at the very least, I am of opinion that meanwhile—

(1.) A quantity of rough stone should be brought down from Seetanagaram and deposited at the heads of all supply channels as well as the heads of all tanks to enable the villagers to regulate the supply better. This would all come into use hereafter for building sluices, etc.

(2.) The river banks should be thoroughly repaired throughout, well above the flood-mark of this year.

(3.) That planting lunka grass on all exposed positions in the river banks should be largely practised. Stone groynes are perhaps needed in places, but they are generally very expensive. These will not interfere at all with the proposed aqueduct and channels, therefore on the contrary, they are necessary accompaniments to such works.

(4) That villages which cannot be brought within the river banks and villages in the lunkas in the river should be bunded round.

(5) The tanks and tank channels to be kept up just as they are till the aqueduct channels are opened.

3. Enclosures of your letters, Nos. 3,641 and 3,664, dated 8th and 10th instant, respectively, are herewith returned as requested.

ABSTRACT.—Statement showing the loss occurred to the villages of Avanegadda Division of Bunder Talook by the heavy or extraordinary floods of Kistna river in the month of August 1870.

Submitted to Government with reference to G. O., 7th September 1870,
No 1,401.

2. The Collector reports that the damage done in Divi by the inundation of the 3rd August is calculated at Rupees 6,169. The Executive Engineer, Captain Smalley, has suggested measures for preventing similar disasters in future, but the Superintending Engineer sees no reason why Divi should be exceptionally treated. He appears to think that the fact that the island has been exposed to the same danger for some years past is a sufficient reason for leaving it unprotected till the Divi Irrigation Project, the surveys for which have not yet been completed, is introduced.

3. The Board earnestly hope that Government will instruct Colonel Moberly that he is wrong in thus postponing works essential to the security of life and property.

4. The river embankments and tank bunds which are still weak from the effects of the cyclone of 1867 should be strengthened, and the channel heads brought under better control. Most if not all this work will be equally required when the anicut irrigation is introduced.

TRANSFERRED to the Department of Public Works.

(Signed) W. HUDLESTON,
Secretary, Revenue Department.

28th November 1870.

Proceedings of the Madras Government.

Statement showing the loss occurred to the villages of Avenegadda Division of Bunder

No.	Names of Villages.	RUINED HOUSES.				LOSS OF PRODUCE OR CROPS.			
		TILED HOUSES.		THATCHED HOUSES.		Fields.	Sist.	Description of Crops.	
		Fully.	Partly.	Fully.	Partly.				
1	Avenegadda	3	4	57	28	6 84	16 15 0	Karu Zonna	...
						97	1 15 0	Aruga	...
						1	2 8 0	Suzza	...
						287 27	833 4 0	Mokka Zonna	...
						296 8	854 10 0		
2	Puligadda	...	...	41	24	102 1	261 11 0	Mokka Zonna	...
						5 30	11 7 0	Karu Zonna	...
						107 31	273 2 0		
3	Yadla Lanka	...	...	5	...	6 98	24 7 0	Mokka Zonna	...
						4 97	17 6 0	Karu do.	...
						23 51	82 5 0	Red paddy.	...
						35 46	124 2 0		
4	Nangagadda	...	...	1	...	...	...	...	...
5	Marripalem	...	...	...	...	38 98	111 3 0	Mokka Zonna	...
6	Hamsaldivy	...	...	...	...	3 62	7 1 0	Red-paddy	...
						1 7	0 13 0	Korra	...
						4 69	7 14 0		
7	Kodur	...	...	...	...	30 76	53 15 0	Mokka Zonna	...
						6 50	7 1 0	Korra.	...
						37 26	61 0 0		
8	Nagaya Lunka	...	...	27	...	79 37	257 7 0	Mokka Zonna	...
						4 25	14 14 0	Black paddy.	...
						83 62	272 5 0		

Public Works Department, 3rd December 1870.

Talook by the heavy or extraordinary floods of Kistna river in the month of August 1870.

LOSS OF GRAIN BY DAMP, ETC., FROM THE STOCK.				DESCRIPTION OF REED-BEDS.				Remarks.		
Names of Crops.	AMOUNT.			Candies.	Tooms.	Seers.	Total loss.			
	Candies.	Tooms.	Seers.				Rt.	A.	P.	
Paddy ...	10	19	...	...	...	...	...	...	...	Found according to water-marks on walls, etc.; the water in streets flown between 4 and 5 feet; in some parts 3 feet; in some parts 2 feet and 1½ feet run into the houses.
Green Gram ...	...	5	...	...	...	...	...	...	...	
Black Gram ...	...	3	...	...	...	...	...	...	...	
.....	11	7	...	7	15	36	1,709	4	0	
Paddy ...	19	...	...	...	...	...	1,464	15	0	Four and a half feet water flooded into the streets and into houses; in some parts 1½ and 2½ feet water has set in.
Mokka Zonna.	1	...	...	...	...	...	.....			
Horse Gram ..	...	5	...	...	...	...	.....			
Black Gram ...	...	3	...	...	...	...	.....			
.....	20	8	...	...	...	...				Though situated in the middle of two branches of river, no water set into the houses, by the people taking precautions of closing breaches, etc.; water to some extent flowed into a goodem, and ruined some houses.
Indigo.	...	6	...	...	...	...	390	2	0	
.....	...	...	...	1	10	...	41	12	0	
.....	...	...	...	6	...	...	261	3	0	
.....	...	...	...	...	8	24	18	8	0	Do. do. do.
.....	...	...	...	...	16	...	81	0	0	Do. do. do.
.....	...	...	...	20	10	36	1,053	12	0	In every street from 4½ to 6 feet water run; houses from ½ foot to 3 feet.

Proceedings of the Madras Government,

Statement showing the loss occurred to the villages of

No.	Names of Villages.	RUINED HOUSES				LOSS OF PRODUCE OR CROPS.						
		TILED HOUSES.		THATCHED HOUSES.								
		Fully.	Partly.	Fully.	Partly.	Fields.		Sist.		Description of Crops.		
9	Chiruvdu Lunka ...	...	...	...	...	90	37	232	1	0	Mokka Zonna	...
						34	87	107	2	0	Black paddy.	
						6	15	15	12	0	Karu Zonna.	
						131	39	354	15	0		
10	Mopidevy Lunka ...	...	...	...	...	12	9	30	4	0	Black paddy ...	...
						24	11	60	6	0	Mokka Zonna.	
						7	41	18	11	0	Karu Zonna.	
						43	61	109	5	0		
11	Marakanapully Lunka.	...	...	...	...	...	82	2	0	0	Black paddy ..	...
						...	55	1	15	0	Karu Zonna.	
						1	37	3	15	0		
12	Mellamarty Lunka...	...	...	...	...	29	...	101	8	0	Black paddy ...	...
						22	...	77	0	0	Mokka Zonna.	
						51	...	178	8	0		
13	Bobbava Lunka ...	...	...	...	6	45	28	155	13	0	Mokka Zonna	...
						7	30	25	10	0	Karu Zonna.	
						4	21	14	12	0	Black paddy.	
						1	26	4	7	0	Flax.	
						58	5	200	10	0		
14	Talagadadivvy ...	...	...	...	...	24	14	27	15	0	Mokka Zonna	...
						6	64	6	4	0	Korra.	
						1	1	1	0	0	Ariga.	
						31	79	35	3	0		
15	Vakanoor ...	...	...	...	...	...	...	.....			.....	
16	Machaveram ...	...	...	...	...	...	...	.....			.....	
17	Chodaveram ...	...	...	...	...	...	...	.....			.....	
18	Bhavadaavapully...	...	...	...	...	...	...	.....			.....	
19	Modugamoody ...	...	...	...	...	...	...	.....			.....	
20	Viswanadapully ...	...	...	...	...	...	...	.....			.....	
21	Karakasha ...	...	...	...	...	...	...	.....			.....	
22	Pittal Lunka ...	...	...	...	...	...	...	.....			.....	
23	Mundapakala ...	...	...	...	...	...	...	.....			.....	
Total...		3	4	131	58	920	61	2,586	12	0	.....	

CAMP AT AVENEGADDA,
19th August 1870.

Public Works Department, 3rd December 1870.

Avenegadda Division of Bunder Talook, etc.—(Concluded.)

LOSS OF GRAIN BY DAMP,
ETC, FROM THE STOCK.

Names of Crops.	AMOUNT.			DESCRIPTION OF SEED-BEDS.			Total loss.	Remarks.
	Candies.	Tooms.	Seers.	Candies.	Tooms.	Seers.		
.....	...	...	...	...	...	...	RS. A. P. 354 15 0	Water of 4 feet flooded into streets, but no water set into houses.
.....	...	...	...	...	...	...	109 5 0	As the new bank is raised this year, no drop of water set into the village.
.....	...	...	...	...	...	...	3 15 0	No water flooded into the houses, but spread on fields.
.....	...	...	...	...	...	...	178 8 0	No houses ; only fields.
.....	...	...	...	...	...	...	295 10 0	Four feet water came into streets ; from 1 to 2 feet water set into houses.
.....	...	...	...	6	12	20	200 13 0	No water flooded into houses, but spread on fields.
.....	...	...	...	...	...	...		Water only flooded on fields, but not come into village.
.....	...	...	...	...	...	...		Do. do. do.
.....	...	...	...	...	...	...		Do. do. do.
.....	...	...	...	...	...	...		Do. do. do.
.....	...	...	...	...	...	...		Do. do. do.
.....	...	...	...	...	...	...		Do. do. do.
.....	...	...	...	...	...	...		Do. do. do.
.....	...	...	...	...	...	...		Do. do. do.
.....	34	1	...	43	13	20	6,168 10 0	

(True Copy.)

(Signed) R. NAGABHUSHANAM,
Tahsildar.

(Signed) N. NEWILL,
Offg. Collector.

*Proceedings of the Madras Government, Public Works Department,
3rd December 1870.*

No. 83. ORDER THEREON, 3rd December 1870, No. 2,937.

IRRIGATION, No. 7.

COMMUNICATED to the Chief Engineer for Irrigation with a view to his reporting, after communication with the

Superintending Engineer, what measures it will be feasible to carry out for the protection of the Divi Division from high freshes.

2. Of those proposed by Captain Smalley the transport of stone from Seetanagaram with a view to its deposit at the heads of all channels and tanks alone appears to be of doubtful practicability on account of its expense. The others seem to fall within the scope of works for which the Superintending Engineer is empowered to allot funds from his repair assignments.

(True Extract.)

(Signed) CHARLES A. ORR, Colonel, R. E.,
Secretary to Government.

To the Chief Engineer for Irrigation, with statement.

- „ Board of Revenue.
- „ Revenue Department.
- „ Superintending Engineer, 2nd Division.

Exd. E. C. Shunker.

*New 3661/10
P.W. 4843/10
From Mr. C. A. Orr
M. A. 24
To the Secretary to the
Board of Revenue
Dated 11th Dec 1870
Enclosed in a letter
of 11th Dec 1870
11. 1870
L. A. Orr No 57803/10*

10. Inopidivay Lanka	12 9 30 4	Black paddy
	24 11 60 6	Mokha Lonna
	7 41 18 11	Karu Lonna
	43 61 109 5	
11. Marakanapully	82 2	Black paddy
Lunka	55 1 15	Karu Lonna
	1 37 3 15	
12. Mullanartty	29 . 101 8	Black paddy
Lunka	22 . 77	Mokha Lonna
	51 . 178 8	
13. Bollara, Lanka	6 45 28 155 13	Mokha Lonna
	7 30 25 10	Karu Lonna
	4 21 14 12	Black paddy
	1 26 4 7	Slac.
	58 5 200 10	
14. Selagadadiy	24 14 27 15	Mokha Lonna
	6 64 6 4	Torra
	1 1 1	Ariga
	31 79 35 3	
15. Vakanoor		
16. Machaiveram		
17. Chodaveram		
18. Bhivandivarapully		
19. Modugamooddy		
20. Viswanadapully		
21. Kara kasha		
22. Pittal Lanka		
23. Mundapakala		
Total	3 4 131 58 920 61 2586 12	
	34 1	
	43 13 20 6168 10	

Bunder Selag
Saidari Office
Camp Arvinigadda
19th August 1870.

107 5	As the new bank raised this year, no drop of water set into the Village.
3 15	No water flooded into the houses, but spread on fields.
178 8	No houses, only fields.
295 10	1 1/2 feet water came into streets: From 1 to 2 feet water set into houses.
6 12 20 200 13	No water flooded into houses, but spread on fields.
	Water only flooded on fields, but not came into Village.
	D ₁ D ₂ D ₃
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	D ₁ D ₂ D ₃
	D ₁ D ₂ D ₃

(Signed) B. Nagabhushanam,
Saidar.

/ True copy /
S. Kumar
Off^r Collector

No 29371 P.B.D.

Pro: Of the Madras Govt.
inception the 3rd Decr/70.
Read the following

Pro: Of the 18th of Decr. (H.R. No 5748 of 19th Decr/70)

Communicated
to the Chief Engr
for Irrigation with
a view to his report
ing after commu-
ication with the
Superintending Engr
what measures it
will be feasible to
carry out for the
protection of the
Divi Division from
high freshes.

Of those proposed
by Captain Smalley

Comp^d M^r

the transport of stone
 from Sektanagram
 with a view to its
 deposit at the heads
 of all channels and
 tanks alone appears
 to be of doubtful prac-
 ticability on account
 of its expense. The
 others seem to fall
 within the scope of
 works for which the
 Superintending Engineer
 is empowered to allot
 funds from his
 repair assignments.

A. B.

34

To
 The Chief Engr for
 Irrign. ^{with statement}
 7 B^d of Rev
 L.S. Dept. 2/2/71 Rev. Sept
 S.C. 7/1/71 S. Engr 2nd Bn

Further Rev of 26/2/71
 22/2/71 - 3/71

C/24843

Govt. of {1870} Madras.

PUBLIC WORKS.

To *The Chief Engineer for
Irrigation*

Dated

Recd.

Encl. /

G. O. 3rd Dec 1870, No. 2937.

Nos. 32183

Work. B. to the Govt.

In the letter from the Officer
relating to the damage
done to the ^{in the River Sippingh District} works, being the
peasants' lands, Com^d to the
Chief Engineer for Irrigation with
remarks.

7/1/71. Encl 2nd DW