

REPORT

ON

ARRANGEMENTS FOR THE TRANSIT OF
IMMIGRANTS TO ASSAM.

BY

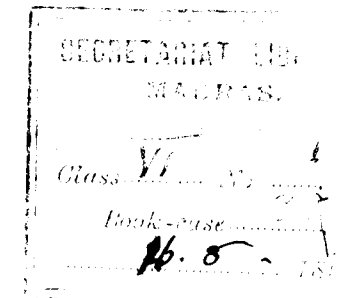
SURGEON-MAJOR R. NEIL CAMPBELL, M.B.

Government of Madras.

SECRETARIAT LIBRARY.

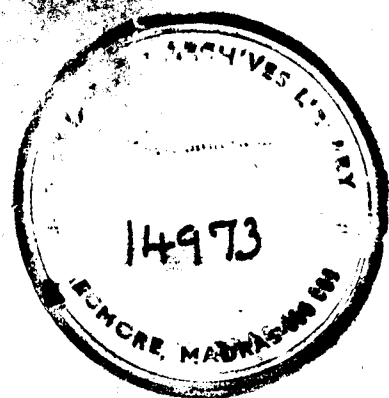
Class *VI* No. *64-7*

Ch. 8. III-1—10,000—7-7-28.



U426.231.107E
1977

SHILLONG:
PRINTED BY THE SUPERINTENDENT OF THE ASSAM
SECRETARIAT PRINTING DEPARTMENT.



1977-21446-94

MEMO. NO. $\frac{689\text{Emgn.}}{5262}$ R.*Shillong, the 14th December 1896.*

COPY forwarded to the Principal Medical Officer for information and communication to Surgeon-Major Campbell. The Chief Commissioner does not wish to fix any special period for the deputation, but it is not anticipated that it should last for more than a month or six weeks.

By order of the Chief Commissioner of Assam,

E. A. GAIT,

*Offg. Secretary to the Chief Commissioner of Assam.*MEMO. NO. $\frac{689\text{Emgn.}}{5263-70}$ R.*Shillong, the 14th December 1896.*

COPY forwarded to all Deputy Commissioners of labour districts for information, with the request that Surgeon-Major Campbell may be given such assistance or information as he may require.

By order of the Chief Commissioner of Assam,

E. A. GAIT,

Offg. Secretary to the Chief Commissioner of Assam.

CONTENTS.

	PARA.	PAGE.
ITINERARY—		
To Goalundo	1—4	1
Surma Valley	5—21	1—6
Bengal and Central Provinces	22	6
Brahmaputra Valley	23—28	6—7
DEFECTS AND RECOMMENDATIONS—		
Surma Valley—I.—Immigrants—		
(a) Act coolies with their dependents	29	7
(b) Free coolies despatched from Goalundo depôt	<i>ib.</i>	<i>ib.</i>
(c) „ „ who travel as passengers	<i>ib.</i>	<i>ib.</i>
II.—Transit—		
(a) From Goalundo to Enathganj	30	8
Accommodation	31	<i>ib.</i>
Conservancy	32	10
Water-supply	33	<i>ib.</i>
Diet	34	<i>ib.</i>
Cooking	35	<i>ib.</i>
Fireplaces or galleys	36	11
Serving out food	37	<i>ib.</i>
Hours	38	<i>ib.</i>
Supervision	39	<i>ib.</i>
Tobacco	40	12
Hospital arrangements	41	<i>ib.</i>
Segregation and isolation	42	13
Sanitation, cleanliness, etc.	43	<i>ib.</i>
Inspection by Government officers, etc.	44	<i>ib.</i>
Application of foregoing	45	<i>ib.</i>
Willingness of Superintendent, Mail Service, to carry out recommendations	46	<i>ib.</i>
(b) From Enathganj to Silchar	47	<i>ib.</i>
Accommodation	48	14
Conservancy	49	<i>ib.</i>
Water-supply	50	<i>ib.</i>
Diet	51	<i>ib.</i>
Hospital, etc.	52	<i>ib.</i>
Suggested improvements	53	<i>ib.</i>
Letter from Steamer Agents	54	<i>ib.</i>
Remarks on above letter	55	15
III.—Depôts and debarkation <i>ghâts</i> —		
Ajabpur	56	16
Madna	57	<i>ib.</i>
Manumukh	58	<i>ib.</i>
Fenchuganj—Private depôts... ..	59	<i>ib.</i>
„ —Government depôt and cholera hospital	60	17
„ — <i>Ghât</i>	61	18
Karimganj	62	<i>ib.</i>
Badarpur	63	<i>ib.</i>
Sialtek	64	<i>ib.</i>
Jatinga	65	<i>ib.</i>
Silchar	66	<i>ib.</i>
Recommendations... ..	67	<i>ib.</i>
Assam-Bengal Railway	68	19

Depôts, rest-houses, and line of rail in Bengal—

	PARA.	PAGE.
Goalundo—		
Emigrants ...	69	19
Clothing ...	70	20
Blankets ...	71	<i>ib.</i>
<i>Kurtas</i> ...	72	<i>ib.</i>
<i>Saris and dhotis</i> ...	73	<i>ib.</i>
Depôts ...	74	<i>ib.</i>
Dispensary ...	75	21
Recommendations ...	76	<i>ib.</i>
Railway ...	77	22
Naihati—		
Depôts ...	78	<i>ib.</i>
Cholera hospital ...	...	<i>ib.</i>
Recommendations ...	79	23
Asansol—		
Depôts ...	80	<i>ib.</i>
Recommendations ...	81	24
Railway ...	82	<i>ib.</i>
Purulia—		
Depôts ...	83	<i>ib.</i>
Railway ...	84	<i>ib.</i>
Route to Goalundo—		
Routes from recruiting centres ...	85	<i>ib.</i>
Route from Naihati to Jatrapur—		
Sanctioned route ...	86	25
Saraghat—		
Depôts ...	87	<i>ib.</i>
Cholera hospital ...	88	<i>ib.</i>
Inspection at Damukdea ...	89	<i>ib.</i>
Jatrapur—		
Arrangements ...	91	26
Recommendations... ..	92	<i>ib.</i>
Arrangements in the Central Provinces, Bilaspur—		
Arrangements ...	93	27
Depôts ...	94	<i>ib.</i>
Recommendations with regard to depôts ...	95	<i>ib.</i>
Encampment ...	96	28
Recommendations with regard to encampment ...	97	<i>ib.</i>
Railway ...	98	<i>ib.</i>
General recommendations ...	99	29
Railway routes—		
Sanctioned route ...	100	<i>ib.</i>
General recommendations ...	101	<i>ib.</i>
Brahmaputra Valley—		
I.—Immigrants ...	102	30
II.—Transit routes ...	103	<i>ib.</i>
Mail steamers ...	104	31
III.—Depôts and debarkation <i>ghâts</i> —		
Dhubri—		
Depôts ...	105	<i>ib.</i>
Cholera hospital ...	106	<i>ib.</i>
<i>Ghât</i> ...	107	32
Advisability of retaining Dhubri as contracting centre ...	108	<i>ib.</i>

	PARA.	PAGE.
Gauhati—		
<i>Ghât</i> ...	109	32
Cholera-sheds ...	110	<i>ib.</i>
Improvements suggested ...	111	<i>ib.</i>
Tezpur—		
Cholera-sheds ...	112	<i>ib.</i>
Recommendations ...	113	33
Silghat—		
Depôt ...	114	<i>ib.</i>
Kokilamukh—		
<i>Ghât</i> ...	115	34
Depôt ...	116	<i>ib.</i>
Recommendations ...	117	35
Dibrugarh—		
Arrangements ...	119	<i>ib.</i>
IV.—Proposed depôts—		
Kamalabari—		
Formation of depôt advocated ...	120	<i>ib.</i>
Rangamati—		
Formation of depôt advocated ...	121	36
V.—Proposed debarkation <i>ghât</i> —		
Singri—		
Proposed debarkation <i>ghât</i> ...	122	37
CONCLUSION—		
Summary of important recommendations ...	123	<i>ib.</i>
I.—Before embarkation ...	124	<i>ib.</i>
II.—Transit by steamer ...	125	38
Mail steamers ...	126	<i>ib.</i>
Feeder steamers ...	127	<i>ib.</i>
III.—After debarkation—		
(a) Surma Valley—		
Proposed depôts ...	128	39
Improvements at depôts ...	129	<i>ib.</i>
„ „ <i>ghâts</i> ...	130	<i>ib.</i>
(b) Brahmaputra Valley—		
Depôts ...	131	40
Cases of cholera to be landed at Dhubri ...	132	<i>ib.</i>
IV.—Transit to gardens—		
Coolies to proceed at once to gardens on debarkation ...	133	<i>ib.</i>

REPORT
ON THE
ARRANGEMENTS FOR TRANSIT OF IMMIGRANTS
TO
ASSAM.

ITINERARY.

I started on my tour on the 16th December from Gauhati and proceeded down the Brahmaputra to Goalundo, halting for the day at Dhubri. On the way down, I confined my inspection to the sanitary arrangements on the steamers and to seeing how far the Regulations in force were carried out. While waiting at Gauhati I inspected several steamers, and found that there were many important matters which required special enquiry.

2. The *Kookee* arrived at Gauhati at 1 a.m. on the 16th, having been detained for quite four hours, landing five cases of cholera below the town, so I was informed, because no medical officer or establishment had gone down to assist, and the topazes belonging to the steamer had to carry them from the steamer to the cholera hospital, which was a long way from the river edge. The steamer hospital had been washed and cleaned, but the drainage or wash had gone right forward amidships, where the healthy coolies were sleeping. This can be remedied by a batten across the deck and a pipe extending down beyond the lower deck, so as to carry the water directly down to the river and not permit it to fall on the lower deck, as would otherwise happen. There were 317½ emigrants and 193 passengers on board. There was only one cooking range, which could boil one boiler at a time, and which took 4 to 4½ hours to cook a meal for 100 emigrants, so that it must have taken at least 12 hours to cook the morning meal for the present number, and a little less time for the evening meal. A galley of this description is barely sufficient for 200 emigrants, and is quite inadequate for any number exceeding this. The clothing of the emigrants was not according to the scale laid down, either in quality or form: the blankets were thin and about half the prescribed weight; the *saris* and *dhotis* of very poor quality, as also the *kurtas*, which, besides being a thin flannelette, instead of flannel, were also not nearly long enough, in many instances not coming below the umbilicus, instead of extending below the hips, and in young children to the knees.

3. On the way to Goalundo I inspected the *Mishmi*, *Daffla*, and *Penguin*, and found in every case that the cooking accommodation was only sufficient for 200 immigrants at the utmost, also that the drainage of the upper deck and the hospital required improvement, in some cases the wash running over the edge of the upper deck all round and falling on the lower deck where it could splash over the food, which has to stand in boilers or drainers for hours before it is distributed, and, as many of them are old and the lids do not fit properly, this is a real danger.

4. I arrived at Goalundo on 19th evening, and at once went to see the agent, Mr. Taylor. He saw how imperative it was to increase the cooking accommodation and to improve the drainage, and at once took steps to remedy these defects.

SURMA VALLEY.

5. I left Goalundo on 21st in the *Pathan en route* for Silchar. There were 197 coolies on board, and, as there was only one galley, the morning meal took over eight hours to cook. The emigrants did not seem satisfied with the quantity, and all, young and old, clamoured for more out of a small quantity which remained. Some of the children, I might truthfully say most of them, were little better than skeletons. I had to order milk to be distributed to some of the children, they were in such a debilitated condition. The morning meal was not given till 12-15 p.m. I ordered the medical officer to let me see the evening meal, and to inform me when ready. I visited the cook-room at

6-30 p.m., and again at 7-15 p.m., and the meal was not then ready. I was having my dinner and heard a commotion, so finished quickly, thinking it was the coolies preparing for their meal, and went out at 8-20, *i.e.*, about ten minutes after the commotion, to find the meal had been given, which was impossible in so short a time. On enquiry, I was informed that the meal had been given, and not to all, or nearly all, and that the commotion was the coolies crying. This I believed to be the truth, and I of course reprimanded the medical officer.

6. There are three classes of emigrants on board :

- (1) Act-I emigrants, who are fed on board.
- (2) Free coolies, who also are fed on board.
- (3) Free coolies, who are not fed, but go as third-class passengers and feed themselves; or rather are supposed to be fed by sardars.

No registers are kept, and no way-bill, as the coolies are mostly free labourers. There is thus no record of sickness or death amongst emigrants. A batch of 25 coolies under charge of Lachan Dasrad from Ghazipur, complained to me they had received no food. The sardar, Lachan Dasrad, informed me he gave Rs. 25 to a Babu at Goalundo, and that the Doctor Babu on board was to feed them. The Doctor Babu said they refused to take their food, as it was against their caste, and wanted dry food. On enquiry, I found they were chiefly Chamars and Bors, and could have no caste prejudices, and, in fact, they did eat cooked food afterwards. This convinces me it is a very bad plan to allow emigrants to go as passengers without diet, as it gives an opening for cheating the emigrant out of his proper diet, and pickings for the various Babus or peons. The rice, as is always the case, was distributed by the hand, and the distribution gave considerable dissatisfaction, as some got more than others. Even those who got the larger share were not satisfied with the amount. I am of opinion that the morning meal might, with advantage, be increased to 6 chhittacks and that two tin measures holding 3 and 6 chhittacks should be provided for children under 10 years and for adults and those over 10 years, respectively. Even little children of five years and upwards did not seem satisfied with their portion.

7. A great many of the emigrants travel as passengers, the sardars carrying *chira*, but this is unsatisfactory—*firstly*, because *chira* is not as good as a cooked meal, being apt to cause bowel complaints, and *secondly*, because there is no supervision, and the probability is that a very small quantity is given. The prescribed quantity of *chira* is 12 chhittacks for an adult and 6 chhittacks for children under ten years. The tin mugs they are provided with hold 4 chhittacks and 8 chhittacks, so the distribution is very haphazard.

8. The water-supply is kept in large iron tanks, allowed to settle, and purified with alum, which, if used, is really excellent, but I have frequently seen the emigrants filling their mugs, or *lotas*, from the water supplied by a pump for washing purposes and taking this away with them. When questioned, they make out it is to wash their plates or hands, etc., but, unless a strict watch is kept by placing a man at the pump to prevent this, there can be no certainty that it is not used for drinking purposes.

9. The number of passengers a steamer is licensed to carry is calculated by taking the superficial area of both decks and deducting the space occupied by funnels, ventilators, staircases, etc. In this way, useless spaces which cannot be occupied are taken into account and a larger number granted in the license than should be the case. The space actually available for occupation by the emigrants should be measured, and the number licensed accordingly.

10. The hospital accommodation sometimes is considerably under that prescribed by Bengal Rule 86. The blankets and clothing are not according to the scale in Schedule B. In one case I saw only 8 blankets, some of which were old, when there should have been 30. Medicines and medical comforts I found according to scale C.

11. We arrived at Enathganj at 4-30 p.m. on the second day, having landed a number of emigrants at Madna, some distance below. Madna is an important *ghât* where many coolies disembark, and I think should have a hospital assistant and depôt, as it is likely to increase in importance, I am informed, and is the first *ghât* at which emigrants disembark. At Enathganj the emigrants are transferred from the large mail steamer into one of the feeder class of stern-wheelers. We were transferred to the *Vesta*, which left Enathganj at 5-30 p.m. The *Vesta* was licensed by the Bengal Government to carry 292 adult passengers by night and 439 by day. She had on board 382 coolies, all-told, and 54 passengers. Seeing that the coolies and passengers all sleep on board, though the steamer does not ply after 10 or 11 p.m., it should be considered as plying by night. The overcrowding, especially at night, is very great, and there is hardly room enough for them

all to lie down. We arrived at Manumukh between 10 and 11 p.m., and anchored for the night. Forty-seven emigrants were landed. There was no shelter for those landed, except a covered passage between two godowns, which had no sides, and was only a few feet wide. There was a dense fog the next morning, and it was very cold; so, considering the quality of the clothing, the exposure must have been very trying. We left Manumukh at 7 a.m. and arrived at Fenchuganj at 10 a.m. There were eight cases of cholera between Manumukh and Fenchuganj, with two deaths. There was no hospital and no means of isolation. A small piece of canvas was put up round the sick and dead, who were lying among the healthy on the lower deck, and an attempt made to isolate, but this was impossible, owing to the crowded state of the steamer. The arrangement for feeding the coolies was the issue of dry food, supposed to be 3 chhittacks and 6 chhittacks per meal, but this was most haphazard. There was no place for cooking. There was no hospital. There was only one latrine, containing one seat, so that it would take hours for the coolies to relieve themselves, unless the steamer happened to be anchored alongside the bank. There was no water-supply, except what the coolies could get from the river, and this was filthy. There was insufficient protection round the decks, and I was informed that on one steamer a child had tumbled overboard and been drowned. At Fenchuganj everyone was disembarked; the sick were taken to the cholera hospital, while the healthy dispersed, some to the upper *ghât* and others to the lower. The dead had been thrown into the river. The coolies disembarked this day, the third since leaving Goalundo, could not proceed, as there was not accommodation on the upward steamer, which is a smaller class of feeder than the *Vesta*, so had to sleep the night in the open. I halted a day here, and inspected the depôts and cholera hospital.

12. There are four private depôts at Fenchuganj, belonging respectively to—

Babu Hira Lal Mukherji.	Mr. Mackertich.
„ Roti Kanta Mazumdar.	„ Logan, the District Labour Supply Association.

I found the depôts clean. That of Mr. Logan was in course of construction. In the depôt belonging to Hira Lal Mukherji I found 24 coolies, who had been nine days in the depôt, said to have been returned from a garden near Fenchuganj as not required, and awaiting orders from Calcutta. When I visited this place, ten days later, I still found those 24 coolies awaiting orders, so that they had been nearly three weeks detained there, and it is possible the detention was much longer. They were said to be sardari-recruited coolies. What was their end? Were they transferred to some other garden, or turned adrift, as it was hardly likely the contractor would let himself be out of pocket by paying their way back and feeding them? This appears to me as possibly a hardship to the so-called free immigrant, and that he is really in a far better state when under the Act.

13. I found no one present in the cholera hospital. It took a very long time to get the compounder and servant, who are non-resident. There were no means of cooking and no blankets. It took from 10-30 a.m. to 3 p.m. to get any medicine, and as to food for the relatives or medical comforts for the patients, I saw none up to the time I left in the evening, though I was informed some rice and *dal* were given after dusk. I must say I saw no arrangements for this when I left at dusk.

14. The next morning, fourth day, I found that two cases of cholera had proved fatal, and that there were six new cases. These occurred among a batch of 116 coolies for Hathikhira from Roti Kanta Mazumdar's depôt, and another of 51 from Mr. Logan's depôt, all from Goalundo. There had been no food given the evening before, but I saw food given in the morning. Mr. Logan has given orders to his agent to see this always done, and he has also asked the agent at Fenchuganj, Captain Walker, to see to this. His coolies will be housed in the depôt when thus detained. The other depôts should do the same. The batch of 116 was encamped at the upper *ghât*, the batch of 51 at the lower. As both batches were cholera-affected, this was very apt to spread the disease. There were no latrines and no sanitary arrangements whatever. The local agents of these depôts did not know anything about the coolies, as they were proceeding higher up the river, or all might have been accommodated and looked after. The hospital assistant in charge of the cholera hospital lives 1 mile away. The buildings require repairs. There is no house for the compounder or chaukidar, so they cannot reside there, even if required. On my return here, ten days later, I found the place as I had left it, dirty and untidy, old pieces of blankets and clothing lying about on the *machans*, as also the tin plates, etc., belonging to the patients who had died. On the road, I found two women under a tree, both of whom had red *kurtas* as supplied by contractors, rather soiled, so had evidently not been long up. They were suffering from anæmia and dropsy, and had not partaken of food for five days,

except what they had been able to get by begging. They were natives of Azimgarh, and intended begging their way back. If they had only been under the Act, they would have had their way back paid. Poor things, it was hopeless to think they could ever get back. The hospital assistant informs me a number come like this, especially in the rains,—both here and at Balaganj. When they fall ill, they are allowed to go by the manager of the garden and beg their way back.

15. The books kept by the hospital assistant showed that in 1896, 1,078 Act coolies and 541 dependents passed up to Cachar, also 26 free coolies and 12 dependents. This shows that practically no record is kept, in the arrival register, of free immigrants. The register shows as landed at Fenchuganj,—for Sylhet 713 Act coolies and 366 dependents, also 223 free coolies and 133 dependents.

The admissions into hospital for 1896 were 86 cholera, with 54 deaths, other diseases 2, both fatal, or in all 56 deaths out of 88 admissions.

The cholera register, month by month, shows February to be the most fatal:

					Admissions.	Deaths.
January	...	...	...	...	8	5
February	...	...	...	...	47	27
March	...	...	...	...	11	4
April	...	...	...	...	1	1
May	...	...	...	...	1	1
July	...	...	...	...	2	1
November	...	...	...	...	6	6
December	...	...	...	...	10	9
Total	...	...	...	...	86	51

16. Fenchuganj is one of the most important places on the Surma, yet there is only a hospital assistant in charge, who lives a long way off, and who apparently takes very little interest in his work. There is no record of the number of free labourers who are landed; those who die on board are thrown overboard, and those who live to be landed are left on the bank. How then can trustworthy returns be furnished of the immigrants who travel by the Surma Valley? Managers of gardens frequently procure coolies from contractors, at so much per head landed on the garden, so of course know nothing of deaths *en route*, as they are only interested in those landed on the garden. It is important to see that latrines of a proper description are erected here. The Agent, Captain Walker, showed me a godown he has built of corrugated iron, which he says is to be used as a shelter for coolies, but which at present has good in it. It requires the floor to be raised and other improvements made, such as latrines somewhere near. There is no water supply, except the river, which is polluted and dirty. Mr. Logan has sent up a Norton tube, and if it proves a success, more will be supplied. I saw here a small batch of coolies brought up by a sardar, who had got as far as Madna and had to wait there, as money ran short. After waiting two days, the manager, who happened to be passing, saw and recognised the sardar, so brought the coolies on. These were sardari coolies, who had never been near a depôt, and were travelling up how and as they liked. How can the figures of such immigrants be obtained and verified?

17. We left Fenchuganj at 1-30 p.m. on the fourth day in the *Zephyr*, a small stern-wheeler, licensed to carry 295 passengers by day and 186 by night. She had on board 241 immigrants and 50 passengers. All the disqualifications of the *Vesta* class are to be found in this class, only to a greater degree. There was no medical officer on board, no food for the immigrants, and no medicines.

18. On the fifth day I arrived at Karimganj at 1-30 p.m. Only now were the poor immigrants able to get a little food, having been without any for over 24 hours. One hundred and three immigrants for Hathikhira were landed here out of the batch of 116, the rest either being sick or detained at Fenchuganj. Among those landed, there was a poor woman who had been taken ill in the morning and aborted two or three hours previous to arrival. There was no medical officer to attend her, and no medicine available. A woman who was said to be capable looked after her. These immigrants, after landing, crossed a small river, and got something to eat, which was quite necessary, as they had only had one meal in 48 hours. At 6 p.m. we anchored at Banga Bazar, about two

hours below Badarpur, and here half an hour later a medical officer arrived from a downward boat, bringing a bag of *chira*, which was a godsend to the immigrants on board, who had only had 4 chittacks each of *chira* during the past 30 hours.

19. On the sixth day I arrived at Badarpur at 7-45 a.m. and Silchar at 4 p.m., where the coolies were landed at the depôt.

I halted at Silchar, and inspected the depôt with Dr. Partridge. There is an Assistant Surgeon in charge, directly under the Civil Surgeon. The coolies for the nearer gardens go out at once; those for the more distant wait till next morning. There is a separate cholera shed. The water supply is from a well, which is now nearly dry, and is procured by a rope and bucket. This place is not nearly so important as Fenchuganj. There is also a depôt at Katigora (Badarpur) under a hospital assistant and visited by the Civil Surgeon.

20. It will be noted that the trip from Goalundo to Silchar occupied six days. The following table shows the number of days' provisions supplied for emigrants and the actual number of days on the journey:

Name of station where landed.				Days' provisions supplied.	Days on journey.
Madna	...	...	...	2	2
Manumukh	...	...	...	3	2
Fenchuganj	...	...	...	3	3
Karimganj	...	...	...	3½	4½
Badarpur	...	...	...	4	5
Silchar	...	...	...	4	6

This shows that the proper quantity of food for the distant stations is not supplied. When to this is added the fact that frequently there is no medical officer, then it can be understood how the immigrants were starved.*

21. I left Silchar in the *Nirmala* on the 30th December, having been delayed by the non-arrival of a steamer for two days. This shows how irregular is the running of these feeders in the upper part of the Surma Valley,—no steamer for two days and then three steamers in one day reaching Silchar. I halted at Karimganj a day.

Karimganj depôt is in charge of a hospital assistant, and is about 1½ miles below the *ghât*. The approach to it is by an irregular path along the river bank. The building consists of two rooms, and was undergoing repairs. There was no building for segregation or other purposes. The cook-room is never used. There are no cooking utensils, as those supplied are said to have been stolen six months ago. A compounder and sweeper are entertained, and said to be resident when there are any sick. There were *pucca* latrines, but, as they are never used, they have fallen into disrepair. Books are kept, but these are of comparatively little use. Many emigrants land here, but as they are chiefly free labourers, no record is kept. In fact, only the batches which may have sick, or which happen to be seen when there are Act coolies to pass, are entered in the register. There is no record, for instance, of the 103 landed on 24th December for Hathikhira, and no record of the abortion case, so that the woman must have proceeded at once to the garden. In another register is recorded the number of emigrants passed for Silchar, *i.e.*, in 1896, 611 Act and 140 free, or four times as many Act as free, which gives a very erroneous impression as to the proportion of Act and non-Act importations. The hospital register shows two deaths only from cholera, *i.e.*, one on 7th February 1896, and the other on 14th November 1896. The hospital assistant was transferred here four months ago, so can only report on the case of 14th November. He states that the medical officer of the steamer sent no notice, and the sick man named Dukhi was simply put on the bank and left there. The rest of the batch, leaving Dukhi to die, went off to the bazar to cook. Hearing there was a coolie lying on the bank dying of cholera, the hospital assistant went after the batch of coolies and brought back three of the sick man's relatives to be with him. It is extraordinary to see the callous way the sick are abandoned, even by their nearest relatives. I was informed that those who die on board are thrown into the river between Fenchuganj and Karimganj, in fact wherever they die, and there can be no check on this, as no account is rendered. I found from an official letter here that it is no uncommon

* Now that the system of a stated daily run, combined with a rest-house at the halting place, has been brought into force, the trip from Goalundo to Silchar only takes four days, *i.e.*, second day arrive at Madna, Manumukh, and Fenchuganj, where there is the first rest-house, third day arrive at Karimganj, where there is the second rest-house, and fourth day reach Silchar.

occurrence for these feeder steamers to ply without a medical officer. The following is the record I extracted from 12th to 20th December :

	Steamer.				Immigrants.	Medical Officer.
12th	"Spindrift"	...	...	...	250	No.
13th	"Zephyr"	...	...	...	250	Yes.
15th	"Nirmala"*	...	...	...	200	No.
	"Iris"	...	...	...	250	Yes.
16th	"Pioneer"	...	...	...	150	No.
17th	"Herald"	...	...	...	175	Yes.
18th	"Spindrift"†	...	...	...	150	No.
19th	"Zephyr"	...	...	...	107	Yes.
20th	"Iris" ...	...	...	...	200	No.

* Some of the coolies were ill with dysentery, diarrhoea, and colds.

† Coolie boy fell into river and no trace found of him.

From the above, it will be seen it is of frequent occurrence for a feeder steamer to ply without a medical officer, but I was informed that whenever Act coolies are on board there is always one present, as was the case in the *Zephyr* of 19th, which had 25 Act coolies on board. There is no shelter near the *ghât* for coolies landed here so when landed they either must proceed at once to the garden or lie on the river bank for the night. Most of the emigrants who land here are free coolies, and cholera and other diseases are not of infrequent occurrence among them. There is no inspection when they land, and no segregation or means taken to prevent the spread of disease when it is present, with the result that cholera is spread among the villages and gardens through which the affected batches pass. This last statement is on record in the visitors' book. While I was at Karimganj the *Pallas* arrived with 280 emigrant and 80 passengers, who all landed. There was also cargo on board, rice bags, on the lower deck. There was no medical officer. From Karimganj I returned to Fenchuganj in the *Pallas*, halted one day there, and then returned to Goalundo.

BENGAL AND CENTRAL PROVINCES.

22. I commenced my tour through Bengal and the Central Provinces at Goalundo on the 6th January 1897, and proceeded *via* Calcutta to Purulia and Bilaspur, where I halted two days. I returned to Calcutta *via* Asansol, Hooghly, and Naihati, and from there proceeded *via* Saraghat to Jatrapur, where I arrived on the 18th January.

BRAHMAPUTRA VALLEY.

23. I left Dhubri on 20th January on the *Ibis*. The cooking arrangements were good, as one of the old cabooses had been put on board, and it only took five and a half hours to cook the morning meal for over 300 emigrants. The food was good and well cooked. The *dal* from Dhubri was *kesari*, and not as good as the *arhar* supplied from Goalundo. A woman belonging to a batch of coolies for Khobong, from Mr. Baptist's depôt, was attacked with cholera during the night, and a second case occurred in the same batch during the following day. This batch of coolies travelled from Preo Nath Bose's depôt at Naihati *via* Saraghat and Jatrapur without halting at Saraghat.

24. I proceeded to Tezpur in the *Falcon* on the 25th January. The *Falcon* was licensed to carry 677½, and had on board 674. The cooking arrangements had been increased, one of the old cabooses having been added. This cooos could boil six boilers at a time. The hospital space appeared too small. Cholera was prevalent on board. I arrived at Tezpur on the morning of 26th January. The *Daffla* was anchored at Tezpur, having been stopped by order of the Deputy Commissioner. It had been stopped since Sunday morning, *i.e.*, the 24th, on account of the epidemic of cholera on board and the inability to accommodate all the sick at the cholera depôt. New cholera sheds had been run up, and the sick were landed, and the steamer allowed to leave about 3 p.m. on the 26th. I found the drainage from the hospital was carried off through a short lead pipe fitted at the end with a piece of canvas hose, which allowed the wash to fall on the lower deck, and was thus apt to contaminate the food-supply and so spread the disease.

25. I proceeded on 27th January to Silghat in the *Heron*. The wash from the hospital and upper deck ran over the edge and fell on the lower deck, actually splashing on the top of the boilers containing the cooked food, which were ranged along the lower deck till the food was ready to be distributed. This shows what a real danger it is having the cooked food standing about so long, and that—

- (1) either arrangements must be made to cook all the food at one time, or
- (2) if it has to be kept for any time, there should be a place to store it, which would prevent any extraneous substance getting near it, and
- (3) all the lids should fit properly, and there must be no holes in the boilers. Drainers have holes in their bottoms, and so are liable to have the food in them contaminated.

26. I proceeded up the river in the *Miri*. The drainage from the hospital was carried off by a short lead pipe, which allowed the water to fall on the lower deck. The cooking arrangements had been improved. Cholera was very prevalent on board, notably in two batches of coolies forwarded by Mr. Meyers from Jabalpur. These coolies were recruited in and near Mandla, in the Central Provinces. They travelled by rail from Jabalpur *via* Naini Junction and Naihati to Goalundo, so were two days and two nights in the train. The peons in charge, one per batch, informed me there was a short halt at Naini and at Naihati, and that the only food eaten on the road was *muri* or *chira*. They were forwarded from the depôt of Roti Kanto Mazumdar at Goalundo, and had only one blanket for each adult, and half for each child. By far the shorter route for these batches would have been to branch off at Luckeeserai *via* Shahebganj and Katihar to Jatrapur. The journey taken was too long without a break, and without proper food. One batch, numbering 36, had four cases of cholera, the other, numbering 43, had seven cases. I found the number of blankets supplied for hospital use on board this steamer quite inadequate. There were only 12 blankets for 500 coolies, when the sanctioned scale is 6 per 100. As the blankets, however, are of such poor quality, the number should be doubled. As there were 32 cases of cholera on board between Goalundo and Dibrugarh, what were twelve blankets among so many? The Emigration Officer at Goalundo, Assistant Surgeon Kishore Lal Banerji, should be informed of this, and advised to be more careful in future in his inspection. I have found this defect a very common one.

27. I travelled down the river in the *Penguin*. The cooking pans for hospital use were dirty. The pipe for carrying off the drainage of the hospital was not in the proper place, so that the water ran over the batten, and to a slight extent amidships and also over the edge of the upper deck and fell on the lower deck. This pipe passes down below the lower deck, and only requires to be moved forward to the lowest portion of the drain to carry off the water properly. The drainage from the rest of the upper deck ran over the edge. When putting in the pipe care should be taken to see that it is sufficiently large not to get blocked, and that it can be kept clean. Some of the boilers and trays were broken and old, and the lids did not fit, which is a danger, considering the food is kept exposed so long. The hospital space appeared small. The Emigration Officer at Goalundo, Assistant Surgeon Kishore Lal Banerji, should be asked to see that all the cooking vessels are in good condition and that no imperfect boilers or lids are issued. The contractor, Hira Lal Mukherji, is responsible.

28. Having given a short description of my tour in the Surma Valley, Bengal, Central Provinces, and Brahmaputra Valley, I will now proceed to point out the defects noted, and the recommendations which seem to me to be needed.

DEFECTS AND RECOMMENDATIONS.

SURMA VALLEY.

I.—IMMIGRANTS.

29. There are three great classes of labourers imported into Cachar and Sylhet—
 - (a) Act coolies with their dependents.
 - (b) Free coolies despatched from Goalundo depôts.
 - (c) Free coolies who travel as passengers.

(a) *Act coolies with their dependents.*—The number of Act coolies is very small, compared with the free coolies.

(b) *Free coolies.*—These are despatched through the agency of the depôts at Goalundo, and are for the most part sardari-recruited or procured from contractors. This class forms the bulk of the imported labour.

(c) *Free coolies who proceed practically as passengers, and are not forwarded through any depôts.*—These are for the most part sardari-recruited.

The clothing was altogether inadequate, but since my tour this has been changed, and orders have been issued to see that the clothing supplied is up to sample and of the proper dimensions. The Embarkation Agent at Goalundo, Assistant Surgeon Kishore Lal Banerji, should pay particular attention to this. Proper way-bills should be kept by the medical officers on board the steamers, and should be made over to them by the Embarkation Agent at Goalundo with the numbers embarked filled in. These way-bills should be initialled at each *ghât* where there is an inspecting officer. The clerk on board, or the medical officer, should fill in the figures and produce them before each inspecting officer. At present it is impossible to get any reliable figures of the immigrants into the Surma Valley. On the opposite page is a form of register which might possibly be adopted. The final inspecting officer, *i.e.*, the Civil Surgeon of Silchar, or his representative, would forward the register to the Deputy Commissioner of Cachar. A cholera register should also be kept.

II.—TRANSIT.

30. (a) *FROM GOALUNDO TO ENATHGANJ.*—The emigrants leave the depôts at Goalundo about 4 p.m. and are paraded on the river bank, where they remain for a couple of hours or so while lists are being prepared. They are embarked usually immediately before dark. They thus sleep on board, and are ready to start as soon as the morning mail from Calcutta has arrived, and there is daylight, say, between 6 and 7 a.m. The steamers are the same class as those in use on the Brahmaputra Valley, but only the best are used, as they have to run fast with the mails.

31. *Accommodation.*—This is supposed to be 10 superficial feet per adult immigrant for the months of November, December and January, and 12 feet for the rest of the year. The method of calculating the space is to take the total area of a deck and then subtract any space occupied by funnels, ventilators, gangways, etc.; in this way odd corners and portions of the deck which cannot be used are taken into account, and so a larger number licensed than there is really room for. I think 12 feet is little enough space at any time of the year, and that it should only be calculated on the actual area which can be occupied, after making a very liberal deduction for gangways and the sides of the deck, where the scuppers and water troughs are. In the cold months of November, December, January and February, as great a superficial area should be given as at any other time of the year, because the *pardahs* are kept down so much more than in the warmer months, and there is therefore a less free current of air.

I also think that the lower deck aft should never be used, whether for emigrants or passengers. It is the only part of the ship where bathing and washing can take place, and is where the latrines and cooking galleys are situated. Live-stock are also kept here, and their pens are at times objectionable even if kept clean. The stock of provisions, medical comforts, etc., are also kept below in this part of the ship. I think this should be left as free of passengers and emigrants as possible, and should be reserved for the crew, the topazes, sweepers, bhundaris (cooks), and shopkeeper. If it is decided to continue to permit its occupation by emigrants and passengers, the allowance should be more than 12 feet per head, so as to prevent crowding in this important part of the ship, where the cooking, washing and conservancy arrangements are located. The upper deck, with the exception of the first-class and second-class accommodation, should, as far as possible, be reserved for emigrants, at least during the busy season, when at times the whole available space is required. The lower deck forward is suitable for emigrants, but in the cold weather is cold, and requires proper *pardahs* or screens, all day when plying, as well as at night.

Proposed form of Embarkation Register.

1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20						
Total embarked at Goalundo.		Number landed at Ajabpur.		Number landed at Madana.		Number landed at Manamukh.		Number landed at Fenchuganj.		Number died between Goalundo and Fenchuganj.		Number embarked between Goalundo and Fenchuganj.		Number proceeding above Fenchuganj.		Number landed at Karimganj.		Number died between Fenchuganj and Karimganj.		Number embarked between Fenchuganj and Karimganj.		Number proceeding above Karimganj.		Number landed at Badarpur.		Number died between Karimganj and Badarpur.		Number embarked between Karimganj and Badarpur.		Number proceeding above Badarpur.		Number landed at Sitalk.		Number landed at Jaitinga.		Number landed at Silchar.		Number died between Badarpur and Silchar.						
Act	Men	Women	Act dependents.	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	
Non-Act	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls
Ordinary passengers	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls
Total	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls	Men	Women	Boys	Girls

This column to be filled in by Embarkation Agent.

The medical officer of steamer, when inspected at Goalundo, to produce this before the inspecting officer, who will certify that the figures have been filled in by the medical officer, and that those in columns 5 and 8 correspond with the numbers actually landed or forwarded.

The medical officer of steamer, when inspected at Badarpur, to produce this before the inspecting officer, who will certify that the figures have been filled in by the medical officer, and that those in columns 11 and 12 correspond with the numbers actually landed or forwarded.

The medical officer of steamer, when inspected at Silchar, to fill in, sign, and make over to inspecting officer at Silchar.

When there is a transfer from one steamer to another, as at Enathganj, the medical officer of the mail steamer will make over this register to the medical officer of the feeder steamer. In like manner, if there is another transfer at Fenchuganj or Karimganj, the medical officer will transfer the register to the medical officer of the steamer which is to proceed onwards. Should the steamer only carry passengers and immigrants as far as Fenchuganj or Karimganj, and there are no passengers or immigrants for places further on, the inspecting officer at the last place will sign the register and forward it to the Civil Surgeon of Silchar. Should coolies be detained at Fenchuganj or Karimganj, for want of accommodation in the feeder steamer, a fresh way-bill may be necessary, and, in that case, the inspecting officer, who will embark the coolies, must fill up the column "Number proceeding above." Fenchuganj or elsewhere on a fresh register, and forward the original register to the Civil Surgeon, Silchar, duly signed.

32. *Conservancy*.—The latrines as a rule are kept clean, and are of proper form and sufficient in number. There is only one drawback, and that is that frequently they are near the galley.

33. *Water-supply*.—The drinking water is obtained from iron tanks, which are filled from the river amid stream, and is good. The water is purified with alum, and allowed to settle.

I have only seen one objection to this system, which, if carried out as laid down, would be as perfect as practicable, for every care is taken to supply a pure water, which cannot be contaminated, as it can only be drawn through taps, and is shut off with padlocks from all chance of contamination. The objection is that, unless a strict watch is kept, emigrants may fill their mugs or *lotas* from the water supplied for washing purposes and use it for drinking, and this water is drawn from the river by a pump aft of the drainage from the decks and latrines. I have seen this occur frequently, and whenever it is necessary to keep strict watch over anything to insure success, there is almost bound to be failure. The only remedy I can suggest is that the water that is used for washing and bathing purposes should be taken from in front of the ship by a pipe or some such contrivance (though the pump, of course, must be aft) so as to prevent contamination by the latrines or drainage of the ship, as is likely to occur, when at anchor especially.

34. *Diet*.—Many of the immigrants who are free coolies are shipped without diet, *i.e.*, as ordinary passengers. Sometimes as many are thus shipped as those who receive diet. Those shipped without diet are generally under the charge of a peon or a sardar, who is supposed to give 12 chhittacks of *chira* and 2 of *muri* if over 10 years of age, and half that quantity if under; but, as there is no supervision, the result is that far less than the recognised quantity of *chira* is given, and no *muri*. Every immigrant, as is the practice in the Brahmaputra Valley, should be given his diet by the medical officer on board. The contractor is Hira Lal Mukherji, but the person responsible for the distribution is the medical officer.

The scale of diet is liberal enough, except in the case of rice, which does not seem sufficient, especially at the morning meal. The quantity of rice is $4\frac{3}{4}$ chhittacks at each meal per adult. The amount given in the depôts is 6 chhittacks, or for the two meals 12 chhittacks, compared with $9\frac{1}{2}$ chhittacks on board. On boardship the appetite seems to be increased, and I have frequently seen not only the adult immigrants, but also the little ones, clamouring for more, where there has happened to be a small quantity remaining after going the round. It is a common thing to find the first coolies served finished before half the food has been distributed, and looking out to see if kind fortune will let them get even a little more. I think the morning meal should consist of 6 chhittacks, and the evening of 5 chhittacks. The immigrant would far sooner have an extra chhittack or two of rice and salt than extra vegetables. It is his staple food and fills his stomach. I believe there is much less danger when the coolie has his stomach well filled with good cooked rice than when it is empty, less likelihood of his eating indigestible things like country radishes and other things he can pick up at the various *ghāts*, as I saw on my way up the Surma. This latter remark does not apply to the Brahmaputra Valley, as they cannot purchase anything off the steamer there, though they can purchase *chira*, *muri*, sweetmeats, etc., on board, as I saw at Jatrapur. I would, therefore, recommend that 6 chhittacks for the morning meal and 5 chhittacks for the evening be the sanctioned scale for rice. It is better to err on the liberal side, and I do not consider 11 chhittacks a day a bit too much, and would almost feel inclined to make it 12 chhittacks. The quality I have always found good. The rice from Goalundo is particularly good, and, though sometimes more than one quality is supplied, yet even the worst quality is as good as can be desired, and quite fit for issue to the immigrants. The *dal* is *arhar*, and is good. On the Brahmaputra, I have found the *dal* from Dhubri is *kesari*, and so good as the *arhar* from Goalundo. In like manner, the oil is good, though on one occasion on the Brahmaputra, when I found no oil being issued, I was told the oil from Goalundo had a smell, and was mixed, though I was unable to distinguish anything marked. As a rule, then, the quality may be considered satisfactory, though I think *arhar* and not *kesari dal* should be issued from Dhubri, as the former is much more easily digested.

35. *Cooking*.—The number of boilers and rice drainers is not always sufficient, and they are not always serviceable. They are supplied by the contractor, Hira Lal Mukherji. Care should be taken that a sufficient number, 3 per 100, are always provided, and that they are in good order, and that the lids fit properly. The boilers stand on the deck for such a long time before the food is distributed, that it is very desirable the lids should fit properly, and so prevent the food from contamination. I consider

that if a sufficient number of boilers is supplied, drainers are not required, as in the boilers the food is less exposed and the drainers are simply used to store the rice, which has to be returned to the boiler for distribution. Every 100 coolies require one boiler for *dal* and two boilers for rice. The food is well cooked,—the rice particularly so. The *dal* is frequently too watery, but I believe it is more easily digested when well boiled and thin than when too thick, but there is of course a medium. The vegetables, pumpkin mixed with small potatoes, are, as a rule, good and well cooked. Condiments and salt, also oil, are good and mixed with the *dal* and vegetables.

The arrangements for cooking, which were quite inadequate, taking four hours at least for every 100 emigrants, have been improved, and will in future be increased in accordance with the number licensed to be carried. There is a proposal by the Superintendent of the Mail Service, Mr. Taylor, to introduce cooking by steam, which, if successful, will be not only a simple and clean method, but also one that can be extended to any extent, so that there need be no undue expenditure of time in cooking, and the meal for 500 emigrants or more may be prepared in the time it formerly took to prepare a meal for 100, the only necessity being sufficient boilers. Under the old arrangements it took about $4\frac{1}{2}$ hours to cook the morning meal for 100 coolies, while the evening meal, consisting of vegetable curry instead of *dal*, took about $3\frac{1}{2}$ hours.

36. *Fire-places or galleys*.—There was only one galley in use on all the steamers, which could only cook properly one boiler at a time, and required four to five hours for each 100 coolies, so that really there was only sufficient firing power to cook for 200 coolies at the outside, and then it took nine hours to cook the morning meal and a little less for the evening meal, when vegetables are given instead of *dal*, which takes a longer time to cook. The old caboose, which could cook four or five pans at once, was a far more useful form, though it had its defects as regards smoking, danger of fire, etc. With an increase of cooking accommodation, the food could be more quickly prepared, and so be left standing exposed for a much shorter period. I believe it was the difficulty of getting the whole of the food cooked whenever the number of coolies was over 200 that led to them getting short diet, and not the fact that the crew were also fed from their rations; the extra diet of 20 men would make comparatively little difference where 400 or 500 were being dieted. I believe that when any number above 200 was carried that practically only one meal a day could be given, *i.e.*, that the coolies were only getting 4 or 5 chhittacks of rice a day; with one galley only, it would take at least 18 hours a day to cook a full morning meal for 400 coolies. In some of the steamers the galley is close alongside the latrine, which is objectionable. After the food is cooked, and while waiting distribution, the boilers and drainers are ranged along the lower deck, and I have seen the water from washing the hospital or upper deck splashing on the top of them. It would be advisable to have a covered place that they could be stood in.

37. *Serving*.—The rice is served out by the hand, and there is only one thing to be urged against this,* that it is rather a haphazard way of apportioning it, and creates discontent, as some think they have not received their proper share. This could be remedied by having a tin measure of a conical shape, which would be filled with the hand. It would not be difficult to make this of a proper size. This would insure that each coolie got approximately his proper share, but it would not be necessary to be so particular about the exact measurement if the scale was a little more liberal. The *dal* is ladled out, being first stirred with the ladle, as the thick portion of the *dal* naturally sinks. Oil, salt, and condiments are served with the *dal* and vegetables.

38. *Hours*.—There are two meals, nominally in the morning between 8 and 9 a.m., and in the evening between 4 and 5 p.m. It would be a good thing to have the hours of distribution and the quantity of each article advertised on a board in a conspicuous place on both decks and also in the saloon, the former in Bengali and Hindustani and the latter in English. The more publicity there is the less likely it is that any fraud can be practised. Many of the coolies and sardars can read, and, if it was published in the saloon, many of the passengers, Government servants and others, would inspect.

39. *Supervision*.—The medical officer on board is directly responsible and should supervise, and he has always done so when I have been on board. Two cooks are provided for each 100 immigrants by the contractor, and this should be sufficient, as they have only to prepare one boiler of *dal* and two boilers of rice for the morning meal and one boiler of vegetables and two boilers of rice for the evening meal.

Medical officers of superior qualifications should be entertained.

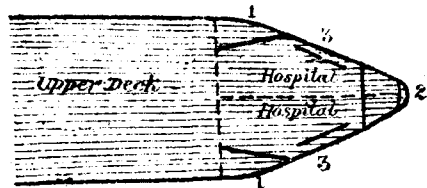
* It is an obvious fact that the medical officer would not allow any man suffering from a communicable disease to act as cook and distribute food, or this would be a fatal argument against it.

The number of sweepers and cooks is sufficient. Embarkation and debarkation officers should parade them occasionally. A clerk has been provided, so now the medical officer has nothing but his legitimate duties to perform, and, as a rule, is anything but hard worked. It would be advisable where more than 300 emigrants are embarked to have a compounder to assist the medical officer.

40. *Tobacco*.—The prepared article is issued, but the immigrants do not like this, and prefer the dry leaf, so that it would be advisable to supply the latter.

41. *Hospital arrangements*.—According to rule, space for 5 per cent. of the licensed number should be provided at the rate of 20 feet for November, December, and January, and 24 feet for the rest of the year; but the rule is not always complied with, and in many steamers the accommodation is insufficient. The upper deck aft, where the hospital is situated, is the most suitable place.

In calculating hospital space, considerable deductions require to be made for angles and drains:



Lines 1, 2, 3 show portions which should be deducted.
Dotted lines indicate purdahs.

- (1) Entrances cannot be used.
- (2) Far aft cannot be used in some boats, as it is a sharp angle and too narrow to accommodate anyone.
- (3) Along the edges near the drains cannot be used.

The drainage is very faulty on many of the steamers, and in two ways (a) the water used in washing the hospital runs forward amidship, i.e., where the healthy coolies are located, and (b) the escape from the hospital is improperly carried away and permits the water to fall on the lower deck. I have even seen it falling on the boilers containing the cooked food. To remedy the former defect, all that is required is a batten across the deck at the fore end of the hospital, and this would also serve to demarcate the hospital. To remedy the latter defect requires more care, for a batten must be put all round the hospital to prevent the water running over the edge and falling on the lower deck, and at the lowest part of the drain there must be a metal pipe, extending downwards below the lower deck to carry all the water directly down to the river. This would prevent contamination of the food and pollution of the lower deck. I may as well add here that the same remarks hold good about the upper deck generally, and that like improvements are necessary to carry away the water when it is being washed. Medical comforts are always according to scale and sufficiently liberal, but unfortunately the medical officers are very chary in their distribution. The blankets and clothing supplied for hospital purposes are, as a rule, not up to the prescribed scale. I have frequently seen from 8 to 12 blankets, and some of them old and useless, where the number should have been 20 or 30, i.e., 6 for every 100 coolies. The prescribed scale of medicines is always provided. I think it would be advisable to increase the quantity of dilute sulphuric acid, mustard, and turpentine, and also to issue orders that in all cases when cholera is prevalent dilute sulphuric acid with 2 grains of quinine should be given to all affected batches as a prophylaxis morning and evening. It would also be advisable to add to the scale of medicines a small quantity of ergot, bismuth, santaline, soda, cantharides, ammonia, spirit of chloroform, and liquor strychniae, also a hypodermic syringe. The box containing the medicines is frequently untidy and the instruments dirty, and it would be a good arrangement if each medical officer had his own box of instruments, medicines, etc., and took it with him if changed from one steamer to another; we could then insist on everything being clean and tidy and hold each man responsible. The boxes should be examined by the Embarkation Officer at Goalundo at the beginning of each voyage, and old and useless pills, etc., should be destroyed.

Two topazes are supplied by the contractor for every 100 immigrants, and these should be sufficient if properly utilised, and their duties day and night apportioned, but this it is almost hopeless to expect.

Hospital clothing and bedding should always be up to scale, but as the blankets are of inferior quality, the number should be doubled, as in the case of those provided by contractors to emigrants, to make the weight approximately 4 lb. It really takes two of the blankets at present supplied to give the warmth which one of good quality would give. The trays used for placing under cholera cases are of iron and very cold. It would make them warmer to have a small bamboo mat, which costs very little, placed between the tray and the extra blanket given. After use, the mat could be burned.

42. *Segregation and isolation*.—The sick should at once be removed to hospital, and the affected batches, in cholera cases, removed from the general mass of coolies and brought aft near the hospital and away from the unaffected batches. They would thus to a certain extent be segregated, and be handy for the administration of prophylactics morning and evening.

The sick are shut off from the healthy by a *purdah* and a fixed or moveable hurdle. I think it would be a good arrangement to have the space immediately adjoining the hospital looked on as a segregation space only, to be occupied by affected batches of emigrants, or if they are too great in number, then only by the immediate relations of the patients, and shut them off to a certain extent from contact with the general public by putting up a moveable hurdle. The hospital for isolating cases is shut off by a *purdah*, but I do not think a *purdah* is necessary for the segregation space. The hospital is apt to be cold, if the *purdah* round is not in good order and fitting properly, and draughts of chilly air will, of course, play on the patients. Even if the *purdah* is good and fits properly, the hospital may be too cold for severe cases, and Mr. Taylor tells me, if it is thought advisable, he could arrange to heat the hospital with steam pipes. I think, as this is practicable, that it is certainly advisable, as warmth is very essential in certain cases, and there may be danger of fire in using stoves.

43. *Sanitation, cleanliness, etc.*—There is, as a rule, a sufficiency of disinfectants on board, and the decks are fairly clean, though not as clean as one would like. The drainage, as I have said, in almost every case requires improvement. The coolies wash themselves and their clothes on the lower deck aft. In some steamers there is also a little room with a shower bath, which the females can use for washing their clothes, as is necessary at certain periods, when privacy is required. This is a move in the right direction. Of course, when a woman wishes to wash a stained cloth, she may get privacy in the female latrine to wash it, but it is much better to have a private room for it. The water for washing purposes is pumped up from the river, and is handy.

44. In addition to the foregoing recommendations, I would add that it would increase the efficiency of the supervision and result in the rules as laid down being enforced if—

- (1) All Government officers of whatever department were asked to inspect whenever they happened to be on board;
- (2) A Military Assistant Surgeon or officer belonging to the Indian Medical Service was appointed as a permanent inspector of emigration between Goalundo and Dibrugarh to report on the various depôts along the route, as well as the steamers. The portion of the journey least under supervision is that between Goalundo and Jatrapur, as few passengers and no Government officials, as a rule, travel that way. Between Dhubri and Dibrugarh there are generally passengers and frequently Government officers, who could at least inspect the distribution of food.
- (3) What would insure, however, I believe, better supervision and better treatment for the emigrant, would be to make the welfare of the emigrant an important item in the emolument of the medical officers. I would make the pay of the medical officer of the steamer a fixed one at Rs. 75 to Rs. 100 per mensem, according to service and qualifications. In addition to his fixed salary, I would give him four annas a head for every emigrant landed above Dhubri in good health, but would deduct Rs. 10 for every death on board and Rs. 5 for every emigrant landed sick. In this way a medical officer making two trips, and taking, say, 600 coolies, would receive Rs. 150 a month in addition to his pay if all were landed in health, but if many deaths occurred, or many sick were landed, he would receive very little, if any, extra remuneration.

45. All these remarks concerning mail steamers apply to the Brahmaputra Valley as well as to the Surma Valley from Goalundo to Enathganj.

46. I have found Mr. Taylor, Superintendent of the Mail Service, most willing not only to carry out any recommendations, but eager to assist in suggesting improvements, to better the welfare of the emigrants on his mail steamers, and I have to thank him for the expeditious manner in which he has carried out the improvements in cooking and drainage pointed out to him by me.

47. (b) FROM ENATHGANJ TO SILCHAR.—The steamers plying are small and are called feeder steamers. They are of two sizes. The larger run from Enathganj to Fenchuganj, and, occasionally as far as Karimganj, the smaller run from Fenchuganj to Silchar. They have many grave defects, and are quite unsuited for carrying immigrants, except as day boats.

48. *Accommodation.*—They are licensed to carry passengers at 6 superficial feet per passenger when plying by day and 9 feet by night. They were, to all purposes, plying by night, yet carrying passengers according to the day scale. Even the amount of space sanctioned, 6 feet, was not given, for the method of calculation includes a considerable space which cannot be used. The consequence was that there was not sufficient room for all to lie down at night. Only the space actually available should be measured, and the number calculated accordingly.

49. *Conservancy.*—There is only a one-seated latrine, which is obviously quite inadequate for the requirements.

50. *Water-supply.*—There were no iron tanks on board, and water from the river was used. As the river water is filthy, this was a great defect. Iron tanks have been sent up. I saw them on the river bank, and the agent at Fenchuganj assured me that they would be put on all the steamers, and that they would be filled with pure water from the tanks of the large mail steamer at Enathganj before leaving. They could also, where necessary, be filled at Karimganj, where there is a fine, large tank of pure water, protected from pollution. This would, however, be a big undertaking, as the tank is some distance from the *ghât*, and it is questionable whether a Norton tube well could not be put down, as is being tried at Fenchuganj, which would be more convenient, if successful. If water can be obtained at Fenchuganj and Karimganj, it will avert detention of the feeder steamers to fill up the tanks at Enathganj, and will insure a good water-supply at two important places, which are at present only supplied by the polluted water of the river.

51. *Diet.*—The diet, where it is supplied, is a dry one, as there is no cooking accommodation; but as the steamers had many of them no medical officer, there was in such cases no diet at all. Another fact was noticeable, *i.e.*, that from Enathganj to Manumukh and Fenchuganj 1 day's supply was given, to Karimganj 1½ days' supply, and to Badarpur, Sealtek, Jatinga, and Silchar 2 days' supply. The journey from Enathganj, as I found, took 2½ days to Karimganj, over 3 to Badarpur, Sealtek, and Jatinga, and 4 to Silchar, so the amount supplied was quite inadequate.* *Chira* is given, 6 chhittacks per meal per adult and 3 chhittacks for children. It is eaten mixed with a little water taken from the river, or dry, but usually the former. A little jaggery (*gur*) is also given. There was no proper measure, and I noticed a more liberal supply was given when I was near than when I was away. There should be two measures, one holding 6 chhittacks and the other 3 chhittacks. The mugs the immigrants are supplied with hold 4 and 8 chhittacks, or slightly more, as tested by me at Goalundo.

52. *Hospital, etc.*—There was no hospital, and in many cases, as I have shown, no medical officer, no medicines, and no food. There was not sufficient protection round the deck, and there was the record of one child having fallen overboard and been drowned. Where the immigrants were transhipped, as at Fenchuganj, and detained, there was no arrangement for sheltering or feeding them, nor any sanitary precautions as regarded water-supply or conservancy.

53. When in Calcutta, I pointed out to the Agents of the India General Steam Navigation Company, Limited, the defects of this line, and suggested, as a temporary solution, while the river is too low to permit of the mail-boats being used, the following improvements:

- (1) Hospital space for segregation of the sick to be provided.
- (2) A medical officer and stores to accompany each steamer.
- (3) Protection of upper deck.
- (4) Increased latrine accommodation.
- (5) Dry food in sufficient quantity to be kept on board.
- (6) A rest-house for coolies to be provided at night stations.
- (7) Cooked meals to be provided at the night stations.
- (8) The day's run to be "an easy day's" run.

54. Appended is copy of a letter received from the Agents of the two River Steam Companies:

No. 316, dated Calcutta, the 11th January 1897.

To the Joint Agent, Fenchuganj, the Traffic Superintendent, Goalundo, the Engineering Department, the Transport Officer, Enathganj, the Sub-Agent, Madna, the Sub-Agent, Manumukh, and the Mail Superintendent, Goalundo.

Dr. Campbell, the Special Officer deputed by Government to inspect and report on the present system of coolie emigration, has called upon us, and points out the following details which require immediate attention:

- (1) Hospital space for the segregation of the sick.
- (2) A medical officer and stores to accompany each steamer.

* See note to paragraph 20.

- (3) Canvas bulwark for protection on the upper decks.
- (4) Increased latrine accommodation.
- (5) Dry food (*chira*) to be kept on board.
- (6) A cooked meal to be supplied at the night station of the feeder service.
- (7) Rest-house for coolies at the night station.

Taking these in order:

(1) *Hospital for the sick.*—This can best be done by removing the superstructure of the *serang's* and clerk's cabins on the after part of the upper deck, leaving the false flooring which is laid over the tillers and steering chains.

The arrangement at present is thus—

Clerk.	Urinal.	Serang.
--------	---------	---------

As there must be some kind of W. C. for male European passengers when ladies are on board, the arrangement should be thus—

Urinal.	Hospital (open).
---------	------------------

Space must be provided on the lower deck for the *serang* and clerk; the superstructure of the upper deck cabins could be used for this, transferring them to space immediately abaft the boiler. This appears the only available place where the cabins could be erected.

(2) *Medical Officer.*—A Doctor Babu, who would care for the sick and attend to the clerical duties of the steamer, should be engaged. The Traffic Superintendent should secure men as early as possible and send them to Fenchuganj to take up their duties, relieving the clerks at present on the feeders. We will send up six medical chests from Calcutta fitted to Government standard for this purpose.

We understand five medical officers are now on the spot. One more is required: if Goalundo cannot provide him, please advise Calcutta by telegram tomorrow, and we will endeavour to secure one through the servant's agency or otherwise.

(3) *Canvas bulwarks.*—This is a simple matter; the men sent up from Calcutta will take canvas, battens, etc., for this.

(4) There is no room to make another latrine within the steamer, so light portable latrines will be sent, one for each steamer. These should be slung over the side whenever there are a large number of passengers on board. We will send these up from Calcutta.

(5) *Dry food (chira)* should be kept by the messing contractors, under the supervision of the medical officer, in sufficient quantity to provide a day's supply in case of the steamer being delayed (by grounding, etc.) over the schedule time.

(6) Arrangements will be made by the Agent at Goalundo to telegraph to Balaganj the number of coolies going forward by that day's steamer. On receipt of this information, the contractor's agent at Balaganj will provide a cooked meal for the coolies, which should be ready on their arrival.

(7) A rest-house is to be built at Balaganj, and immediately on arrival of the up feeder all coolies will disembark, have their evening meal, and sleep in the rest-house for the night, re-embarking at daylight the following morning. The Goalundo steamers will be timed to reach Enathganj at about noon, and all passengers must be transferred to the through feeder at once and despatched in time to reach Balaganj by dark.

The above is a general synopsis for the various points agreed upon in consultation with Dr. Campbell, and detailed instructions will follow on such matters as require amplification.

P.S.—Any necessary modification may be made in consultation with Mr. Steven, who proceeds up to-night.

55. The site selected for the hospital is the most suitable. It should be as much as possible shut off from the general space, and the drainage from it properly directed, so as not to run forward where the healthy coolies are and not to fall on the lower deck to the danger of contaminating the food of the crew, or the cargo which may be on board. Each steamer must have a medical officer. I see only six are sanctioned by the Company, but there are surely more than six feeders plying. The canvas suggested by the Company as a protection for the upper deck seems to be sufficient. The portable latrines, as suggested, appear suitable. I suggested Fenchuganj,* where the agent had already put up an iron shed, and where experiments were being made to get good water by a Norton tube pump, and Karimganj, as the night stations where rest-houses should be built. Their location depends on the distance the steamers can run, and an easy day's run should be fixed. As the Companies have selected Balaganj for the first night rest-house, the mail steamer to Enathganj must be timed to arrive there at least four hours earlier than it does now. The second night rest-house would, I imagine, be at Karimganj, but I have not been informed; it may possibly be higher up. The necessary cooking accommodation and utensils, cooks, etc., should be supplied by the Companies, also latrines with a proper staff. A meal of cooked rice and *dal* should be provided on arrival at the rest-house. The following morning, before

* Since the above was written, I have learned that Fenchuganj and Karimganj, as suggested by me, have been selected as night stations, and that the Balaganj night station has been abandoned.

embarkation, a cooked meal of rice and vegetables should be given. The *dal* has been placed in the evening meal, as it takes so much longer to cook than the vegetables that it probably could not be got ready early enough in the morning. The day's run should be one that can be easily accomplished in a day. On this hinges the whole scheme, so as to give the immigrants time to have their evening meal in proper time and have a good night's rest. By this scheme, the feeder steamers will really ply by day only, and accommodation may be allowed at 6 feet per adult, the space allowed for travelling by day. If this arrangement had not been made, it would have been necessary to double the number of steamers, as, besides providing much larger space per adult, various alterations in the steamers, which would have diminished their carrying capacity, would have been necessary, such as the provision of cooking accommodation and proper latrines and washing arrangements. The sick can be landed at Fenchuganj* early the following morning, so would only be detained a few hours (the night) on board, where they would be quite separate from the healthy, who would sleep ashore. There is of course the danger of absconders, but this is not great, as the coolies are mostly free, and in the case of Act-I immigrants they might be allowed to remain on board if their numbers are few, as is generally the case. It would be advisable, however, to limit this right to sleep on board to only a certain number, at the outside $\frac{1}{3}$ or $\frac{2}{3}$ of the number which the steamers are licensed to carry by day. By landing the immigrants every evening and embarking the following morning the decks can be kept clean, and the coolies made comfortable. The details of the scheme want to be carefully worked out, as regards housing, dieting, conservancy, and water-supply. I believe, if the above arrangements are properly carried out and supervised, that it is the only practical way of overcoming the natural difficulties of river traffic during the cold-weather months, when mail steamers are unable to ply.

III—DEPÔTS AND DEBARKATION GHÂTS.

56. *Ajabpur*.—Some immigrants are disembarked at Ajabpur, I believe, but their numbers are not great, and it is not necessary to have a depôt here, though there should be a shelter, as should indeed be the case at every *ghât* where immigrants are disembarked. I was informed that new gardens were being opened out in Tipperah, and that coolies would land here for them.

57. *Madna*.—This is the first important landing place for immigrants after leaving Goalundo. It is situated in Habiganj subdivision; and is 16 miles from Habiganj. This *ghât* is well below Enathganj, so the large mail steamers can bring immigrants here the whole of the year. There is no depôt here. As this is likely to be an important place, I think there should be a depôt under the charge of a hospital assistant, who should land the coolies for Madna and disembark any cholera cases for treatment and segregation, and so prevent the necessity of transferring them to feeder steamers. He should also pass any coolies to be landed at places between Madna and Fenchuganj.

58. *Manumukh*.—Immigrants disembark here for gardens in the South Sylhet subdivision. There is no shelter. The immigrants are landed late in the evening, and have to sleep exposed to the cold. There should be a shelter erected. These shelters should not cost much, and are very important in the cold weather, when fogs are prevalent, as the clothing supplied to coolies is not sufficient protection against fog and cold without a shelter. The want of this shelter must be a great cause of all forms of respiratory affections.

59. *Fenchuganj*.—In addition to the Government depôt, there are four private depôts, belonging to—

- (1) Tea District Labour-Supply Association, under construction.
- (2) Babu Hira Lal Mukherji.
- (3) „ Roti Kanto Mazumdar.
- (4) Mr. Mackertich.

These depôts are all alongside one another, and are situated on the river bank.† They were all empty, except Babu Hira Lal Mukherji's, in which were 24 coolies who had been detained there for three weeks. Mr. Logan is Superintendent of the depôt belonging to the Tea Districts Labour-Supply Association, which is under construction, and has a Babu in direct charge. The other owners have each an agent in charge.

* Not kept the night on board now, as Balaganj has been abolished and Fenchuganj made the first night station.
† See paragraph 12.

The site is good, as it is near the *ghât*, but the water-supply is either the river or a small tank in the compound of the depôts. There are no wells. Mr. Logan is trying to get a pure supply by putting down a Norton tube pump. This had not proved a success in the first place where it was put, so it was going to be taken up and tried in another. If this proves a success, the other depôts should also get similar pumps. The buildings required repair. The sleeping barracks were dirty in the occupied depôt. The coolies cooked in the open or in the shed they slept in. There were no latrines. I think more accommodation will be necessary for the Tea Districts Supply Association depôt than I saw being constructed. Where there are no cook-rooms, as in the depôts of Hira Lal Mukherji and Roti Kanto Mazumdar, they should be built; the buildings generally also require repairs and the accommodation should be increased. Latrines, segregation sheds, and hospitals should be built at once, as not a single depôt has them, and the accommodation of the Government depôt is very limited.

60. *Government depôt and cholera hospital*.—This is under the care of a hospital assistant, who has charge of it in addition to the dispensary. He lives over a mile away, so that it is not suitably situated for careful supervision, though the site is good as regards accessibility for landing the sick, as it is on the river bank a short way below the *ghât* and below the four private depôts. The hospital assistant living at such a distance, it is needless to say that supervision is sadly neglected. The buildings were greatly in need of repairs. The cholera-shed was far too small and required repairs, and was close to the sleeping barrack. I saw ten cholera cases in it, which was overcrowding, and, owing to the form of the building, it was very difficult to get near them to give medicine, water, etc., while local treatment was well nigh impossible. I have already stated how it took hours to get medicine and food for the patients and their relations, and that I found a difficulty in getting hold of the medical officer. There were practically no arrangements whatever: no house for the compounder to live in, no cooking utensils, the depôt, dirty and neglected, had the appearance of decay and desertion about it, no latrines, and the sole water-supply was the filthy water from the river, which is supposed to be filtered, but which is never done; the *ghurras* are there, but no charcoal, etc. In fact, sanitation, as regards conservancy, buildings, water-supply and cleanliness, is entirely wanting. This is one of the most important places, if not the most important, on the route, and should, I think, be under the charge of an Assistant Surgeon, who should reside near enough to the depôts to be able to supervise them properly and to inspect each steamer that carries immigrants, free as well as Act. The depôt and cholera sheds should be increased in size and accommodation, and improved in every way. The cholera-shed should be removed a short distance from the depôt, and should be large, light, and well ventilated. There should be really two sheds for cholera cases—one for immigrants, and the other for passengers and people employed at the *ghât*. There should be sheds for segregation of the relations of the sick, or for cholera-affected batches, and these sheds should be some distance from the cholera-shed to prevent the healthy from mixing with the sick; this is at present not the case, for the small cholera-shed is alongside the general barrack. In the case of affected batches, I would much sooner that managers would take delivery of their coolies as soon as possible, than that they remained in the segregation sheds at depôts, as, of course, it is impossible to keep watch and guard over them, and they are apt to abscond, and then the depôt is blamed, unjustly so; and, secondly, the manager can really carry out segregation on his garden just as efficiently as can be done in the depôt, if not more so, and far more to his own satisfaction. Only the immediate relatives, as mother, husband, wife, etc., should be kept with the patient. The water-supply, conservancy, disposal of dead, and general details as to cleanliness, diet, etc., all require supervision, and this can only be secured if the medical officer lives within easy distance of his work. A house should be built for the compounder and servants, who should be resident during the season, and there should be a small dispensary with medicines. A cook should be entertained and cooking utensils provided. Latrines should be built. An attempt should be made to provide a good water-supply. It is not satisfactory trusting to charcoal filters or *ghurras*, as the water is probably never boiled nor passed through the *ghurras*, except when inspections are expected. When I inspected, there was not even a vessel for boiling water, but my visit was unexpected. The importance of supervising the private depôts as well as the Government, as also the inspection of all the steamers and landing of immigrants, and the necessity of furnishing proper returns and registers, all point to the advisability of an Assistant Surgeon being placed in charge of this important place. All the cases of cholera between Goalundo and Fenchuganj are landed here. The register shows 86 cases of cholera with 54 deaths, and 2 cases of other diseases, both fatal, during 1896. I cannot urge too strongly the importance of having a good Assistant Surgeon placed in charge of Fenchuganj.

61. *Ghât*.—The *ghât* where coolies are landed is the lower *ghât*. When disembarked, the coolies have to walk to the upper *ghât*, quite a mile away, and re-embark on a smaller feeder steamer, and, as the number these steamers can carry is considerably less than the steamer they have disembarked from, a number have to be detained a day at least. There are no latrines about, and the surroundings must be dreadfully foul. There being no supervision of the coolies or passengers, some of them wander off to the upper *ghât*, where they have to remain the rest of the day, the night, and half the next day, out in the open, on the bank above the bazar, which is a very bad arrangement, where any of the batches are cholera-affected, as it is apt to spread the disease. Others remain at the lower *ghât*, and are similarly situated as regards want of shelter and food. A shelter should be built, and also latrines on a suitable site.

62. *Karimganj*.—There is no shelter for coolies landed here. The hospital assistant in charge of the dispensary is also in charge of the depôt, which is at least 1½ miles below the *ghât*, and it is thus quite hopeless to expect proper supervision. The depôt is also inaccessible as regards sick people brought to the *ghât*, though of course they could be landed before reaching the *ghât*, if there was any establishment resident at the depôt.

Ghât.—There is no shelter, nor are there any latrines near, and, as I have seen as many as 280 coolies disembarked in one day, it is important that these should be provided.

Depôt.—There are no private depôts. The Government depôt, which, as already stated, is 1½ miles down the river, consists of a hospital with two rooms, but there is no separate cholera shed. The whole place had a neglected appearance. For the depôt to be of any use, it should be more accessible and should be properly fitted and supervised. There should be a separate cholera-shed, and there should be the usual buildings and arrangements for detained coolies and other cases of sickness; but these can only be of use if the buildings are easily accessible—*firstly*, to the sick, and *secondly*, to the medical officer. The various details as to site, buildings, and establishment should be settled by the Civil Surgeon in consultation with the Subdivisional Officer. Where the depôt now is situated there is no water available, but the foul river water, but if a new site were selected near the landing *ghât*, there is a remarkably fine tank from which a supply might be obtained. There is no necessity for the depôt to be on the river bank, if a clear space can be got a little further back, and which is not too near houses, and not likely to be dangerous to the water-supply, or a nuisance in any way.

63. *Badarpur*.—There is a depôt at Katigora, on the northern bank of the river. Immigrants are disembarked on the south bank. This depôt is visited by the Civil Surgeon of Cachar, and is conveniently situated, and has a hospital assistant directly in charge. The hospital assistant in charge here would have to cross the river to inspect steamers and pass coolies.

64. *Sialtek*.—There is no shelter at this *ghât*. It is, however, unnecessary to have any special arrangements, as only a few immigrants are disembarked, and the distance above Katigora is very short.

65. *Jatinga*.—There is no shelter at this *ghât*. A certain number of immigrants are landed here, but not a great many. As in the case of Sialtek, they proceed at once to their gardens.

66. *Silchar*.—There is a depôt here under the charge of an Assistant Surgeon and directly under the supervision of the Civil Surgeon. The arrangements here seemed sufficient, except that the water-supply was from a well which had nearly run dry, and this well was an open one, instead of having a pump and cistern. The Assistant Surgeon here should inspect every steamer on arrival and land all the coolies, free and Act, and finally sign and forward to the Deputy Commissioner of Cachar the embarkation register* showing the number of immigrants, etc., who were embarked and disembarked at the various ports between Goalundo and Silchar, and the total deaths on the voyage.

67. Briefly, then, the following are the recommendations:

Madna.—A depôt with hospital assistant in charge, who should land all coolies for this *ghât* and any cholera cases on board, and also pass coolies for Manumukh and initial the embarkation register for the journey between Goalundo and Madna.

* See paragraph 29 and page 9.

Manumukh.—A shelter for coolies landed here.

Fenchuganj.—A suitable depôt, under the charge of an Assistant Surgeon, who should land all coolies for this *ghât* and any cholera cases on board, inspect all steamers and sign embarkation register. He should also inspect private depôts, and perform all the duties of an embarkation agent. A shelter should be put up at the *ghât*, and latrines be erected of approved pattern on a convenient site.

Karimganj.—A more suitable site should be selected for the depôt. There should also be a shelter for coolies at the *ghât* and latrines in connection therewith. The hospital assistant should visit each steamer, initial the embarkation register for figures between Fenchuganj and Karimganj, and land all coolies for this *ghât*, also all cholera cases.

Badarpur.—No change is necessary. The hospital assistant should visit each steamer, initial embarkation register, land all coolies for this *ghât*, and pass all for Sialtek and Jatinga. Only cholera cases among batches of coolies for this *ghât* should be landed here.

Sialtek and Jatinga.—Nothing necessary, except a small shelter.

Silchar.—As at present. A depôt under an Assistant Surgeon is sufficient. He should inspect every steamer, land all coolies and any cholera cases, and sign the embarkation register, forwarding it through the Civil Surgeon to the Deputy Commissioner of Cachar.

Where the expression "all coolies" is used, this signifies free as well as Act coolies. According to Rule 109, free coolies can use the depôts if they wish, otherwise they should not be detained, but it should be made compulsory for all coolies, free as well as Act, to pass through the depôts where they land, for the purpose of registration.

68. These arrangements are, I think, urgently necessary, for, though the Railway (Assam-Bengal Railway) which is now opened from Chandpur to Karimganj will, of course, attract many immigrants, as it passes through many of the gardens, yet the river will always secure a certain number. In the event of cholera being prevalent, and of a severe epidemic form, on the river, and the arrangements there still remaining of an unsatisfactory nature, it would be advisable to at once sanction the Assam-Bengal Railway as an alternative route, the coolies being taken by steamer from Goalundo to Chandpur and then by rail to Karimganj and Badarpur. This would necessitate a depôt at Chandpur, and proper medical and sanitary arrangements there and at the stations at which coolies detrain, and I think it advisable that such arrangements should be made at once, as undoubtedly the Railway will take a large number of the immigrants at no very distant date.

DEPÔTS, REST-HOUSES, AND LINES OF RAIL IN BENGAL.

GOALUNDO.

69. *Emigrants*.—This is the great centre to which almost all the coolies converge, whether they have travelled by rail or come down the Ganges by steamer. All the emigrants for Cachar and Sylhet are embarked from this place and also the greater number of the emigrants for Assam. A number of the emigrants for Assam embark here as free coolies, and are disembarked at Dhubri, where they are put on contract, after which they are re-embarked for their destination. The emigrants only halt at Goalundo, as a rule, sufficiently long to enable the embarkation officer to arrange about the papers and to pass them; but, unfortunately, this officer lives at least 7 miles away from the depôts and *ghât*, so that he is unable to exercise the continuous supervision required, and also, should he be ill or indisposed, being at such a distance, he cannot undertake the work, as it necessitates his travelling by train very early in the morning. When I was at Goalundo, I saw a number of emigrants detained because he had not been able to attend. This, of course, is unfortunate, as the steamer the day of his non-attendance starts empty, and the steamer the following day probably cannot take all, so that the regular flow of emigration is blocked, and the depôts are liable to get overcrowded. Arrangements should be made to send off each day the emigrants ready to be embarked, and to do this there should be a medical officer resident on the spot, who should embark as many as are present in the depôts, and there is accommodation for on board; this should be done daily, Sunday included, which, I am informed, is not done. The number of emigrants being forwarded this year is very great, and any hindrance to the flow here is

apt to tell back on the depôts and rest-houses along the line from the recruiting districts. As is only to be expected in a famine year, when the inhabitants of the Central Provinces, Bengal, etc., are eager to emigrate from privation, the state of the emigrants this year is not as good as usual. Many of them, I might say a large proportion, especially those from the North-Western Provinces and Central Provinces, are in a thin and debilitated condition, the condition of the children being particularly bad; indeed, it is sad to see the skeletons they are.

70. *Clothing*.—The blankets and clothing supplied to the emigrants is nearly all distributed at the starting point, or on the line at Asansol or Naihati. The quality has been very poor and quite unfitted for the exposure to which the emigrant is liable, but it has been improved of late, and stringent orders have been issued by the Superintendent of Emigration to enforce the agents to supply blankets and clothing according to samples. As the clothing is supplied before the emigrant reaches Goalundo I think that proper arrangements should be made at the starting point to supervise its distribution there, as it is impossible to stop the emigrants or change all their clothing when they have got as far as Goalundo. Samples of blankets, *kurtas*, *saris*, and *dhoties* should be kept at the starting points in the recruiting districts, and no emigrants allowed to start unless they have been properly provided with clothing up to standard in quantity, quality, and size.

71. *Blankets*.—I am informed it is impossible to get blankets of the prescribed weight of 4 lbs. in the bazars of Calcutta; and that if two blankets are provided according to sample, the weight would be nearly 4 lbs. In some ways, the issue of two blankets is almost preferable to one, as the emigrant, according to the season of the year, can use one or both, one can be washed and cleaned while the other is in use, etc. I found that in the Labour Districts Supply Association depôts one blanket was issued to each adult and one to every two children under twelve years of age at the starting point by the local agent, and that the forwarding agent supplied a second one at the first forwarding depôt, Asansol or Naihati, and also one to every two children under twelve years of age, so that eventually each adult had two blankets and each child one. I think it would be better if each child had a blanket as well as each adult at the starting point from the local agent, as travelling by the train, especially at night in the months of December and January, is very cold and trying, and children are particularly susceptible. In the forwarding depôts of Preo Nath Bose and Hira Lal Mukherji, etc., I have only seen one blanket issued, and not two, as in the Labour Supply Association depôt and forwarding depôt. All forwarding agents should see that each adult has two blankets and each child under twelve years of age one blanket before they reach the embarkation *ghât*. At Bilaspur, I saw some blankets issued which were said to have been manufactured in Rewah, and which were of a worse description than those ordinarily issued.

72. *Kurtas*.—These were made of a poor thin flannelette, and not of flannel, as prescribed. It is important not only to see that these are made of flannel, according to sample, but also that they are of a proper length, as I have seen, on children as well as adults, that they do not come much below the umbilicus, and, especially in children, the lower part of the body should be kept warm. They should extend well below the hips in all, and in children of a young age down to the knees almost.

73. *Saris and dhotis*.—It has been the rule to issue these of a very inferior quality. It is necessary to see that the quality, as also the length issued, is up to standard. I have seen a small *sari* or *dhoti* given instead of a half blanket to children. It should be given in addition, and not in place of the half blanket, and, indeed, the half blanket should be a whole one, as I have said above.

The important thing to note is that supervision of the distribution of clothing should be exercised at the starting point in Bengal or the Central Provinces, that each adult has two blankets and each child one, also that the *kurtas*, *saris*, and *dhotis* are of the prescribed quality and suitable length.

74. *Depôts*.—There are eight depôts here. They are all built on the same plan, and are licensed depôts. Their sites are good and near the *ghât*. I visited them with Assistant Surgeon Kishore Lal Banerji, the emigration officer. They were, for the most part, clean and well looked after and in good repair, but we found one dirty, and with emigration officer to have it cleaned. The sheds were of the proper description and all had *machans*. I am certain that there is not accommodation for the number of emigrants likely to be kept here at times, though sufficient as a rule. Emigrants arrive

from Naihati twice a day, *i.e.*, in the morning and evening. Those who arrive by the morning train reach Goalundo before 5 a.m., and are embarked the same evening for the Surma Valley and the next morning for the Assam Valley, while those that arrive in the evening, at about 5 p.m., go to the depôts for the night, and are embarked the next morning for the Assam Valley and the next evening for the Surma Valley, so that there is no undue detention, and no overcrowding can occur if there is sufficient accommodation on the steamers, and the medical officer, Assistant Surgeon Kishore Lal Banerji, is able to attend to pass them and embark them. They have all cook-houses apart from the sleeping barracks, except one; the cook-house of the adjoining depôt is used. The diet is good and sufficient. The amount of rice is 12 chhittacks, compared with 9½ chhittacks on board steamers. It was well cooked and the arrangements satisfactory, except that the whole meal could not be cooked at once, and the rice lay about in a heap, covered over to a certain extent, but liable to contamination from flies alighting on it after sitting, perhaps, on a cholera-tainted stool, etc. This could be improved by either cooking all at once, *i.e.*, increased cooking accommodation, or by keeping the cooked rice in a covered-over vessel till ready. Emigrants on arrival from Naihati have a cooked meal awaiting them in the depôt of the Labour Supply Association. All the depôts take their water-supply directly from the river, and, as there is no current, or a very slight one, the supply is apt to be contaminated, as it is taken from the river below the bazar, and below where a number of steamers and boats are anchored. This is a decided drawback, and some arrangement should be made to procure a pure supply. There are filters at the depôts, but these are never used. The latrines are fairly clean. The number of emigrants, and the tendency of children to defile a place, render it particularly difficult to keep latrines clean, and it is necessary to see that the sweeper establishment is sufficient for the requirements, and that the latrines are inspected daily. Not a single depôt possesses a hospital or dispensary, nor are there any arrangements for segregation or isolation. This is a great defect, and should be seen to.

75. *Medical arrangements*.—There is a small branch dispensary, maintained by Government under a hospital assistant. The dispensary itself is a poky little building, consisting of two rooms—one is used for dispensing and the other for patients. It can accommodate two beds only. There are two small sheds, one for cholera and one for other diseases, but the accommodation is limited, and the details as to feeding, nursing, and treating patients of a very meagre description. The sheds have *machans* of bamboo, but without mats, so that they are most uncomfortable for patients to lie on. The establishment is too small to be effective. The permanent population of Goalundo is a fairly large one, and the floating population very large, when one considers the number of immigrants and passengers passing daily, yet the whole medical arrangements consist of this petty little branch dispensary without appliances, even the blankets being but eight in number. I myself saw three cases of cholera in one morning taken to it from one of the depôts, and there were five cases of dysentery, etc., at the time under treatment as in patients. The cholera-shed is close alongside the shed for ordinary cases, and there is no place for segregation, and not nearly enough accommodation. Ordinary cases of sickness at the depôts, as fever, dysentery, and diarrhoea, attend as out-door patients at the dispensary, which is some 300 or 400 yards distant, and it is only very serious or hopeless cases that are admitted as in-door patients.

76. *RECOMMENDATIONS*.—There are two great defects here:

- (1) The want of proper supervision owing to the distance the embarkation officer resides from his work.
- (2) The quite inadequate medical arrangements.

(1)—The embarkation officer should reside near the *ghât*, and if the present officer must reside at the headquarters, then a special officer should be detailed for the dry season, until the river rises, who should reside at the *ghât*. The embarkation officer has to inspect the eight depôts, and see that the emigrants are fed, clothed, and housed properly. It cannot be expected that as great care will be taken in keeping the depôts clean, and in carrying out orders, where the supervision is lax as where it is strict. The latrines and conservancy generally particularly require supervision, but it is important also to see to general cleanliness, bathing, and washing, cooking, issue of rations, including condiments and tobacco, and many little things which cannot be properly looked after when the embarkation officer is only able to attend at certain known hours. One of the most important points in a depôt is its accessibility, firstly to the *ghât*, and secondly to the medical officer to insure proper and constant supervision, otherwise there is no certainty of the emigrants receiving proper treatment.

(2) —There is not really as efficient an arrangement for the whole of Goalundo, with its eight depôts and large permanent population, as there is in some places for one depôt of the District Labour Supply Association, which has its own medical officer, a general hospital, and cholera hospital for a possible population of 300 to 400 only. There are no segregation sheds at any of the depôts and none at the dispensary.

The Government of Bengal might be asked to have this specially reported on and adequate arrangements made, as I cannot too strongly comment on the present state of affairs. I have made no suggestion as to what grade of officer should be selected, should a special officer be appointed at Goalundo, as I think that matter should be decided by the Government of Bengal, but I consider that it would be desirable that he should be of the grade of Assistant Surgeon, and, if possible, a European.

77. *Railway.*—Eastern Bengal State Railway. There is no covered-in place in case of rain falling at time of arrival. The morning train arrives before daybreak and the evening train at 5 p.m. On arrival, emigrants are taken at once to the depôts, which are not far distant. They are supposed to have a cooked meal before leaving Naihati and another after arrival at Goalundo, so that no food is given for the journey. There was no overcrowding in the carriages, and the carriages were clean. The emigrants should be given the opportunity for necessary purposes on the road, and carriages should be unlocked and time given at Poradaha for that purpose. I presume such an opportunity is given, but as I did not travel back this way, I cannot say.

NAIHATI.

78. This place was visited by me on my way back from the Central Provinces, when I travelled with a large number of coolies from Bilaspur *via* Asansol to Naihati. The train with the emigrants left Asansol at 3.31 p.m. and arrived at Naihati at 10.30 p.m. The emigrants were detained and marched at once to the depôts. There was one case of cholera, which was detected at Hooghly, but had to be brought on in the train to Naihati. There were no arrangements at Naihati to remove this case to the cholera hospital, and it took quite two hours to get a cart to take him there. I visited the depôts that night, accompanying the emigrants, and found that those belonging to Preo Nath Bose received a small quantity of *chira* for their evening repast, while those belonging to the Labour Supply Association had a cooked meal of rice and *dal* ready for them. It appeared to me that there was considerable overcrowding in the depôts, which was caused by a number of emigrants having been returned from the station, as there was not sufficient accommodation in the train for Goalundo to admit of all being taken. This is a very important matter, and every care should be taken that sufficient accommodation is provided to convey each day the whole of the emigrants ready to travel. Naihati is a very important place, as all the emigrants who travel by the Bengal-Nagpur and East Indian Railway, halt, or should halt, here, *en route* for Goalundo, and also Jatrapur. The opening of an alternative route from Khana Junction to Sahebganj will, of course, take away a certain number who would otherwise come here. The depôts or rest houses here are surrounded by a good deal of overgrowth, so that it must be very difficult to keep the places clean and prevent the compounds being used as latrines. Water for drinking purposes is procured from the river, which is some distance off. Having seen the coolies taken to their depôts, I went to the cholera hospital to see what arrangements had been made for the cholera case without walls. There was no servant or compounder resident; in fact, the only being near was a man who was asleep inside, and who was astonished and frightened when awakened, and stated he was only a *pardeshi*. I waited here till 1.30 a.m. without being able to get hospital assistant, compounder, or servant, and, of course, no medicine was available. I at last managed to get a sweeper from the Labour Supply Association depôt and a little medicine, and so had to leave the patient. Next morning at 7 a.m. I visited the depôts, and saw the emigrants in the Labour Supply Association depôt having their morning meal before being entrained for Goalundo at 8.13 a.m. I also saw a certain number having their meal in Hira Lal Mukherji's depôt, as there was not room for them in the Labour Supply Association depôt, owing to the fact that over 80 belonging to that depôt had been returned from the station the previous night, as there was not room for them in the train. The emigrants in Preo Nath Bose's depôt were not being fed, as they are sent to Jatrapur by the 2.11 p.m. train, so do not require their food so early. This morning I saw the hospital assistant in charge of the cholera hospital, who said he was away near the bazar the previous evening, as there was a fair going on which he had been told to look after. It is quite apparent that the supervision over the depôts or rest-houses, and the cholera hospital, is far from satisfactory.

79. The number of emigrants who pass through this place is very great, and consequently special arrangements are necessary.

I would recommend—

(1) That the depôts or rest-houses be specially under the supervision of a hospital assistant or Assistant Surgeon, who should see that proper sanitary laws are enforced as regards water-supply, conservancy, overcrowding, and diet; he should also see the emigrants entrained, and take care that there is no overcrowding in the carriages, and that no sick are entrained, and that the medical arrangements are suitable; lastly, he should see that the cholera hospital is in a fit state to live in, and that a proper establishment to look after it is entertained. He should inspect the emigrants when they arrive, and arrange for removal of any sick, etc., etc.

(2) The surroundings of the depôts or rest-houses should be kept clear of jungle to enable cleanliness to be maintained. A certain number of sweepers should be maintained at each depôt and a dooly provided, so that any patient suffering from cholera or acute disease may be removed at once to hospital. It would be advisable to provide the peon in charge of each batch of emigrants with a bottle of a cholera mixture, to enable him to administer a dose when anyone is attacked in the train, and also that at each depôt there should be a quantity of prophylactic medicine, ready, *i.e.*, acid sulph. dil. and quinine mixture, which should be given morning and evening to every emigrant in an affected batch. The water-supply requires careful consideration. An iron tank with brass taps will shortly be put up in the Labour Supply Association depôt. This will be filled with water from the river, and will prevent contamination by the emigrants.

(3) The Eastern Bengal State Railway authorities should be asked to arrange that the amount of accommodation required may always be available, and so prevent undue detention. The evening I arrived, upwards of 100 emigrants were returned from the station after having been kept there a long time. I am informed that frequently many more than this are returned. Timely notice is always given, but the requisite number of carriages is not always available, which is partly due to the fact that some of the rolling stock which belonged to the Bengal Central Railway has been taken over by them again, as they are now managing their own line. If the normal flow of emigration is arrested, overcrowding and upsetting of feeding arrangements are apt to occur. Naihati is so close to Calcutta that it should be an easy matter for the Superintendent of Emigration to visit it and arrange the necessary details for improving the present state of affairs.

ASANSOL.

80. *Depôts.*—(1) Labour Supply Association.—This is a good substantial depôt on a good and convenient site, well elevated and with good drainage. The drains are good for the most part, and are cemented. The sleeping accommodation is good, and can accommodate 250 as at present licensed, but there is a new addition which has been completed and will accommodate 120 more, which should suffice for the daily requirements, if no block occurs at Naihati and sufficient carriages are always available at Asansol to convey emigrants as they arrive daily. Emigrants, as a rule, only halt here a few hours, or a day at the most. The new addition to the sleeping accommodation had been measured some time previously, and was ready for use, but owing to unnecessary delay it had not been licensed, and could not therefore be used. As emigrants were moving on in great numbers every day, I thought it advisable to ask the Superintendent of Emigration in Calcutta to write to the Subdivisional Officer to have it licensed at once. The depôt was clean. It had a native doctor of its own and a hospital close to it. There was also a new cholera hospital, which had not been used so far. The latrines were good, but a small portion of the drain from them required finishing, and a short distance of the main drain was in need of repair. I found a cooked meal of rice and *dal* ready for distribution at the depôt for the coolies who had travelled with me in the train. The water-supply is from a well. It would be advisable if the well here had a pump with an iron tank or cistern fitted with taps to prevent the danger of contamination of the water when drawing it. This remark applies generally to all the wells in the depôts that I have seen in Bengal. The only well I have seen so fitted is at the Labour Supply Association depôt at Dhubri, and it is really a great improvement on the old-fashioned and dirty way of each person drawing up the water he requires for himself in a vessel. The tank is easily filled, and has eight taps, so that it is not only a cleaner way than the old, but it can supply a large body of people in a shorter time. Its chief virtue, however, is that it prevents contamination. This depôt was evidently properly supervised by the emigration officer, Assistant Surgeon Banerji.

(2) Preo Nath Bose (Balmer Lawrie & Co).—I visited this depôt with Assistant Surgeon Banerji. There was only accommodation for 59, yet in the evening I saw over 100 emigrants going to this depôt, so that there must have been overcrowding. An addition is being built, but it will be some considerable time before it can be ready, and meanwhile, with the excessive number of emigrants at present travelling, there is probably overcrowding to a considerable extent. This depôt is not to be compared to the one previously described. The drainage just outside is a seething cesspool, in which pigs were wallowing. The latrines were filthy, and the drain from them simply a trench, instead of being cemented, as in the Association depôt. There was no hospital, as the old building, or rather only a poky room attached to the depôt, had been condemned as unfitted to be a hospital by Assistant Surgeon Banerji, and was closed, and very rightly so. He had ordered a new hospital to be built, so he informed me, but it had not been commenced. I was informed by him that the manager formerly used to call in a native doctor whenever there was a serious case of illness, such as cholera, but that he did not think this sufficient, so had ordered him to engage a native doctor to attend twice daily, and that this was supposed to be done,—at least, a native doctor was being paid Rs. 10 a month to do so.

(3) Rakhal Das.—A depôt has been commenced by Mr. Rakhal Das, but is very far from completion, and in fact looks as if it were not intended to be finished. In the meantime, he sends his emigrants somewhere or other, where Assistant Surgeon Banerji could not inform me, though others told me it was some way off. As long as the depôt is unfinished, this sort of hideaway system, which cannot be supervised and is apparently unnoticed, will continue. He should be ordered to finish it without delay, and meanwhile the place to which he takes his emigrants should be under supervision.

81. *Recommendation.*—This is a very important centre on the transit route, and should be under better supervision than it is at present. The depôts should be kept in a better sanitary state than they are at present, the only one really in a proper state being that belonging to the Labour Supply Association.

82. *Railway.*—Asansol is at the junction of the Bengal-Nagpur and the East Indian Railways, and is thus a very important place, as all emigrants must pass through it. Emigrants arriving here at 11-11 a.m. by the Bengal-Nagpur line, remain till 3-30 p.m., when they proceed to Naihati, having to change carriages at Hooghly, arriving there at 9-10 p.m., and leaving for Naihati at 9-55 p.m., at which place they arrive at 10-18 p.m. No food is required for the journey, as a cooked meal is given at Asansol in the morning, about noon, and a cooked meal is ready for them on arrival at Naihati, at least at the Association depôt, though not at Preo Nath Bose's. Those arriving in the afternoon are kept in the depôts for the night. I heard of no cases of detention here for want of carriage accommodation, still it is important to keep in mind here also that every attempt should be made to run through daily all the emigrants forwarded by the depôts, and so prevent any overcrowding or arrest of the flow of emigration.

PURULIA.

83. I arrived at Purulia on the evening of the 10th January, and halted for a day to visit the depôts. I only visited the depôt of the local agent for the Labour Association, and that of the forwarding agent. These depôts I found in good order, and I have no comments to make.

84. *Railway.*—The Bengal-Nagpur Railway. The morning train leaves at 9-9 a.m., and there is also a local train at 12 noon. The former reaches Asansol at 11-11 a.m., the latter at 2-40 p.m. Emigrants by the former proceed in the afternoon from Asansol to Naihati, arriving there at 10-18 p.m., while emigrants by the latter remain the night at Asansol in the depôts. As Purulia is an important recruiting centre, it is desirable that all emigrants, as soon as they have been passed by the medical officer, should be forwarded to their destination, and the railway authorities should endeavour always to meet the demand for carriage.

ROUTE TO GOALUNDO.

85. It will be seen that the route from the recruiting centres by rail is—

- (1) (a) By the Bengal-Nagpur Railway to Asansol.
- (b) By the East Indian Railway to Asansol.

* I believe I am correct in having placed in brackets the name of the firm as above, for, though that firm does not really have anything to do with the management, or possibly hold itself responsible in any way, yet it, along with Finlay, Muir & Co., and Shaw, Wallace & Co. I am informed, is the great supporter of, and forwards all its emigrants through, Preo Nath Bose, who has agents and depôts or rest-houses all along the route from Asansol to Goalundo and Dhubri.

- (2) From Asansol to Naihati *via* Hooghly, by the East Indian Railway.
- (3) From Naihati or Calcutta by the Eastern Bengal State Railway to Goalundo.

ROUTE FROM NAIHATI TO JATRAPUR.

86. Having now described the line of rail, depôts, and rest-houses in Bengal, from Purulia to Goalundo, I will now describe the sanctioned route from Naihati to Jatrappur, which also lies in Bengal. The train leaves Naihati at 8-13 and arrives at Poradaha at 12-40 p.m., where it halts 15 minutes to allow the separation of the two trains, one for Goalundo and the other for Damukdia. During this halt emigrants should be permitted to leave the train for necessary purposes. Damukdia is reached at 2-25 p.m. and Saraghat at 3-30 p.m. Here there is a halt of six hours.

SARAGHAT.

87. *Depôts.*—There are supposed to be three depôts here. They are situated some little distance from the station and are close together.

(1) Labour Supply Association depôt.—This is the only one that has any pretensions to being a depôt. The buildings are fit for use, but require repairs. There are latrines ready for use. The water-supply is from a well. The establishment consists of a Babu and sweeper. As the depôt has not been used this year, no establishment has been necessary. The Association has sent all its emigrants *via* Goalundo to Dhubri this year, but it keeps a depôt ready in case it should take to using this route. If it uses this route, it will have to increase the establishment, repair the buildings (extensive repairs are not needed), and see that the water-supply from the well is of good quality, and that the accommodation is sufficient. Emigrants need not suffer any undue detention here. All that is necessary is to halt for five hours at the depôt, where a cooked meal should be given. This would correspond with the treatment of emigrants going from Naihati to Goalundo, and should be insisted on when this route is used.

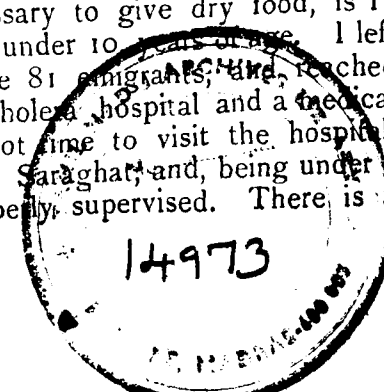
(2) Preo Nath Bose's depôt.—The depôt consists of one small and one medium sized shed in a ruinous condition, evidently not used, and not in a condition fitted for use.

(3) Mangal Chand's depôt.—Slightly better than Preo Nath Bose's, but not fitted for use. There is a sort of care-taker, local agent he is called, in charge of the combined depôts of Preo Nath Bose and Mangal Chand. This is the entire establishment of the two depôts combined. Preo Nath Bose and Mangal Chand have not used these depôts, and have not even kept them in a state in which they could be used. They have sent their emigrants direct through from Naihati to Jatrappur, which should not have been done, as it is a long railway journey, undertaken with too little food, as a rule, I am afraid, and, consequently, trying and bad for the emigrant.

88. *Cholera hospital.*—There is a very suitable hospital near the railway under Assistant Surgeon Brown. This belongs to the Railway, and is good and under proper supervision.

89. Having inspected the arrangements at Saraghat, or rather found that there were practically no arrangements whatever, I crossed over to Damukdia to see the arrival of the evening train carrying emigrants. I saw 81 emigrants under the charge of a peon forwarded by Preo Nath Bose from Naihati to Dhubri. They had been given a cooked meal in the morning at Naihati. They left Naihati at 2-20 p.m. and arrived at Saraghat at 8-45 p.m. I enquired what food they had with them for the night, and was shown a bag of dry food which was given them at Naihati, and had to last them to Jatrappur, where the peon could purchase more, so they said. In the bag was *muri*. The weight of the bag was about 10 seers, so the peon stated, and it certainly did not feel more. It will thus be seen that for 81 emigrants only 10 seers, or 2 chhittacks for each, was given for a 24 hours' supply, which is obviously far too little, in fact, the recognised amount of dry food, when it is necessary to give dry food, is 12 chhittacks a day for all over 10, and 6 chhittacks for under 10. I left Saraghat at 9-35 p.m., travelling by the same train as the 81 emigrants, and reached Kaunia at 6-05 a.m. I was informed there was a cholera hospital and a medical officer attached to the Railway, close at hand, but I had not time to visit the hospital. I suppose it is of the same pattern as that I saw at Saraghat, and, being under a railway medical officer and close at hand, is probably properly supervised. There is

U426-261 M97E
M97



cholera-shed at Kurigram, some distance along the rail. Emigrants are supposed to be examined at Kurigram, but on this occasion I saw no inspection. I arrived at 11-30 at Jatrapur, where the emigrants embarked on the mail steamer for Dhubri.

90. These emigrants, whom I accompanied up, were forwarded by Preo Nath Bose to Dhubri. They arrived at Naihati at 10-30 p.m., having had a cooked meal in the morning at Asansol. At Naihati they had a handful of dry food on arrival. So the first day they had one cooked meal and a small quantity of dry food, *chira*. The second day they had a cooked meal in the morning at Naihati and 2 chittacks of dry food, *muri*, for the evening and night. Thus, the second day there was one cooked meal and a small quantity of dry food. The third day they had nothing till they reached Jatrapur, about midday. At Jatrapur the peon bought some *chira* for them. I was informed they received a cooked meal in the evening at Dhubri. It will be seen from the above that from Asansol to Jatrapur, during two-and-half days, or 60 hours, only two cooked meals and two small doles of dry food was given, which is quite inadequate.

JATRAPUR.

91. At this important *ghât*, the terminus of the railway, and where so many emigrants and passengers embark, there are no arrangements whatever. I saw here, only 5 or 6 paces from the line, where the train stops, the body of an unfortunate emigrant woman lying stiff and cold. She had been dead for at least twelve hours, having probably died during the night. There was a living child of five or six years of age wrapped up in the same *sari* the corpse was in. The child howled and clasped the corpse tightly when I tried to remove it. This woman, who was suffering from cholera, had been abandoned with her little girl the day before by a peon who was taking a batch of emigrants, as described above, from Preo Nath Bose's depôt to Mr. Baptist's depôt in Dhubri. The husband of this sick woman was taken to Dhubri along with the rest of the batch, and the poor sick woman and her child abandoned without blankets or food—at least neither was visible. I had the child removed. She cried bitterly, but was soon pacified when given some food and some clothing, as she was both cold and starving. At Dhubri I found the father in the depôt of which Mr. Baptist is the agent for Preo Nath Bose, and the child was made over to him. Regarding the corpse, there was no means of getting it removed or buried. I asked the stationmaster to report the matter to the police. The message had to be sent by train to the nearest telegraph office, which meant that another 24 hours would elapse before it could be removed. A number of coolies were cooking and living close to where this body lay. They had no shelter. They were going up to Assam to work on the Assam-Bengal Railway, and were a poor-looking lot. I was informed some of them had died of cholera, and there had been the same difficulty in removing the bodies, in fact, the people living at the *ghât* (the *serang*, etc.), had subscribed to get some low caste people to throw the bodies into the river, and I very much suspect this is what is generally done, or, if not, the bodies are eaten by jackals and vultures. Surely, there should be some arrangements at this important embarkation *ghât*, and also some police to carry out any action required.

92. **RECOMMENDATIONS.**—(1) There should be no through carriage of emigrants from Naihati to Jatrapur. Emigrants should leave Naihati by the morning train after a cooked meal, which would give them a halt of five hours at Saraghat, where their second cooked meal should be given them.

(2) The depôts at Saraghat, or at least those in use, should be put in an efficient state.

(3) The places where emigrants should be inspected and cholera patients removed to hospital should be Saraghat, Kaunia, and Jatrapur, instead of Saraghat, Kaunia, and Kurigram.

(4) Jatrapur should have a cholera hospital under a hospital assistant.

(5) There should be arrangements at Jatrapur for housing and feeding all the emigrants and passengers who pass this way in the form of a *serai* and depôt. This is a most important matter, for many emigrants and passengers travel by this route, and the steamer might break down or be detained, or the train ditto.

(6) There should also be some arrangement at Jatrapur in the form of police or railway establishment to look after cases similar to that which I have described above.

(7) No cases of cholera should be permitted to embark on a mail steamer which carries emigrants and passengers, as it is a danger to them, so that it is an absolute necessity to make proper arrangements at Jatrapur to detain and treat such cases.

ARRANGEMENTS IN THE CENTRAL PROVINCES.

BILASPUR.

93. As I found during my visit to the Surma Valley that most of the cholera cases were emigrants forwarded from Bilaspur, Seoni, Jabalpur, Mandla, and Balaghat, I considered it advisable to visit Bilaspur, which I did on the 12th and 13th January. This is a great forwarding centre for the surrounding recruiting districts, as it is an important junction where two lines meet—the one from Katni on the East Indian Railway, and the other from Nagpur, the terminus of the Great Indian Peninsula Railway. The mail train carrying emigrants leaves at 7-26 p.m., reaching Asansol at 11-11 a.m. the following morning. The mixed train leaving at 5 p.m. is not suitable for carrying emigrants, as it is not timed to reach Asansol till midnight of the following day, thus not arriving till more than twelve hours after the mail train, though leaving two hours and a half earlier.

94. **Depôts.**—The local agent of the Labour Supply Association, Mr. Considine, is building a large new depôt on a good site at a convenient distance from the railway station and also not far from the town of Bilaspur. The railway station is about 3 miles from the town and about 1½ mile from the depôts. The forwarding agent, Mr. Logan, is building a depôt alongside the former, which will be worked in connection with it. Thus, before very long the Labour Association will have its two depôts in working order, and their management will be similar in system to that at present in vogue in its depôts at Purulia. These depôts cannot be ready for some little time, so meanwhile the *serai*, about 1 mile from the railway station, has been rented by Mr. Considine and Mr. Logan, and is being used as a depôt. The *serai* is not really suited to be a depôt, as there is no sleeping accommodation, but small shelters have been constructed of mats after a gipsy fashion, which are better than nothing. There is a well close alongside, which supplies good water, but is liable to get contaminated. A medical officer on Rs. 80 a month of the hospital assistant class is retained, and there is a dispensary with a good supply of medicines. The *serai* consists of a centre room in which the rations are stored and of two small side rooms, one of which is used as the dispensary, and the other as the hospital. In the hospital I saw five patients suffering from dysentery, lying on the cold stone floor without extra clothing or blankets. The native doctor was not regular in his visits, and was inattentive and neglectful of the sick, who are left very much to the care of a compounder, a coolie who goes round and distributes medicine from a black bottle. I saw the clothing distributed at this temporary depôt; every adult received a blanket, and every two children over three years one between them. Sometimes, where there was only one child in a family, a little *dhoti* or *sari* was given instead of the half blanket. Frequently, one blanket was given between two children belonging to different families, so of course one had to go without covering. A number of the blankets were of Rewah make, and were very poor in quality. The emigrants are supposed to be fed before they arrive at the depôt. Those emigrants who remain at the depôt are fed there. Rations are dealt out by a Marwari, who has a contract to feed all the emigrants at 3½ annas a day. There should be some supervision over the rations, both here and at the camping ground, as I found that some of the *dal* was very bad, that the rice was mixed with dirt and paddy, and that the proper quantity was not given. The amount is supposed to be 1 seer of rice with the usual quantity of vegetables, *dal*, etc. I am informed that this amount of rice is really consumed. As a rule, however, the emigrants do not remain at the depôt, but are entrained the same evening, and a sufficient supply of *chira*, *muri*, and *gur* is given to the peons, who distribute it at Chakardharpur in the early morning. It is not thus, however, with contractors' coolies, as I saw three batches without any blankets and without food.

95. **RECOMMENDATIONS WITH REGARD TO DEPÔTS.**—

- (1) The depôts of the Labour Supply Association should be finished quickly.
- (2) The clothing and blankets should be up to the standard sample, both as regards quality and length.
- (3) More supervision and care of the sick is necessary.

- (4) No emigrants, whether forwarded by contractors or through depôts, should be allowed to entrain unless they have been provided with clothing and blankets and also dry food for the journey.
- (5) I think all depôts, contractors' as well as those of the Labour Association, should be near each other, *i.e.*, on adjacent sites, so as to admit of careful and continued supervision. It is a mistake to allow depôts to be scattered about in different parts of the town. This remark applies to all depôts, whether in recruiting centres or on route of transit. It is much easier to look after sanitation, treatment of sick, care of the emigrant and his entrainment, where all the depôts are easily accessible, than where they are scattered about and in out-of-the-way places.
- (6) The *serai* should be kept in a better sanitary state.

96. *Encampment*.—I also visited the camping place, where emigrants are halted before they are examined and passed by the Civil Surgeon. This camping ground is some little distance off, under some mango trees on the opposite bank of a small river. I saw 700 to 800 emigrants encamped here, but was informed that frequently the number 1,000 or more. When I was at Bilaspur the number of emigrants who were forwarded daily amounted to 250 to 300 from the Labour Association, in addition to a good number for contractors, possibly all-told 400, so that it is apparent that they must be detained at the camping ground for several days. The rule is to take the emigrant to the Civil Surgeon for examination on the morning of one day and then send him back to camp, where he remains till the afternoon of the following day, when he is made over to the forwarding agent. How long he may have been in the camp before being brought before the Civil Surgeon it is impossible to say, probably not less than one or two days; the total period of detention therefore must be at least three or four days. The arrangements at this camp are of the most faulty description. There is no shelter of any description. There are no conservancy arrangements whatever, and, consequently, the whole river bank, as well as the surroundings, is one huge latrine. No blankets or clothing are issued until a few hours before the emigrants are entrained, so that they are exposed for at least three days to severe cold. Almost the entire water supply is taken from the small river, which had about a foot of water in it. There was a well, but very few use it. I saw the food and fuel being brought from the town. It does not reach the camp till well on in the day, so, consequently, is not distributed till late in the afternoon, as it takes a long time to distribute to so many. The arrangements for distribution are very bad. There is no supervision. There were many complaints of sand and stones in the rice, and I saw some *dal* which was very bad, also some rice with a quantity of paddy and sand in it. It is left to a Marwari to supply at so much a day, 3½ annas I believe; and he of course tries to make as much as possible out of it by giving short weight and poor quality. Owing to the delay in the distribution, the emigrants are unable to have more than one cooked meal a day, and that is not till sunset or later. The amount of rice allowed is said to be one seer per diem. The medical arrangements are very inadequate. There is a cholera-shed at Dukhghat, on the opposite side of the river, *i.e.*, on the town side, which is under the charge of the native doctor employed by the Labour Supply Association. On visiting the hospital, I found that seven cases had been admitted the previous day. There were ten patients lying about on the ground outside. No care whatever was being shown them. No food was ready, and no one was in attendance, though after my arrival two servants turned up and gave water to the poor unfortunates who were asking for it. I could not get hold of any register of admissions and deaths, and it is very doubtful whether any proper register was kept.

97. RECOMMENDATIONS WITH REFERENCE TO ENCAMPMENT—

- (1) When there is such a large number of people, not of the highest or cleanest castes collected, there should be proper sanitary arrangements as regards shelter, diet, conservancy, and clothing. The river alongside affords a plentiful water-supply if kept pure.
- (2) The medical arrangements are in urgent need of improvement. It is necessary to have an Assistant Surgeon, or at least a hospital assistant, to look after the cholera hospital, as well as the ordinary medical arrangements.

98. *Railway*.—This is an important station on the Bengal-Nagpur Railway, as it is a junction which taps both the East Indian Railway and Great Indian Peninsula Railway. There is only one train suitable for carrying emigrants to Asansol, and the railway authorities should endeavour to always provide sufficient carriage accommodation to convey all the emigrants to be forwarded, and so prevent undue detention. I saw on

his line an excellent form of third-class carriage, corridor arrangement, with a urinal at the end. This has been passed as an ambulance or red-cross carriage, and is very suitable for the transit of emigrants.

99. *GENERAL RECOMMENDATIONS*.—(1) Bilaspur is the great centre from which emigrants from surrounding recruiting districts are forwarded; the number forwarded is greater than from almost any other district, and I think there should be a Superintendent or Assistant Superintendent of Emigration to superintend the work here. I look upon this as a very important matter, and would suggest that the Government of the Central Provinces be approached on the subject. Recruiting is each year extending further and further into the Central Provinces, and it is an important matter in the prevention of disease that strict supervision should be exercised from the very commencement of the journey, and not only when it is partially completed.

(2) As cholera is very prevalent here, and it is probably one of the *foci* from which the disease is carried to Assam, particular medical and sanitary arrangements are necessary. For this reason, and also because it is a great centre where emigrants are halted or some days, it will be a convenient place for the establishment of an anti cholera inoculation centre.

(3) The Bengal-Nagpur Railway authorities should be asked to provide sufficient carriage accommodation, and thus avoid undue detention of immigrants.

RAILWAY ROUTES.

100. I have already described the following sanctioned routes:

- | | | |
|--|-----|---------------------------------|
| 1. Bilaspur, <i>via</i> Purulia to Asansol | ... | Bengal-Nagpur Railway. |
| 2. Asansol, <i>via</i> Hooghly to Naihati | ... | East Indian Railway. |
| 3. Naihati to Goalundo | ... | } Eastern Bengal State Railway. |
| 4. Naihati to Jatrapur | ... | |

In addition to these, there are certain other routes by which emigrants travel:

(1) From Khana Junction, on the East Indian Railway, *via* Sahebganj and Katihar, to Jatrapur.—Since my visit to the recruiting districts this route has been sanctioned as an alternative route by the Government of Bengal.

(2) From Jabalpur to Naini Junction and from Naini to Naihati.—This route has been used. I found during my tour in the Brahmaputra Valley two batches of emigrants on one of the mail steamers who had travelled by this route. There were 11 cases of cholera among a total of 79 emigrants. These emigrants were forwarded by a Mr. Meyers. They were chiefly emigrants from Mandla, Seoni, and surrounding districts. They went from Jabalpur to Naini junction, had a short halt there, then on to Naihati, another halt there, and from there to Goalundo. This is a very long railway journey, during which time only dry food can be given, and is an unnecessarily roundabout way, as, if the route from Luckeeserai to Sahebganj had been a sanctioned one, they could have branched off there, and the journey would have been greatly shortened. I would, therefore, recommend for any emigrants travelling by the East Indian Railway, above Luckeeserai that there be an alternative route as follows:—Luckeeserai *via* Sahebganj and Katihar to Jatrapur.

(3) From Chandpur to Karimganj and Badarpur.—This is the Assam-Bengal Railway, and would be of great assistance to many gardens and relieve overcrowding of steamers, if it were made a sanctioned route.

101. *GENERAL RECOMMENDATIONS*.—Before ending my remarks on the transit of emigrants in Bengal and the Central Provinces, I would like to enumerate the points which I consider important as preventive factors in the spread of cholera:

- (1) That from the starting point the emigrants should be under proper supervision as regards depôts, clothing, feeding and general sanitary and medical arrangements; hence, that there should be a Superintendent of Emigration in the Central Provinces. Important forwarding centres, like Bilaspur, should be most carefully supervised.
- (2) Prevention of overcrowding in depôts and rest-houses, especially at Naihati, Asansol, and Goalundo, which are the great converging centres.
- (3) Prevention of undue detention at rest-houses and depôts through want of carriage, either rail or steamer, which is, of course, apt to cause overcrowding.

- (4) Prevention of overcrowding in trains.
- (5) The journey by train should not be too long. It is advisable to break it if very long. Where a short route is possible, this should be sanctioned.
- (6) That trains should halt at convenient places to allow immigrants the opportunity for necessary purposes.
- (7) That adequate rest-houses or dépôts be built at every important halting place or forwarding centre, and chiefly so at Saraghat, Jatratur, and Bilaspur.
- (8) That proper medical arrangements be made at Jatratur and Bilaspur.
- (9) That the present medical arrangements at Naihati and Goalundo should be increased.
- (10) That anti-cholera inoculation be carried out in Bengal and the Central Provinces. This inoculation, if practicable, is well worthy of a trial, and the Government of Bengal might be asked to make the attempt. The places where it could best be carried out are either Naihati, through which almost every emigrant passes, except those who come down the Ganges by steamer or boat, or Asansol. Now that the Khana-Katihar route has been sanctioned as an alternative route to Jatratur, a certain number of emigrants will not pass through Naihati. Of course, if there were two centres for inoculating, Goalundo and Jatratur would tap all. The chief things to remember are that there must be a temporary arrest of the flow of emigration, and that certain number of days' stoppage has to be arranged for, whatever site may be selected, and if only one centre can be undertaken, I would suggest Naihati as being so near Calcutta and so many emigrants pass it. The flow of emigration must be arrested for possibly four days, so accommodation and arrangements will require to be made for four times the maximum daily number of arrivals.

The system of operation I would propose would be—

- (a) The Government of the Central Provinces might have a centre at Bilaspur. This would ensure inoculation of a great number of the emigrants from the Central Provinces before starting on their journey, and proportionately diminish the work required at the centres in Bengal.
- (b) The Government of Bengal might have a centre at Naihati or Asansol.—This would ensure inoculation among emigrants from Bengal and the North-Western Provinces.

BRAHMAPUTRA VALLEY.

I.—IMMIGRANTS.

102. Practically, only one class of labourers is imported into the Brahmaputra Valley, *i.e.*, Act coolies with their dependents.

II.—TRANSIT.

103. The transit is entirely by mail steamers from Goalundo to Dibrugarh. A certain number of free emigrants are disembarked at Dhubri to be put under contract after which they are re-embarked for places up the valley. The duration of the journey from Goalundo to Dibrugarh varies with the season of the year. The following table shows the recognised daily run:

		Cold weather, <i>i.e.</i> , 1st November to 28th February.		Hot weather, 1st March to 31st October.	
First day	...	Goalundo	to Panibari.	Goalundo	to Panibari.
Second "	...	Jaggernathganj	to Chilmari.	Jaggernathganj	to Chilmari.
Third "	...	Rowmari	to Goalpara.	Rowmari	to Bagribari.
Fourth "	...	Goalpara	to Gauhati.	Goalpara	to Gauhati.
Fifth "	...	Gauhati	to below Tezpur.	Gauhati	to Tezpur.
Sixth "	...	Tezpur	to Kokilamukh.	Silghat	to Kamalabari.
Seventh "	...	Dhansirimukh	to Dikhumukh.	Kokilamukh	to Dibrugarh.
Eighth "	...	Disangmukh	to Dibrugarh.	...	...

I think it is desirable to lessen the number of days on the journey if possible, and I think it could be done.

104. There is a large number of mail steamers which ply both on the Surma and Brahmaputra routes.

The following list gives the names of the steamers and numbers of coolies they are licensed to carry:

		Season.				Season.	
		Cold.	Hot.			Cold.	Hot.
"Egret"	...	594	489	"Merlin"	...	839	698
"Brahmin"	...	461	384	"Manipuri"	...	422	351
"Falcon"	...	846	701	"Osprey"	...	459	382
"Dijoo"	...	338	281	"Migi"	...	432	351
"Gannet"	...	541	452	"Penguin"	...	436	364
"Duffla"	...	523	433	"Miri"	...	541	452
"Hawk"	...	678	565	"Petrel"	...	448	373
"Khatri"	...	461	384	"Plover"	...	448	373
"Heron"	...	469	391	"Mishmi"	...	585	487
"Kookee"	...	541	452	"Pathan"	...	754	628
"Ibis"	...	434	391	"Sikh"	...	754	628
"Lushai"	...	541	452	"Aka"	...	422	352
"Kestrel"	...	660	555	"Bhutia"	...	422	351
"Marwari"	...	461	384	"Rajput"	...	423	353

III.—DÉPÔTS AND DEBARKATION GHÂTS.

There remains for me now only to write a few remarks on the dépôts and ghâts in the Brahmaputra Valley.

105. *Dhubri.*—*Dépôts.*—There are three private dépôts, close together and on good sites, a short distance below the ghât—

- (1) Labour Supply Association, of which Mr. Logan is agent.
- (2) Babu Preo Nath Bose's " " Baptist " "
- (3) " Hira Lal Mukherji's.

(1) Labour Supply Association.—The buildings are in good order and the accommodation sufficient for ordinary requirements. Water is obtained from a well, whence it is pumped into an iron tank fitted with brass taps, so that it cannot get contaminated, and the supply is more readily obtainable than when drawn up by a rope and bucket. On my first visit, on 17th December, this arrangement had not been made, but on my second, on 19th January, I found it in working order. Twelve chittacks of rice are given, and also ten full diets in addition for every 100 immigrants, so that each man gets one-tenth more than the nominal scale. I have no suggestions to make in connection with this dépôt, except that connected with segregation, which see further on.

(2) Preo Nath Bose and (3) Hira Lal Mukherji.—The remarks made above in connection with the Labour Supply dépôt apply here. The sole differences are that the water-supply is taken from the wells in the ordinary way, *i.e.*, by a rope and bucket, and they do not give the extra ten meals per 100 coolies. They should provide a pump and cistern fitted with taps.

106. *Cholera-sheds.*—There are two sheds for cholera, one for municipal cases, and the other for emigrants. There is also a segregation-shed parallel to, and close to, the latter. They are situated on the river bank, some distance below the ghât and the dépôts, and are easy of access. It appears to me that there is not sufficient accommodation in the cholera-shed, as the Civil Surgeon of Dhubri does not tend all the cholera cases which occur between Goalundo and Dhubri. I think it is advisable to land all the cases, and not simply those belonging to Dhubri, *i.e.*, the free emigrants who are

to Dhubri, not only in the interests of the patient himself, as he must be better looked after ashore, but also in the interests of the emigrants aboard, to prevent the disease spreading where so many are confined in a limited space. The segregation-shed is close to the cholera-shed, and is a danger instead of a protection to those sent to it. When I visited it I found it empty, and all the healthy coolies, young and old, were sleeping in the cholera-shed close to the cholera patients, of whom there were eight. It would be advisable to have the segregation-sheds quite away from the cholera-sheds, and it seems to me a better plan to have one such shed at each depôt, in an isolated spot at the end of the compound, as those segregated get their meals supplied from the depôts, wherever they are, and it would thus be more convenient, and there would be true segregation both from healthy and sick, whereas at present there is no segregation from the sick. All the children, and as many of the relatives of the sick as possible, would be segregated in these sheds, and only the immediate relative, as the mother or wife, who has to tend the patient, would be sent to the cholera-sheds. Emigrants belonging to affected batches should have prophylactic medicines given them morning and evening.

107. *Ghât*.—The *ghât* is conveniently situated a little below the town, and not too far above the cholera-sheds. Emigrants are embarked as a rule about dusk.

108. It seems to me a day wasted to land emigrants here to be put under agreement when the same could be done either in the district in which they were recruited or in the district to which they are emigrating, and I think that it would be preferable if they were taken direct to their destination. I cannot see what benefit the planter receives, and I certainly see danger of hardship to the coolie. The best place for making the contract is, of course, in the district in which recruited, and the only other permissible should be that to which imported.

109. *Gauhati ghât*.—The *ghât* varies with the season of the year. During the dry season the upper *ghât* is used; it is $2\frac{1}{2}$ miles from the cholera hospital, so if there are any cases of cholera on the steamer, it is stopped well below the town, and the sick landed before it proceeds to the upper *ghât*. The steamer hospital also is well washed with disinfectants before it comes to the *ghât*.

110. *Cholera-sheds*.—On my downward journey on 16th December, I noted that it took four hours to convey five cases of cholera to the sheds. A large sandbank, or *chur*, had formed, which made the distance to be carried very great. This has been remedied by building a temporary shed on the sandbank, not far distant from the river edge, in which the patients landed are kept for the night, and are tended and cared for. The patients, when landed, are placed in this shed, close to which is a small shed for the compounder and servants, who reside there when there are patients to be attended to. There are two permanent sheds for males and females, respectively. There is also a segregation shed, but the accommodation is too limited. The establishment is not sufficient.

111. The improvements required here are—

- (1) A small shed for convalescent cases, and this is, I think, required at most cholera hospitals, for it is not advisable to send convalescent cases at once among the healthy, nor is it often convenient to keep them among the sick.
- (2) The segregation-shed should be enlarged so as to provide more accommodation for the relatives who are detained.
- (3) The establishment requires to be increased, as at present there is only one cook, one sweeper, one *paniwallah*, and one compounder. An additional compounder, sweeper, and *paniwallah* should be entertained for the buildings near the river.
- (4) The moribund wards should be removed further from the cholera-shed.
- (5) A dooly should be provided to carry the sick from the river edge to the shed.

112. *Tezpur*.—*Cholera sheds*.—The cholera buildings are situated on a good elevated site, isolated, yet not distant, from the *ghât*. They consist of a number of small sheds which might, with advantage, be made larger and better lighted and ventilated. There is an

Assistant Surgeon in charge. The buildings are some little way from the river, so the water-supply is a difficulty, but this can be overcome by aid of an increased establishment. The Civil Surgeon, Surgeon-Major Macnamara, sent six dozen sodawater down for the use of the patients, but they did not like it, and preferred water. The chief defects noted at Tezpur were:

- (1) The accommodation for cholera patients, as also for segregation purposes, was quite inadequate. The number of patients was somewhere about 60, and they were lying about on the floors of the various sheds.
- (2) The establishment was not nearly large enough to cope with the requirements. There were not even sufficient servants to carry the patients to the sheds. There was a dooly, but it was so heavy, it could not be used. A light serviceable dooly would be a boon.

113. *RECOMMENDATIONS*.—I think that, from the 15th November to the 15th May, say, for six months, arrangements should be made here, as also at Dhubri and Gauhati, to accommodate a large number of patients, and that the establishment should be on an increased scale during that period. It is not right that a steamer with an important freight, as emigrants and carrying the mails, should be detained because there is not accommodation for the sick nor establishment to tend them.

114. *Silghât*.—*Depôt*.—There is a proposal to do away with the depôt at this place, and to land the coolies at Tezpur, but I think this would be a mistake. Indeed, I think, instead of doing away with depôts, that it would be advisable to have depôts at all *ghâts* where the number of coolies landed is considerable, and especially where gardens are distant from the *ghâts*. I found in the depôt 37 coolies, all in good health. The buildings are temporary sheds, isolated on a sandbank, some little distance from the river and well below the *ghât* and away from the village. They, therefore cannot be a danger to anyone. When I inspected, about noon, the coolies present had not had their morning meal, nor were arrangements being made for it. The hospital assistant who has charge of this depôt in addition to the charitable dispensary, had gone to Nowgong to give evidence in a criminal case, so a compounder was in charge. The site is good, and, though it is a little too far from the river to be handy, yet, as all the sick on board are landed at Tezpur, and there are consequently not likely to be many sick treated here, there should not be any difficulty in the water-supply.

It would be a mistake to land Silghat coolies at Tezpur for several reasons:

- (1) Tezpur has not too much accommodation for its own requirements.
- (2) A certain number of sick must be landed at Silghat, *i.e.*, those attacked between Tezpur and Silghat. I myself saw a case of cholera thus landed.
- (3) Even if landed at Tezpur and forwarded from there, it is not improbable that a certain number of sick might require treatment after reaching Silghat.
- (4) It is not a nuisance to the public, as at present situated, and even in the rains in the old site there is but little danger, whereas if any sick were landed, and there was no depôt to receive them, it would be a distinct danger.
- (5) It saves one day's delay in the transit of the emigrant having a depôt at Silghat.
- (6) Besides being an advantage to the emigrant, it must be less trouble to the importer to take delivery at Silghat.
- (7) There is less likely to be danger of absconding or enticing away of coolies by having a depôt at Silghat, of which I am certain there would be constant complaints if done away with.

I cannot see the necessity or advisability of any change, and think the present arrangements are sufficient if properly carried out. It is really only a case of shelter for those who cannot go straight out to their destination, where they can be housed and fed, and a cholera-shed and hospital provided for the sick. Only those coolies who are without a sardar should be detained here till the manager sends some one to show them the road to the garden. The cholera-shed and depôt in the rains, when the river rises and the present sandbank is covered with water, are built above the *ghât*

a short distance, and are to a certain extent on an objectionable site. There should be but few cases treated there, however, if all the cholera cases which reach Tezpur are landed there and only the cases occurring between Tezpur and Silghat, and which belong to Silghat batches, are landed at Silghat, and if the planters have peons or sardars ready at the *ghât* to take delivery and bring out the coolies to the gardens at once. In the rains, when the river rises, very few emigrants come up, and these are kept in a small house near the dispensary. This house cannot hold more than 15 to 20, but I am told it is sufficient for the requirements. I could not see the hospital assistant to discuss the matter with him. I visited the depôt again the following morning, and found only seven coolies present waiting for a chaukidar to take them to their garden, the other 30 having already gone. I saw the arrival register, and noted that a good many coolies arrive, but, as a rule, they go straight through to their garden. I could not see the hospital register, so cannot estimate the number of sick. I saw 170 coolies landed from the *Miri*, including one case of cholera. As the old site is objected to and is too far distant from the dispensary to be under continuous supervision of the medical officer, it would be advisable to select a new site. This might be done by the Civil Surgeon and Deputy Commissioner. I consider that the present site during the busy season, while the river is low, *i.e.*, on the sandbank, is the most suitable. Although it is a little way from the dispensary, it is not too far to be incapable of proper supervision. All managers receive information of the arrival of coolies by wire from Dhubri, and should have sardars or peons ready at the *ghât* to take delivery, or the agent of the gardens might do so, as is done in the case of coolies passed at Gauhati for Rangamati and coolies landed at Kokilamukh for North Lakhimpur, and also at Dibrugarh, where they sleep the night on the flat and are forwarded by rail the following morning. Supposing the depôt at Silghat is abolished, what will be the procedure? It will be found inconvenient landing the coolies at Tezpur, as they would have to wait for the garden peon or sardar, and thus would cause overcrowding; there would be constant complaints of detention, overcharging, and possibly neglect, if any absconded or were enticed away. The result would be that coolies for Silghat would be passed at Tezpur and delivery made to the agent at Silghat, who would grant a receipt for them, and he or the managers would have to arrange to send them to the gardens, or if they were detained for want of a peon or sardar, he or the manager would have to arrange to feed and shelter them. This is the arrangement for coolies for Mangaldai, who are passed at Gauhati and landed at Rangamati, and I think the Silghat coolies, managers, and agents, are very much better off as they are at present than they would be if this change were made. As the sole objection is the site, I should think it one that could easily be overcome, and it certainly is during the dry season, at which time most of the coolies are imported and also most of the sickness occurs, for there cannot possibly be any objection to the present site of the temporary buildings on the plea of danger to the public. The choice of a proper site for the rainy season should be made by the Civil Surgeon and Deputy Commissioner in the rains, as it is important to see where the *ghât* is, the water level, drainage, elevation, accessibility to *ghât* and medical officer, and the general environments of the site; it is also important to see that it is not a danger to a water-supply or houses in the neighbourhood, and that the land selected can be procured.

115. *Kokilamukh*.—The cold-weather *ghât* is at present situated on the edge of a big *chur*, or sandbank, and is 3 miles from the terminus of the Jorhat State Railway, though a trolley is run to it. This is the landing *ghât* for coolies going to tea gardens in Jorhat. Coolies going to North Lakhimpur are also landed here, as there is no depôt at Kamalabari.

116. *Depôt*.—The depôt is situated close to the terminus of the Jorhat State Railway, and is 3 miles distant from the cold-weather *ghât*. The buildings are in good repair and consist (1) of two sleeping barracks, each of which can accommodate 50; (2) two small sheds for segregation purposes, each of which might accommodate 20; (3) a cholera-shed. In connection with this depôt there is also a small cholera-shed at the *ghât*, which can hold about four patients. I found that the night before my inspection 232 coolies had slept in the depôt, which was evidently overcrowding, as including the segregation-sheds, there was not accommodation for more than 140. The segregation-sheds were full of coolies, who had been segregated for six days. In the morning a number of coolies were forwarded by the Jorhat State Railway to their gardens, but 76 had to walk to Hilika and Majenga, as there were not sufficient carriages. These coolies started early in the morning without food, and would have been saved a tedious march if sufficient accommodation had been provided by the railway.

117. *RECOMMENDATIONS*.—(1) The cholera-shed being 3 miles away from the depôt, patients landed from the steamers can get little or no attention, and it would be advisable during the dry season to have a temporary depôt at the *ghât*.

(2) It would also be advisable if, instead of batches requiring segregation being detained in the depôt, the agent would take delivery of them and forward them to their gardens at once, where they would undergo segregation. There is less danger to them on their own garden, and they can be better looked after. It would also prevent overcrowding in the depôts. The segregation-sheds should be only looked on as for the use of the immediate relatives of cholera patients, and any small affected batches which the managers have not arranged for. I know it is the custom in other districts for managers to segregate new arrivals on the garden, and that they prefer this plan, and I can only think it is ignorance on this point that has permitted it to be the general practice here to detain batches for segregation in the depôt.

(3) The Jorhat State Railway should provide sufficient carriages to accommodate all the coolies to be forwarded. It would be of benefit to the railway, as well as the coolies.

118. There is another point in connection with this depôt which requires consideration and renders it advisable that during the dry season there should be a temporary depôt at the *ghât*, *i.e.*, the coolies for North Lakhimpur are landed here, and have to walk 3 miles to the depôt, where they have their evening meal and remain the night. Next morning they have to walk 3 miles back to the *ghât*, where the agent supplies them with dry food. They have thence to cross the Brahmaputra to Kamalabari, which is the landing place for North Lakhimpur, after which there is a march of 29 miles to North Lakhimpur, and probably 10 miles more to reach the garden. The delay and the extra march of 3 miles would be saved if there was a temporary depôt at the *ghât*, which is of importance, when the distance to be travelled is so great. It is, however, a question whether it would not be advisable to open a depôt at Kamalabari for the coolies going to North Lakhimpur instead of landing them at Kokilamukh.*

119. *Dibrugarh*.—It is the custom at Dibrugarh for the healthy coolies to be made over on arrival at the *ghât* to the agents of the two River Companies, who are also agents for the various tea-gardens in the district. The coolies are detained on the flats for the night, and early the following morning are forwarded by rail to their respective gardens. Any coolies suffering from cholera are sent to the depôt with their immediate relatives. The depôt is conveniently situated a short way from the *ghât*. It is directly under the Civil Surgeon of Dibrugarh, and has a hospital assistant in charge. I have no recommendation to make here, as I think it a good plan to send off the healthy coolies as soon as possible to their gardens and only detain the sick and their immediate relatives, so long as managers are warned of the prevalence of cholera on board, and that they must segregate the new arrivals, which I know is generally done whether there is cholera on board or not.

IV.—PROPOSED DEPÔTS.

120. *Kamalabari*.—At present there is no depôt here, and, as just stated, coolies for North Lakhimpur are landed at Kokilamukh. There is no doubt that, as regards the comfort of the coolies, it would be better to have a depôt at Kamalabari, as they would then start fresh on their long journey by road, instead of having to walk to the Kokilamukh *ghât* and cross the river, a matter of three or four hours.

The arguments advanced against a depôt at Kamalabari are—

(1) The site of the *ghât* is constantly changing.

(2) The experiment was tried some years ago, but failed, as the managers of the tea gardens could not agree about their respective share of the charges.

(3) The number of coolies landed here is not sufficiently large to demand a depôt.

I think, however, taking everything into consideration, it would be advisable to have a depôt for the following reasons:

(1) The number of coolies for North Lakhimpur is by no means inconsiderable. In 1890 the number landed at Kokilamukh for North Lakhimpur was 977, and for the month of January 1897, 440.

(2) The distance from Kamalabari to the gardens is so great, probably 35 to 40 miles, that anything which lessens the journey is an advantage.

(3) It would help to prevent overcrowding at Kokilamukh.

*See paragraph 120.

From the figures given me, I see that only 16 coolies were landed from 1st August to 30th November, and that it would probably be sufficient if the depôt were only maintained during the dry season.

In this connection, the question arises as to what arrangements, if any, are necessary on the road between the landing place and the gardens. It is quite obvious that coolies with their belongings and children cannot possibly make the march of over 29 miles to North Lakhimpur, far less the extra 10 to the gardens, in one day, and that there should be at least one halting place with a shelter, and arrangements for feeding. This halting place, or two, as I think preferable, should be selected by the Sub-divisional Officer, firstly, with regard to distance, and secondly, with regard to water-supply and surroundings. I think the one should be about half-way to North Lakhimpur and the second at North Lakhimpur. Coolies when first landed are out of condition, having been cooped up first in depôts in the recruiting districts, then in trains, and, lastly, in steamers, and are not fitted to make long marches in a new country under new conditions, with all their baggage and children. This is one of the districts where a light tram would be of great benefit to coolies as well as to the whole district. This remark about a tram applies also to Mangaldai, but with still greater reason, because (1) the number of coolies is much greater, (2) the distances are greater, or at least as great, (3) there is no subdivisional headquarters to pass through, where supervision can be exercised, (4) Mangaldai is a more thickly-populated district, and the coolies, when marching, are apt to pollute water-supplies and spread disease more.

121. *Rangamati*.—The question of opening a depôt for the subdivision of Mangaldai is a matter for consideration. At present the coolies for Mangaldai are passed at Gauhati on the evening of arrival there. The steamer leaves Gauhati early next morning, and after two to two hours and a half arrives at Rangamati, where the coolies are made over to the agent, Mr. Baker, who gives a receipt for them. Mr. Baker has to look after these coolies, and feed and shelter them, until the managers send peons or sardars to take them to their gardens. The number of coolies being imported into this subdivision is increasing, and sometimes large batches are received. All that has been said in favour of a depôt at Kamalabari applies here, only with far more weight. The figures given me by Mr. Baker show that the number landed at Rangamati from 1st November 1895 to 31st October 1896 was 1,551, and from 1st November 1896 to 7th February 1897, 1,451. There were 525 in December 1896, 720 in January 1897, and already 190 in the first week of February. In former years, the average number of coolies landed has averaged 800 to 1,000, according to Mr. Baker's figures. I believe the number will go on increasing, as many old gardens are being extended, and many new ones opened out, and they must import labour. These figures, I think, prove conclusively that there should be a depôt at Rangamati *ghât*. There is a distinct danger in such numbers being landed, perhaps 40 to 50 miles from their destination, without any arrangements either medical or sanitary, for their care. It is hardly practicable for Mr. Baker to arrange properly for the shelter and diet of such a number, especially when they may have to be detained for a day or two, as is frequently the case. It often happens that coolies arrive at the *ghât* before the manager can receive notice of their despatch from Dhubri, and many gardens are two days' journey from the *ghât*. Should any sickness or epidemic break out, there are no medical arrangements. The distance from the *ghât* to the gardens is very great, may be even over 50 miles in some cases, and as there is no tram which could take the coolies out quickly, two halting places, where food and shelter would be available, should be provided.* It would, of course, be a great boon if a tram like that in Tezpur could be made. The sole difficulty in opening a depôt at Rangamati lies in the fact that the site of the *ghât* varies to the extent of some miles, but as all the sick in batches for Mangaldai are landed at Gauhati, there is not much danger of any sickness occurring between Gauhati and Rangamati among the batches for Mangaldai, so that it would not matter much if the depôt was some little distance from the actual landing place. To obviate any objection, Mangaldai coolies who fall sick between Gauhati and Rangamati should be carried on to Tezpur, as at present.

V.—PROPOSED DEBARKATION GHÂT.

122. *Singri*.—On my journey down the Brahmaputra, I was asked if coolies for Singri and Deckajuli tea gardens, about 24 to 30 miles from Tezpur, could not be landed at Singri. I can see no objection to this. These coolies would have to be passed at

* The halting places might be at Juljuli, where there is a dispensary and a hospital assistant, which would be advantageous in the event of sickness; and between Tokankata and Nalbari.

Gauhati, and there would have to be a peon or agent at Singri who would take delivery and grant a receipt. The managers of these gardens agreed to build a shelter and keep a *chaukidar* there, in case the steamer was late, though this hardly ever happens. The distance from this *ghât* to Singri is 3 miles, while Deckajuli is 6 miles further on. Any sick would, of course, be taken on to Tezpur as at present. This arrangement would save the coolies a night in the Tezpur depôt and a march of 24 miles in the one case and 30 miles in the other, so it would be far more convenient for both managers and coolies than the present one.

I did not stop to visit the other depôts on the Brahmaputra route, as they are not so important.

CONCLUSION.

123. In concluding this report, I would like to summarise the more important recommendations which I have made:

I.—BEFORE EMBARKATION.

124. I have tried to show in the body of this report how important it is to look after emigrants from the time they are recruited, and that it is in the recruiting districts we have to look for the cause when cholera is epidemic. It is at places like Bilaspur, where great numbers of emigrants are collected for some days together without any arrangements with regard to housing, clothing, diet, and the ordinary laws of sanitation, that epidemic disease is sure to appear. After its appearance in the recruiting centres it is sure to be met with at the various halting places on the line of transit, of which two or three examples may be given, notably Goalundo, Naihati, and Jatratur. Hence I have suggested the following recommendations:

- (1) A Superintendent of Emigration should be appointed at Bilaspur.
- (2) Proper medical and sanitary arrangements should be made at all recruiting centres, especially at centres like Bilaspur.
- (3) Clothing must be properly distributed before the emigrants are entrained.
- (4) Overcrowding in depôts and rest-houses, especially at Naihati, Goalundo, and Asansol, should be prevented.
- (5) Overcrowding in railway carriages should be prevented.
- (6) Sufficient railway carriage accommodation, especially at Naihati and Bilaspur, should be provided to prevent undue detention in rest-houses and depôts.
- (7) The Embarkation Agent at Goalundo should reside near the *ghât*.
- (8) In all sanctioned railway routes sufficient time should be given at suitable places to allow the opportunity for necessary purposes.
- (9) Better rest-houses should be provided at Saraghat, and emigrants using this route should be obliged to halt.
- (10) Jatratur should be made an inspecting station, and proper medical and police arrangements should be provided.
- (11) Adequate medical arrangements should be made at Goalundo and Naihati.
- (12) In the case of long railway journeys, recognised halting places should be prescribed, at which all coolies should be detained.
- (13) The following routes should be sanctioned:
 - (a) Luckeeserai *via* Shahebganj and Katihar to Jatratur.
 - (b) Khana *via* Shahebganj and Katihar to Jatratur.
 - (c) Chandpur to Karimganj and Badarpur.
- (14) Anti-cholera inoculation centres should be established at Bilaspur and also at one or more places in Bengal.

II.—TRANSIT BY STEAMER.

125. Though I have stated that it is in the recruiting districts and along the line of rail we must look for the causes of a general epidemic of cholera among emigrants, yet there are certain defects to be found in the steamers, and also after debarkation, which

tend to assist in spreading the disease. Cholera frequently makes its appearance on board within a few hours after the departure of the steamer, showing the disease must have been contracted either in the recruiting district or along the line of rail, and it is necessary to take every precaution to prevent it spreading, as it is apt to do where many are collected together in a limited and confined area. The following are the recommendations I would suggest :

126. *Mail steamers*—

- (a) The drainage of both the hospital and upper deck should be improved.
- (b) Increased cooking and firing apparatus should be supplied.
- (c) Prevention of overcrowding. Not less than 12 feet at any season of the year, omitting useless space, should be allowed.
- (d) Increased hospital space. Never less than 24 feet, omitting useless space.
- (e) Increased diet. Not less than 6 chhittacks of rice for the morning meal and 5 chhittacks for the evening meal, or 11 chhittacks per diem, should be the sanctioned scale.
- (f) The latrine should not be near the cook-room.
- (g) Water supplied for washing purposes should not be used for drinking.
- (h) Increased supervision. A military hospital assistant or an I.M.S. officer should be appointed during the recruiting season.
- (i) The steamer medical officers should be men of better qualifications.
- (k) Where over 500 emigrants are carried, a compounder should be entertained in addition to the medical officer.
- (l) No steamer should carry more than 500 coolies.
- (m) Additional steamers should be provided whenever necessary to prevent undue detention.
- (n) Hospital blankets and clothing must be according to scale, and the present hospital scale should be doubled.
- (o) The hospital should be heated by steam, as Mr. Taylor proposes.
- (p) Only upper deck and forward lower deck should be licensed. The aft lower deck should be clear of coolies, as washing, cooking and latrine accommodation are all in that part; also the provisions, medical comforts, etc., are stored below, and the live-stock are kept here, and are at times objectionable.
- (q) Cholera statistics should be kept of ordinary passengers, as well as coolies.

127. *Feeder steamers*.—It is only necessary to deal under this head with the run from Enathganj to Silchar:

- (1) Moderate daily runs should be arranged.
- (2) At the end of each day's run rest-houses should be provided, where emigrants should be fed and sleep.
- (3) The following improvement in the steamers should be made :
 - (a) Hospital space should be provided.
 - (b) A medical officer should be engaged and medicines supplied.
 - (c) The upper deck should be protected.
 - (d) There should be increased latrine accommodation.
 - (e) One day's supply of dry food should be kept in stock.
 - (f) Water-tanks should be supplied and filled with good water supplied from the mail steamer, or from some pure source.
- (4) There should be no overcrowding.
- (5) Proper registers or way-bills should be kept.
- (6) Dead bodies should not be thrown into the river.

III.—AFTER DEBARKATION.

—*Surma Valley*—

128 The depôts should be as follows :

- (1) Madna.—A depôt under a hospital assistant should be sanctioned.
- (2) Manumukh.—A shelter should be built.
- (3) Fenchuganj.—A suitable depôt should be built, and an Assistant Surgeon, who should reside here, should be in charge.
- (4) Karimganj.—A suitable depôt should be built on a convenient site.
- (5) Badarpur.—Present arrangements are sufficient.
- (6) Sialtek.—A small shed is required as a shelter.
- (7) Jatinga.— Ditto ditto.
- (8) Silchar.—Present arrangements are sufficient.

29. The following improvements are necessary at most of the depôts :

- (a) Improved water-supply.
- (b) Increased accommodation.
- (c) Cholera-sheds, some distance from barracks.
- (d) Sufficient segregation accommodation.
- (e) Increased establishment.
- (f) Proper sanitary arrangements.
- (g) Continuous supervision.
- (h) Site accessible to *ghâts* and medical officer.
- (i) Proper registers of all emigrants, Act and non-Act, must be kept.
- (k) Increased hospital accommodation and medical arrangements.
- (l) Regular inspections of all private depôts.
- (m) Regular visits to each steamer, to land all coolies, Act or non-Act, who have to be landed, and to record the number of each; also to embark all coolies proceeding upwards or pass those on board; to inspect sanitary arrangements, to land all cases of cholera, and to sign the embarkation register.
- (n) All cases of cholera arriving at Madna should be landed there to prevent, as far as possible, any being transferred to the feeder steamers. The same action should be taken at Fenchuganj and Karimganj. At Badarpur only the sick occurring in batches to be landed there should be landed, all for Sialtek, Jatinga, or Silchar being sent to Silchar.

130. The following improvements are necessary at the *ghâts* :

- (1) Fenchuganj—(a) A rest-house for the daily run where emigrants receive their evening meal on arrival the second evening from Goalundo, and their morning meal the third morning before starting for Karimganj.
 - (b) Latrine accommodation.
 - (c) A pure water-supply.
 - (d) A shelter for ordinary passengers.
 - (e) Establishment for the above and careful supervision.
- (2) Karimganj—(a) A rest-house for the daily run, where emigrants receive the evening meal the third evening on arrival from Fenchuganj and their morning meal the fourth morning before starting for Silchar.
 - (b) Latrine accommodation.
 - (c) A pure water-supply.
 - (d) A shelter for ordinary passengers.
 - (e) Establishment for the above and careful supervision.

131. B.—*Brahmaputra Valley*—

- (1) Dhubri } Should be large central depôts with permanent cholera
 (2) Gauhati } hospitals and establishments.
 (3) Tezpur }
- (4) Rangamati.—Should have a depôt opened.
- (5) Kamalabari.— Ditto ditto.
- (6) Silghat.—Should be retained as at present, as also should all the other depôts at present open.

132. All cases of cholera arriving at Dhubri should be landed there, so that the steamers can proceed free of cholera, and the same action should be taken at Gauhati and Tezpur, and thus attempts made to keep cholera-affected people apart from the general population. At all the other depôts only the cholera cases belonging to batches of coolies or passengers to be landed at their respective *ghâts* should be landed. All depôts, apart from the cholera-sheds, should, as a rule, be used chiefly as rest-houses, as it should be the aim of managers to get coolies as quickly as possible to their gardens. The segregation-sheds should chiefly be used for segregating the relatives of cholera patients, and only when a manager neglects to take his coolies away should large batches be segregated at the depôts. The aim should be to have everything as much as possible done on the gardens. All cholera cases must be detained in the cholera-shed till convalescent, when they may be moved to a convalescent ward, but they should not be allowed to mix with healthy coolies or go to the segregation-shed till they have been well for some days, and have had all their clothes disinfected and boiled, or burned, and new ones given in their place.

IV.—TRANSIT TO GARDENS.

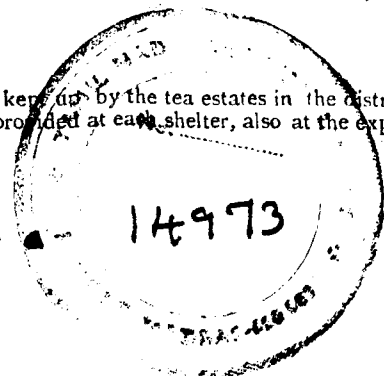
133. Where the gardens are within easy distance, the coolies should go out to their gardens at once, but this, of course, depends on the time of debarkation, and the distance to be travelled. There should, however, be no undue detention, and coolies should be handed over to the garden sardar or peon or the agent, as soon as possible. Where the distance to be travelled is great, and must take more than a day, there should be a halting place, or more if necessary, on a suitable site with special regard to water-supply and surroundings. At these halting places, there should be shelters* for the coolies to sleep in and arrangements for feeding them. All healthy coolies, whether of cholera-affected batches or not, should be taken out to the gardens by the managers without delay, and carefully segregated for at least ten days. During the period of segregation the coolies should be carefully looked after, well fed, and have no work except cleaning their things, washing their clothes, and such easy labour as is handy, as, for instance, clearing up their lines. I believe all coolies on their first arrival should have little or no work for several weeks, and should be carefully housed and well fed, as they are not in as good and fit a state of health after their journey as they should be.

During the present season—what with the starvation and privations the coolies have been experiencing in their own country and the debilitated condition many are in before they start—it is only to be expected that disease will be more common, and also more fatal, than in ordinary seasons. The coolies, when they arrive on the garden, will be in a lower condition than usual, and I would impress on all planters the importance this year of giving a longer rest than in other years before putting them on any heavy task-work, and of feeding them up and giving full pay—may be even for a space of three months—whether they have earned full pay or not. I cannot impress too forcibly the importance of seeing that new arrivals this year have good houses and sufficient clothing, good food (not simply a sufficiency), light work, and no exposure to cold or wet, especially in the early morning.

R. N. CAMPBELL, M.B., *Surgeon-Major*.

The 26th February 1897.

* These shelters should be built and kept up by the tea estates in the district which use them. A chaukidar must be entertained and cooking utensils provided at each shelter, also at the expense of these estates.



25.2.1897

1897

ASSAM SECRETARIAT PRINTING OFFICE (REVENUE) No. 58-150-22-5-97.

Resolution on the measures to be taken for the prevention of cholera amongst immigrants during their transit to Assam.

Extract from the Proceedings of the Chief Commissioner of Assam, in the Revenue Department, No. 5261R., dated the 14th December 1895.

Read—

Paragraph 12 of the Assam Immigration Report, 1895.

IN paragraph 12 of the Immigration Report for 1895, it was stated, in connection with the statistics of mortality of immigrants during their journey to Assam, that the Chief Commissioner proposed to depute a Medical Officer to enquire into the whole question of the arrangements made for the welfare of immigrants on board the river steamers and in the depôts, with a view to introducing such improvements as may be found possible. In this connection, the valleys of the Brahmaputra and the Surma rivers must be dealt with separately, as the circumstances attending the journey to the Assam Valley districts differ in some respects from those connected with the journey to Sylhet and Cachar.

2. Taking the Assam Valley first, the chief matter requiring attention is the prevalence of cholera during the journey to the labour districts. The mortality from this disease amongst immigrants to the Assam Valley has of late years been very heavy, as will be seen from the following statement :

Year.	Number of immigrants passing through Dhubri depôts.	Number of deaths from cholera				Death-rate per 1,000.
		At L hubri.	On steamers.	At depôts.	Total.	
1	2	3	4	5	6	7
1888	31,217	224	150	397	771	24.6
1889	34,354	135	90	149	374	10.8
1890	17,107	5	2	15	22	1.2
1891	20,313	33	19	31	83	4.0
1892	25,076	59	48	126	233	9.3
1893	22,141	2	3	2	7	.3
1894	22,314	25	31	61	117	5.2
1895	13,019	14	17	105	136	10.4

The number of deaths amongst coolies embarking at Goalundo direct for the tea districts prior to 1894 is not known, and the statement has, therefore, been confined to the death-rate amongst coolies passing through the Dhubri depôts.

It is known that the mortality during 1896 was exceptionally heavy, but figures are not yet available. The mortality shown in the above statement, which occurs in a journey the average length of which, including detentions, is probably not more than seven days, is serious enough in itself, but it becomes infinitely more so when it is remembered that the importation of cholera-infected batches is a frequent cause of epidemics on the tea gardens to which they go, and in the surrounding villages.

3. The high mortality from cholera during transit has always been a matter of much concern to this Administration, and elaborate rules have been framed under the Assam Labour and Emigration Act (I of 1882), laying down in great detail the steps to be taken to prevent the spread of the disease on the steamers, in the depôts, and after the arrival of infected batches at their destination. If the Regulations which have been framed were carefully and intelligently carried out, it is difficult to believe that the mortality from cholera could not be materially reduced, and the first duty of the Medical Officer whom it is proposed to appoint must be to enquire into the extent to which the existing rules on the subject are observed. In the detailed instructions which have been issued separately for his guidance, the existing orders have been summarised, and his attention has been drawn to those which seem chiefly to require notice.