

MADRAS RECORD OFFICE.

Government of Madras.

Revenue DEPARTMENT.

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Not to be folded or roughly handled

*Proceedings of the Madras Government, Revenue Department,
11th May 1865.*

No. 219. Read the following letter from T. CLARKE, Esq., Third Member of the Board of Revenue:—

Submitting report on the inspection of the }
salt works of the Godavery District. } (Here enter 16th June 1864.)

No. 220. ORDER THEREON, 11th May 1865, No. 995.

Separate Revenue, No. 17.
Salt.

1. In this letter Mr. Clarke submits his report on the salt works of the Godavery District.

2. The area of the District is 7,534 square miles, and the length of sea-board about 112 miles. The population is estimated at 13,66,831. The average annual sale of salt since the Mogultoor station was closed in Fusly 1266 amounts to 3,10,118 Indian Maunds, of which 1,98,859 Maunds were taken up for the Home trade, so that the consumption in the District is about 12 lbs. a head.

3. The total annual sales of salt have diminished considerably during the last 20 years, but owing to enhancement of the monopoly price and increase in the Home sales, the sums realized by Government are now nearly as large as they have been at any time during that period. The decrease of sales has been chiefly owing to the falling off in the export trade. The Home sales in spite of the closing of the Mogultoor station in Fusly 1266, and the increase of the monopoly price in Fusly 1270, have been steadily increasing of late years.

4. The salt manufacture is carried on at 15 "platforms" distributed amongst seven villages, and supplied with salt water by two creeks which are about 4 miles distant from each other. The creeks are said, both by Mr. Clarke and by Major Stoddard, the Executive Engineer, to be rapidly silting up, so that an outlay of Rupees 7,000 in the first year, and of Rupees 5,000 annually afterwards will in all probability soon be required to keep

Villages.	Average amount stored annually.	Average amount sold annually.
	RS.	RS.
Pennuguduru	1,21,553	93,753
Katapa	31,553	26,783
Pateriagedda	6,653	5,72
Gorazannapali	55,152	40,885
Chotawry	37,624	28,960
Konguda	35,189	30,672
Goori, udy	33,931	27,217

them clear. The salt works are so extensive and straggling that they cannot be properly guarded, and a great deal of smuggling is the consequence. The quality of the salt manufactured is bad and the manufacturers do all they can to resist the introduction of improvements, in spite of the praiseworthy efforts of the Deputy Collector Mr. Leggatt.

5. The unsatisfactory state of the Salt Department in this District has been long under the consideration of Government, and Mr. Clarke was directed in Proceedings 1st April 1863, No. 606, to report as to the advisability of discontinuing the manufacture altogether.

6. From paragraphs 45—52 of the Report under consideration it is clear that in case the manufacture is closed, either a disproportionate expense must be incurred by Government in order to establish depôts within the District of salt made elsewhere or great inconvenience will be inflicted on the people. Under these circumstances the manufacture must be continued, and it only remains to consider how its present unsatisfactory condition can best be remedied.

7. Mr. Clarke proposes in paragraph 56 that the salt works in the village of Pennuguduru should be extended and improved, and that the pans in all other villages should be closed at once.

Major Stoddard on the other hand considers that the silting up of the creeks and the freshness of the water in the bay into which they open render it necessary that the manufacture should be removed to Oopada or some other place higher up the coast.

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8. The reasons urged by Mr. Clarke in favor of his proposition are very strong. He shews that his arrangement will reduce the cost of the station establishments and guards at the same time that it increases their efficiency, and that it will be convenient for the public. He believes that the preliminary outlay for making the requisite alterations will not be very large, and he is further of opinion that in spite of the quantity of fresh water in the bay good salt can be manufactured at Pennuguduru. He is convinced also that a much smaller quantity of sea-water will be required.

9. As some new arrangement seems to be imperatively called for, the Governor in Council resolves to adopt Mr. Clarke's proposal as the best under present circumstances. The Board of Revenue in communication with the Collector will make the necessary arrangements, and estimates will be submitted in the Public Works Department for effecting such alterations as will be required.

10. A new salt station will be opened either at Mooree or Oopologupatam, as recommended in paragraph 64. The Board of Revenue will report again, after communicating with the Collector of the District, as to the advisability of opening a small salt station at Oopada.

11. The attention of the Public Works Department will be called to paragraphs 3 and 4 regarding the unsatisfactory account of the communications generally. The Local Fund now at the disposal of the Collector and Superintending Engineer will admit of the roads being steadily improved.

(True Extract.)

(Signed) J. D. SIM,

Secretary to Government.

To T. Clarke, Esq.
To the Board of Revenue.
,, the Department Public Works.
,, the Inspector General of Police.
,, the Collector of Godavery.

Exd. J. Tulloch.

From T. CLARKE, Esq., Member of the Board of Revenue ;
To J. D. SIM, Esq., Secretary to Government, R. D.

SIR,

I have the honor to submit my Report on my inspection of the salt works of the Godavery District, which I entered at Oontamavaddy, twenty-two miles north of Cocanada, on the night of the 14th April, and passed out of at Mogultoor on the evening of the 29th idem.

2. This district is more destitute of salt roads than even Vizagapatam. At Cocanada, the head-quarters of the Collector, there can hardly be said to be any roads at all; a short line of about quarter of a mile connects the Collector's house with the town over a most antique looking and dangerous bridge. But this line terminates before it reaches the Collector's office about fifty yards further on; nor is there any road to the Samulcottah Canal, distant about a hundred yards from the Cutcherry. It was proposed by the late Collector Mr. Newill, to complete the existing road to the Cutcherry and Canal. This work has been commenced with, and it is in contemplation to substitute a handsome girder bridge on piles at a cost of 70,000 Rupees for the present dangerous wooden one.

3. An unmetalled road-way has been made from the town to the village of Dracharam. This road passes near some of the salt pans, but is unconnected with them. It goes into the village of Karapa which contains the Salt Cutcherry, but is not carried on to the Cutcherry or platform. If something is not done to this line it will soon be quite useless, although it was opened only last year. It is full of holes, and is in many parts almost impassable.

4. Another road runs along the sea coast to Coringa; but its condition is even worse than that of the road to Dracharam. A large portion of it is impassable at present.

5. The Godavery district contains what is called one salt division divided into three stations. One Superintendent with three Assistants superintend the manufacture and sale of salt in this district.

6. This one division of three stations is composed of no less than fifteen outlying places of manufacture and sale, located at various distances ranging from two and a quarter miles to one-eighth of a mile apart, and many separated from each other by creeks and channels.

7. These outlying places known as platforms are again said to belong to seven villages whose interests are opposed to each other. The names of the platforms; the villages to which they belong; the officer to whose supervision the manufacture of the salt in each is specially entrusted; and the distance of the platforms one from another; the number of salt beds attached to each platform; the quantity of salt which can be made at each set of pans; the quantity ordered, produced and sold at each platform during the last ten years; also the quantity of salt found in store on each at the date of my visit will be seen detailed in the subjoined Statement.

STATEMENT showing particulars connected with the manufacture of Salt during last ten Faslies at Karapa.

Name of place of manufacture.	Names of officers specially entrusted with manufacture of Salt.	Names of villages.	Names of platforms.	Distance between one platform and another.	Number of beds attached to each platform.	Quantity of Salt which can be made at each set of pans each year	During the last ten Faslies.				Quantity of Salt on each platform at time of inspection.
							Quantity of Salt ordered to be manufactured.	Quantity of Salt manufactured.	Quantity of Salt sold.		
1	2	3	4	5	6	7	8	9	10	11	
Karapa.	M. Nagabushanam, Assistant Superintendent P. Sayanna, Assistant Superintendent. N. Narayana Row, Assistant Superintendent	Pennuguduru Karapa Paterlagedda Gurazanapalli. Cholanga Kongodu Gorripudy	Mundagaruvu	From	2,112	I. Mds.	I. Mds.	I. Mds.	I. Mds.	I. Mds.	
			Chittayapora	1 mile	1,515	1,00,000	6,48,835	6,11,075	4,67,049	1,00,656	
			Velamagunta	do.	969	60,000	2,21,315	2,40,305	1,62,506	75,203	
			Jakkuvu	do.	1,519	40,000	1,69,455	1,13,106	79,292	27,364	
			Revadi Doddi	do.	604	50,000	2,45,395	2,50,396	2,28,683	8,309	
			Vedullamahal	do.	260	15,000	2,04,800	1,54,234	1,34,932	19,302	
			Purugudu Doddi	do.	311	10,000	1,02,760	75,525	63,615	6,017	
			Kottannuttu	do.	624	10,000	1,25,440	85,794	69,272	13,650	
			Nadmitippa	do.	2,192	10,000	1,01,000	66,523	51,723	14,800	
			Pottitippa	do.	2,532	30,000	3,10,245	2,51,572	2,06,500	27,155	
			Ponnalcalva	do.	2,850	30,000	2,95,715	2,98,946	2,01,846	76,540	
			Venkatramudu Doddi.	do.	394	45,000	4,85,000	3,76,238	2,89,602	79,026	
			Adivipora	do.	1,533	15,000	2,33,000	1,61,513	1,47,930	13,613	
			Kadnu Doddi	do.	520	20,000	2,96,000	1,93,343	1,58,786	34,557	
			Pottitippa	do.	1,398	15,000	91,800	1,17,057	1,04,472	9,397	
Total	...	19,333	4,70,000	37,62,760	32,17,912	25,33,911	5,47,214				
Average...					3,76,276	3,21,791	2,53,391	...			
					...	2,62,683	Sold in Fasli 1272.				

8. The salt in the Godavery district is made from water drawn from two creeks situated at about four miles apart from each other. The northern one is termed the Cholanga creek; the southern one the Metalapollam creek. These creeks run inland; the Cholanga creek about five miles, and the Metalapollam creek about eight miles; and the salt pans chiefly lie on the banks of these two creeks.

9. The water of the salt creeks is used for navigation as well as for the manufacture of salt. Dhoneyes and boats come down to the vicinity of the several platforms, and salt is in this way carried into the town. The boats cross the mouths of the salt creeks at high tide, go out to sea, and enter the creek at Cocanada. The salt creeks are becoming so shallow as not to be navigable at all seasons.

10. The salt that is exported is carried out in dhoneyes to the ships.

11. The subjoined Statement shows the way in which the salt sold last year was removed from the platforms. From this Statement it will be seen that more than half of the salt sold was carried away by water; less than quarter by men; less than one-eighth by cattle; and a trifling fraction by carts.

STATEMENT showing the manner and proportion in which Salt is conveyed from the Godavery District.

	Exportation by sea.			Across the frontier.				Sold to the French Government.	Home consumption.	Grand Total.
	Calcutta.	Penang.	Total.	Bhadra-chellum.	Mulka-laghiri.	Sada Nasbare.	Nizam's Territories.	Total.		
	I. Mds.	I. Mds.	I. Mds.	I. Mds.	I. Mds.	I. Mds.	I. Mds.	I. Mds.	I. Mds.	I. Mds.
By Sea ...	5,800	3,000	8,800	...	...	...	...	...	...	10,240
By Navigable Canals ...	...	...	...	7,240	...	...	...	7,240	1,59,239	1,66,479
By Cattle ...	...	...	...	...	90	11,876	4,046	16,012	11,706	27,718
By Carts ...	...	...	...	...	...	...	...	...	1,239	1,239
By Cavity-men ...	...	...	...	...	...	...	...	...	57,007	57,007
Total...	...	...	8,800	...	...	...	...	28,252	2,29,191	2,62,683

12. The accompanying sketch, for which I am indebted to Mr. Leggatt, will show at a glance the contour of the works; the pans and platforms belonging to each station; and the direction with reference to the salt works of the road to Dracheram referred to in paragraph 2.

13. It will be seen from the Statement attached to paragraph 7 that the pans when fully worked can supply 4,70,000 Indian Maunds of salt; that the quantity in store at the date of my visit was 5,47,214 Indian Maunds; and that the quantity sold in Fasli 1272 was 2,62,183 Indian Maunds. The quantity ordered to be manufactured this year is 2,50,000 Indian Maunds.

14. The sales must of necessity be generally restricted to one platform, and are superintended by the Superintendent; but when he is employed in storing, or when the sales are going on at more than one platform in consequence of salt being required for exportation, then one of the Assistant Superintendents is employed in selling salt.

15. Salt is sold and received into store by weight in this district, and has been so received since the appointment of the present Deputy Collector. The salt is weighed in Pean Scales—two Indian Maunds at each lift. Last year the salt was weighed into store by Colonel Orr's machine; but these machines were found to differ so much from one another, and even the weighments of each machine were found to vary so largely, that they were laid aside and the beam scale reverted to.

16. The salt received into store this year is better than it has been before. The present Deputy Collector is doing all in his power to improve its staple, and has to some extent succeeded; but the manufacturers are very refractory and difficult to deal with. By rejecting all inferior salt he hopes to succeed in having in store none but salt of a superior kind. I have the pleasure of sending some specimens of salt made this year, and some of those taken into store in former years. At some villages the manufacturers have not only refused to destroy the salt rejected by the Deputy Collector, but have also resolutely opposed the coolies employed for this purpose.

17. There is much difficulty experienced in getting the manufacturers to use nothing but a highly concentrated brine, or to keep it a sufficiently long time in the beds. The water used is very little denser than sea water, and is never renewed in the beds but is allowed to remain in them five or six days, and is then scraped up. The product is a poor friable stuff not adapted for carriage.

18. The Deputy Collector has had salt made on an improved system in some beds to show the manufacturer how easily a good salt can be produced with care. But they are very obstinate, and refuse to be taught.

19. Another difficulty which has to be combated with in this District is the diminution of the water supply. It is the opinion of the Deputy Collector that the supply is yearly becoming less, and that the mouths of the creeks which furnish the water will soon be wholly silted up by the shoals which are forming in the Bay.

20. This opinion, it will be seen from an extract of a letter appended to this Report, is concurred in by Major Stoddard, the Executive Engineer, who represents that owing to the deposition in the Bay of the large quantities of mud and silt brought down by the freshes of the Godavary, the creeks are gradually deteriorating, and the tidal stream is each year becoming less in volume; and that to keep the channels sufficiently deep and wide for the influx of tidal water, as well as to render them navigable, it will cost about 7,000 Rupees the first year, and 5,000 Rupees each subsequent year, to deepen the mouth of the creeks and the Bay in their vicinity.

21. Major Stoddard, under the apprehension that the mouths of the creeks will be silted up, and on the supposition that the water of the Bay is so affected by the fresh water streams which flow into it as to preclude good salt being manufactured, has recommended that the works which Karaya be closed and fresh ones opened higher up the Bay at Oopada.

22. I believe that as good a salt can be made at the existing pans as elsewhere. The specimens now forwarded bear out this view; and with a little trouble I see no reason why the salt produced here should not be as fine as in other Districts.

23. The water in the creeks was, the Deputy Collector thinks, in February of the usual density of salt water. It may however be necessary from the large precipitation of fresh water into the Bay during the monsoon to defer the date of commencing the operations of the season till the end of February or the beginning of March; but this is not too late a date to make the quantity of salt required in this division.

24. The closing of the mouths of the creeks is a more serious impediment to the manufacture, and may require the early abandonment of the present site if some less expensive remedy than that suggested by Major Stoddard cannot be devised.

25. During this year the platforms have been surrounded by banks and helges, and in some a ditch has been dug in the inside. This ditch has greatly reduced the capacity of the platform.

26. The heaps were well covered and protected when I visited the place; but some of them had suffered from the action of the rain. The floor of the platform was generally in good order. The heaps were not placed in regular rows; but the Deputy Collector was doing all in his power to remedy this defect in the system of storage, and has done much in the way of improvement; when he took charge of his office he found the heaps placed in all sorts of positions on the platform.

Faslis.	Total of sales.	Faslis.	Total of sales.
	Ind. Mds.		Ind. Mds.
1235 ...	5,42,472	1215 ...	7,85,831
1236 ...	6,05,591	1216 ...	9,33,201
1237 ...	10,45,156	1217 ...	7,98,209
1238 ...	5,39,779	1218 ...	10,55,956
1239 ...	5,10,898	1219 ...	7,99,739
1240 ...	5,28,030	1220 ...	7,12,077
1241 ...	5,19,675	1221 ...	7,31,290
1242 ...	4,61,535	1222 ...	7,62,872
1243 ...	12,79,441	1223 ...	8,06,520
1244 ...	10,45,296	1224 ...	4,39,184
	<u>70,80,873</u>		<u>78,74,879</u>
Average...	<u>7,08,087½</u>	Average...	<u>7,87,487½</u>

1263 ...	3,17,700
1264 ...	5,45,195
1265 ...	3,98,187
1266 ...	2,74,468
1267 ...	2,85,439
1268 ...	2,52,424
1269 ...	3,90,469
1270 ...	3,98,385
1271 ...	2,71,308
1272 ...	2,02,683
	<u>33,96,258</u>
Average...	<u>3,39,625½</u>

Faslis.	Sums realized.	Faslis.	Sums realized.
	RS.		RS.
1215 ...	2,53,018	1235 ...	1,99,912
1216 ...	2,86,567	1236 ...	2,08,529
1217 ...	1,93,291	1237 ...	3,05,449
1218 ...	2,83,292	1238 ...	2,49,773
1219 ...	2,72,081	1239 ...	2,70,641
1220 ...	3,02,445	1240 ...	3,18,769
1221 ...	2,59,294	1241 ...	3,13,297
1222 ...	2,82,266	1242 ...	2,57,724
1223 ...	3,04,995	1243 ...	3,63,737
1224 ...	2,07,021	1244 ...	4,25,055
	<u>26,44,270</u>		<u>29,12,886</u>
Average...	<u>2,64,427</u>	Average...	<u>2,91,288½</u>

Faslis.	Sums realized.
	RS.
1263 ...	2,25,163
1264 ...	2,47,973
1265 ...	2,57,767
1266 ...	2,31,007
1267 ...	2,10,330
1268 ...	2,22,048
1269 ...	2,78,789
1270 ...	3,23,915
1271 ...	2,76,851
1272 ...	3,79,132
	<u>26,52,975</u>
Average...	<u>2,65,297</u>

27. The sales of salt in this district have fallen off very largely since Fasli 1243 (1833) when they amounted to some twelve lacs and a half of Indian Maunds. In the ten years ending Fasli 1244 (1834) the sales averaged 7,08,087 Indian Maunds a year, as may be seen in the margin. In the ten years from Fasli 1215 (1805) to 1224 (1814), or during the first ten years of the monopoly, the average quantity sold was 7,87,487 Indian Maunds, or nearly 8 lacs of Indian Maunds a year; whereas in the last ten years ending in Fasli 1272 (1862) the annual sales have averaged only 3,39,625 Indian Maunds, or less than half the quantity sold in the first years of our monopoly.

28. Notwithstanding the large quantities of salt sold during the two first mentioned decades, the tables in the margin give the average sums realized by Government during these periods as nearly equal to the sum realized in the third period. During the second period they were the largest by about 26,000 Rupees.

29. While the quantity of salt sold in the ten years commencing with Fasli 1215 (1805) more than doubled the quantity sold in the last ten years ending in Fasli 1272 (1862) being 132 per cent. in excess, the average amount realized in the ten years ending in Fasli 1272 (1862) exceeded the average amount realized in the first years of our monopoly by $\frac{1}{4}$ per cent. In the ten years commencing with Fasli 1235 (1825) the quantity of salt sold also more than doubled the quantity of salt sold during the last ten years ending in Fasli 1272 (1862), being 108 per cent. in excess; and the annual average amount realized by Government during the former period also exceeded the annual sums realized during the latter period by 9 per cent.

30. Looking more into details it is found that while the Home sales have averaged 1,07,999 Indian Maunds at Rupees 84,923 in the first ten years, 1,84,502 Indian Maunds at Rupees 1,41,876, in the second ten years they averaged 1,94,776 Indian Maunds at 2,20,536 Rupees in the third ten years; and last year, or Fasli 1272, (1862) they reached 2,29,191 Indian Maunds which realized 3,42,862 Rupees. The selling price in the first period was 70 Rupees a garce during the first four years; Rupees 70 and 105 per garce during the fifth year; and Rupees 105 a garce during the remaining five years. In the second period the price was 70 Rupees a garce during the three first years; and Rupees 105 a garce during the last seven years. In the last ten years the selling price was 120 Rupees a garce for the first six years of the period; Rupees 120 and 135 a garce in the seventh year; 135, 165 and 180 Rupees a garce in the eighth; and Rupees 180 a garce in the ninth and tenth years.

31. The largest Home sales were in Fasli 1270, when 2,45,278 Indian Maunds were sold for Rupees 2,88,694. The next highest year was in Fasli 1237, when 2,36,385 Indian Maunds were sold for 1,37,891 Rupees. With the exception of these two years last year's (Fasli 1272) Home sales were the highest on record.

32. The sales to Foreign States during the first period averaged 91,113 Indian Maunds a year at 64,733 Rupees. In the second period they averaged 23,039 Indian Maunds a year at 18,700 Rupees. In the third period they averaged 7,930 Indian Maunds a year at 9,464 Rupees.

33. There were no inland sales during the first or second periods. During the third period they averaged 17,350 Indian Maunds at 17,470 Rupees a year. There were no inland sales during the two last years of this last period.

34. The exports in the first period averaged 5,88,283 Indian Maunds a year at 2,00,239 Rupees; 4,68,253 Indian Maunds a year at 1,29,799 Rupees during the second period; and 1,00,850 Indian Maunds at 15,127 Rupees during the last period. The price paid for salt exported was in the first period 23 Rupees a garce during the first four years; Rupees 23 and 24 a garce in the next five years; and Rupees 24 a garce in the remaining one year. In the second period it was 24 Rupees a garce during the first five years of the series; 48 Rupees a garce in the sixth and eighth years; 49 Rupees a garce in the seventh year; and 26 Rupees a garce in the ninth year; and 38 Rupees a garce in the tenth. In the third period 18 Rupees was charged during the whole period for each garce.

35. It will be seen from these details that while the Foreign and export trades have fallen off very largely, the Home trade has been steadily increasing. There have been great variations in the Home sales; but I have not been able to get any satisfactory solution of these changes in the years. When the Mogultoor station was closed in Fasli 1266, the sales were immediately and largely affected. They fell from 1,92,757 Indian Maunds to 1,69,628. Salt is now purchased to a large amount at Buntumilly in the Kistna District by the residents in the southern part of the District who formerly frequented the Mogultoor stores.

36. The area of the Godavery District is 7,534 square miles; and its population is estimated to amount to 13,66,831. The Home sales, since the closing of the Mogultoor station, have averaged 1,98,859 Indian Maunds a year, which would make the consumption of salt in the District equal to nearly 72 lbs. per head; or if the highest sales be taken (those of Fasli 1270 or 2,45,278 Indian maunds) at nearly 15 lbs. per head. It is also to be recollected that the southern part of the District is largely supplied with salt from the Buntimilly stores. These supplies are given in the margin.

Quantity of Salt supplied to the Godavery District from the Buntimilly stores since the closing of the Mogultoor station in Fasli 1266.

Fasli 1267	.....	I. Mds.	8,023
" 1268	.....	"	2,637
" 1269	.....	"	9,377
" 1270	.....	"	16,068
" 1271	.....	"	54,831
" 1272	.....	"	32,993

1,23,929

Annual average..... 20,654

37. From Fasli 1266, the Home sales it will be seen, gradually rose till they reached the maximum of 2,45,278 Indian Maunds in Fasli 1270, when the large increase in price appears to have affected them and they again fell to 1,72,613 Indian Maunds. Next year they in some degree recovered, and again in Fasli 1272 rose to 2,29,191 Indian Maunds.

38. The causes in the falling off of the export trade are given at paragraph 127 of the Salt Manual; and to these perhaps may be added the superiority of the English salt to that manufactured in this country, and the declension of the prejudice which prevented natives using the salt lest they should contract ceremonial defilement.

39. The inland trade has fallen off since the closing of the Mogultoor station and the construction of canals through the district. The Brinjaries used to travel down to Ellore, and thence proceed to Mogultoor, where they bought salt and transported it by boats as far as Ellore, and thence proceeded with their cattle by land to Nagpore. When the Mogultoor works were closed they frequented the Buntimilly stores, which were nearer and more accessible from Ellore than the Karapa stores. A trade in salt is springing up near the works in the upper Godavery, and there is no doubt that the market in this neighbourhood should be largely supplied with salt from the Godavery stores.

40. I fear that there is a great deal of smuggling still going on from the salt works and from the numerous salt swamps scattered over the sea-board of the District.

41. The salt manufactured in the District is scraped up in the evening and placed on the ridges of the salt beds, where it is left all night along some six or eight miles of country; some of the pans being close to villages and cultivation. There are but one Superintendent and three Assistant Superintendents to overlook the manufacture at fifteen different places distant from $\frac{1}{4}$ to $\frac{1}{2}$ of a mile apart, where 2,50,000 Indian Maunds of salt are being manufactured, and where about 1,000 Indian Maunds are outlying at a time. It is impossible that the supervision of these three Assistants over so large and straggling a charge can be very effective, or that they can take a correct account of the quantity placed out on the ridges to dry every evening.

42. The Police guard, though large and expensive, is not sufficiently strong to prevent the removal of salt in dark nights; and in so large a body there doubtless are bad men who connive at and take part in the frauds of the villagers. The manufacturers in many of the villages bear a very bad name for smuggling, and are very contumacious and refractory. I am told that a great deal of smuggled salt is sold in Coconada and the neighbouring villages, as well as in the large towns in the south of the District at $\frac{1}{4}$ of a Rupee an Indian Maund; and I can well conceive it may be so.

43. The sea board of the District is 112 miles in length; and the Government stores at which salt is now procurable along the coast in the neighbourhood of the Karapa station are given in the margin.

Balacheroovoo to Karapa, 88 miles.
Karapa to Buntumilly, 95 miles.

44. Thus it will be seen that the nearest Government Salt Store to Karapa in the north is at 88 miles, and on the south at 95 miles. The distance on the northern side will be reduced by 48 miles when the Pentacottah store is opened. But if it is necessary to keep stores open at every five and ten miles in Nellore and other districts, in order to prevent the use of illicit salt, the very great distance to which the inhabitants of the Godavery District have to travel in order to reach a Government store may perhaps account for the use of smuggled salt in the district.

45. I have been required in the Proceedings of Government of the 1st April 1863, No. 606, to consider whether the manufacture of salt could not be discontinued in this district, and the people supplied from the stores in the neighboring district.

46. I have no hesitation in asserting that a good salt can be obtained in the Godavery District, not only at the present place of manufacture but in the extensive swamps to the north and south of the present stations.

47. I do not suppose it is the wish of Government that the people of this district should be placed at any greater disadvantage, or suffer under more serious disability in regard to procuring salt, than the inhabitants of other districts in this Presidency; and I therefore conclude that if the manufacture of salt is closed in the Godavery District it is proposed by Government to keep up stores of Salt either at the present station or at Cocanada and Nursapur, or at some other central places in the district.

48. I will not here advert to the objections so often and so forcibly urged against the establishment of Inland depôts by Government, but will presume that I am called on to confine myself to a financial view of the subject, and to lay before Government the means of judging which of the two plans is least expensive: whether that of bringing salt from other districts and storing it in the Godavery, or that of manufacturing salt in the district itself.

49. The present consumption of salt in the Godavery District, taking the average of the last ten years, amounts to 1,94,776 Indian Maunds; and, taking the Home sales of last year, to 2,29,191 Indian Maunds. To bring either of these quantities of *manufactured salt* *rid* quantity without failure which is very doubtful, would cost the Government in carriage and cost of salt alone, taking the sales of last year, Rupees 1,26,293-12-0; and, taking the average Home sales of the last ten years, Rupees 1,07,320-14-0. It is further to be recollected that the Buntumilly manufacture is closed, and that the spontaneous salt gathered at Pandraca is very precarious in supply, and not generally liked by the people.

50. But in addition to the cost shown above, we should have to allow for the wastage in carriage, which could not be less than 5 per cent. of the quantity transported; being in the one case Rupees 6,311-15-0 and in the other Rupees 5,366-0-8; covering, guarding and selling the salt, which would be not less than Rupees 2,792-13-10, if the last year's sales be taken, or Rupees 2,375-5-3 if the average sales be taken as the basis of calculation; and for wastage on sale, Rupees 5,812-9-10, or Rupees 4,934-0-3; making in all Rupees 1,41,219-2-8 for the 2,29,191 Indian Maunds of salt sold in Fasli 1272; and Rupees 1,19,906-4-2 for 1,94,776 Indian Maunds, the average sales of the last ten years.

Cost of bringing spontaneous salt from Buntumilly for sale in the Godavery District.			
Last year's Home sales.		Average sales of last ten years.	
1 Mds. 2,29,191.		1 Mds. 1,94,776.	
Rs.	A. P.	Rs.	A. P.
Cost of salt and carriage...	1,17,942 8 0	1,00,220 4 0	
Wastage on transport.....	5,897 0 0	5,011 0 2	
Covering, guarding, and selling.	2,792 13 10	2,375 5 3	
Wastage on sale at 4½ per cent.	5,438 5 10	4,614 9 5	
Total....	1,32,068 11 8	1,12,221 2 10	

51. I append a Table of the total cost to Government of the salt manufactured at the Karapa pans last year. It will be seen that the expense of making salt in the Godavery district is much enhanced by the large number of guards required to guard the present works.

Total cost of 2,29,191 Indian Maunds of salt when transported from Buntumilly...		Rs.	A. P.
Total cost of do. when manufactured in the district, at an average cost of 2 annas and 1 pie a maund...		29,217 9 3	
Difference.....		1,12,001 9 5	

52. But notwithstanding this large item, the cost of making salt in the district is nearly five times cheaper than it would be to bring it from Bantumilly; while the facilities for fraud would be greatly increased by transporting from such a distance the large quantity of salt required.

I cannot therefore recommend the closing of the manufacture, either on the score of economy or on any other ground.

53. I have not made any calculations in regard to Balacheroovoo; as, independent of the very inferior character of that salt, it will be necessary to convey it first to Vizagapatam across bad roads and a large stream, and then to ship it by boats either on dhoneyes or square-rigged vessels. To do this would necessarily make the cost of the carriage much higher than that of the conveyance of salt from Buntumilly.

54. I think the present outlay, and the existing facilities for smuggling, might be very greatly diminished by abandoning all the present places of sale, excepting the Mandegaruvu platform at Pennuguduru, and closing all the pans but those belonging to this village.

55. It appears to me that if the arrangements I am about to suggest are adopted, the difficulty about the water-supply might also be very much lessened if not entirely removed.

56. I would enlarge the present Mandegaruvu platform attached to the village of Pennuguduru, and raise another one, or two if necessary, on the high ground to the north-east of it. I would enclose all the pans belonging to the Mandegaruvu platform and all the swampy ground in the vicinity, together with the pans belonging to the Valemgoontah and the Chitayapuram platforms. A wide and deep canal should be carried round the platforms and the salt pans, and with a bank on its outside and a good strong hedge would form a good defence. The salt pans might be traversed by good roads, and should be only accessible from without by bridges.

57. The Pennuguduru station can at present produce 2,50,000 Indian Maunds of salt a year. The total sales in the district in the highest year since the closing of the Mogulloor division have been only 3,98,385 Indian Maunds, and there is in store 5,47,214 Indian Maunds. There is a large area of swamp within the space circumscribed by me available for extending the works and increasing the manufacture; and I feel assured that if the whole of the ground within that space were well worked, there never would be any deficiency in the supply of salt. If the sales increase very largely, the pans belonging to the Nadantipur platform to the east of the creek dividing the Cholangy creek might be re-opened and worked; and one platform, constructed on a well chosen spot, might be also added; but this should be only done when all the ground on the west of the creek had been found insufficient.

58. The salt Cutcherry might be built on one of the platforms within the new enclosure, and thus the whole of the works at Pennuguduru would be compact and complete.

59. In addition to the facilities in the way of concentration which the works at Pennuguduru afford the best salt is made at this village; and the manufacturers belonging to it are less turbulent, more respectable and amenable to control than the others, and they do not bear so bad a character for smuggling.

60. The advantages of this proposal are:—

Present Establishment.	Rs.	Proposed Establishment.	Rs.
1 Superintendent ...	100	1 do..	120
1 Clerk..	20	1 do..	20
2 Do. at 15 Rs. each..	30	2 do..	30
1 Shroff..	15	1 do..	15
6 Measurers at 6 Rs. each	36	8 do..	48
7 Peons at 6 Rs. each..	42	7 do..	42
2 Vettians at 5 Rs. each	10	3 do..	15
20	253	23	290

STATION ESTABLISHMENTS.

PENNUGUDURU.			
	Rs.		Rs.
1 Asst. Supt. ..	30	1 do..	50
8 Vettians..	40	3 do..	15
9	70	4	65

GARZANAPULLY.

	Rs.		Rs.
1 Asst. Supt..	35	1 do..	20
6 Vettians..	30	3 do..	15
7	65	4	35

KONGODU.

	Rs.		Rs.
1 Asst. Supt..	25		
4 Vettians..	20		
5	45		

PREVENTIVE ESTABLISHMENT.

	Rs.		Rs.
3 Head Constables..	60	1 do..	20
3 Deputy do..	31½	2 do..	21
39 Constables..	237	19 do..	117
45	328½	22	158

EXTRA GUARDS.

	Rs.		Rs.
3 Head Constables..	60	1 do..	20
4 Deputy do..	42	2 do..	21
43 Constables..	262	15 do..	98
50	364	18	139

ABSTRACT.

Present Establishment 136 men costing Rs.	1,125 8 0
Proposed do. 71 do. "	687 0 0
65 Saving per mensem	438 8 0
Do. per annum..	5,262 0 0

Cocanada would only have to proceed about three miles and a half by land or water, as most convenient, to one of the two platforms proposed to be maintained, at both of which sales might be going on; and lastly

The water supply now so precarious and uncertain would be ample and sufficient for years; and if it fail for navigation, the people would have good roads by which they could reach the platforms.

61. The village of Pennugudur is not far from the mouth of the creek, and the water supply being confined to the one set of pans instead of being carried to several points might be found sufficient for the manufacture of the quantity of salt required. If more water were wanted, the Metapolliem creek might without any great expense be united to the Cholangy creek, and as a last resource, perhaps wells could be dug and salt manufactured from them.

1st. *Economy.*—The present establishment is wholly inadequate for the existing manufacture. If it is to be retained in its present localities the number of Assistant Superintendents must be increased to six or eight, and the strength of the guard must also be added to in order that due supervision may be maintained and smuggling prevented. But if the alteration proposed by me be sanctioned the present number of three Assistants on 90 Rupees would be more than is needed. Two Assistants, one on 50 Rupees and one on 20 Rupees, would be ample. The present establishment of preventive guards aggregating 328 Rupees per month, and consisting of 3 Head, 3 Deputy Constables and 39 Constables, might be reduced to 1 Head Constable, 2 Deputies and 19 Constables, costing only 158 Rupees; while the temporary guards might be proportionately reduced. The Measurers should be increased by two at a cost of 12 Rupees, and the Vettians reduced from 20 to 9 at a saving of Rupees 55 per mensem, making, as shown in the margin, a total reduction of 65 men and 438½ Rupees a month, or 5,262 Rupees a year.

2nd. *Greater protection of the Government property.*—In the space marked out by me the whole works could be overlooked and watched from the platforms, and with the good fence and ditch it would be impossible that thefts could occur without the connivance of the guards and salt servants.

3rd. *The convenience of the public would be better consulted.*—Purchasers are now required to attend at any of the platforms where salt may be selling. Should the arrangements I suggest be carried out, the inhabitants of Cocanada would only have to proceed about three miles and a half by land or water, as most convenient, to one of the two platforms proposed to be maintained, at both of which sales might be going on; and lastly

62. The Mundegaruvu platform is not far from the road leading from Cocanada to Dracharam, referred to in paragraph 3. This road might at a trifling cost be continued to the Mundegaruvu platform, which should be connected with the other platform by a good road; and in the event of the creeks becoming no longer navigable by the silting up of the Bay, the salt could be conveyed along this road to Cocanada, which is only about 2½ miles distant, and thence transferred to the canals which meet at that place.

63. Should it be found impossible eventually to avoid the closing of the mouths of the creeks, except at the large outlay suggested by Major Stoddard, the arrangements proposed above might enable us to use them yet for many years; and the whole outlay needed to make the alterations I suggest would not be very large.

64. Considering the distance of the Karapa salt works from Buntumilly, I would strongly advocate some works being opened between the present works and Nursapur. There are many salt swamps available where good salt could be produced; one at Mooree, and another at Oopoo-logupatam.

65. The people gather much spontaneous salt in these swamps; and while salt can be picked up close by their houses, it is not to be expected that they will proceed to Buntumilly, forty miles distant, to purchase Government salt. By converting one of the swamps into places of manufacture, we shall not only place within easy reach of the people the means of buying a legitimate article, but we shall remove from them the temptation in that locality of finding an illicit salt lying about in the swamps; and the Salt officials and Police will find it easier to prevent the salt generated in the swamps from being made away with than they do now when so far removed from the swamps.

66. The sales at Buntumilly show that 30,918 Indian Maunds of salt were sold up to the 15th March of the present Fasli for consumption in the southern part of the Godavery district, which would provide 1,46,960 people with 18 lbs. of salt per head; but the sub-division numbers no less than 3,49,041 people, who therefore only consumed something more than 7 lbs. per head of Government salt.

67. It may also be found desirable to open a small salt station at Oopada, as suggested by Major Stoddard, or at Vakalapudi only two miles from Cocanada; so that when the Cholangy and Metapolliem creeks are no longer available, salt may be procured for the use of the inhabitants of Cocanada at a reasonable distance.

68. The subjoined Statement shows that the cost to Government of making salt in the Godavery District varies from 1 Anna an Indian Maund to 2 Annas 4 Pice an Indian Maund:—

STATEMENT showing the particulars of the average cost of salt to Government

Faslis.	Name of place of manufacture.	Quantity of salt ordered to be manufactured.	Quantity of salt received into store.	SALES.					
				Home.		Inland.		Foreign.	
1	2	3	4	5		6		7	
		I. Maunds.	I. Maunds.	I. Mds.	S.	I. Mds.	S.	I. Mds.	S.
1263...	Karapa.....	5,00,000	7,45,793	1,30,305	114	14,509	...	1,07,185	20
	Mogultoor.....	1,10,000	1,97,617	52,818	...	10,907	...	1,916	...
	Huzur.....	.....	.....	.....	...	.....	...	.....	...
	Total.....	6,10,000	9,43,440	1,83,153	114	25,416	...	1,09,131	20
1264...	Karapa.....	5,70,000	2,47,657	1,32,746	15	12,262	20	3,49,748	...
	Mogultoor.....	35,000	25,697	41,755	36	8,683	...	.....	...
	Huzur.....	.....	.....	.....	...	.....	...	.....	...
	Total.....	6,05,000	2,73,354	1,74,502	11	20,945	20	3,49,748	...
1265...	Karapa.....	5,00,000	1,28,903	1,51,867	33	9,061	...	1,68,894	...
	Mogultoor.....	50,000	1,042	52,329	7	13,115	...	2,920	...
	Huzur.....	.....	.....	.....	...	.....	...	.....	...
	Total.....	5,50,000	1,29,945	2,04,197	4	22,176	...	1,71,814	...
1266...	Karapa.....	7,50,000	4,88,070	1,19,439	27	6,318	...	57,890	20
	Mogultoor.....	.....	.....	73,317	31	17,503	...	.....	...
	Huzur.....	.....	.....	.....	...	.....	...	.....	...
	Total.....	7,50,000	4,88,070	1,92,757	18	23,821	...	57,890	20
1267...	Karapa.....	6,00,000	7,48,300	1,69,628	20	21,936	20	93,874	20
	Huzur.....	.....	.....	.....	...	.....	...	.....	...
	Total.....	6,00,000	7,48,300	1,69,628	20	21,936	20	93,874	20
1268...	Karapa.....	.....	.....	1,74,888	10	33,976	...	43,560	...
	Huzur.....	.....	.....	.....	...	.....	...	.....	...
	Total.....	.....	.....	1,74,888	10	33,976	...	43,560	...
1269...	Karapa.....	4,00,000	5,05,851	2,01,556	21	24,271	...	1,64,612	...
	Huzur.....	.....	.....	.....	...	.....	...	.....	...
	Total.....	4,00,000	5,05,851	2,01,556	21	24,271	...	1,64,612	...
1270...	Karapa.....	6,00,000	4,40,778	2,45,278	34	960	...	1,52,147	...
	Huzur.....	.....	.....	.....	...	.....	...	.....	...
	Total.....	6,00,000	4,40,778	2,45,278	34	960	...	1,52,147	...
1271...	Karapa.....	3,50,000	2,07,160	1,72,613	33	.....	...	98,695	...
	Huzur.....	.....	.....	.....	...	.....	...	.....	...
	Total.....	3,50,000	2,07,160	1,72,613	33	.....	...	98,695	...
1272...	Karapa.....	4,00,000	2,61,282	2,29,191	11	.....	...	33,492	...
	Huzur.....	.....	.....	.....	...	.....	...	.....	...
	Total.....	4,00,000	2,61,282	2,29,191	11	.....	...	33,492	...
	Grand Total.....	48,65,000	39,98,180	19,47,767	21	1,73,501	...	12,74,994	20
	Average.....	4,86,500	3,99,818	1,94,776	28	17,350	4	1,27,499	18

per garce and per maund before sale, during the last ten years.

Coodivaram.	Covering.	Establishment.	Saderwarid.	Guards.	Repairs to platforms.	Salt works.
8	9	10	11	12	13	14
RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. P. P.	RS. A. P.	RS. A. P.
34,182 2 9	1,453 11 0	3,397 7 11	112 14 3	2,998 3 2	18 12 0	.....
10,705 14 1	400 0 0	3,200 13 10	96 0 0	544 0 3	.....	.....
.....	.....	660 0 0	97 1 9	.....	.....	.....
44,888 0 10	1,853 11 0	7,258 5 9	306 0 0	3,542 3 5	18 12 0	.....
11,350 15 2	627 11 0	3,104 5 8	110 0 0	2,938 13 10	203 12 0	5 4 0
1,391 14 9	186 7 0	2,922 0 0	88 0 0	62 0 4	.....	.....
.....	.....	605 0 0	94 3 11	.....	.....	.....
12,742 13 11	814 2 0	6,631 5 8	292 3 11	3,000 14 2	203 12 0	5 4 0
7,116 11 0	326 5 0	2,994 3 0	120 0 0	3,026 0 4	981 0 0	.....
56 7 1	14 7 6	3,191 9 4	96 0 0	225 13 2	.....	.....
.....	.....	660 0 0	80 4 2	.....	.....	.....
7,173 2 1	340 12 6	6,845 12 4	296 4 2	3,251 13 6	981 0 0	.....
29,422 6 0	1,152 13 0	3,602 12 1	120 0 0	2,715 8 8	.....	.....
.....	.....	1,834 6 11	47 0 0	69 11 10	.....	.....
.....	.....	660 0 0	50 13 11	.....	.....	.....
29,422 6 0	1,152 13 0	6,097 3 0	217 13 11	2,785 4 6	.....	.....
44,750 10 4	2,055 0 0	5,315 2 9	120 0 0	4,437 0 4	.....	.....
.....	.....	595 0 0	61 10 1	.....	.....	.....
44,750 10 4	2,055 0 0	5,910 2 9	181 10 1	4,437 0 4	.....	.....
.....	.....	5,235 14 4	120 0 0	4,040 0 7	717 0 0	.....
.....	.....	651 8 3	68 3 0	.....	.....	.....
.....	.....	5,887 6 7	188 3 0	4,040 0 7	717 0 0	.....
30,779 2 1	1,705 11 0	4,773 6 7	110 0 0	3,238 5 9	467 0 0	.....
.....	.....	605 0 0	52 4 8	.....	.....	.....
30,779 2 1	1,705 11 0	5,378 6 7	162 4 8	3,238 5 9	467 0 0	.....
25,712 0 9	1,630 4 0	5,108 1 10	123 1 6	2,261 0 4	1,177 0 0	.....
.....	.....	705 0 0	40 7 10	.....	.....	.....
25,712 0 9	1,630 4 0	5,813 1 10	163 9 4	2,261 0 4	1,177 0 0	.....
12,430 0 3	747 5 0	5,252 11 5	110 0 0	2,878 6 9	370 0 0	279 0 0
.....	.....	3,452 7 7	99 11 5	.....	.....	.....
12,430 0 3	747 5 0	8,705 3 0	209 11 5	2,878 6 9	370 0 0	279 0 0
16,330 2 0	880 14 0	3,643 1 7	159 10 8	4,658 2 8	242 0 0	1,380 0 0
.....	.....	6,783 15 5	71 7 3	.....	.....	.....
16,330 2 0	880 14 0	10,427 1 0	231 1 11	4,658 2 8	242 0 0	1,380 0 0
2,24,223 6 3	11,180 8 6	68,954 0 6	2,248 14 5	34,093 4 0	4,176 8 0	1,664 4 0
22,422 13 5	1,118 0 9	6,895 6 5	224 4 2	3,409 5 4	417 10 4	166 6 9

Statement showing the particulars average cost, &c.—(Concluded.)

Faslis.	Name of place of manufacture.	Contingencies.	Total cost.	Cost per garce.	Cost per maund.
1	2	15	16	17	18
1263.....	Karapa... Mogultoor... Huzur... Total...	RS. A. P. 67 9 6 35 2 11 49 3 3 151 15 8	RS. A. P. 58,019 0 8	RS. A. P. 7 8 0	RS. A. P. 0 1 0
1264.....	Karapa... Mogultoor... Huzur... Total...	756 7 3 32 2 8 49 9 4 838 3 3	 24,528 10 11	 10 10 0	 0 1 5
1265.....	Karapa... Mogultoor... Huzur... Total...	70 3 5 8 7 0 22 14 2 101 8 7	 18,990 5 2	 17 8 0	 0 2 4
1266.....	Karapa... Mogultoor... Huzur... Total...	309 10 1 1 6 0 9 8 6 330 8 7	 40,006 1 0	 9 6 0	 0 1 3
1267.....	Karapa... Huzur... Total...	142 0 2 17 10 8 159 10 10	 57,494 2 4	 8 12 0	 0 1 2
1268.....	Karapa... Huzur... Total...	81 11 2 23 7 6 105 2 10	 10,937 13 0	..... ..... .....	..... ..... .....
1269.....	Karapa... Huzur... Total...	158 8 6 11 8 9 170 1 3	 41,900 15 4	 10 0 0	 0 1 4
1270.....	Karapa... Huzur... Total...	214 7 0 3 5 9 217 12 9	 36,974 13 0	 10 0 0	 0 1 4
1271.....	Karapa... Huzur... Total...	340 5 9 169 8 7 509 9 4	 26,129 3 9	 15 0 0	 0 2 0
1272.....	Karapa... Huzur... Total... Grand Total... Average...	478 1 3 410 4 2 888 5 5 3,472 14 6 347 4 6	 35,037 11 0 3,50,018 12 2 35,001 14 0	 15 10 0 10 10 0	 0 2 1 0 1 5

69. The Deputy Collector reports well of all his subordinates except Reddy Puntulu, a Clerk whose age renders him inactive. He is a servant of 28 years' service; but is not willing to retire.

70. From my inquiries it does not appear that he bears a very high character; and he should, I think, be required to retire and make way for a more active and efficient servant.

71. I have in conclusion to acknowledge the valuable assistance rendered me by Mr. Leggatt during my inquiry and inspection of the Godavery works. Mr. Leggatt's intelligence and activity are continually employed in improving the administration of the monopoly. He has improved the staple of the salt, and introduced great reforms in the manner of keeping the accounts, in the storing and selling of the salt. If it is not thought desirable to open fresh places of manufacture in the district, I think Mr. Leggatt could be well employed in the administration of a Taluk in addition to his present duties which are not sufficient fully to employ his time and attention.

I have the honor to be,
Sir,
Your most obedient servant,

Aluka
Member, Board of Revenue.

APPENDIX B.

EXTRACT from a letter from Major J. STODDARD, Executive Engineer, Godavery District, dated Dowlaishweram, 27th October 1863, No. 194.

4. Before, however, any more expenditure is sanctioned for the Karapa salt pans, I would beg to offer for the consideration of the Board the following remarks.

5. I am fully convinced that the salt pans could not be placed in a more unsuitable position than they are at Karapa, and the neighbouring villages, for these obvious reasons:—

First.—Since the construction of the Godavery Anicut and its innumerable Canals, large tracts of waste land, as was to be expected, have been reclaimed from the sea and brought under cultivation. Irrigation channels now intersect the plain in which the salt works are located, and fine rice crops are to be seen in close proximity to many of them. But for these salt works I believe the whole area would ere this have been one sheet of rice cultivation, yielding a larger profit to the Ryots than they get for the salt.

Second.—The water in the Bay from which that used in the manufacture of the salt is derived (the Bay itself being the receptacle of the contents of the Godavery and of the surplus water of a great number of canals and drainages) is quite fresh and sweet for six or seven months, and for the rest of the year is never so briny as the sea water higher up the Coast is.

6. From the above two causes it is not possible to begin the manufacture of salt till the season is considerably advanced, thereby running the risk (as was I believe the case last season) of having the salt destroyed in the pans by the Mango showers; but what is really of much more consequence is that the salt which is made at Karapa is admitted to be so inferior in quality to the salt manufactured in other parts of this Coast that the Brinjaries would never think of purchasing it for importation inland, if they can get salt from Buntumilly or other depôts. This inferiority of the Karapa salt can only be attributed to the above causes, and they are irremediable. If, therefore, the manufacture of Salt is to be continued in the Godavery District, which I hear is somewhat doubtful, and not merely continued but to be improved in quality, it will be necessary to remove the salt works to some other locality higher up the Coast where the same causes are not in operation: Oopada for instance.

7. There is still another though not so insuperable an objection to the continuance of the salt works in their present position; this is the rapid silting up of the two main creeks of Metta-channels by which the greater part of the salt is exported on boats. These creeks are quickly deteriorating in capacity, owing to the deposition of Godavery mud and the extension from the same cause of the Coast line sea-wards, whereby the admission of tidal water is yearly being reduced.

8. It will therefore be necessary to use steam-dredges in order to keep these channels sufficiently deep and wide for the influx of tidal water, as well as to make them navigable throughout the year for salt boats. Two canal dredges will be required, and the dredging ought to be carried on without interruption for six months: from December to May. The probable cost of working both dredges, inclusive of petty repairs, but exclusive of interest and depreciation of plant, will be for the half year Rupees 7,000 at least. The process will have to be repeated every year afterwards, though perhaps not to the same extent; a sum of Rupees 5,000 at all events should be provided in all subsequent Salt Budgets for dredging the channels, if the salt works of Karapa are not in the mean time abandoned.

9. On the same supposition it will be necessary to make provision in the Budget for the construction and repair of cross-roads as suggested by the Board's Circular; but as the lines, as far as I am aware, have not yet been decided on by the Salt Department, I am unable to submit either

an estimate or a list of such roads in sufficient time for entry in the ensuing budget. I would however suggest that as these works are in future to be entrusted to the Salt Department it will greatly facilitate operations if that Department would decide on the nature and necessity of its own wants, and prepare its own plans and estimates without the intervention of the Department of Public Works.

APPENDIX C.

Experiments made with the Salt weighing Machines at Karapa, on the 21st

April 1864.

FIRST WEIGHING.

Number of Machine.	Quantity of Salt weighed.	Quantity found by measurement.	Equivalent of one garce.
	Maunds.	Mer. Measure.	Mercals.
No. 93 ...	6	20 1/4	410
" 67 ...	6	22 1/2	441 1/2
" 96 ...	6	21 1/2	425 1/2
SECOND WEIGHING.			
No. 93 ...	6	21 1/4	430
" 67 ...	6	22 1/2	445 1/2
" 96 ...	6	21 1/2	423 1/2
22nd April 1864.			
No. 67 ...	6	22 1/2	448 1/2
" 96 ...	6	22 1/2	440 1/2
" 93 ...	6	21 1/2	426 1/2
" 66 ...	6	23 1/4	470
21st April 1864.			
With Rupees.			
No. 93 ...	1	Rs. 3,369	
" 97 ...	1	" 3,268	
" 96 ...	1	" 3,751	
" 66 ...	1	" 3,500	

Heap No. 40 of Fasli 1272 weighed on 22nd April and found equal to 9 Garces and 47 Maunds; wastage 73 Maunds or 63 per cent.

(True Copy.)

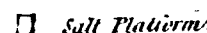
(Signed) J. Clarke.

Member, Board of Revenue.

Exd. R. H. Lee.

—Scale, 3 inches to the mile:—

REFERENCE



Land adapted for salt manufacture

Salt ponds

Am. W. B.

General RE

Secretary to Government P.W.I.

13

Revenue Department
No. 995.
Proceedings of the Madras Government
Under date the 11th May 1865

Read the following letter
from the 3rd member of the Board
of Revenue.

Submitting report on the
inspection of the salt works of
the Godavery District. } (Here enter 16th June 1864)
Do.

1 In this letter
Mr. Clarke submits his
report on the salt works of
the Godavery district.

2 The area of the
district is 7,534 square miles
and the length of seaboard is
about 112 miles. The popula-
tion is estimated at 13,66,831.
The average annual sale of
salt since the Mogaltoo sta-
tion was closed in Fasly 1266,
amounts to 3,10,118 Indian maunds
of which 198,859 maunds ^{here} ~~are~~

continued

taken up for ~~consumption~~ the Home trade, so that the consumption in the district is about 12 lb a head.

3 The ^{total} annual sales of salt have ^{diminished} fallen off considerably during the last 20 years, but the sums realized by Govt are now nearly as large as they have been at any time during that period. The decrease of sales has been chiefly owing to the falling off in the export trade. The home sales in spite of the closing of the Moguloot station in Fasly 1266 and the increase of the monopoly price in Fasly 1270 have been steadily increasing of late years.

owing to enhancement of the monopoly price and increase in the Home sales,

4 The salt manufacture is carried on at 15 "platforms" distributed amongst 7 villages and supplied with salt water by two creeks which are about 4 miles distant from each other.

Villages.	Average amount stored annually.	Average amount sold annually.
Pennugunduru —	121,558	93,753
Kanapa —	31,555	26,782
Paterlagadda —	6,652	5,172
Gurazapalli —	55,052	40,835
Cholavay —	37,624	28,960
Kongudlu —	35,489	30,672
Gooripudy —	33,931	27,217

The

The creeks are said, both by Mr. Clarke and by Major Stoddard the Executive Engineer, to be rapidly silting up, so that an ~~annual~~ outlay in the first year of Rs 5000 of from Rs 7,000 to ~~Rs 10,000~~ annually afterwards will in all probability soon be required to keep them clear. The salt works are so extensive and straggling that they cannot be properly guarded, and a great deal of smuggling is the consequence. The quality of the salt manufactured is bad and the manufacture do all they can to resist the introduction of improvements, in spite of the praiseworthy efforts of the Deputy Collector Mr. Leggatt.

5 The unsatisfactory state of the salt department

in this district has been long under the consideration of Government, and Mr. Clarke was directed in Proceedings 1st April 1863, he to report as to the advisability of discontinuing the manufacture altogether.

6 From para 45-52 of the Report under consideration it is clear that in case the manufacture is closed, either a disproportionate ^{incurred} expense must be ~~suffered~~ by Govt. in order to establish ^{within the district} depots of salt made elsewhere or that great inconvenience will be inflicted on the ^{people} ~~inhabitants~~ of the district. Under these circumstances the manufacture must be continued, and it only remains to consider,

15
consider how ~~the~~ ^{its} present unsatisfactory condition of ~~the manufacture~~ can best be remedied.

7 Mr. Clarke proposes in para 56 that the salt works in the village of Penmugdurum should be extended and improved, and that the pans in all other villages should be closed at once.

Major Stoddard on the other hand considers that the silting up of the creeks and the freshness of the water in the bay into which they open render it necessary that the manufacture should be removed to Oopodia or some other place higher up the coast.

8 The reasons urged by Mr. Clarke in favour of

of his proposition are very strong. He shows that his arrangement will reduce the cost of the station establishments and guards at the same time that it increases their efficiency, and that it will be convenient for the public. He believes that the preliminary outlay for making the requisite alterations will not be very large, and he is further of opinion that in spite of the quantity of fresh water in the bay good salt can be manufactured at Pennagurudi, ~~and he~~ ^{He is convinced also} believes that a much smaller quantity of seawater will be required.

etc.

9 As some new arrangement seems to be imperative, he is called for, the Governor in Council resolves to adopt ^{as the best under present circumstances} Mr. Clarke's proposal. The Board of Revenue in communication with the Collector will make the necessary arrangements, and estimates will be submitted in the Public Works Department for effecting such alterations as will be required.

10 A new salt station will be opened either at Mooree or Oopologupatam, as recommended in Para 64. The Board of Revenue will report again, after communicating with the Collector of the district, as to the advisability of opening a small salt station at Oopoda.

" The attention of the
Public Works department
will be called to paras 3 and
4, ^{regarding} ~~the~~ the unsatisfactory ac-
count of the ~~land~~ communica-
tions generally. ^{The Local} ~~the~~ ^{not} ~~at the disposal of the~~
Chief & Sup^r of Engrs will admit
of the roads being steadily
1/4 improved.

- 1 To F. J. Clarke Esq. Dec 19th 1894
- 14 to the Board of Revenue
- 21 to the Department of P.W.D.
- 4 to the Inspector General of Police
- 1 to the Collector of Gadchiroli

It has been found that
the roads are in a very
poor state of repair
and it is necessary
to take steps to
improve them.

Very
Yrs
J. J.

60
15

Reported to England.
8/11th July 1865 - No 6 - Sep. Rev.

Revenue 1865. Octth.
Proc. of Govt. for May

No 995.

Proc. of the Madras Govt.
of 11th May 1865.

Pro. PWD. of 20 May 1865 No 1401
From the Accountant General
Madras. 20 November 1865 No 232

219220-

Reviewing Mr. Clarke's
report on the salt works in
Godaverry.