
APPENDIX
TO THE
FAMINE REPORT
FOR
1918-19

Y:4353:6:231r

Y:4353:6:231r
A90
030030

APPENDIX I.

(Referred to in paragraph 3 of the Resolution).

Statement showing the rainfall in inches of the season of 1918, compared with the average.

District and Station.			June.	July.	August.	September.	October.	November.
<i>Ahmedabad.</i>								
Daskroi ...	...	1918 ...	1'38	2'03	3'25	1'34	...	...
		Average ...	3'97	12'28	7'54	4'30	0'41	0'14
Parantij ...	...	1918 ...	1'34	0'77	4'52	0'15	...	...
		Average ...	4'15	12'90	8'55	3'95	0'33	0'17
Viramgam ...	...	1918 ...	0'24	2'45	5'17	0'66	...	...
		Average ...	3'53	11'50	6'67	3'90	0'29	0'24
<i>Kaira.</i>								
Kaira ...	...	1918 ...	0'40	4'74	1'94	0'20	...	...
		Average ...	4'35	14'90	8'32	4'61	0'44	0'22
Nadiad ...	...	1918 ...	0'71	2'05	3'78	0'78	...	...
		Average ...	4'41	14'47	9'36	4'83	0'47	0'25
Thasra ...	...	1918 ...	1'47	0'55	7'01	0'75	...	...
		Average ...	4'88	12'80	8'74	3'99	0'40	0'11
<i>Panch Mahals.</i>								
Godhra ...	...	1918 ...	3'18	2'98	8'35	0'92	...	...
		Average ...	5'72	15'37	10'47	6'28	0'76	0'13
Halol ...	...	1918 ...	2'32	2'00	9'04	0'54	...	...
		Average ...	5'34	17'35	10'91	6'70	1'04	0'11
Jambughoda ...	...	1918 ...	1'78	4'04	8'01	0'36	...	...
		Average ...	7'05	17'58	12'18	5'78	0'75	0'30
<i>Broach.</i>								
Broach ...	...	1918 ...	1'62	8'16	2'48	0'16	...	...
		Average ...	7'66	16'61	7'88	6'20	1'11	0'21
Vagra ...	...	1918 ...	0'89	8'01	1'73	0'13	...	...
		Average ...	5'79	12'58	6'67	4'87	0'96	0'14
Jambusar ...	...	1918 ...	0'34	4'48	3'64	0'34	...	...
		Average ...	5'51	13'42	7'27	5'42	0'92	0'16
<i>East Khandesh.</i>								
Jalgaon ...	...	1918 ...	4'16	4'19	3'46	1'10	0'84	1'40
		Average ...	4'89	9'87	6'71	5'82	1'00	0'47
Bhusaval ...	...	1918 ...	3'78	7'79	3'55	0'29	0'01	1'22
		Average ...	5'05	8'96	5'90	5'46	0'97	0'55
Edlbad ...	...	1918 ...	2'30	4'30	1'83	0'55	...	1'87
		Average ...	4'51	7'46	5'66	5'14	1'06	0'29
<i>West Khandesh.</i>								
Dhulia ...	...	1918 ...	2'72	2'60	2'15	0'45	0'01	1'11
		Average ...	5'18	5'47	3'66	5'01	1'43	0'66
Sakri ...	...	1918 ...	0'78	3'38	1'28	0'38	...	0'01
		Average ...	4'35	5'41	2'61	3'48	1'24	0'50
Sindkheda ...	...	1918 ...	1'22	1'90	3'25	0'23	...	...
		Average ...	4'60	6'09	3'60	4'11	0'86	0'38

APPENDIX I—contd.

District and Station.		June.	July.	August.	September.	October.	November.
<i>Nasik.</i>							
Nasik ...	{ 1918 ...	1'64	1'02	7'68	0'58	0'18	0'10
	{ Average ...	5'77	9'12	5'06	5'95	2'87	0'49
Niphad ...	{ 1918 ...	2'10	1'35	3'06	1'90	...	0'11
	{ Average ...	4'36	4'91	3'08	5'60	1'97	0'59
Baglan ...	{ 1918 ...	1'82	1'10	1'48	0'76	...	...
	{ Average ...	4'06	4'59	2'33	3'78	1'29	0'69
<i>Ahmednagar.</i>							
Ahmednagar ...	{ 1918 ...	1'52	0'71	0'47	4'15	0'78	0'02
	{ Average ...	4'73	3'51	2'88	6'62	2'76	0'82
Shrigonda ...	{ 1918 ...	1'52	1'40	0'26	1'80	0'85	0'08
	{ Average ...	3'68	2'34	2'18	5'54	2'73	0'92
Karjat ...	{ 1918 ...	0'10	0'90	...	3'49	0'40	2'75
	{ Average ...	4'11	2'63	2'90	6'17	2'31	0'74
<i>Poona.</i>							
Poona ...	{ 1918 ...	0'31	1'02	2'30	3'01	1'74	1'11
	{ Average ...	5'67	7'67	3'77	4'70	4'04	0'99
Dhond ...	{ 1918 ...	0'18	0'87	0'04	0'86	0'96	1'79
	{ Average ...	3'77	2'80	1'90	5'09	2'14	0'73
Indapur ...	{ 1918 ...	1'47	0'43	0'36	2'28	0'92	0'67
	{ Average ...	3'54	2'57	2'50	6'34	3'42	0'97
<i>Sholapur.</i>							
Sholapur ...	{ 1918 ...	10'40	1'29	1'21	13'91	...	0'88
	{ Average ...	4'75	4'28	4'74	7'57	2'93	0'87
Karmala ...	{ 1918 ...	8'42	1'21	0'70	10'32	2'44	0'90
	{ Average ...	4'14	2'99	3'15	6'94	2'69	0'98
Malsiras ...	{ 1918 ...	6'59	1'44	0'08	7'80	1'09	1'35
	{ Average ...	2'80	2'55	2'04	6'27	2'93	0'87
<i>Satara.</i>							
Satara ...	{ 1918 ...	1'11	3'17	5'04	0'95	0'38	2'77
	{ Average ...	6'88	14'07	7'75	4'29	3'56	1'14
Man ...	{ 1918 ...	0'76	0'43	0'11	2'80	0'64	2'04
	{ Average ...	3'21	2'27	1'82	5'50	3'00	0'77
Khanapur ...	{ 1918 ...	1'42	0'28	1'91	3'56	0'25	0'89
	{ Average ...	3'47	3'99	2'84	5'22	3'40	0'75
<i>Bijapur.</i>							
Bijapur ...	{ 1918 ...	0'67	0'42	0'10	3'02	0'03	0'32
	{ Average ...	3'36	2'64	3'01	6'26	3'93	1'38
Indi ...	{ 1918 ...	1'37	0'95	1'28	5'22	0'08	3'30
	{ Average ...	3'70	2'95	4'14	6'63	3'55	0'98
Bilgi ...	{ 1918 ...	1'11	0'12	0'45	5'90	0'33	4'67
	{ Average ...	3'23	2'03	2'44	5'81	3'26	0'76

APPENDIX 1—contd.

District and Station.		June.	July.	August.	September.	October.	November.
<i>Belgaum.</i>							
Belgaum ...	1918 ...	2'13	4'42	9'46	2'94	1'05	1'95
	Average ...	8'26	16'92	9'52	4'95	4'76	1'31
Gokak ...	1918 ...	4'72	0'19	1'39	2'98	1'97	4'32
	Average ...	3'45	3'06	2'71	3'87	5'25	1'35
Athni ...	1918 ...	2'65	0'05	0'20	4'37	0'35	2'39
	Average ...	3'17	2'85	2'98	5'55	4'24	0'96
<i>Kathiawar.</i>							
Rajkot ...	1918 ...	0'55	6'08	0'69	1'55	...	...
	Average ...	4'40	10'54	5'49	3'90	0'35	0'26
<i>Rewahantha.</i>							
Pandumewas ...	1918 ...	1'30	1'66	8'01	1'79	...	...
	Average ...	7'81	13'51	8'59	4'89	1'91	0'10

APPENDIX 2.

(Referred to in paragraph 16 of the Resolution.)

REPORT OF THE COMMITTEE

OF THE

BOMBAY PRESIDENCY FAMINE RELIEF FUND.

(Without appendices.)

Throughout the war among the many difficulties and anxieties it is to be doubted if any caused the Government of India and the local Provincial Governments more apprehension than the possibility of a bad season, as large quantities of fodder and food-grains were exported from India for military requirements to many of the seats of war, and in some cases to help the Allies of Great Britain even for their Civil requirements. However, the monsoon failed at last, but, luckily by the time that the monsoon definitely proved a failure, the war had also come to an end. The situation which would thus otherwise have been almost beyond the resources of the Government to deal with during the war period became comparatively tractable. If it had occurred the year before or if the war had continued another six months it might have paralyzed the operations in Mesopotamia and caused much greater hardships to the masses of the people in the affected provinces of India. Before considering the adequacy or propriety of the measures taken to deal with the situation which had arisen, it is well exactly to state what the situation was. The population of the Indian people is at a low estimate 320 million souls. Taking the usual calculations it requires 64 million tons of food-grains to feed them. In his recent speech in the Imperial Council the Hon'ble Mr. Mant, Member for Revenue and Agriculture, pointed out that in wheat and rice alone the deficit last season was estimated at 15 million tons. The total deficit it may be assumed was at least 20 million tons, that is to say, crops which normally would have fed hundred millions of people either were not sown or failed to mature. Mr. Mant said that the failure in some provinces was at least as wide spread as in 1899 and Mr. C. A. Innes, the Food-stuffs Commissioner, observes in his Report that the last famine was unprecedented for thirty years. This serves to indicate the gravity of the situation. The deficit could only be made up by drawings on reserve stocks, by exercise of economy and by importations from abroad. The problem was, however, further complicated in each of these respects. A full and efficient use of reserve stocks pre-supposes ample and rapid transport, whereas the rolling stock on practically all Railways had become greatly depleted owing to military exigencies and the impossibility of securing renewals and even repairs.

Economy in such cases is enforced by high prices or a reduction in purchasing power. The purchasing power of the people was higher on the whole than in 1899, but even to this purchasing power of the masses there is a limit, and this limit was very fully reached at least in the Bombay Presidency before the end of 1918, that is, at the commencement of the period of scarcity and famine which necessitated the starting of the Bombay Presidency Famine Relief Fund.

Appendix (A) gives a table of rainfall in the various districts of the Bombay Presidency during the monsoon of the year 1918. The principal districts affected were as under:—

Cutch.	Kathiawar.	Kaira.	Ahmedabad.
Panch Mahals.	Broach.	West Khandesh.	Thana.
Ahmednagar.	Part of Satara.	Rewa Kantha Agency.	Nasik.
Poona.	Ratnagiri.	Kolaba.	Surat.

The first four of these were stricken by famine, and the others suffered either wholly or in part in patches from acute scarcity.

Appendix (B) gives a statement of prices of food-grains in the Bombay Presidency in December 1918 as compared with the prices prevailing before that period. The phenomenal rise in prices of food-grains and other necessaries of life in the Bombay Presidency brought about either directly or indirectly labour troubles in the chief centres of industry in the Presidency. The Mill-hands of Bombay numbering well over 1 lakh went on strike in the month of February, and this strike which lasted for nearly a fortnight terminated only on the intervention of His Excellency the Governor of Bombay. Similar restlessness was perceived in other parts of the Presidency and it was clear at an early stage that efforts would have to be made on a fairly large scale to supplement Government measures for not only affording relief to the famine stricken but also for making food-grains at the cheapest possible rates available to the people of the Presidency.

Leading citizens of Bombay requisitioned the Sheriff of Bombay (the Hon'ble Mr. Mahomed Hajibhoy) to convene a meeting of citizens of Bombay for the purpose of starting a Famine Relief Fund and of organising a Committee to distribute the same. In accordance with the requisition a public meeting of the citizens of Bombay was held at the Town Hall on the 29th November 1918 under the Presidentship of His Excellency Lord Willingdon.

Appendix (C)* gives a full report of the meeting. Appendix (D)* gives the names of the Members and other Office Bearers of the Committee appointed at the meeting.

The first and foremost problem that confronts a Committee organised to run a Famine Relief Fund is the collection of money, and as a good beginning in that direction had been made by philanthropic citizens at the Town Hall meeting where Rs. 2,13,000 were announced by His Excellency the Governor of Bombay as having been promised, the Committee set at once to start relief operations. The total contributions received amount to Rs. 11,47,831-7-1 as per Appendix (E)*. Where everybody may be said to have paid generously and almost without any special efforts to ask for subscriptions, it may be invidious to single out any particular donors for special mention here. However, the following contributions deserve special mention for reasons which will be obvious:—

	Rs.	a.	p.
The Western India Turf Club being proceeds of a special racing day	1,82,719	0	0
N. M. Wadia, C.I.E., Charity Fund	75,000	0	0
Indians in Uganda Protectorate	9,000	0	0
Indians in Japan	3,549	8	0
Collection made by a special contribution list in "The Gujerati"	8,480	8	0

Besides the above, several public spirited citizens of Bombay gave large sums at the start and also extended their generosity a second time by a further donation when in February 1919 the Committee decided to ask for a second contribution from the public at large.

The Indian People's Famine Trust, Delhi, very generously gave Rs. 3 lakhs to this Fund besides lending without interest Rs. 1 lakh for purposes of financing the grass and grain that was being moved in comparatively large quantities to the affected areas.

The Executive Committee desire to express their cordial thanks to all the contributors to this Fund and wish particularly to refer to people who sent small sums voluntarily to the Honorary General Secretary and Treasurer. The amount realised by such small sums under Rs. 50 comes to about Rs. 4,030.

It was decided to organise District Committees in the various affected parts and to this end necessary steps were taken. As during a period of famine Executive Government Officers in affected parts are generally very busy, it was decided to entrust the work of organising District Committees and of distributing relief to non-officials as far as possible with the co-operation of Révenue Officers.

Appendix (F)* gives the names of Members of such Committees formed in the various districts and generally gives details regarding the channel through which this Fund's help was distributed in each district.

It was not necessary to organise Committees in Cutch as leading citizens of Bombay coming from Cutch had from the very start organised relief work in their own native places partly with their own money and partly with money collected by them from their friends in Bombay. But there were places in Cutch where the distress was keen and from where nobody of standing or great influence happened to be in Bombay. The Committee turned their attention to such places and distributed relief there in the first instance. To this end Mr. Khattao

Valji of Manjal, Cutch, volunteered his services for relief in Waghad and Rs. 25,000 were spent through him. Besides this Rs. 16,000 were given to Mr. Vallabhdas Hirji for relief work at Nalia and fair quantities of rice were supplied to reliable gentlemen that applied for same for sale at cost price in Cutch.

In the Colaba and Ratnagiri Districts no Committees were organised as no applications for help from non-officials came from those districts. In the month of May, however, Mr. C. S. Deole of the Servants of India Society very kindly offered to go round the Ratnagiri and Kolaba Districts to report on the condition of the people there. He particularly eulogised the very satisfactory arrangement made by Mr. S. M. Bharucha, Collector of Kolaba, for supply of rice in that district and also gave satisfactory report regarding the charitable Fund that Mr. Bharucha had started to supplement Government doles in his district. In fact Mr. Bharucha did the work of a non-Official Committee for his district on his own and his efforts in this direction deserve all praise.

The Committee gave Mr. Bharucha Rs. 5,000 towards the charitable Fund that he had started and from various reports received by the Committee it would appear that Mr. Bharucha ran the official famine relief operations in his district with great success and also managed to start the work that is ordinarily done in districts by non-Official Committees. Mr. Deole had one or two minor suggestions to offer to Mr. Bharucha through this Committee and these suggestions were at once complied with.

The Collector, Ratnagiri (Mr. C. G. Henderson, I.C.S.), applied to this Committee for a grant to supplement the Government doles and Rs. 5,000 were voted for this purpose. Mr. Henderson returned to this Committee the unexpended balance of Rs. 4,391.

The Executive Committee wish to express their appreciation of the valuable help given to them by all District and Taluka Committees and also by Government Officers and non-official leaders of the people in the affected parts. They also wish to mention here the assistance given to them by various Missionary Societies, notably, the Salvation Army, which rendered useful assistance in distributing relief.

It has been recognised before now that a fodder famine is comparatively very difficult to deal with. This is particularly so in a cattle-breeding tract like Gujerat, for it gravely imperils agricultural resources, and makes complete recovery from its effects a matter of years. At the very start of its operations the Committee received a practically endless number of applications for supply of fodder. These came not only from Gujerat and Kathiawad but from the Deccan also. The price of grass in the beginning was very nearly double of what it was in December 1911 and owing to this, besides applications for supply of grass, the Committee received appeals for sale of grass at rates which could be well within the means of cattle-owners, both agricultural and others in the affected parts. It, therefore, became necessary for the Committee to buy large quantities of grass wherever available, but it was incumbent on it, at the same time, to buy grass in centres where the operations would not clash with (1) Government requirements for military purposes and (2) with transport facilities for military purposes and for purposes of carriage of grain to the affected parts. In the Bombay Presidency the Government of Bombay declared certain areas between the stations of Palghar and Surat as areas restricted for purposes of removal of grass. Large quantities of grass were being exported from this area by the Government of Bombay through the Special Grass Officer to the affected parts, and this Committee took particular care to ensure that the concessions that the Government of Bombay were prepared to give to this Fund for the removal of grass to the affected areas were not so used by them as to impede these Government operations. The Committee therefore turned their attention very early to purchase of grass from other grass centres in India. Special applications were made through the Bombay Government to the Military Department of the Government of India for release of stocks held by that Department, and the requests were supported by the Bombay Government and met with a certain amount of compliance on the part of the Military authorities. Appendix (G) gives a complete list of the persons and places from whom and at which or through whom grass was bought by this Fund and the places to which it was moved. The Railway authorities generally, and the Executive Officers of the Great Indian Peninsula and the Bombay, Baroda and Central India Railways in particular, gave every possible facility and convenience to the Officers of this Fund for removal of grass to the affected parts. Considerable difficulties and delays were feared by this Committee in their grass operations as a good deal of the grass had to be bought at distances which were as far away as eight hundred miles from the place where the grass was required. It is only fair to mention that the Government of Bombay uniformly helped the Committee in every direction that the Committee asked for help and were keen on complying with any request that the Fund made to them in the direction of speedier movement of grass to the affected areas. No suggestion of this Committee ever went unheeded by the Government and if there have been delays in getting to this Fund the concession rate on freight for grass, the Committee are satisfied that the Government of Bombay are not responsible for it.

Concession rates for movement of fodder by rail were not sanctioned at the commencement of the famine as in 1911-12 for reasons which the Government of India have not yet made public. But the Committee of this Fund felt very soon after the commencement of their grass operations that it was very necessary, looking to the very high prices of fodder prevailing, that concession in fodder freights should be made available to the affected areas under certain general restrictions if necessary. Applications to this end were submitted

through the Government of Bombay to the Government of India in the Revenue and Agricultural Department and this Committee are pleased to be able to report that such concessions were eventually granted to them. But it must be observed that if these concessions had been sanctioned in the earlier stages of the period of famine very useful additional work would have been accomplished and grass could have been sold at rates lower than was actually the case. In view of the long distances from which the major quantity of the grass had to be imported, the amount of Railway freight concession made quite a substantial difference to this Fund and if it had the concession when the grass was actually moved the relief to the cattle would have been greater; for it could have been so much cheaper to the owner of the cattle. As these concessions were only sanctioned by the Government of India after considerable delay, though with retrospective effect no doubt in some cases, the full benefit of the concession has not been fully availed of by the affected parts. As a matter of fact in some cases applications for refund are still before the Railway administrations concerned, and a good deal of the surplus in the hands of this Committee, as to-day, is due to the refund received from Railway companies on the basis of the fodder freight concession rates as sanctioned by the Government of India.

Owing to continued great pressure on the Railway lines everywhere, all the districts in the affected areas which commanded seaports or bunders were asked to import fodder by sea; and even where transport by rail meant economy in freight, as far as possible no district which could import grass by sea was allowed to import it by rail unless for some very good reasons.

Pinjrapoles, Gowshalas, and other institutions working on similiar lines were very persistent in their applications to this Fund for supply of grass even at full cost price rates. The Committee referred all such applications to the Collectors of the Districts concerned and refused help to such institutions at the start. The claims of such institutions were however so insistently pressed by people in the districts concerned, that it became incumbent upon this Committee to look into all such demands closely. It transpired on full inquiry that most of these institutions had in spite of the unwillingness of the managers thereof become the refuge of cattle of all qualities in those parts. The Committee therefore suggested to Government that applications for grass to Pinjrapoles and similiar bodies should not be turned down absolutely but that a practical method of ensuring that the Pinjrapoles, which were allowed to import grass, used it to the best effect, should be laid down. It was suggested that the Veterinary Department of the Government of Bombay should have a special report prepared regarding the condition of Pinjrapoles in the affected areas by sending Inspectors who would report on the existing state of affairs and lay down certain rules for the guidance of the managers of such institutions. On these rules being assured of compliance, the Committee suggested that Pinjrapoles and Gowshalas should be allowed to import grass in quantities that might be suggested by the Inspectors of the Veterinary Department. The Committee felt that as most of the Pinjrapoles and Gowshalas commanded subscriptions of money from sources which could not be tapped otherwise, it was hardly discreet to let these sources of financial help in the direction of saving cattle in the affected areas go unused. With this aim in view 4,36,273 lbs. of grass and husks were supplied at cost price to the Ahmedabad Pinjrapole at a period when the Pinjrapole was in a very sad plight regarding feeding even the useful cattle in it.

One of the main features of the present fodder famine was the great encouragement that it afforded for the purpose of popularising cactus as a species of fodder. This was tried in almost every district with considerable success, but the Committee felt it could only be used by degrees for cattle not accustomed to cactus, and therefore grass was made available as a preference to districts where cactus was used. Various Press Notes and Reports issued by Government give very full accounts of the places where cactus was tried with success and it is hence not proposed to repeat all this information here. The Committee particularly helped the experiment of cactus as fodder in the Panch Mahals through the Salvation Army, in the Poona and Nasik Districts through the Local District Committees. Besides this in the Ahmednagar District the Committee concentrated its attention on supply of grass for the cattle of that district as the Collector of Ahmednagar had vigorously taken up the task of popularising cactus as fodder.

The most interesting and useful work during the period has been the experiment of growing fodder on the Bet in the Nerbuda by means of irrigation with water pumped from the river. This possibility was first brought to the notice of the Committee by Mr. Haribhai Zaverbhai Amin of Broach and it should be mentioned to the credit of the Government of Bombay that they very promptly sanctioned the experiment which in many respects obtained a considerable measure of success as stated in the Report of the Director of Agriculture and remarks of the Mechanical Advisor to the Government of Bombay given in Appendix (H). Had this experiment not been tried, this Committee would have had to send at least ten lakhs lbs. of additional grass to the Broach District involving a loss of not less than Rs. 5,000. Besides this the Government would have had to send considerably more grass than they actually did and the loss that the Government bore on every thousand lbs. of grass that they imported into the Broach District was about Rs. 12 per thousand lbs. The Committee feel that this source of supplementing the actual grass supply available in a year of scarcity of fodder should be fully investigated by the Government without any delay so

that in any future year of scarcity the machinery necessary to grow the largest quantity of green fodder on such spots can be put into motion at the earliest moment and with the best possible results.

Another important factor that engaged the attention of the Committee was the question of looking after the cattle of rabaries of Gujerat and Kathiawad. The rabaries in these parts have the reputation of being in possession of cattle of the best breed and it was reported that it would be a great calamity if they were not given any relief. It was found to be very difficult to get into touch with rabaries of the right sort everywhere and the Committee decided to go by the experience of 1911-12 and to give help in the first instance to organisations which could be relied upon to distribute relief to really needy rabaries. Mr. Mangaldas G. Parekh of Ahmedabad applied to this Committee for some help towards the cattle kitchen that he was conducting in Ahmedabad at his own expense. The Committee was informed that useful cattle belonging mostly to rabaries were being fed at Mr. Mangaldas's cattle kitchen and as his greatest difficulty was the procuring of grass, the Committee agreed to supply him with grass and to give him a reduction of Rs. 5 per 1,000 lbs. on the cost price. According to this arrangement 15,35,626 lbs. of grass were supplied to Mr. Mangaldas and the loss borne by the Committee on it amounts to Rs. 7,678-11-0. The next important work that was not only helped but actually initiated at the instance of this Committee was the starting of grass depots at Botad, Ningala and Vinchhia by Mr. Revashanker Jagjivan of Bombay for the cattle of rabaries in the surrounding districts, this part of Kathiawad being reported to be the stronghold of rabaries generally. Mr. Revashanker who had taken great pains in the fodder scarcity of 1911-12 and 1915-16 to organise relief for rabaries' cattle in Kathiawad came forward this year also in spite of his indifferent health, with the assistance of Mr. Purshotam Mawji Vakil of Rajkot and Mr. Becharadas Kalidas of Botad to open grass depots in the centres named above. The Committee placed at Mr. Revashanker's disposal a sum of Rs. 25,000 at the start and supplied him with 30,78,060 lbs. of grass. Mr. Revashanker collected Rs. 19,200-8-0 more from his friends and charitable institutions. Appendix (I)* gives an extract in English from the report of the operations conducted by him.

Owing to great difficulty in making grass available to people who were prepared to pay for it at cost price and at small reductions, the Committee were not advised by any of the District Committees to start cattle camps or cattle kitchens in any part of the affected areas. Supply of fodder at cost price or at cheaper rates was, therefore, the only channel of help undertaken in the direction of cattle relief, besides helping experiments of cactus feeding.

Cotton Seed-husks.

Ten lakhs, thirty-seven thousand and forty-six pounds of this was supplied to various parts of the affected areas as per Appendix (J). All this was bought from the Indian Cotton Oil Mill of Navsari and more of this was not despatched because more was not available, the Mill not being able to get sufficient cotton seed to cope with the demand of husks, owing to restrictions on booking of cotton seed off and on from the Berars to Navsari. The Committee desire to express their appreciation of the manner in which the Hon'ble Mr. G. K. Parekh, connected with the firm of the Agents of the Oil Mill, did his best to meet the requirements of the Committee as far as practicable.

Human Relief.

This can be divided as under :—

- (1) Cheap Grain Shops,
- (2) Clothing,
- (3) Doles,
- and
- (4) Relief to families too respectable to beg or to accept help publicly.

The most important of the Committee's activities under the heading of Human Relief is the opening and running of cheap grain shops, particularly of cheap rice shops. On the starting of this Fund several applications that came in asked for grants to enable the applicants to sell grain at a cheaper rate than ordinarily prevailing at each place. It appeared to the Committee impossible to be able to give even slight relief to these applicants with the funds then at their disposal. On enquiry made through the various District Committees of the rates at which grain was being sold in their districts and of the concession that they proposed to give with the grants they asked for, it appeared that at most of the places grain was selling dearer than the controlled rates and at some places this higher price was due to want of regular supply of the required quantity of grain per week or per month. The Committee, thereupon, decided to move grain to the affected areas direct from the market centres without the intervention of the usual middle men. On going into figures, it appeared that, if this was done, grain could be sold at most of the places from which applications were received for grants to run cheap grain shops, at rates lower than the rates at which the applicants wished to have the grain sold. The Director of Civil Supplies, Bombay, was approached with these facts, and he readily offered to help the Committee as far as possible under the difficult circumstances prevailing at the time, and the first consignments of rice thus despatched caused great joy at the centres to which these consignments were despatched. Practically everywhere all grain despatched by this Committee was sold at actual cost price

* Not printed.

plus out-of-pocket expenses, and the Committee bore no loss on these operations. An application was made to the Director of Civil Supplies to allow the Committee to import rice direct from Burma and this was granted with an allotment of 10,000 tons per month with a special privilege to have this Committee's consignments booked at the earliest opportunity available. Appendix (K) gives the total quantity of rice, bajri, and wheat thus handled by the Committee and Appendix (L) gives the rates of rice prevailing at some selected places before this Committee's operations in rice commenced there as compared with the rates ruling there subsequently. It is necessary to mention here the great assistance given to this Committee in their rice operations by Mr. Kanji Dwarkadas Mattani of Bombay, by Messrs. Tata Sons and Company and Messrs. Steele Brothers, who helped the Honorary General Secretary with their valuable experience and guidance. Mr. B. F. Madon, and Mr. A. B. Mehta, Messrs. Tata Sons' Agent in Rangoon, were particularly keen in doing their level best on behalf of their firm to assist the rice operations of this Fund.

The question of reduction in the amount of sea-freight charged for rice from Burma to Bombay was considered by the Committee very early and applications were made to the authorities concerned to have this charge reduced. The freight which was Rs. 55 per ton earlier in the year was put down to Rs. 24 per ton (including the rebate of Rs. 3) but the lowering of the rate by instalments was in the opinion of the Committee a tardy recognition of the necessity of Burma rice to the Bombay Presidency as an article of food very badly needed during this year.

In June when there was a heavy congestion in the Bombay Docks of rice imports from Rangoon, the Director of Civil Supplies enquired whether the Famine Fund would help him by taking up and stacking as much of the rice lying in the Docks as possible. The Committee applied for, and got necessary stacking place at one of the commodious grain sheds in the grain depot of the Bombay Port Trust and in all 93,320 bags of rice were removed from the Docks and paid for and stacked in grain depot "A" shed. The financing of this quantity which necessitated locking up of more than eleven lakhs of Rupees was possible owing to Messrs. Narandas Rajaram and Company advancing about seven lakhs of Rupees to the Fund free of interest. The rice was fully insured against fire, and considerable credit is due to Mr. Purshotam Jivan, Mulkadam to this Fund, for the despatch with which he removed the bags from the Docks and stacked them in the grain shed, suitably protected against damage by rain. This large stock at the disposal of the Committee very considerably assisted the Committee in meeting with demands for rice from all sides from May onwards. The Traffic Superintendents of the B. B. and C. I. and G. I. P. Railways supplied waggons for the removal of rice from the grain shed to the affected areas as required and the Committee feel that without the assistance of the Port Trust and Railway authorities this work of stacking and removal of rice would have been very difficult.

Organisation of Cheap Grain Shops in the Districts.

As the rice supplied by this Committee was made available, when work was commenced at prices cheaper than those prevailing in the districts to the extent of three to four rupees a bag, special precautions had to be taken to ensure that the rice reached actual consumers in the districts at as near cost price as possible, and preference in the supply of rice was given to Municipalities and Local Boards running cheap grain shops. Wherever such recognised bodies were not available, District Committees and Taluka Committees were supplied with rice. For places where there were no District Committees or Taluka Committees, rice was supplied on the recommendation of the the Local Government Officer to Committees consisting of leading non-official persons on an agreement that the Local Committee would bear all expenses in connection with the shop and staff required to sell the rice, and would even finance the rice free of interest. Wherever the local men thus selected were not known to the Honorary General Secretary or to some Members of the Committee, a deposit of from Rs. 1,000 to 5,000 was taken in token of their *bona fides*, from the persons asking for rice from this Fund. The Committee are, on the whole, satisfied that their rice has reached the consumer with the minimum of charges, e.g., Railway Freight, cartage and loss in transit. In one case where at the commencement of operations it was discovered that a person was trying to sell rice at higher prices to merchants for export elsewhere, all the balance of rice bags in the hands of that person was taken charge of by a representative of this Fund and a substantial amount was levied on that person as a refund of the approximate profits made as a result of the breach of faith.

The relief afforded in places where this Committee's rice was sold was immense. The Committee did not, and could not, supply the whole of the local demand at the lower price, but their operations did compel local grain merchants to sell their own stocks at considerably lower rates than they used to charge before rice was placed on the market from this Fund. Appendix (M) gives details regarding the rice purchases and the places where rice, bajri and wheat were sold and the channels through which it was sold. Appendix (L) gives details showing the differences between the selling prices of this Committee's rice and of rice held by dealers in the affected parts. In some cases the difference went as high as Rs. 4 to 6 a bag. The lowering of the prices of rice wherever this Committee could put some on the market was general, and it has been mentioned to the Committee that the 4,55,000 bags of rice handled by this Committee meant a saving of anything over Rs. 25 lakhs at least all over the various parts of the Presidency where this Committee's rice was sold. The Committee have on record letters from Government Officers, and private individuals of

standing, in the affected areas assuring the Committee that their rice operations have saved the situation in most of the places and that at some places food-riots were actually said to have been nipped in the bud owing to timely supply of rice from this Committee.

This part of the Report would be incomplete without a reference to the private individuals who in some of the affected areas devoted their time and whole-hearted energy in procuring rice from the Committee, financing it themselves and organising the sale of it to large numbers of the poorest in each place for a period of nearly six months. Much of the good by this Committee's supply of rice may be said to be due to the co-operation of these gentlemen.

The following are the names of places where large quantities of rice were made available particularly owing to the keenness of the organisers of the local shops and owing to their earnestness in carrying on the work of such relief :—

	Bags.
Cambay: Mr. Keshavlal Lallubhai ...	12,394
Ahmedabad: Mr. Mangaldas Girdhardas Parekh ...	29,388
Nandurbar for Akrani: Mr. D. P. Ginwala ...	4,350
Nandurbar local: Mr. Bhailal Purshotam ...	2,750
Sedbal (Belgaum District): Mr. Morarji Rupji ...	1,950
(Dharwar District), Alnavar: Revd. Cotta ...	1,250
Rajpipla State: Mr. Maganlal T. Vyas ...	7,325
Sinnar: Mr. K. G. Kale ...	13,297
Khandala, Katkari Settlement: Kune per Brother Zimmer ...	2,010
Lonavla: Dr. J. C. Mehta ...	1,250
The Poona District: Mr. Krishnadas Goverdhandas Madiwala ...	24,104
Various parts of the Baroda State ...	28,615
Borsad: Mr. Jethalal Premanand ...	27,488
Surat and surrounding places: Seth Motiram Raghavji ...	16,765
Bulsar: Khan Saheb Cowasji Dhanbhura, Mr. Bhagvan- das Vrijbukhandas, and Mr. Maganlal Raychand ...	41,167
Chikhli: Seth Ghelabhai Premananddas ...	12,026
Umbergaon and Sanjan: Mr. Vandravandas Gandabhai ...	7,800
Borivli: Mr. Mulji Karsondas ...	9,100
Amalsad: Mr. Lallubhai Pragji ...	25,095

These gentlemen belong to the mercantile community and a good deal of economy in running the shops and the businesslike methods in which these shops were run are due to the keen interest that they took in the organisation and conduct of their respective shops. It has not been the experience of this Committee that gentlemen of the standing of those named above take any prominent part in famine relief operations as a rule. The necessity of charitable famine relief operations being left in non-official hands is easily proved if the same can attract towards co-operation and active work, gentlemen of the class named above.

Such whole-hearted co-operation could not but encourage the Committee to continue their operations with the utmost zeal, and the Committee wish to record here their cordial appreciation of the assistance thus given to them in this part of the work by persons who usually have the reputation of leaving such public spirited work severely alone.

In this connection it is the duty of this Committee to note with satisfaction the organisation that was started by Mr. S. M. Bharucha, Collector of the Kolaba District, for distribution of rice in his district. The Kolaba District is a rice-producing district in normal times and the condition of the people there is more than difficult owing to that part of the Presidency not being accessible by Railway and being closed to marine transport during monsoon months. In spite of the organisation being under the direct supervision of the Collector, the Committee were informed that rice was available at one uniform rate all through the district, and they have no hesitation in concluding that but for Mr. Bharucha's very great personal interest in looking after stocks of rice being made available to the people, the district would have suffered very heavily by very extraordinary high prices.

A reference should also be made to the extremely useful and inspiring self-sacrifice of student volunteers at the Committee's shop at Bulsar. About twenty college and high school students residing in Bulsar offered during their May vacation to assist in conducting this Committee's cheap grain shops there. All these volunteers toiled incessantly during the whole of their vacation period at the shop at Bulsar counting small change or issuing receipts or otherwise controlling and keeping in order the big crowd of two to four thousand people that gathered together daily there, for making purchases of rice.

To the Ahmedabad District Famine Relief Committee and Seth Mangaldas Girdhardas of Ahmedabad, who conducted cheap grain shops in the Ahmedabad District practically independent of this Committee, the sole source of procuring rice was this Fund. 29,388 bags of rice to Sheth Mangaldas and 16,702 to the Ahmedabad Committee have been supplied and both of these have expressed their great indebtedness to this Committee for supply of rice which enabled them to carry on their operations on a considerable scale and to the great relief of the people in that District.

The Municipalities of Ankleshwar, Jambusar and Ranebennur and the Local Board of the Broach District got their rice from this Fund also and these bodies inform the Committee that their cheap grain shop operations were mainly dependent on the supply of rice from this Fund.

Clothing.—Of the various needs of the poor people during the period of famine, none was greater than that of clothing. The continually rising prices of clothing generally for a period of about eighteen months before the advent of famine had already made the question of clothing a very sore one to the poor classes. It is therefore but natural that during the period of famine clothing should be a real want to all the poor and lower middle classes in the affected areas. Very touching appeals also came from Missionaries and others, working on Famine Relief Works. From some of the Relief Works in the Ahmednagar District and from villages in other parts of the affected areas came very moving descriptions of how women were prevented from going out to work owing to the bare necessities of saries, being above their means. It appeared to the Committee that the supply of clothing should be undertaken on a large scale from Bombay.

The Bhattia Volunteer Corps in Bombay had organised before this Fund came into existence collections of funds and supply of clothing to the affected areas. They offered to co-operate with this Fund in distribution of this form of relief, and it was arranged that that body and this Committee should work in close touch with each other. Rupees ten thousand were given as a donation to the Committee of the Bhattia Volunteer Corps to enable them to carry on their operations in the month of February. To ensure the utmost economy in the cost of supply of clothing the Committee applied to the Railways concerned for free carriage of clothing parcels that might be sent by or through this Fund to the affected areas. The B. B. and C. I. and the G. I. P. Railways gave the concession readily and all parcels of clothing were thus carried to the affected areas free of cost. The Committee approached the Chairman of the Bombay Millowners' Association with a request that each Member of that Association might be requested to give a donation of two bales of cloth or yarn to this Fund free of cost. This request was made on the 28th February 1919 and the Managing Committee of the Bombay Millowners' Association complied with the request of this Committee very readily, 137 bales of cloth and yarn were thus made available free to this Committee as per Appendix (N). All these were despatched by June and the Committee had to approach the Millowners' Association again in the month of July with a request that the donation so kindly given earlier in the year might be repeated. The Committee readily recommended this to their Members and 62 additional bales were again placed at the disposal of this Committee by the generous Mill Agents of Bombay. The quality of cloth or yarn given in each case was suitable for the purpose the Committee had in view, and the most sincere expression of gratitude is due to the donors of these bales for the ready and willing manner in which they responded to the Committee's request. Mr. Dhirajlal C. Modi, an assistant in the Firm of Messrs. Narandas Rajaram and Company, attended to the collection of bales of yarn and cloth from Bombay Mills and to the despatch of the same to the affected areas, and showed great earnestness and zeal in the discharge of the work he had undertaken as a labour of love. Appendix (O) shows the amount of clothing that had to be bought from the bazaar owing to the special qualities of saries, etc., required in some of the affected areas not being available from Bombay Mill Agents.

Doles.—The question of doles was one that required the Committee's attention to a certain extent. The most difficult question, however, was the problem of helping the middle class that was too respectable to beg and yet needed considerable help owing to high prices and famine conditions prevailing generally. Any assistance to be given to this class had to be given in a comparatively confidential manner. The Committee could undertake this, therefore, only in such places where they had local men that could be absolutely relied upon to distribute confidentially help of this nature. Every effort was made to make relief available where applications came from such quarters and although it has not been possible to distribute much relief in this direction the amount that was thus allotted has been reported to the Committee to have been well-spent.

The most notable work done in this connection was by the Bombay Women's Council under the Chairmanship of Her Excellency the Hon'ble Lady Lloyd. Mrs. J. B. Petit started a special Committee under this Council for the purposes of human relief in general and relief to women and children in particular in the affected parts.

The most welcome feature about this work is the part played by Hindu ladies, both Guzerati and Deccani, who went to the affected parts of Kathiawar and Ahmednagar. They travelled from village to village in the burning heat of April and May, and spent a large sum in giving relief after making personal enquiries on the spot. The work done by these deputations has been praised all round by officials as well as non-officials in the Districts concerned. The Honorary General Secretary of this Fund and Mr. N. M. Joshi were appointed to the

Famine Relief Committee of the Bombay Women's Council in order to see that no overlapping between the operations of this Committee and the Committee of the Women's Council took place. Similarly Lady Tata, Mrs. Petit and Mrs. Talyarkhan were requested to act as Members of the Executive Committee of this Fund to the same end. Both the representatives of this Committee were greatly impressed by the keenness and great pains taken by Mrs. J. B. Petit, the Honorary Secretary, and Mrs. F. S. Talyarkhan, the Honorary Treasurer of the Women's Council Famine Fund. As a separate report of the operations of that Committee is to be issued by the Women's Council, it is not deemed necessary to give further details regarding the valuable work done by it. But it may be remarked that had this work not been undertaken by the Women's Council so much more burden would have come on this Fund. As the Executive Committee of the Presidency Relief Fund, this Committee wish to record their great appreciation of the extremely self-sacrificing efforts of Mrs. J. B. Petit in the discharge of her task as the Honorary Secretary of the Women's Council Famine Relief Fund.

The question of supplementing by doles, etc., the wages earned by people on relief works was very thoroughly attended to. In the Ahmednagar District, most of the money required was paid by the Committee of the Women's Council. In the Panch Mahals Mr. Amritlal V. Thakker of the Servants of India Society organised during the months of April and May a system of volunteers from Colleges working on relief works and watching the conditions of the people there and giving them such help as was considered necessary. Mr. Motibhai Amin of Baroda kindly arranged for a number of volunteers (see Appendix P for their names) to assist in the work and these young men from Colleges are reported to the Committee to have rendered very useful service at great sacrifice of their time and comfort.

Wells.—Mr. A. V. Thakker asked for Rs. 300 for a pucca well at Heranj in the Kaira District and for Rs. 300 for a pucca well at Valukad in Kathiawar. Besides these Rs. 1,500 more were spent in Kathiawar through the Special Famine Officer, Kathiawad, as stated in the list of grants made for the Kathiawar District. All the money was spent out of the special grants received for wells from "In memory of Bai Jadav Widow of Gokuldas Uttamram" and "Mr. Vallabhdas Ranchoddas." The most important item however was voted to the Broach District Committee for the purpose of getting havadas or cattle troughs filled in the famine-stricken parts of that district. Rs. 10,000 was urgently required and Mr. M. S. Advani, the Chairman of the Broach District Committee, impressed upon this Committee the great necessity of making this sum available. It was pointed out that owing to scarcity of grass it was not possible for the usual kosias to work, as the question of upkeep of bullocks to draw the water was a sore problem. It was represented that unless substantial assistance was made available to the Broach District Committee in this direction the cattle in the villages concerned would suffer heavily. The Commissioner, N. D., was addressed by this Committee, but he expressed his inability to extend Government help in this direction as Government grants were being spent in measures for increasing or improving the existing water supply and the Commissioner had steadily refused to allow it to be diverted for the mere task of distributing an existing supply. On this reply being received, the Cotton Muccadums' Association of Bombay were approached and the Managing Committee of that Association readily put Rs. 10,000 at the disposal of this Committee. The whole of this amount has been spent in the Broach District through the Local Boards concerned and from the reports received, it appears that the help was timely and of great value.

Finances.—The finances of the Fund were greatly strained all through the period of the Fund's operations owing to the total turnover of the Fund having exceeded a crore of rupees in all. Out of the total collections of Rs. 11,47,831-7-11 up-to-date, Rs. 3,395-0-2 were received after 1st September 1919. The total grants as per Appendix Q voted out by this Committee are Rs. 11,33,126-14-11 out of which Rs. 43,895-8-7 were returned as unexpended balances after 1st October 1919.

The approximate amount of surplus on the hands of the Committee on the 31st December 1919 is estimated at Rs. 2,75,000 as under:—

Rs. 3,395-0-2 amounts received after 1st September 1919.

Rs. 43,895-8-7 refunded from grants voted after the above date.

Rs. 1,29,957-8-9 being the amount of claims, drawbacks and refunds received till 1st December 1919.

Besides these more than Rs. 1,00,000 represents the amount of savings made on the rice operations of the Fund (total 554,000 bags) owing to smaller actual charges in Bombay, and less wastage incurred in transit. The total saving of Rs. 2,75,000 named above is expected to be augmented by the amount of Railway Freight concession that still remains to be recovered from the various Railways under orders of the Government of India. The cost of printing and distribution of this Report and the cost of maintaining the staff until the operations are finally closed will have to be deducted from the surplus in hand. The disposal of the balance in hand will be done according to the decision of the Committee hereafter and this will be duly communicated to the public by a Press Note. Appendix R.*

* Appendix R. shows the final Balance Sheet of the Fund as audited up to 31st December 1919.

The Committee wish to acknowledge their thanks to all who have helped their operations in the various directions in which the help of the public both in affected districts as far as distribution is concerned and in Bombay as far as collection of money and purchase of grass and food-stuffs are concerned. Where so many have helped so whole-heartedly it may be invidious to name even a few. They would therefore content themselves with expressing their sincere appreciation of the efforts of all those who helped them so freely and so willingly.

The Committee would however like to mention the following gentlemen without whose help the work of the Committee would have suffered very materially. Mr. I. W. Stokes, Deputy Traffic Manager (Operative) of the Great Indian Peninsula Railway, rendered most valuable assistance to the General Secretary in the movement of rice from Bombay and of grass from various stations on the Great Indian Peninsula Railway. Mr. E. T. Robinson and Mr. G. D. Moore of the Bombay, Baroda and Central India Railway also rendered very valuable assistance in moving rice from Bombay to stations on the Bombay, Baroda and Central India Railway to the affected parts on the same line.

It is hardly necessary to add that without the cordial co-operation of these Officers the movement of rice to the affected areas would have suffered in a manner which would have greatly added to the distress already prevalent in those parts.

Mr. J. V. Varde, B.A., volunteered to work in the Office of the Honorary Secretary for a period of over seven months, absolutely free of charge and the quality of the assistance that he has been able to render in the office work of the Honorary Secretary has been of the highest order. He has absolutely refused to receive any remuneration for his labour of love and the Executive Committee passed a cordial resolution of their appreciation of Mr. Varde's public spirited work at the time of his retirement from such work in October last.

R. AITKEN,

BOMBAY, 27th January 1920.

*Chairman of a Meeting of the Executive
Committee held on 27th January 1920.*

PURSHOTAMDAS THAKURDAS,

*Honorary General Secretary
and Treasurer,*

J. K. MEHTA,
V. L. MEHTA,

} *Honorary Secretaries.*

APPENDIX 3.

(Referred to in paragraph 17 of the Resolution.)

Statement showing the numbers of persons relieved in the affected districts.

Month.	1918-19.					Total units.
	Relief workers.	Dependants.	Gratuitously relieved.		Total daily average.	
			Destitutes.	Village servants.		
<i>Ahmedabad.</i>						
November 1918 ... ..	.....	.....	.....	542	542	16,270
December " ... ..	.....	.....	.....	546	546	16,933
January 1919 ... ..	.....	.....	140	583	723	22,310
February " ... ..	.....	.....	822	594	1,416	41,092
March "	44	.....	2,390	613	2,949	83,228
April "	213	.....	4,371	659	5,243	153,096
May "	948	.....	5,297	705	6,950	170,188
June "	1,629	.....	5,064	750	7,443	218,710
July "	2,409	.....	5,136	730	8,275	221,042
August "	1,199	.....	2,265	439	3,903	111,336
September " ... ..	.....	.....	.....	18	18	540
Total average ... ..	.....	.....	.....	.....	.....	.....
<i>Panch Mahals District.</i>						
January 1919	1,120	366	15	.....	1,501	43,050
February "	4,752	2,965	403	.....	8,120	227,352
March "	11,610	7,310	2,332	204	21,456	750,912
April "	17,035	14,729	6,581	545	38,890	1,088,939
May "	16,301	15,520	5,054	735	37,610	1,017,369
June "	7,225	11,585	4,745	708	24,263	679,376
July "	2,781	4,893	8,058	733	16,465	461,026
August "	61	1,855	6,310	620	8,846	309,571
<i>Kaira District.</i>						
November 1918 ... ..	.....	.....	227	112	339	6,533
December " ... ..	.....	.....	1,741	308	2,049	47,653
January 1919 ... ..	.....	.....	3,505	1,154	4,659	111,953
February "	2	.....	6,311	1,588	7,901	195,351
March "	431	.....	8,555	1,784	10,770	320,020
April "	1,402	.....	9,665	1,904	12,971	289,189
May "	2,129	.....	11,316	1,814	15,259	483,825
June "	1,055	.....	10,945	1,912	13,918	328,222
July "	207	.....	7,262	2,221	9,690	223,996
August " ... ..	.....	.....	997	1,236	2,233	48,855

APPENDIX 3—contd.

Month.	1918-19.					Total daily average.	Total units.
	Relief workers.	Dependants.	Gratuitously relieved.				
			Destitutes.	Village servants.			
<i>Broach District.</i>							
January 1919	.....	.....	.....	775	775	24,025
February	392	.....	986	776	2,154	36,918
March	860	.....	1,828	781	3,469	119,388
April	1,540	.....	3,074	1,046	5,660	160,261
May	1,672	.....	4,086	1,041	6,799	235,199
June	784	.....	5,452	1,036	7,272	211,648
July	160	.....	5,475	1,033	6,668	191,484
August	.....	.....	3,750	1,036	4,786	143,658
<i>Ahmednagar.</i>							
November 1918	.....	.....	.....	.....	.....	.....
December	.....	.....	.....	1,851	1,851	44,803
January 1919	.....	.....	3,304	2,509	5,813	177,516
February	.....	.....	5,350	2,666	8,016	223,554
March	.....	.....	8,087	3,052	11,139	340,323
April	.....	.....	10,595	3,055	13,650	411,674
May	.....	.....	12,616	3,098	15,714	435,918
June	.....	.....	13,223	3,098	16,321	486,957
July	.....	.....	9,106	3,175	12,281	356,921
August	.....	.....	6,873	3,158	10,031	313,359
September	.....	.....	4,250	2,523	6,773	209,984
October	.....	.....	1,331	696	2,027	62,551
Total average	23,584*	11,095*	6,794	2,625	9,419	3,063,560	
<i>East Khandesh.</i>							
February 1919	.....	.....	49	188	237	6,636
March	.....	.....	264	188	452	14,012
April	.....	.....	412	647	1,059	31,771
May	.....	.....	525	733	1,258	39,809
June	.....	.....	588	737	1,325	39,750
July	.....	.....	592	799	1,391	43,121
August	.....	.....	437	731	1,168	36,208
September	.....	.....	7	747	754	22,620
Total average	.....	.....	359	596	955	233,127

* Represent total average daily number on several relief works opened from time to time.

APPENDIX 3—contd.

Month.	1918-19.					
	Relief workers.	Dependants.	Gratuitously relieved.		Total daily average.	Total units.
			Destitutes.	Village servants.		
<i>West Khandesh.</i>						
December 1918 ...	.....	.....	.....	989	989	30,659
January 1919 ...	.....	.....	95	1,832	1,927	59,737
February " ...	.....	.....	380	1,690	2,070	57,560
March " ...	.....	.....	2,437	1,865	4,302	133,362
April " ...	.....	.....	2,900	1,865	4,765	142,950
May " ...	.....	.....	4,019	1,865	5,884	182,404
June " ...	.....	.....	4,223	1,865	6,088	182,640
July " ...	.....	.....	4,093	1,895	5,988	185,628
August " ...	.....	.....	2,219	1,895	4,114	127,534
September " ...	.....	.....	.....	1,895	1,895	56,850
Total average ...	.....	.....	2,036	1,766	3,802	1,159,324
<i>Nasik.</i>						
December 1918 ...	.....	.....	.....	2,797	2,797	86,707
January 1919 ...	.....	.....	.....	3,149	3,149	97,619
February " ...	.....	.....	.....	3,149	3,149	88,172
March " ...	.....	.....	.....	3,149	3,149	97,619
April " ...	.....	.....	.....	3,245	3,245	97,350
May " ...	.....	.....	.....	3,245	3,245	100,595
June " ...	.....	.....	.....	3,245	3,245	97,350
July " ...	.....	.....	.....	3,245	3,245	100,595
August " ...	.....	.....	.....	.....	.....	.....
September " ...	.....	.....	.....	.....	.....	.....
Total average ...	.....	.....	.....	3,153	3,153	766,007
<i>Poona.</i>						
December 1918 ...	.....	.....	.....	1,399	1,399	43,369
January 1919 ...	.....	.....	.....	1,703	1,703	52,793
February " ...	5,244	1,365	1,400	1,744	9,753	194,935
March " ...	14,339	5,736	3,518	1,897	25,490	734,617
April " ...	12,952	3,508	6,838	2,136	25,434	677,619
May " ...	13,169	3,736	10,350	2,441	23,696	1,015,494
June " ...	10,246	2,713	10,622	2,496	26,077	730,279
July " ...	8,982	2,086	10,761	2,502	24,331	681,847
August " ...	5,257	1,061	9,251	2,518	18,087	611,794
September " ...	.....	.....	8,411	2,582	10,993	307,829
Total average ...	7,019	2,020	6,115	2,142	17,296	5,050,574

APPENDIX 3—contd.

Month.		1918-19.					
		Relief workers.	Dependants.	Gratuitously relieved.		Total daily average.	Total units.
				Destitutes.	Village servants.		
<i>Satara.</i>							
January	1919	.....	.....	740	555	1,295	32,367
February	"	.....	.....	2,060	680	2,740	76,694
March	"	1,251	396	2,582	1,334	5,563	176,235
April	"	4,098	2,002	2,110	1,073	9,283	259,930
May	"	3,577	1,892	2,588	1,236	9,293	325,280
June	"	1,501	709	3,109	1,315	6,634	176,918
July	"	.....	.....	3,003	1,343	4,346	143,403
Total average		1,489	714	2,313	1,077	5,593	1,190,827
<i>Sholapur.</i>							
March	1919	.....	.....	296	466	762	21,451
April	"	.....	.....	573	568	1,141	34,252
May	"	.....	.....	2,268	418	2,686	94,691
June	"	.....	.....	1,897	570	2,467	69,078
July	"	.....	.....	1,424	731	2,155	60,365
August	"	.....	.....	1,139	615	1,754	60,108
September	"	.....	.....	857	545	1,402	45,935
Total average		.....	.....	1,208	559	1,767	385,880
Names of the month.		Gratuitously relieved.		Total daily average.	Total units.		
		Destitutes.	Village servants.				
<i>Kathiawar Agency.</i>							
October	1918	.....	.....	.....	.....
November	"	345	2	747	2,242		
December	"	1,579	8	5412	16,776		
January	1919	1,862	47	9223	28,591		
February	"	2,315	140	1,6251	45,504		
March	"	4,970	259	3,4021	105,466		
April	"	10,035	677	7,5274	225,821		
May	"	13,739	824	9,9937	309,804		
June	"	15,920	862	13,1217	393,651		
July	"	18,918	880	14,1995	440,183		
August	"	11,358	461	8,1002	251,107		
September	"	2,925	102	2,4906	74,717		
Total		83,972	4,262	61,9985	1,893,862		

APPENDIX 3—concl'd.

Month.	Daily average numbers of				Total.
	Workers.	Dependants.	Gratuitously relieved.		
			Destitutes.	Village servants.	
<i>Rewa Kantha Agency.</i>					
February	98	.....	.....	.....	98
March	109	.....	.....	.....	109
April	545	.....	.....	.....	545
May	715	.....	80	.....	795
June	735	37	104	.....	876
July	393	50	57	.....	500
August	.....	.....	27	.....	27

APPENDIX 4.

(Referred to in paragraph 17 of the Resolution.)

(A—On relief works in the Ahmedabad District.)

Month.	Workers.				Dependants.			
	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.
	1	2	3	4	5	6	7	8	9
March 1919	31	21	11	63	...	...	...	...
April "	66	80	19	165	...	...	...	...
May "	265	380	160	806	...	...	...	...
June "	599	744	303	1,646	...	...	...	...
July "	723	1,090	359	2,172	...	...	...	...
August "	417	674	141	1,132	...	...	...	...
<i>Panch Mahals District.</i>								
January 1919	772	735	259	1,766	...	...	3	3
February "	2,817	2,560	938	6,315	...	...	14	14
March "	6,810	6,059	2,267	15,136	...	...	1	1
April "	8,015	7,258	2,183	17,456	1	...	...	1
May "	7,016	6,737	1,905	15,658	...	...	...	...
June "	1,628	2,917	701	5,246	...	...	...	...
July "	368	579	86	1,033	...	...	...	...
August "	...	...	...	...	...	...	...	...
<i>Kaira District.</i>								
March 1919	343	289	116	748	...	...	...	...
April "	1,051	800	164	2,015	...	...	...	...
May "	1,205	932	146	2,283	...	...	...	...
June "	393	299	36	728	...	...	...	...
July "	1	...	...	1	...	...	...	...

APPENDIX 4—contd.

Month.	Workers.				Dependants.			
	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.
1	2	3	4	5	6	7	8	9
<i>Broach District.</i>								
February 1919	169	154	72	395	...	...	...	...
March "	475	490	133	1,098	...	...	...	...
April "	817	769	232	1,818	...	...	...	...
May "	738	703	215	1,656	...	...	...	...
June "	196	213	73	482	...	...	...	...
<i>Ahmednagar District.</i>								
January 1919	1,010	1,381	336	2,727	8	24	849	881
February "	3,791	6,139	2,300	12,230	81	260	4,941	5,282
March "	5,447	8,562	3,050	17,059	176	541	7,341	8,058
April "	7,035	10,393	3,832	21,260	144	503	8,439	9,086
May "	5,502	8,633	2,744	16,879	163	488	7,445	8,096
June "	4,383	7,842	2,396	14,621	170	512	6,665	7,347
July "	5,073	8,810	2,407	16,290	211	640	7,675	8,526
August "	4,012	6,772	1,951	12,742	166	464	6,019	6,649
September "	1,259	2,037	570	3,866	49	155	2,152	2,356
October "	789	1,476	477	2,742	38	128	1,192	1,358
<i>Poona District.</i>								
February 1919	1,759	3,175	990	5,924	33	30	2,536	2,599
March "	3,571	6,812	1,868	12,251	17	26	3,803	3,846
April "	4,036	7,947	2,476	14,459	23	27	3,753	3,803
May "	3,332	6,175	1,883	11,390	15	23	2,794	2,832
June "	2,997	6,514	1,830	11,341	17	26	2,406	2,449
July "	2,309	4,643	1,373	8,325	11	18	1,797	1,826
August "	908	1,751	537	3,196	4	7	692	703
<i>Satara District.</i>								
March 1919	6,636	5,429	1,963	14,028	13	85	4,921	5,019
April "	14,370	18,686	6,363	39,419	130	418	19,800	20,348
May "	5,789	6,801	2,005	14,595	75	207	6,977	7,259
June "	1,330	1,665	388	3,383	18	51	1,815	1,884
<i>Rewa Kanika Agency.</i>								
February 1919	274	107	139	520	...	...	...	...
March "	246	279	183	708	...	...	...	...
April "	1,279	1,447	1,055	3,781	...	...	...	...
May "	1,654	1,983	1,173	4,810	...	...	...	...
June "	2,058	2,341	1,378	5,777	...	...	86	86
July "	568	793	745	2,106	...	...	40	40

APPENDIX 4—contd.

B.—On gratuitous relief.

REV 1079—6

District.	November 1918.				December 1918.				January 1919.				February 1919.				March 1919.				April 1919.			
	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.
Ahmedabad	117	254	451	822	270	756	1,342	2,348	378	1,326	2,711	4,615
Panch Mahals	6	45	260	311	105	366	1,940	2,411	1,050	2,748	8,716	11,914	2,661	3,374	16,688	22,123
Kaira	3,475	9,661	16,560	29,696	5,016	14,092	26,812	45,929	7,310	19,939	35,684	63,933	9,096	23,442	44,766	77,304
Broach	150	475	639	1,264	240	708	1,154	2,102	386	1,035	2,137	3,568
East Khandesh	198	39	...	237	209	139	104	452	691	202	159	1,052
West Khandesh	989	...	...	989	1,866	55	22	1,943	1,804	261	166	2,281	2,239	1,050	1,013	4,302	2,338	1,310	1,117	4,765
Nasik	2,797	...	...	2,797	3,149	...	...	3,149	...	...	...	3,149	...	...	...	3,245	...	...	...	...
Ahmednagar	3,570	2,506	1,660	7,836	3,972	2,514	1,807	8,233	3,078	3,793	2,443	11,314	5,784	4,801	3,591	14,176
Poona	1,399	...	...	1,399	1,703	...	...	1,703	2,504	878	408	3,790	2,960	1,858	1,193	6,011	4,437	4,017	2,994	11,448
Sholapur	74	129	96	299	224	201	160	585	...
Satara	2,217	4,790	1,987	8,994	3,907	9,057	5,542	18,506	3,337	8,349	3,329	15,015	3,517	8,591	2,991	15,099
Bijapur	1,026	1,158	1,223	3,407	960	1,409	1,673	4,042	1,893	1,726	2,293	5,912
Belgaum	1,121	3,371	5,325	9,817	4,968	4,804	7,305	17,077	4,690	5,096	8,310	18,096
Kathiawar Agency	62	131	154	347	252	421	524	1,197	138	360	495	993	228	611	940	1,779	401	991	1,876	3,263	956	2,050	5,874	8,880
Reva Kantha Agency (Pandu Mewas).

APPENDIX 4—concl'd.

B.—On gratuitous relief.

District.	May 1919.				June 1919.				July 1919.				August 1919.				September 1919.				October 1919.			
	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.	Men.	Women.	Children.	Total.
Ahmedabad	637	1,896	2,743	5,276	685	1,644	2,789	5,118	639	1,415	2,830	4,884	212	636	1,484	2,332	...	...	...	...	...	...	...	...
Panch Mahals	1,909	2,782	15,650	20,341	1,528	1,988	5,254	8,770	2,279	2,701	8,163	13,143	4,307	3,732	6,279	14,318	...	...	...	...	...	...	...	...
Kaira	10,798	22,781	43,118	76,697	10,237	19,689	38,086	68,012	6,359	9,796	19,405	35,560	835	951	1,565	3,351	...	...	...	...	...	...	...	...
Broach	433	1,169	3,017	4,619	521	1,426	3,864	5,811	478	1,312	3,729	5,519	...	...	...	...	...	...	...	...	...	...	...	...
East Khandesh	779	272	198	1,249	926	424	231	1,581	913	709	364	1,986	795	193	164	1,152	718	5	2	725	...	...	...	...
West Khandesh	2,450	1,736	1,698	5,884	2,637	1,245	1,706	6,088	2,663	1,590	1,735	5,988	2,395	843	876	4,114	...	...	...	...	...	...	...	...
Nasik	3,253	...	...	3,253	3,246	...	...	3,246	3,245	...	...	3,245	...	...	...	...	1	12	...	13	...	...	...	...
Ahmednagar	6,747	5,797	4,039	16,583	6,310	5,417	4,016	15,743	5,005	4,365	3,123	12,493	4,359	2,686	2,344	9,389	5,239	1,552	1,246	6,037	920	521	409	1,850
Poona	4,843	4,923	4,273	14,039	4,679	4,405	3,864	12,948	4,638	4,365	3,767	12,770	4,338	3,720	3,274	11,332	3,976	3,060	2,950	9,986	...	...	...	...
Sholapur	740	755	789	2,284	708	536	661	1,905	671	380	407	1,458	451	341	360	1,152	299	301	259	859	...	...	...	...
Satara	4,481	10,928	5,540	20,949	4,585	11,198	5,361	22,144	4,389	10,402	5,901	20,692	...	...	...	...	...	...	...	...	...	...	...	...
Bijapur	2,125	1,609	2,213	5,947	2,098	1,662	2,309	6,069	1,868	1,488	2,132	5,488	1,470	1,061	1,567	4,098	1,355	739	1,148	3,262	...	...	...	...
Belgaum	4,956	5,535	9,806	20,297	6,351	6,600	12,016	24,967	6,849	6,970	12,704	26,523	6,303	6,948	11,169	24,440	3,503	2,970	3,471	9,544	309	164	284	777
Kathiawar Agency	1,358	2,733	2,495	11,586	1,598	3,209	9,501	14,308	1,780	4,008	11,264	17,052	922	1,837	6,106	8,865	353	697	1,385	2,435	...	...	...	...
Reva Kantha Agency (Pandu Mewas).	88	102	399	589	91	136	480	707	66	66	220	352	12	8	34	54	...	...	...	...	...	...	...	...

APPENDIX 6.

(Referred to in paragraph 17 of the Resolution).

Direct famine relief expenditure.

	I Salaries and Establishment.	II Relief works in charge of civil officers.	III Relief works in charge of Public Works Officers.	IV Relief to people employed otherwise than on relief works.	V Gratuitous Relief.	VI Miscellaneous.	Total.	I Salaries and Establishment.	II Relief works in charge of civil officers.	III Relief works in charge of Public Works Officers.	IV Relief to people employed otherwise than on relief works.	V Gratuitous Relief.	VI Miscellaneous.	Total.
	(1918-1919).							(1919-1920).						
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Ahmedabad ...	4,545	633	.....	5,970	8,253	2,35,627	2,55,028	12,457	59,081	.....	.....	107,276	1,87,264	8,450
Broach ...	2,000	11,529	.....	4,692	6,983	53,082	22,872	8,041	46,629	713	11,449	88,426	38,276	1,04,134
Kaira and Panch Mahals	25,737	8,376	99,916	3,732	67,737	1,83,208	3,88,706	48,351	95,405	2,66,146	1,13,759	3,05,468	1,69,691	6,59,438
Surat ...	.....	.....	.....	.....	.....	31,196	31,196	.....	875	.....	.....	.....	42,703	43,578
Thana ...	1,060	.....	16,691	.....	11,608	6,250	35,609	2,524	.....	655	.....	19,374	114	21,357
Ahmednagar ...	3,918	.....	251,724	36,667	71,348	66,867	43,0,524	39,992	126	8,05,594	45,454	2,17,354	98,084	12,06,604
East Khandesh ...	62	.....	.....	672	1,826	18,420	20,980	958	.....	.....	16,239	8,569	14,387	11,379
West Khandesh ...	.....	.....	599	.....	42,317	22,636	65,552	4,580	810	706	6,133	71,306	17,182	66,403
Nasik ...	396	.....	.....	.....	31,176	530	31,042	1,236	.....	.....	64,413	275	35,252	30,672
Poona ...	1,310	.....	1,38,943	.....	28,582	1,02,753	2,71,588	12,537	.....	4,48,337	.....	78,072	2,70,334	8,09,280
Satara ...	4,324	.....	12,859	9,927	18,889	21,885	67,884	9,247	.....	1,08,219	17,425	45,643	35,647	1,44,942
Sholapur ...	539	.....	.....	1,809	4,150	10,322	16,820	2,139	.....	.....	10,105	36,246	1,016	49,506
Belgaum ...	44	.....	.....	2,804	13,826	7,892	8,782	1,031	.....	.....	14,512	49,344	33,710	98,597
Bijapur ...	1,350	.....	.....	3,870	23,914	13,475	42,609	9,604	.....	.....	41,184	86,437	28,144	1,09,681
Dharwar ...	.....	.....	.....	.....	.....	20,495	20,495	.....	.....	.....	11,829	.....	1,242	10,587
Ratnagiri ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,120	.....	.....	18,483
Thar and Parkar ...	.....	930	.....	.....	.....	.....	930	.....	.....	.....	.....	.....	.....	43
Kathiawar ...	9,787	.....	.....	.....	15,145	1,31,070	1,56,002	19,709	530	.....	.....	1,02,710	1,05,718	17,231
Mahikantha (Sadra) ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,000	4,059	5,059
Palanpur ...	.....	.....	.....	.....	500	1,500	2,000	697	.....	.....	.....	9,276	.....	9,973
Bombay (P. A. Department.)	.....	.....	.....	.....	.....	8,97,071	8,97,071	9,525	.....	.....	.....	8,572	2,91,248	3,10,045
Total ...	55,978	26,468	5,20,732	70,143	3,46,254	17,01,271	27,13,946	1,83,228	2,03,455	16,29,060	3,53,672	12,52,809	1,85,717	38,07,942

N.B.—The figures shown under VI. Miscellaneous represent net expenditure after deducting receipts on account of the sale of grass.

F. A. C. REBELLO.
Deputy Accountant General

APPENDIX 7.

(Referred to in paragraph 17 of the Resolution).

Amended statement showing the indirect expenditure incurred on account of famine during the years 1918-19 and 1919-20 (up to 30th September 1919).

Heads of Account.	Grain Compen- sation allowance.	Salaries and tem- porary establis- hment.	Travell- ing allow- ance and conting- encies.	Extra allow- ance in connec- tion with famine.		Improve- ment of water- supply.	Tagai allowance.	Irrecov- er- able tagai loans written off.	Loss in Govern- ment rice transac- tion.	Total.	Grain Compen- sation allowance.	Salaries and tem- porary establis- hment.	Travel- ling allow- ance and conting- encies.	Extra allow- ance in connec- tion with famine.		Improve- ment of water- supply.	Tagai allowance.	Irrecov- er- able tagai loans written off.	Loss in Govern- ment rice transac- tion.	Total.
				(1918- 1919).	(1919- 1920).									(1919- 1920).	(1919- 1920).					
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
3. Land Revenue ...	47,089	18,705	7,956	17,970	...	...	...	...	91,720	...	73,273	25,231	38,345	...	...	...	...	...	...	1,36,849
5. Salt ...	2,459	...	...	...	...	...	...	...	2,459	8,521	...	...	...	...	...	...	...	...	...	8,521
6. Stamps ...	198	...	...	...	...	...	...	...	198	94	...	...	...	...	...	...	...	...	...	94
7. Excise ...	2,774	...	...	...	...	...	...	...	2,774	Nil	...	...	...	...	...	...	...	...	...	Nil
9. Customs ...	1,576	...	...	...	...	...	...	...	1,576	472	...	...	...	...	...	...	...	...	...	472
10. Income-Tax ...	456	...	...	...	...	...	...	...	456	175	...	...	...	...	...	...	...	...	...	175
11. Forest ...	30,320	11,642	2,297	...	...	...	...	...	A 44,259	8,554	11,195	...	...	...	...	...	...	...	...	A 19,749
12. Registration ...	1,887	...	...	...	...	...	...	...	1,887	1,261	...	...	...	...	...	...	...	...	...	1,261
17. Mint ...	1,205	...	...	...	...	...	...	...	1,205	352	...	...	...	...	...	...	...	...	...	352
18. General Administration ...	2,798	...	...	...	...	...	...	...	2,798	517	...	...	...	...	...	...	...	...	...	517
19A. Courts of Law ...	Nil	...	...	...	...	...	...	...	Nil	5,653	...	...	...	...	...	...	...	...	...	5,653
19B. Jails ...	3,667	...	...	...	...	...	...	...	3,667	531	...	...	...	...	...	...	...	...	...	531
20. Police ...	5,24,371	722	...	621	...	...	...	...	5,25,714	70,722	8,121	75	11,970	...	...	...	...	...	...	90,888
21. Ports and Pilotage ...	72	...	...	...	...	...	...	...	72	Nil	...	...	...	...	...	...	...	...	...	Nil
22. Education ...	2,964	...	...	...	...	...	...	...	2,964	445	...	...	...	...	...	...	...	...	...	445
23. Ecclesiastical ...	Nil	...	...	...	...	...	...	...	Nil	24	...	...	...	...	...	...	...	...	...	24

C Rev. 1079-7

24A. Medical	...	2,451	5,876	...	...	...	...	...	...	8,327	809	10,104	17	...	...	...	...	...	10,930
24B. Sanitation	...	6,042	...	...	...	...	...	...	...	6,042	731	...	...	...	...	...	...	...	731
25. Political	...	3,279	566	...	...	...	...	...	...	3,845	<i>Nil</i>	4,062	7,456	...	...	...	...	...	11,518
26A. Agriculture	...	1,909	...	...	...	...	...	...	...	1,909	529	...	...	...	...	...	...	...	529
26B. Scientific, etc.	...	246	...	...	...	...	...	...	...	246	<i>Nil</i>	...	...	...	...	...	...	...	<i>Nil</i>
30. Stationery, etc.	...	1,542	...	...	...	...	...	...	...	1,542	599	...	...	...	...	...	...	...	599
32. Miscellaneous	...	2,157	...	...	...	...	...	2,755	9,68,736	9,73,648	37	...	...	...	...	...	8,865	...	8,902
35. Protective Works	...	2,032	...	...	...	...	...	...	...	2,032	<i>Nil</i>	...	...	...	...	...	...	...	<i>Nil</i>
42. Major Works	...	15,232	...	...	34,305	...	...	...	...	49,537	936	...	...	37,962	...	...	...	...	38,898
43. Minor Works (Civil)	...	<i>Nil</i>	...	...	...	...	...	...	...	<i>Nil</i>	<i>Nil</i>	...	...	...	...	...	...	...	<i>Nil</i>
Do. (P. W.)...	...	12,532	...	...	11,201	...	...	...	...	23,733	777	...	...	869	...	...	...	...	1,644
45. Civil Works (Civil)	...	29	...	...	...	26,528	...	...	...	26,557	9	...	...	...	63,667	...	...	...	63,676
Do. (P. W.)...	...	11,538	30	...	1,3798	...	...	...	...	25,366	495	3,364	548	23,517	...	...	...	...	27,924
Loans and Advances	...	...	...	...	...	77,42,104	...	...	...	77,42,104	...	...	...	...	...	1,27,62,295	...	...	1,27,62,295
Total	...	6,80,825	37,541	10,253	77,898	26,528	77,42,104	2,755	9,68,736	95,46,637	1,02,243	1,10,119	33,327	1,12,661	63,667	1,27,62,295	8,865	...	1,31,93,177

A. Besides these figures the total debits and credits on account of famine grass operation are as under.

1918-19.

Rs.

II Forest ... 35,74,044.
IX do. ... 21,39,860.

1919-20.

Rs.

II Forest ... 14,09,997.
IX do. ... 11,28,354.

B. Out of these sums a sum of Rs. 68,044 was credited to Government in the year 1919-20 and a further sum of Rs. 129 is likely to be recovered.

Deputy Accountant General.

APPENDIX 8.

(Referred to in paragraph 17 of the Resolution).

List of famine relief works carried out under the P. W. Agency.

No.	Classification and name of works.	Amount of estimate.	Whether Major or Minor.	Number of workers.	Actual cost.	Actual cost at ordinary rates.	Date of opening.	Date of closing.	Whether of permanent character and public utility.	Remarks.
1	2	3	4	5	6	7	8	9	10	11
PANCH. MAHALS DISTRICT.										
33—FAMINE RELIEF.										
III. Public Works.										
<i>Construction of Irrigation Tanks.</i>										
1	Moti Handi Tank ...	99,635	Major	1,21,658	23,060	15,655	25th November 1918...	20th July 1919	Yes	Not completed.
2	Varod Sapoi Tank ...	57,334	Do.	1,74,262	32,265	24,408	14th December 1918...	20th July 1919	Do.	Do.
3	Ambli Chharchhoda Tank ...	1,45,675	Do.	3,22,567	53,587	36,682	12th January 1919 ...	31st July 1919	Do.	Completed.
4	Dhamarda Tank ...	40,941	Do.	63,876	13,177	9,816	9th February 1919 ...	20th July 1919	Do.	Not completed.
5	Gundli Tank ...	1,58,128	Do.	85,136	19,799	13,678	22nd February 1919...	31st July 1919	Do.	Do.
6	Agawada Tank ...	94,261	Do.	1,59,548	26,755	14,355	15th February 1919...	20th June 1919	Do.	Do.
7	Pania Tank ...	72,139	Do.	1,96,103	32,785	26,241	3rd March 1919 ...	31st July 1919	Do.	Do.
<i>Miscellaneous Public Improvements.</i>										
8	Constructing Dholakhakra Tank...	17,515	Do.	49,864	9,608	7,278	29th March 1919 ...	20th June 1919	Do.	Do.
9	Improvements to Tank at Pethapur	22,776	Do.	78,782	11,385	10,152	15th November 1918...	2nd March 1919	Do.	Completed.
10	Do. at Sabli ...	11,394	Do.	25,462	4,597	3,440	2nd March 1919 ...	5th April 1919	Do.	Do.
11	Do. at Rajpur ...	25,413	Do.	59,058	11,768	8,878	18th March 1919 ...	31st July 1919	Do.	Not completed.

12	Do.	at Wadva ...	34,227	Do. ...	47,682	7,207	5,530	2nd April 1919 ...	22nd June 1919 ...	Do. ...	Completed.
13	Do.	at Gundikhoda ...	6,215	Do. ...	11,955	2,710	2,000	24th March 1919 ...	20th June 1919 ...	Do. ...	Not completed.
14	Do.	at Gultora ...	2,450	Minor ...	14,385	2,663	2,450	14th December 1918 ...	5th February 1919 ...	Do. ...	Completed.
15	Do.	at Tadagola ...	3,920	Do. ...	17,512	2,533	2,100	6th February 1919 ...	1st March 1919 ...	Do. ...	Do.
16	Do.	at Rampura ...	2,056	Do. ...	9,368	1,736	1,350	5th March 1919 ...	12th May 1919 ...	Do. ...	Do.
17	Do.	at Jekot ...	940	Do. ...	4,649	826	700	13th May 1919 ...	20th June 1919 ...	Do. ...	Not completed.
COMMUNICATIONS.											
<i>Construction of roads.</i>											
18		Dohad Jasawada Road...	30,241	Major ...	99,877	18,302	13,724	1st March 1919 ...	31st July 1919 ...	Do. ...	1st section completed.
19		Vijayadh Ghati Road ...	4,898	Minor ...	20,438	3,405	3,000	23rd May 1919 ...	Do. ...	Do. ...	Not completed.
<i>Collection and conveyance of metal for roads.</i>											
20		Collecting and conveying 10 years metal supply for repairs to Dohad Limdi Road.	12,474	Major ...	49,583	8,909	5,828	3rd March 1919 ...	Do. ...	Do. ...	Do.
21		Collecting and conveying 10 years meta supply for repairs to Dohad Airajpur Road.	24,589	Do. ...	1,58,878	27,230	15,956	Do. ...	Do. ...	Do. ...	Do.
22		Collecting and conveying 10 years metal supply for repairs to Jhalod Khusalgadh Road.	65,527	Do. ...	70,975	13,216	6,988	11th March 1919 ...	Do. ...	Do. ...	Do.
23		Breaking metal on Dungry Quarry on Limkheda Jhalod Road.	1,890	Minor ...	8,590	1,672	631	7th April 1919 ...	31st May 1919 ...	Do. ...	Do.
WORKS OPENED AS TEST WORKS AND CONTINUED AS SUCH TILL THE END OF FAMINE.											
MISCELLANEOUS PUBLIC IMPROVEMENTS.											
<i>Construction of Tanks.</i>											
24		Ujafda Tank ...	2,480	Minor ...	4,593	1,321	1,150	10th March 1919 ...	10th July 1919 ...	Do. ...	Completed.
<i>Collection and conveyance of metal for roads.</i>											
25		Godhra-Shehra Road ...	.....	Do. ...	13,930	2,934	1,699	21st February 1919 ...	18th July 1919 ...	Do. ...	Not completed.
26		Sunth Road to Suliat Road (Ngdhari Quarry)...	3,620	Do. ...	10,191	2,410	1,833	3rd April 1919 ...	17th July 1919 ...	Do. ...	Do.
27		Godhra Kalol Road (Bhadroli Quarry)	1,797	Do. ...	6,157	1,348	782	30th March 1919 ...	8th July 1919 ...	Do. ...	Do.

APPENDIX 8—contd.

No.	Classification and name of works.	Amount of estimate.	Whether Major or Minor.	Number of Workers.	Actual cost.	Actual cost at ordinary rates.	Date of opening.	Date of closing.	Whether of permanent character and public utility.	Remarks.
1	2	3	4	5	6	7	8	9	10	11
	33. FAMINE RELIEF.	Rs.			Rs.	Rs.				
	III. PUBLIC WORKS.									
	A. Communication—1. Earth work on road.									
1	Constructing a road from Rajur to Manik Ojha.	268	Minor ...	329	286	172	9th November 1918...	8th January 1919 ...	Not permanent and of no utility.	Opened as a test work and abandoned; practically no work done.
2	Constructing a road from Shrigonda to Maadavan.	.....	Do. ...	1,123	798	479	19th November 1918...	12th January 1919 ...	Not permanent, useful.	Test work only and only small amount of work carried out.
3	Constructing a road from Ghodegaon to Kukana road.	96,498	Major ...	361,476	95,814	37,221	20th November 1918...	11th April 1919 ...	Not permanent, useful.	None of these works can be classed as permanent as they are earthwork only and unless completed either as murum or metal roads and maintained must deteriorate and become useless except as cart tracks in a few years.
4	Constructing a road from Parner to Wadegavan.	82,008	Do. ...	233,749	78,398	33,563	18th November 1918...	4th June 1919 ...	Do. ...	
5	Constructing a road from Karjat-Babulgaon road.	2,00,399	Do. ...	191,799	73,893	27,207	20th November 1918	31st August 1919 ...	Do. ...	
6	Improvements to Ahmednagar Takli-Dhokeshwar road.	2,15,057	Do. ...	215,982	68,566	28,846	24th February 1918 ...	15th August 1919 ...	Do. ...	
7	Improvements to Ghodegaon Sonai-Wambori road.	59,060	Do. ...	226,099	57,271	34,362	1st April 1919 ...	15th June 1919 ...	Do. ...	
8	Metal breaking camp at Shevgaon	4,08,823	Do. ...	902,188	3,01,692	1,51,658	13th January 1919 ...	10th September 1919.	Permanent and useful.	
9	Metal breaking camp at Supa	14,526	Do. ...	47,696	15,956	4,485	5th June 1919 ...	31st August 1919 ...	Do. ...	
10	Metal breaking camp at Vadala	61,527	Do. ...	135,308	62,830	17,893	16th June 1919 ...	15th September 1919	Do. ...	All metal carefully stacked in convenient places.
	B. Miscellaneous Public Improvements.									
11	Constructing a tank at Shevgaon	3,18,775	Do. ...	47,195	13,133	5,627	11th September 1919.	15th October 1919 ...	Not permanent and not useful until completed.	Only earthwork carried out on preparing the site of the dam.

30

	<i>C.—Irrigation—1. Earth work in Canals.</i>										
12	Constructing Visapur Left Bank Canal ...	Estimate under preparation.	Do. ...	1,71,239	63,325	20,613	18th January 1919 ...	31st July 1919 ...	Permanent and useful.	Work in progress as an ordinary work.	
	<i>D.—Construction of Railways—1. Earth work.</i>										
13	Constructing Belapur-Shevgaon Railway ...	Do. ...	Do. ...	938,731	2,49,889	1,36,607	12th April 1919 ...	15th October 1919 ...	Not permanent, useful.	Excellent work and will be of great use, but unless maintained it will deteriorate and become useless in a few years.	
	33. FAMINE.										
	III. PUBLIC WORKS.										
	<i>A. Communications. Original works Earth work on roads.</i>										
1	Improving Alandi-Chakan road ...	1,20,000 (approximate)	Major ...	* 1,668	61,545A	43,800	7th February 1919 ...	23rd August 1919 ...	Yes, in realigning the old road in a length of 5 miles avoiding steep gradients.	Dependents. Camp at Alandi 748	
	<i>Stone metal collection.</i>										
2	Metal collection on the Poona-Ahmednagar road ...	1,29,600 (G. O., P. W. D., F. 2074 D.—21st February 1919).	Do. ...	4,376	1,10,283A	50,338	27th January 1919 ...	31st August 1919 ...	Yes, as supplying metal for road repairs.	Camps at Kendapuri, Karegaon and Loni Kand. 1,314	
				722,653	1,81,514B					224,092	
3	Metal collection on the Poona-Nasik road ...	1,29,600 (G. O., P. W. D., F. 2074 dated 21st February 1919).	Do. ...	3,657	1,13,492A	56,620	3rd February 1919 ...	29th August 1919 ...	Do. ...	Camps at Peth, Kalamb and Narayangaon. 570	
				655,364	1,67,794B					118,518	
	<i>C. Irrigation—2. Irrigation Tanks.</i>										
4	Constructing Ranjangaon Ganpati tank ...	3,39,593 (G. O., P. W. D., F. 1183, dated 30th April 1919.)	Do. ...	2,514	51,104A	23,811	18th March 1919 ...	28th June 1919 ...	Yes. A protective irrigation tank work to irrigate about 800 acres.	Camp at Ranjangaon. 740	
				263,937	80,243B					77,708	

* The roman figures show the average number of daily workers, while the italic figures denote the total units relieved. The figures for dependents which are not included in column 5 are shown independently in the last column.

A Cost excluding gratuitous relief.

B Cost including gratuitous relief.

APPENDIX 8—contd.

No.	Classification and name of works.	Amount of estimate.	Whether Major or Minor.	Number of Workers.	Actual cost.	Actual cost at ordinary rates.	Date of opening.	Date of closing.	Whether of permanent character and public utility.	Remarks.
1	2	3	4	5	6	7	8	9	10	11
1	<p><i>D.—Construction of Railways.</i></p> <p>Koregaon-Satara Railway embankment, works for.</p>	<p>Rs.</p> <p>*99,772 for works and †Rs. 11,077 for Tools and Plant.</p> <p>*Plan and Estimate as sanctioned in G. O., P. W. D., No. F.—14549 of 11th November 1919.</p> <p>†G. O., P. W. D., No. F.—12595, dated 26th September 1919.</p>	<p>Major ...</p>	<p>At the beginning on 5th March 1919 237.</p> <p>Highest number reached on 26th April 1919 9,247.</p> <p>Number at the close on 24th June 1919 1,675</p>	<p>Rs.</p> <p>*1,19,826 inclusive of Rs. 10,813 on account of gratuitous relief.</p>	<p>Rs.</p> <p>54,752</p> <p>As per Estimate sanctioned.</p> <p>*This includes Rs. 313 for contingencies.</p>	<p>5th March 1919 ...</p>	<p>24th June 1919 ...</p>	<p>Work of "Permanent character and public utility" being purely earth work in connection with Railway embankment.</p>	<p>Total quantity of work done:—</p> <p>Cutting ... 1,801,769 cft.</p> <p>Embankment ... 935,836 "</p> <p>Total ... 2,737,605 cft.</p>

APPENDIX 9.

(Referred to in paragraph 23 of the Resolution.)

Statement of Prices.

(In seers of 80 tolas each per rupee.)

District.	Normal Third Quarter.	July 1918.	August 1918.	September 1918.	Normal Fourth Quarter.	October 1918.	November 1918.	December 1918.	Normal First Quarter.	January 1919.	February 1919.	March 1919.	Normal Second Quarter.	April 1919.	May 1919.	June 1919.	Normal Third Quarter.	July 1919.	August 1919.	September 1919.	Normal Fourth Quarter.	October 1919.
<i>Jowari.</i>																						
Ahmedabad	15	6½	6½	6	15½	6	6	6	16½	6	6	6	17	6	5½	5	15	5	5	6	15½	6½
Panch Mahals*	19	8	8	6	20	4	4½	4½	22	4½	4½	4	21½	5	5½	5½	19	5	...	...	20	...
Kaira	14½	Jawari not avail		able	16	Jowari not avail		able	19	Jowari not avail		abl.	17½	Jowari not available		14½	Jawari	not available.		16	...	
Broach	16	5½	5	4½	15	5	5	5	16½	4	4	4½	17	4½	4½	4½	16	5	5	5	15	5½
East Khandesh	20	5½	5½	5½	17½	4½	4½	3½	21½	3½	3½	4½	22	4½	4½	4½	20	4½	4½	5½	17½	6
West Khandesh	20	6½	5½	...	17½	3½	3½	...	22½	3½	3½	4½	22½	5	4½	4½	20	4½	4½	4½	17½	6½
Nasik	17	Not	sold	...	15½	Not sold.		...	20½	Not	sold	...	19	Not sold		17	Not	sold	...	15½	...	
Ahmednagar	21	6½	4½	4½	20	4½	3½	3½	21½	3½	4½	4½	21½	4½	4½	4½	21	4½	4½	4½	20	4½
Poona	16½	5½	4½	3	15½	3½	3½	3½	17½	3½	4½	4½	17½	5½	5½	4½	16½	4½	4½	5	15½	4½
Sholapur	21	5½	4½	4½	19	4	4	5½	23	4½	5½	5½	23	5½	4½	5½	21	5½	5½	5½	19	5½
Satara	16½	4½	3½	3½	15½	3½	4½	3½	17	3½	3½	3½	17	3½	3½	4½	16½	4½	4½	4½	15½	6½
Bijapur	22	5½	4½	4½	20½	4½	4½	4½	23½	4½	3½	3½	23½	5½	4½	5	22	5½	5½	5½	20½	5½
Belgaum	18½	6	4½	3	18	4	3½	4½	21½	3½	4	4½	20	4½	4½	4½	18½	4½	4½	4½	18	5½
Kathiawar	116	6	5½	4½	...	3½	3½	4	...	4	3½	3½	...	4	4	4	...	4½	5½	5½	...	5
Rewakantha	...	5	5	5½	...	3½	4	4	...	5	4½	4½	...	5½	5½	5	...	5	5	...	...	...
<i>Bajri.</i>																						
Ahmedabad	14	6	6	5½	14	6	5½	5	15½	5	5	5	15	5	4	3½	14	3	3½	4½	14	6
Panch Mahals	15½	4½	4½	3	15	3	4	3½	17	3½	3½	4	17½	4	4	3½	15½	5	4½	4	15	6½
Kaira	14	6	4½	4	14	3	3	3½	16	3½	3½	3½	15½	4	4	3½	14	3½	4½	4½	14	7½
Broach	13½	5	5	4	13½	4	4	3½	14½	3½	3½	4	15	4	4	4	13½	5½	5	5	13½	7
East Khandesh	18	5½	5½	4½	16	3½	3½	3½	19	3½	3½	4½	19½	4½	4½	4½	18	4½	4½	5	16	5½
West Khandesh	17½	6½	4½	4	14½	3½	3½	3½	18½	3½	3½	3½	19	4½	4½	3½	17½	3½	3½	4½	14½	5½
Nasik	16½	5½	5½	4½	15½	4½	3½	3½	18	3½	3½	3½	17	3½	3½	3½	16½	4½	4½	4½	15½	6½
Ahmednagar	18	5½	4½	3½	17	4½	3½	3½	18½	3½	3½	3½	19	5½	3½	4	18	4½	4½	4½	17	4½
Poona	14½	4½	4½	3½	13½	3½	4½	3½	15½	3½	3½	4½	15	4½	4½	4½	14½	4½	4½	4½	13½	5½
Sholapur	19½	...	...	...	17½	...	...	4½	21	4½	4½	3½	20	5½	not	sold	19½	not	sold	5	17½	6½
Satara	15	4½	3½	3½	14	3½	4½	3½	16½	8½	4½	3½	16	5½	3½	3½	15	3½	3½	5½	14	6½
Bijapur	21½	Not	available	...	21½	Not	available	...	23½	Not	avail	able	20	Not	avail	able.	21½	Not	avail	able.	21½	...
Belgaum	19½	6	5	4½	19	5	5	5½	22½	4½	4½	4½	21½	4½	4½	4½	19½	3½	4½	4½	19	5½
Kathiawar	115	4½	4½	3½	...	2½	2½	3	...	3	2½	3	...	3½	3½	3½	...	3½	5	4½	...	6
Rewakantha	...	5½	5½	4½	...	4	3½	3½	...	3½	3½	3½	...	3½	5½	3½	...	3½	4½	...	...	...

* The prices shown against this district are for maize.

† Normal price for the whole year.

APPENDIX 10.

(Referred to in paragraph 25 of the Resolution.)

Statement of mortality in the affected districts.

District.	Mortality.	Number of deaths.												Ratio per 1,000 of population.											
		November 1918.	December 1918.	January 1919.	February 1919.	March 1919.	April 1919.	May 1919.	June 1919.	July 1919.	August 1919.	September 1919.	Total.	Normal mean.	November 1918.	December 1918.	January 1919.	February 1919.	March 1919.	April 1919.	May 1919.	June 1919.	July 1919.	August 1919.	September 1919.
Panch Mahals	Total mortality ...	6,130	1,130	640	644	633	645	601	593	874	1,263	1,049	14,202	6,531	19'00	3'50	1'98	2'00	1'96	2'00	1'86	1'84	2'71	3'91	3'25
	Do. (exclusive of Plague).	6,130	1,125	640	644	633	645	601	593	874	1,263	1,049			19'00	3'49	1'98	2'00	1'96	2'00	1'86	1'84	2'71	3'91	3'25
	Normal mean (Do.)	771	671	629	566	653	572	521	448	500	594	600			2'39	2'08	1'95	1'75	2'03	1'77	1'63	1'39	1'55	1'84	1'86
Ahmednagar	Total mortality ...	9,171	2,090	1,720	1,558	1,794	1,736	2,372	2,760	3,558	4,027	2,921	33,807	24,389	9'72	2'21	1'82	1'65	1'90	1'84	2'51	2'92	3'77	4'27	3'09
	Do. (exclusive of Plague).	9,162	2,086	1,716	1,549	1,763	1,731	2,372	2,760	3,558	4,027	2,921			9'71	2'21	1'82	1'64	1'87	1'83	2'51	2'92	3'77	4'27	3'09
	Normal mean (Do.)	2,214	2,020	1,662	1,454	1,655	1,877	2,110	2,358	3,039	3,291	2,909			2'34	2'14	1'76	1'54	1'75	1'99	2'24	2'50	3'22	3'48	3'08
Poona	Total mortality ...	7,406	3,070	2,926	3,060	3,649	3,397	3,646	3,325	5,164	4,257	3,097	42,997	27,294	6'95	2'88	2'75	2'87	3'43	3'19	3'43	3'12	4'85	4'00	2'91
	Do. (exclusive of Plague).	7,267	3,034	2,912	3,046	3,640	3,391	3,641	3,325	5,164	4,257	3,091			6'82	2'85	2'74	2'86	3'42	3'18	3'42	3'12	4'85	4'00	2'90
	Normal mean (Do.)	2,442	2,546	2,011	1,756	2,052	2,367	2,441	2,532	3,011	3,199	2,937			2'29	2'39	1'89	1'63	1'93	2'22	2'29	2'38	2'83	3'00	2'76
Satara	Total mortality ...	7,422	2,774	2,211	1,747	1,930	1,973	3,161	2,588	2,759	3,064	2,492	31,121	24,839	6'87	2'57	2'05	1'62	1'78	1'82	2'92	2'40	2'55	2'83	2'31
	Do. (exclusive of Plague).	7,050	2,438	1,975	1,620	1,782	1,914	3,129	2,546	2,652	2,841	2,381			6'52	2'25	1'83	1'49	1'65	1'77	2'89	2'37	2'45	2'61	2'20
	Normal mean (Do.)	2,257	2,175	1,899	1,511	1,763	1,894	2,349	2,589	2,704	2,905	2,793			2'09	2'01	1'76	1'39	1'63	1'75	2'17	2'40	2'50	2'69	2'58
Ahmednagar	Total mortality ...	11,409	2,663	1,899	1,838	2,319	2,051	1,860	1,343	1,680	2,729	2,780	32,571	26,460	13'79	3'21	2'30	2'22	2'80	2'47	2'25	1'62	2'03	3'30	3'36
	Do. (exclusive of Plague).	11,409	2,659	1,899	1,838	2,318	2,050	1,860	1,343	1,679	2,729	2,779			13'79	3'21	2'30	2'22	2'80	2'47	2'25	1'62	2'03	3'30	3'36
	Normal mean (Do.)	2,866	2,820	2,746	2,602	2,875	2,446	2,053	1,654	1,756	2,184	2,438			3'46	3'41	3'32	3'14	3'47	2'96	2'46	2'00	2'12	2'64	2'97
Kaira	Total mortality ...	6,256	1,916	1,528	1,261	1,545	1,463	1,427	992	1,508	2,660	1,845	22,401	20,055	9'04	2'77	2'21	1'81	2'23	2'11	2'06	1'43	2'18	3'85	2'67
	Do. (exclusive of Plague).	6,168	1,908	1,525	1,255	1,536	1,462	1,427	992	1,508	2,660	1,845			8'92	2'76	2'21	1'80	2'22	2'11	2'06	1'43	2'18	3'85	2'67
	Normal mean (Do.)	2,115	1,809	1,668	1,547	1,906	1,711	1,654	1,589	2,066	1,992	1,998			3'06	2'62	2'41	2'24	2'76	2'47	2'39	2'30	3'02	2'88	2'89
Broach	Total mortality ...	2,051	1,096	1,172	1,050	1,147	1,651	1,476	900	964	887	724	13,118	9,969	6'69	3'58	3'82	3'41	3'74	5'38	4'81	2'93	3'14	2'89	2'36
	Do. (exclusive of Plague).	2,045	1,072	1,161	1,035	1,128	1,650	1,476	900	964	887	724			6'67	3'50	3'79	3'37	3'68	5'38	4'81	2'93	3'14	2'89	2'36
	Normal mean (Do.)	1,193	1,136	1,009	900	948	843	762	669	779	832	898			3'69	3'70	3'29	2'93	3'09	2'73	2'48	2'18	2'54	2'71	2'93
West Khan-desh	Total mortality ...	12,648	3,341	2,387	1,711	1,603	1,380	1,140	1,055	2,408	3,187	2,255	33,115	18,218	21'78	5'75	4'11	2'94	2'76	2'38	1'96	1'81	4'15	5'49	3'88
	Do. (exclusive of Plague).	12,625	3,337	2,384	1,710	1,595	1,378	1,140	1,058	2,405	3,160	1,666			21'74	5'74	4'10	2'94	2'74	2'37	1'96	1'81	4'14	5'44	2'87
	Normal mean (Do.)	1,743	1,796	1,818	1,654	1,953	1,800	1,683	1,180	1,332	1,652	1,647			3'00	3'83	3'11	2'81	3'36	3'10	2'90	2'03	2'29	2'81	2'83

C Rev 1079-9

East desh.	Khan-	Total mortality ...	13,582	3,482	2,929	2,028	2,183	1,956	2,144	1,866	3,835	4,061	3,011	41,077	32,751	13.13	3.37	2.83	1.96	2.11	1.89	2.07	1.80	3.71	3.93	2.91	
		Do. (exclusive of Plague).	13,582	3,482	2,929	2,028	2,183	1,956	2,144	1,866	3,835	4,061	3,006				13.13	3.37	2.83	1.96	2.11	1.89	2.07	1.80	3.71	3.93	2.91
		Normal mean (Do.)	3,035	2,931	2,770	2,481	3,013	3,207	3,297	2,217	2,638	3,339	3,623				2.93	2.83	2.68	2.40	2.91	3.10	3.14	2.14	2.55	3.42	3.50
Nasik	...	Total mortality ...	18,407	4,363	2,970	2,224	2,261	2,222	2,904	3,284	4,968	4,396	2,757	50,756	28,055	20.37	4.79	3.28	2.47	2.52	2.46	3.21	3.63	5.49	4.86	3.05	
		Do. (exclusive of Plague).	18,379	4,361	2,969	2,215	2,259	2,222	2,903	3,284	4,968	4,396	2,755				20.34	4.79	3.28	2.46	2.52	2.46	3.21	3.63	5.49	4.86	3.05
		Normal mean (Do.)	2,733	2,778	2,583	2,120	2,334	2,369	2,418	2,245	2,539	2,984	2,952				3.02	3.07	2.86	2.34	2.58	2.62	2.68	2.48	2.81	3.32	3.27
Sholapur	...	Total mortality ...	9,213	2,131	1,934	1,635	1,843	2,195	2,272	2,007	2,867	2,529	1,711	30,337	22,510	12.00	2.78	2.52	2.13	2.40	2.86	2.96	2.61	3.73	3.29	2.73	
		Do. (exclusive of Plague).	9,141	2,120	1,918	1,584	1,826	2,194	2,269	2,007	2,867	2,529	1,711				11.91	2.76	2.50	2.07	2.37	2.86	2.96	2.61	3.73	3.29	2.73
		Normal mean (Do.)	2,064	1,974	1,499	1,360	1,498	1,748	1,880	1,905	2,572	2,935	3,075				2.69	2.57	1.95	1.77	1.95	2.28	2.45	2.48	3.35	3.82	4.00
Belgaum	...	Total mortality ...	15,729	2,875	2,015	1,558	1,795	1,571	1,741	1,999	2,032	2,025	1,782	35,123	25,641	16.70	3.05	2.14	1.65	1.90	1.67	1.85	2.12	2.16	2.13	1.89	
		Do. (exclusive of Plague).	15,651	2,757	1,917	1,460	1,745	1,551	1,739	1,999	2,021	1,914	1,692				16.62	2.93	2.04	1.55	1.85	1.65	1.85	2.12	2.15	2.04	1.80
		Normal mean (Do.)	2,426	2,628	2,236	1,889	2,256	2,115	2,158	2,252	2,335	2,363	2,783				2.58	2.79	2.37	2.01	2.40	2.25	2.29	2.39	2.48	2.72	2.95
Bijapur	...	Total mortality ...	17,466	3,368	2,077	1,474	1,716	1,710	1,762	1,763	2,243	2,237	2,131	37,967	23,646	20.24	3.93	2.40	1.71	1.99	1.98	2.04	2.04	2.60	2.59	2.47	
		Do. (exclusive of Plague).	17,360	3,199	2,000	1,442	1,701	1,710	1,762	1,763	2,243	2,228	2,111				20.12	3.71	2.32	1.67	1.97	1.98	2.04	2.60	2.58	2.45	
		Normal mean (Do.)	2,562	2,582	2,075	1,566	1,790	2,001	1,859	1,858	2,142	2,391	2,820				2.97	2.99	2.40	1.81	2.07	2.32	2.15	2.15	2.48	2.77	3.27
Non-affected Districts.	Average Total mortality ratio.	...	...	...	...	...	...	...	...	...	...	...	...	...	11.26	3.81	3.35	2.98	2.79	2.62	2.87	2.70	3.42	3.29	2.46		

APPENDIX II.

(Referred to in paragraph 29 of the Resolution.)

Report on Famine Fodder Operations carried out during the season 1918-19.

RESUME OF THE ARRANGEMENTS FOR OBTAINING FODDER.

The rains of 1918 were very unfavourable and gave rise to a critical situation as regards fodder supply over the greater part of the Presidency, the situation was aggravated by the fact that there were no grass reserves in stock and military grass operations for overseas requirements and building up adequate military reserves had depleted stocks in hand with the larger grass dealers.

The worst affected areas were Kathiawar and Ahmedabad, Kaira, Broach and Panch Mahals districts in the Northern Division, Poona, Nasik and Ahmednagar districts in the Central Division and Bijapur in the Southern Division; all other districts were partially affected except the Konkan districts.

As early as August 1918, the Commissioner, Northern Division, urged that early arrangements should be made to despatch the 25 lakhs lbs. of grass reserve stored at Navapur to Guzerat. Under orders from Government, the Conservator of Forests, Central Circle, completed this despatching operation by 29th August 1918, sending 10 lakhs to Ahmedabad, 15 lakhs to Mehmedabad and 5 lakhs to Ranpur and at the same time the Government grass monopoly contractor in West Khandesh (Mr. V. P. Bhiladwalla) was called upon to supply the additional quantity of 225 lakhs due under his monopoly contract.

For supply to the Deccan districts Government had made arrangements with the Military Department to take over 10,000 tons of steam-baled hay stored at the Manmad Military Depot and ordered the Conservator of Forests, Northern Circle, to take over this quantity and arrange for its distribution and despatch as ordered by Government. An Extra Assistant Conservator was appointed to supervise this work and started operations on 29th September 1918. In view of the serious position that had arisen, early in November, Government created the appointment of Controller of Famine Fodder for the Presidency to arrange for the collection and distribution of all supplies of fodder on Government account and to control the movement of privately owned grass from the restricted areas that had to be created so as to prevent profiteering in grass.

Allotments were made to the different districts under the instructions of the Commissioners who, from figures of supplies in sight determined the same in accordance with the severity of the scarcity in the different districts.

In the meantime the Conservators of Forests, Northern Circle, Central Circle, and Southern Circle, had started operations by giving out contracts for supply of fodder from forests, kurans and revenue waste lands and accordingly it was arranged between them and the Controller that they would carry on the contracts and deliver the baled grass on rail, the Controller being responsible for distribution. This arrangement as regards forest grass proved most convenient from every point of view.

It was at once apparent from the magnitude of the area affected that supplies so far in sight were totally inadequate and accordingly Government authorized the Controller to call for tenders for the supply of up to 8 crores or more lbs. of grass hand-pressed or steam-baled F. O. R. at any railway station on the restricted areas subject to a maximum of Rs. 20 per 1,000 lbs. F. O. R. for hand-pressed bales. The contractors in the restricted area on the B. B. & C. I. Railway (from which most of the quantity called for was expected to come) practically ignored the call for tenders and only 65 lakhs of lbs. were tendered for from that source; their idea was that the maximum rate of Rs. 20 per 1,000 lbs. was too low and their intention was to cause Government to raise the rate by holding up supplies. Mr. V. P. Bhiladwalla came to the rescue with an offer of 225 lakhs of lbs. of hand-pressed bales at Rs. 20 per 1,000 lbs. F. O. R. and 400 lakhs of steam-baled grass at rates, which were afterwards approved by Government, provided he was given assistance by the Director of Civil Supplies and the Controller in procuring supplies and waggons. Had the contractors come forward in the first instance and tendered for 800 lakhs of lbs. of hand-pressed bales, it is doubtful if this quantity could ever have been moved over the B. B. & C. I. Railway without grave detriment to the operations of the Bombay Presidency Famine Relief Fund Committee, the Native States and other charitable institutions for the ratio of waggons required by steam-baled hay to hand-pressed hay is as 1 to 4.

In addition to the above, Government made further representations to the Military Department and secured an extra 3,000 tons of steam-baled hay at Manmad and 10,000 tons of steam-baled hay at Bhusawal and some Military Hay Depôts in the Central Provinces.

By the above arrangements, about 1,900 lakhs of lbs. in all became available, the quantities and sources being as follows:—

<i>Source of Supply.</i>	<i>Lakhs of lbs.</i>
Steam-baled hay from the Military Hay Depôts at Manmad...	300
" " " at Bhusawal.	80
" " " in the Central Provinces ...	150

By Departmental collection and through the agency of forest contractors in the three Circles of the Presidency—				<i>Lakhs of lbs.</i>
Northern Circle ...	...	...	...	225
Central Circle ...	...	...	...	300
Southern Circle ...	...	...	...	100
Grass from forests in the Panch Mahals	...	...	...	25
" " West Nasik	...	...	...	10
" " Poona and Satara	...	...	...	25
Contracts made by the Controller of Famine Fodder	...	...	...	685
Total ...				1,900

At first though this amount of fodder was expected to be sufficient, the continued keen demands from Kathiawar, Guzerat, Poona and Nasik showed that further supplies were essential, and it was all-important that the special grass depôts should not be depleted before the end of the hot weather. As it was too late in the season for further Departmental collection of grass, the Controller had to make other arrangements as follows :—

Mr. Gilbert, Divisional Forest Officer, East Thana, arranged with contractors in Thana for the supply of 25 lakhs of lbs. and managed to secure the same at reasonable rates within the maximum allowed by Government; it may be noted here that grass from the Thana section on the G. I. P. Railway does not command the same price in the Bombay market as grass from the restricted area on the B. B. & C. I. Railway.

Mr. V. P. Bhiladwalla again came to the rescue with 43 lakhs of steam-pressed hay at rates sanctioned by Government.

25 lakhs of lbs. were purchased by the Controller direct from the Bombay Presidency Famine Relief Fund Committee through the kind offices of the Hon'ble Secretary and Treasurer of the Fund at Rs. 22 per 1,000 lbs.

The Controller was also able to arrange at the request of the Commissioner, N. D., for the supply of approximately 65 lakhs for sale at fixed prices in Ahmedabad City. He was also able to arrange for the supply of fodder from the Military Department to the Bombay Presidency Famine Relief Fund Committee and 4,256 tons were handed over in this way.

As the rains broke very fitfully and late in Kathiawar special steps had to be taken in June and July and the Controller with the approval of Government arranged for the supply of 26 lakhs from the VI Poona Division at Mahalakshmi godowns and 8½ lakhs of hand-pressed grass from Mr. V. P. Bhiladwalla, the Government grass contractor.

The above total was despatched to various centres in Kathiawar between 29th June and 22nd July, after which date all grass operations ceased and the Controller's appointment expired from 31st July.

II.—LABOUR AND TRANSPORT.

(a)—Labour.

In Northern and Central Circles difficulties were experienced in getting labourers in sufficient numbers for cutting the grass. This year influenza had taken a very heavy toll and was still raging as the season for cutting grass began, and the people were so weak as to be unable to do a full day's work. The difficulties of obtaining food too seemed likely to be acute. The effects of war entailing Munitions Work, high prices and labour scarcity were intensified by the extensive crop failure. The rise in fodder prices during the past five years added a special speculative element to all contract work to a degree previously un contemplated. From contractors to coolies the greatest difficulty was found in obtaining satisfactory labour and except locally, even at very high prices, sufficient number was never obtainable.

For fodder operations in Belgaum district, local labour was insufficient, and cutters were imported from Bijapur and the Northern Talukas of Belgaum. At the commencement cutters were paid four annas per 100 lbs. This rate was raised to six annas and later on to eight annas. To assist in the pressing work Army Labour Corps Porters were brought down to Khanapur.

(b)—Transport.

Transport by rail over long leads involving diversion on to branch lines and often necessitating transshipment owing to break of gauge was accomplished with the loyal and zealous co-operation of the Railways concerned with the Controller and unremitting vigilance, promptitude of action and resourcefulness on their part. The task of rapid transport was surrounded with difficulties; apart from the congestion of the Railways with other important movements of traffic and the reduced rolling stock and engine power due to the effects of the war, a great part of the grass had to be put on rail in hand-pressed bales for conveyance to the nearest power press; there it was made up into compact steam-pressed

bales in which form it was eventually sent off for the long journey to its ultimate destination. In one instance, to avoid the necessity of this troublesome double journey a large power press was moved bodily from Nandurbar to Navapur, an extremely difficult, lengthy and costly operation, which was successfully carried out and which was fully justified by results.

All the large stocks that were moved into Guzerat from Khandesh and the Central Provinces had to travel along the Tapti Valley Railway and there extreme shortage of water added to the difficulties of the situation.

From the moment the steam pressing of grass was brought into full working order and the accumulations of hand-pressed bales in the restricted areas on the B. B. & C. I. Railway were despatched, a large number of waggons were made available for private movements of grass and such movements were allowed on passes from the restricted areas into the several districts and Kathiawar.

This enabled Native States, the various charitable institutions and private cattle owners who were dealing with cattle maintenance to prosecute their operations with greater facility, and it is estimated that at least a quantity equal to that despatched under Government auspices was despatched by the above agencies.

In addition to the difficulties attending the transport and distribution of grass between the various centres, further difficulties arose owing to the ill-timed efforts of rioters who took advantage of the so-called Satyagraha movement and stopped all steam pressing of famine grass for one day at Surat and interrupted communications with North Guzerat and Kathiawar besides burning 3—4 lakhs of lbs. of grass at Viramgam Station.

As all distribution and movement of fodder was under the Controller, there was continual co-operation and consultation between him and the heads of the Departments of the Railways concerned with the result that movement of fodder took place very quickly and smoothly and when difficulty due to scarcity of water, of rolling stock, accidents, etc., arose, the same were soon smoothed over and the programmes worked up to. The actual quantity of fodder carried by the Railways was the highest on record, and it is a matter for congratulation that, although with so many difficulties to contend with, yet from the time the despatch of fodder was commenced, a continuous and regular supply of fodder was maintained to all parts of the Presidency requiring it so that sale depôts were never depleted and all grass baled was in the end despatched and delivered with the exception of 16½ lakhs on the Madras and Southern Maratha Railway. For the above results the Railways have well merited the thanks of Government and the Controller begs to bring to the notice of Government the ever ready assistance and willing advice given by

- (i) Mr. I. W. Stokes, Deputy Traffic Manager, G. I. P. Railway.
- (ii) Mr. E. T. Robinson, Acting General Traffic Manager, B. B. & C. I. Railway.
- (iii) Mr. G. D. Moore, District Traffic Superintendent, No. 1 Section, B. B. & C. I. Railway, the hardest worked section on the line for carriage of famine fodder.
- (iv) Mr. Siewright, Acting Traffic Superintendent, B. B. & C. I. Railway, who during the famine was in charge of all branch railways and saw that transhipment was quickly and efficiently carried out.

III.—ARRANGEMENTS FOR BALING GRASS.

No difficulty was experienced in obtaining labour for baling grass. It was the case with the cutting as has already been recorded. The work was, however, delayed to some extent on account of—

- (i) the bad condition of the hand presses already in stock;
- (ii) the impossibility of buying new presses at once, since no firms in Bombay held them in stock ready made;
- (iii) the delay in getting the baling wire in sufficient quantity.

The Irani presses did not work satisfactorily and only a few Burn's presses from the Military Grass Farm could be obtained. These latter worked well though the bale (50 lbs.) was too small.

During the season under report the steam baling plants proved very successful. They were simple to work, required a small number of labourers and baled the grass expeditiously and in very compact bales, so that about the double the weight of grass could be loaded into a railway waggon as compared with hand-pressed grass.

Pressing work was started at Surat, Navsari and Ankleshwar in the cotton presses with hand or hydraulic pressed grass railed down from Khandesh and from Bhilad, Daman, etc., stations on the B. B. & C. I. Railway. As the cotton presses had to work night and day many a time the working parts went out of order and work had then to be stopped till repairs were effected. As the Controller had given large contracts for grass from elsewhere and it was in the general interest that the Surat press should be kept for the latter, and some other press should be engaged for the Khandesh grass, the Government grass contractor, Mr. Bhiladwalla, accordingly hired a press at Nandurbar and commenced pressing there in the third week of January. It had been anticipated that the Navapur

press would be in working order within about three months from the date on which orders to move it from Nandurbar were given, *i.e.*, by at least the end of December. Though work went on night and day and every possible effort was made, many unforeseen difficulties cropped up, and it was not till February 11th that the first bale was turned out after which the average daily outturn which was required to cope with the amount of grass to be pressed was steadily maintained, and the same may be said of the Nandurbar press. The hydraulic press at Chinchpada was in working order and the hydraulic pressed bales were used to feed the steam presses at Navapur and Surat. By the end of May the work at Navapur was finished, while at Nandurbar the work was finished on the 2nd June. At one time on account of scarcity of water at Surat, the press could not be kept going for more than 8 hours at a time; this matter was however set right by approaching the Municipal authorities there through the Commissioner, N. D., and afterwards the work went on steadily. All the pressing work at the three presses Surat, Navasari and Ankleshwar was finished in the first week of June. The Government contractor, Mr. Bhiladwalla, deserves recognition for the efficient manner in which these presses were kept working day and night to complete the full contract; he never spared himself, and, no matter at what cost, had repairs, when necessary, completed as soon as possible. His untiring energy, loyal assistance, and full co-operation, rendered these operations a success.

In the case of Khandesh contract, wire was obtained at enormous cost and even then not of the gauge required; for steam pressing finer wire twisted doubly or trebly had to be used instead, the quantity and cost being thereby greatly increased. All wire was supplied by Government and was obtained, some through the Munitions Board, some by purchase in the open market. In the case of Thana forest contracts all wire was used by the respective contractors. Only in the case of Controller's contract in East Thana and in areas on the B. B. & C. I. Railway line, wire was supplied by Government and was obtained from the Manager, Military Grass Farm, Bombay, at cost price.

IV. TOTAL COLLECTION OF GRASS FROM ALL SOURCES AND ITS DISTRIBUTION.

The total quantity of baled grass despatched in the famine fodder operations of 1918-19 and its sources of supply were as follows:—

<i>Sources of supply.</i>				Quantity in lbs.
From the forests of the Northern Circle	...	...	...	2,33,93,465
Do. the Central Circle	...	...	...	3,00,00,180
Do. the Southern Circle	...	...	...	69,01,025
From the Military Department	...	...	...	6,27,06,345
From the sources under Controller's contracts in Thana and West Khandesh, etc.	...	...	...	7,78,27,013
Supplied by the Divisional Forest Officer, Panch Mahals	...	...	...	27,00,000
Do. do. do. West Nasik	...	...	...	9,50,000
Do. do. do. Poona and Satara.	...	...	...	26,50,000
Do. do. do. Belgaum	...	...	...	39,50,000
Total				21,10,78,028

The whole of the above grass was distributed as under:—

<i>Supplied to</i>				Lakhs of lbs.
Ahmedabad	...	...	...	368½
Broach	...	...	...	193½
Kaira	...	...	...	401½
Panch Mahals	...	...	...	111
Kathiawar	...	...	...	244½
Rajpur Taluka	...	...	...	4
Palanpur	...	...	...	1
Mahikantha	...	...	...	½
Ahmednagar	...	...	...	181½
East Khandesh	...	...	...	14
West Khandesh	...	...	...	25½
Nasik	...	...	...	115
Poona	...	...	...	209½
Satara	...	...	...	63½
Sholapur	...	...	...	10½
Akalkot State	...	...	...	½
Belgaum	...	...	...	31
Bijapur	...	...	...	25½
Dharwar	...	...	...	6
<i>Police Department.</i>				
East Khandesh	...	...	...	½
West Khandesh	...	...	...	½
Nasik	...	...	...	½

Supplied to.				Lakhs of lbs.
<i>Local supply in—</i>				
Panch Mahals	...	...	...	27
Nasik	...	...	...	9½
Poona and Satara	...	...	...	26½
Belgaum	...	...	...	15
Do. removed free	...	...	...	8½
Do. destroyed by fire and rains	...	...	...	16½
Grand Total				2,110½

A general summary of the operations in each of the Forest Circles is given below :—

Northern Circle.

In all 291½ lakhs of grass were collected and despatched. This total quantity of grass supplied by the Northern Circle includes 21,02,000 lbs. which were supplied to the Military Department and despatched to Deolali on behalf of the Military Grass Farm. Of the total quantity (270½) 26,95,000 lbs. were collected in the Panch Mahals Division and 9,30,000 lbs. were collected in the West Nasik Division and supplied locally (not on rail).

The collections made in the different Forest Divisions were as follows :—

Name of Division.				Lakhs of lbs.
North Thana	...	...	...	57
West Thana	...	...	...	36½
East Thana	...	...	...	108½
Surat	...	...	...	53
West Nasik	...	...	...	9½
Panch Mahals	...	...	...	27
Total				291½

The distribution of the grass from the Northern Circle was as follows :—

Supplied to.				Lakhs of lbs.
Poona	...	...	...	21½
Nasik	...	...	...	105½
Kaira	...	...	...	88½
Broach	...	...	...	16½
Ahmedabad	...	...	...	7½
Panch Mahals	...	...	...	30½
Military Department	...	...	...	21½
Total				291½

The results of the fodder operations were very satisfactory.

Regarding the collection and despatch of baled grass Mr. Fisher, who was in charge of the Northern Circle, makes the following remarks which are of interest :—

“ It was impossible to put temporary staff in charge of Departmental operations, excepting re-employment of qualified pensioners and the like. It would be logical to charge the grass with a portion of the pay of the permanent staff, but that would be very difficult to estimate. Nevertheless, the forests deserve to be credited with a large sum for lost services of its staff as employed on other work, which is a very unsatisfactory and expensive procedure. Even without such charge it will be seen that Departmental operations per thousand pounds F.O.R. were as Rs. 11-10-4 to 11-2-7 by contract agency, thus accentuating the important conclusion arrived at in the Circle Report for 1912-13 (when the actual recorded cost of Departmental to contract agency was as Rs. 7-8 to 8-3-5), *viz.*, that, in spite of final figures, Departmental agency is the more expensive.

“ It must therefore be accepted as a fundamental axiom that unless additional establishment can be made readily available without interfering with forest routine work, Departmental fodder operations are only justified in case of the most extreme necessity involving impossibility of contract work. To meet the argument that contract agency is always obtainable ‘at a price’ the writer, with experience of fodder operations from the time they were first attempted (*viz.* in 1899-00 when the amount of contract work was negligible), would state as his opinion that, to justify Departmental operations, the savings on the contract figure must be 50 per cent., and then only in extreme necessity. For example, if contract working threatens to be Rs. 15 per thousand pounds Departmental outturn must offer to be only Rs. 10 or less and even then should only be attempted under extreme pressure of fodder requirement, which, under the storage system, should never arise.

" The total grass collected was 292 lakhs as against 354 lakhs in 1912-13. The shortage was due to a poorer crop rainfall, which nearly resulted in no grass in Panch Mahals. Actually the shortage in that district was only 10 lakhs, and a somewhat better control might have reduced this. In the remaining area the crop was poorer than in 1912-13, and influenza greatly delayed and handicapped results so that North Thana would have been 36 lakhs short but, being given the revenue kurans yielding 26 lakhs, it was only 10 lakhs down. Owing to re-organization of charges the old Central and South Thana must be compared together with the present East and West Thanas in which, thanks largely to Mr. Gilbert's efforts, the shortage was only 16 lakhs. The inclusion of Nasik within the Circle instead of Kolaba yielded 9 lakhs instead of 34 lakhs or 25 lakhs short.

" Though prompt arrangements secured sufficient presses, wire, weighing machines, tools, stationery and the like, the absence of ordinary sources of supply and necessary control of factories and stocks, only yielded requirements as the result of considerable efforts in every case. The shortage of wagons and difficulties of despatch, though existing, were greatly reduced by the special appointment of the Fodder Controller who, fortified by co-operation of the Railway, relieved the Department of excessive anxieties in these matters.

" The heaviest share fell to Mr. C. E. L. Gilbert who with former experience carried it through in a masterly manner. Of other officers, Mr. K. B. Kotwal, Sub-Divisional Forest Officer, Surat, had a strenuous time and acquitted himself well. Mr. D. M. Bijur did well with the advantage of having only that work and considerable facilities in advice and arrangements.

Central Circle.

The total amount actually obtained was 300 lakhs. Similarly the supplies made by the Divisional Forest Officers, Poona and Satara, of about 12 lakhs lbs. and 16 lakhs lbs. respectively for local consumption and were arranged at the instance of the Collectors. These limited supplies were due partly for the reason that the forests had been heavily grazed by cattle from the Eastern Talukas during the monsoon months, partly because little, if any, private grass was brought to the depots for the owners found they could obtain by sale to the public a far more remunerative price than the Forest Department could afford to pay.

The collection of grass in the Central Circle was obtained from the different sources as follow :—

Source.	Loose grass.	Baled grass.
<i>1. Bhiladwala's contract—</i>	Lakhs lbs.	Lakhs lbs.
Chinchpada Hydraulic pressed ...	.....	15
Nandurbar and Navapur Steam baled.	.....	285
<i>Departmental collection—</i>		
Poona	12	.....
Satara	16	.....
Total ...	28	300

The distribution of this grass was as follows taken in round figures :—

Supplied to.	Lakhs lbs.
Ahmedabad	119½
Broach	28½
Kaira	43
Panch Mahals	24½
Kathiawar	11½
Rajpur Taluka	2½
Palanpur	1
Mahikantha	¼
Ahmednagar	7½
East Khandesh	9
West Khandesh	15½
Poona	26¼
Satara	10
Nasik Police	¾
Total ...	300

Mr. Napier, the late Conservator of Forests, Central Circle, who directed the grass operations up to the end of March and Mr. Dodgson, the present Conservator, have submitted the following remarks which are of interest.

"In West Khandesh, though the rains had been a failure in many talukas, yet it was known that there were immense supplies of grass available in the Satpuda forests and in forests in the west of the district, which were outside the scope of the contract operations. The habits of the people too in the matter of travelling long distances to cut grass were the same as in East Khandesh which would solve any local difficulties, while departmental work for export was out of the question owing to distances and want of presses. It was decided therefore not to undertake operations in either district.

"Poona and Satara would, it was certain, both be in need of imports of fodder, and it had to be considered what local additions the forests could contribute to their supply. The only sources from which grass could be expected in any quantity were the Ghat regions, and even here not only had the rains been a failure but the grass had been mostly consumed by cattle sent from the eastern talukas for grazing. Baling was impossible owing to lack of presses, and it was decided that all that the Forest Department could do was to cut and store loose grass at various convenient spots at which it could be sold retail to purchasers approved by Collectors.

"The Circle operations accordingly resolved themselves into:—

(a) Collection of baled grass by contract in West Khandesh for export.

(b) Departmental cutting, collection and sale of loose grass for local supply in Poona and Satara. Under Poona are included two forest ranges in the Nagar district, but forming part of the Poona Forest Division.

Collection of grass.

At the outset it was feared that there would be great difficulty in collecting the full quantity of 225 lakhs. Not only did the grass crop appear to be small, but the contract area had, during the 7 years currency of the contract, been reduced by some 10,000 acres of the best and most accessible grass lands by the gradual spread of cultivation. To make good any possible deficit, forest and waste lands in the adjoining Nandurbar taluka (the contract area extended over the Nawapur Petha alone), were assigned to the contractor, and that the fear of a deficit was not unfounded is proved by the fact that the actual contract area yielded some 200 lakhs only, while the freshly assigned areas made up another 100 lakhs. These fresh areas had as a matter of fact been worked by the department in the previous famine, and also in the Army operations of 1917-18 when a total amount of 224 was collected with difficulty; there was therefore nothing novel in their being again worked, but the Conservator's action evoked some criticisms on the grounds that in a famine year when the grass was required in the district itself, it was wrong that the people of Nandurbar taluka should not be able to obtain supplies from the areas most conveniently situated for them. Had there been no other supplies available within the district, and it has been shown above that there were, and had not the famine been so universal that Government had appointed a Controller to regulate the distribution of grass to every district according to the urgency of their respective needs and of the total quantity of grass available, there might have been some force in the criticism, but circumstances being as they were, it certainly seems better that every available pound of grass should have been collected by Government agency from all areas which could be worked for export even if by so doing some inhabitants of the district were forced to fetch their supplies from areas less convenient to them, but containing an abundance of grass which could be extracted in no other way.

"Labour was the second point which caused anxiety. The outlook was not promising, but Mr. Bhiladwalla faced it with his accustomed energy and determination to fulfil his obligations to Government in full; by liberal rates for work, by importing food grains and making payment in kind instead of in cash, by provision at his own cost of medicines to the Government dispensary, he overcame all difficulties and got grass brought to the depôts in greater quantities than had ever been known in previous years. As the season wore on he increased his rates, he opened cheap grain shops, with the most satisfactory result that he finally collected 300 lakhs lbs. instead of 225. Under the combination of this energy and the fact that the crops in the neighbourhood failed, and the demand for field labour was small, any fears as to a storage in collection were dissipated.

"To sum up then the work of collection in Khandesh it may be recorded that it came to an end, so far as operations on behalf of Government were concerned, with a total of 305 lakhs lbs. by the end of January. Even then villagers clamoured to be allowed to bring in any more that they could scrape together in head-loads, but the quantity of the grass had so deteriorated that much rejection was inevitable. Incidentally it may be mentioned that the contractor's operations put some 1½ lakhs of rupees in wages into the small area covered by his work, while by the same date the end of January some 500 lakhs lbs. of grass had been removed on permit by the people of the district, for their own use, from forest areas untouched by the contract operations; the latter point affording clear proof that no hardship was caused by the inclusion of the Nandurbar areas referred to above.

Pressing

Mr. Bhiladwalla started work at Surat with hand or hydraulic pressed grass railed down from Khandesh, and by 25th January had despatched to Gujerath 28,21,250 lbs. in steam pressed bales of 250 lbs. each. Work then stopped at this press, for some time but a week's work was done in March and the final quantity despatched from Surat was 29,40,750 lbs. The Controller had given large contracts for grass from elsewhere and it was in the general interest that the Surat press should be kept for the latter, and that some other press should be engaged for the Khandesh grass. Mr. Bhiladwalla accordingly hired a press at Nandurbar, and commenced pressing there in the third week in January. It had been anticipated that the Nawapur press would be in working order within about three months from the date on which orders to move it from Nandurbar were given, *i.e.*, by at latest the end of December. Though work went on night and day and every possible effort was made, many unforeseen difficulties cropped up, and it was not till February 11th that the first bale was turned out, after which the daily average outturn which was required to cope with the amount of grass to be pressed was steadily maintained, and the same may be said of the Nandurbar press.

General.

"Mr. Dodgson found on taking charge that the work was proceeding quite automatically, and had merely to be carried to a finish. Mr. Napier brought his experience gained in past years of Fodder scarcity to bear on the situation with the result that the difficulties which cropped up were met almost as soon as they appeared and he was able to deal with the situation most successfully.

"The Ranger of the Patan Range (Mr. D. V. Patak) did praiseworthy work.

"The local organization for the collection of labour and supervision of pressing and despatch of the grass was entrusted to Mr. R. A. Shirali, Sub-Divisional Forest Officer, West Khandesh, in addition to his Sub-Divisional duties. He worked with great energy and tact and the timely supply of grass to the famine affected areas was in a large measure due to his untiring energy. The mainstay and pivot of the whole grass operation was undoubtedly the grass contractor (Mr. V. P. Bhiladwalla). Some idea of his method of working is given above and I can only add that he met and overcame every difficulty which cropped up (and they were fairly numerous and serious) in his own inimitable way.

"The tact and business ability of the contractor worked wonders and his highly creditable work deserves favourable recognition by Government."

Southern Circle.

The operations in this Circle were on a relatively small scale. The first arrangement was for the collection of lakhs lbs. of grass only. Afterwards it was amended to the collection of the greatest quantity available. The operations were carried on departmentally and 108½ lakhs of loose grass were brought in from which 91½ lakhs lbs. (approximately) of baled grass were obtained. The total output for the Southern Circle was as under:—

Division.				Lakhs lbs.
Belgaum	...	...	...	100½
Kanara—				
Eastern	...	...	...	48½
Northern	...	...	...	5½
Western	...	...	...	5½
			Total	167½

The Belgaum forest grass was distributed as follows:—

Supplied to—				Baled grass lakhs lbs.
Poona	...	...	...	4
Satara	...	...	...	14
Dharwar	...	...	...	2
Bijapur	...	...	...	18
Belgaum	...	...	...	31
Sold locally	...	...	...	10½
			Total	79½

			Loose grass lakhs lbs.
Sold to villagers	...	...	4½
Cut and removed free by villagers	...	...	5½
Do. by Contractors	...	...	3
Destroyed by fire and rains	...	...	13½
Total			26½

Note.—The difference between amount collected and that distributed represents wastage.

Of the total quantity of grass 5,52,000 lbs. collected in N. D. Kanara, 4,46,200 were supplied to Bijapur and Haveri (part used for thatching huts), 76,400 lbs. were sold to villagers and 29,400 lbs. were decayed.

Of the total quantity 4,844,000 lbs. collected in E. D. Kanara, 4,500,000 lbs. were cut and removed free by villagers, 5,00,000 lbs. by forest contractors; 84,000 lbs. were sent to Haveri, about 90,000 to Bijapur and 1,70,000 lbs. used for thatching, feeding Government cattle, etc.

Of the total quantity 5,24,075 lbs. Shedbal was supplied with about 1,75,000 lbs. and Bijapur with the balance.

The Conservator, Southern Circle, makes the following remarks on the famine fodder operations in the Southern Circle:—

"The operations are unsatisfactory for the following reasons:—

(a) The grass is of poor quality and cannot be compared with the grass obtainable in the Northern and Central Circle.

(b) Labour is expensive and very difficult to get.

(c) The single meter gauge line has poor carrying capacity and in the case of supply to Bijapur freight is very heavy.

(d) Cattle of the Deccan country, Bijapur and Dharwar districts and in Athani (Belgaum district) do not do well on the fodder brought from the jungles of Khanapur and Kanara.

The best fodder is found in Belgaum Taluka and along the Dharwar-Kanara border in Dharwar, Kalghatgi Talukas and Mundgod Peta. Practically all of this could be cut and removed by the ryots themselves.

Owing to the damp climate of Kanara and Khanapur and not infrequent showers in the cold weather much grass cut departmentally is ruined.

On the whole Government famine fodder operations in the Southern Circle give little relief and are not worth the expense and trouble. The Dharwar ryots could remove the best of the grass themselves and Bijapur should be made self supporting by storing *Kadbi* and by making use of the large supply of prickly pear found round many of the villages. This natural supply was apparently not made use of in Bijapur."

V.—FINANCIAL RESULTS.

The financial results of the operations cannot be stated accurately but they are estimated to be as follows:—

<i>Revenue.</i>			Rs.
Receipts by book transfers at the rate of Rs. 15 per 1,000 lbs. of grass supplied	...	...	31,29,375
Miscellaneous revenue	...	...	1,74,546
Total			33,03,921

<i>Expenditure.</i>			Rs.
Sources of supply.			Cost of collection or purchase, supervision, etc.
			Rs.
Northern Circle	...	...	4,80,292
Central Circle	...	...	7,48,254
Southern Circle	...	...	43,965
Controller of Famine Fodder	...	...	36,29,195
Total			49,01,706

Note.—The above figures do not contain the railway freight charges, since they were adjusted in the Accountant General's office through exchange accounts.

VI.—APPRECIATION OF THE SERVICES OF OFFICERS.

The Controller begs to express his grateful appreciation of the assistance rendered by Messrs. C. E. L. Gilbert and J. Hamilton, Divisional Forest Officers of East Thana and North Thana respectively, in keeping forest contractors up to their work, thereby enabling programmes of despatches to be carried out without complaint on the part of the Railways; Mr. Gilbert was also instrumental in securing extra quantities of fodder for Controller's contracts to meet the heavy demands from the Deccan districts.

In the Southern Circle, Mr. E. M. Hodgson and Mr. R. P. Dalley conducted the fodder work with great thoroughness and their operations though on a limited scale were very successful.

Of the officers who worked under the direct control of the Controller

- Mr. D. B. Sothers, Deputy Conservator of Forests, was put in charge of loading operations in the restricted area on the B. B. & C. I. Railway, his exertions were of great value in that proper loading of wagons was insisted on and much Railway freight saved thereby.
- Mr. D. M. Bijur, retired E. A. C., and Messrs. R. Divekar, K. B. Ketwal and V. G. Bhalerao, Sub-Officers, did good work in their respective charge.
- Mr. R. K. Joshi, Head Clerk in the Controller's office, distinguished himself by his devotion to duty and the masterful manner in which all statistics and account work in connection with the whole operations were kept up to date.

Bombay, 9th April 1920.

D. A. THOMSON,
for Chief Conservator of Forests,
Bombay Presidency.

APPENDIX 12.

(Referred to in paragraph 33 of the Resolution.)

Fodder experiments by the Agricultural Department.

7. But all efforts devoted to production of larger quantities of food than usual were soon diverted to the production of food and fodder crops in sufficient quantity to keep men and animals alive, as a result of the long continued drought. By the middle of July the situation on account of failure of the monsoon became threatening and by the end of August it became evident that the *kharif* crop had failed over a great part of the area. Everything then depended on the arrival of the September and October rains in good amount. These failed, however, almost everywhere, and it became evident that a serious famine must result. Except in lower Gujarat, and to a less extent in Khandesh and in Sholapur, the season was unsatisfactory, and it was clear that the other activities of the department must be considered as secondary, and all possible strength concentrated in doing what lay in its power to meet the situation. Almost all the officers of the department fully realised this and devoted themselves heart and soul to carrying out the lines of work decided upon.

8. The first of these lines of work was to lend out all the pumps and engines belonging to the department for irrigation purposes for growing fodder crops, and to arrange as far as possible, that existing installations were fully utilized. Beyond this, Government made a special grant of Rs. 92,434 for the purchase of additional pumping sets for famine purpose and for working of all the pumping sets and made provision (Rs. 1,12,963) for four special installations respectively in the Narbada (two installations), Godavari and Krishna Rivers to be worked by the agricultural department on a system of sharing the fodder produce with the cultivators. The Nangaon plant (Poona District) which has been rather a white elephant for some years) was this season worked day and night and irrigated 411 acres. The pumping installations managed by the department through the famine numbered twenty and were as follows :—

- | | |
|--|-------------------------------|
| 1. Shirol, Khed, Poona. | 11. Nasrapur, Poona. |
| 2. Bhambora, Karjat, Ahmednagar. | 12. Patas, Poona. |
| 3. Nangaon, Dhond, Poona. | 13. Manjri, Haveli, Poona. |
| 4. Agarkhed, Indi, Bijapur. | 14. Rajewadi, Bhor, Satara. |
| 5. (Bhide) Vadgaon, Haveli, Poona. | 15. Umbergaon, Thana. |
| 6. (Athavale) Bibyachiwadi, Haveli, Poona. | 16. Hiroj, Sholapur. |
| 7. Modibag, Bhamburda, Poona. | 17. Retra, Karhad, Satara. |
| 8. Dapuri, Haveli, Poona. | 18. Gondegaon, Niphad, Nasik. |
| 9. Chinchwad, Haveli, Poona. | 19. Zadeshwar, Broach. |
| 10. Malegaon, Nasik. | 20. Nikora, Broach. |

On the whole about two thousand acres of fodder crops were irrigated and produced about two crores of pounds of green fodder which would not otherwise have existed or enough to keep seven or eight thousand head of cattle through the whole of the famine. The disappointing thing about a number of these pumping installations was the unreadiness of the cultivators to take full advantage of the water when available. Some sets of plant (as for instance at Bhambora on the Bhima in the Ahmednagar District) worked to far less than their full capacity. This is probably due largely to the unusualness of the offer made, and I anticipate that when a famine occurs again and the same facilities are available, every drop of water that can be used will be employed for irrigation. The exact cost of green fodder produced is available on four of these pumping installations and is as follows excluding the cost of the engines, interest and depreciation.

Place installed.	Yield per acre of green fodder.	Cost for pumping per 1,000 lbs. fodder.			* Total cost per 1,000 lbs. fodder.			Total cost per 1,000 lbs. of Government share of fodder.		
		Lb.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
Broach (Narbada) ...	12,500	3	11	0	10	1	0	15	2	0
Nikora (Narbada) ...	7,525	10	2	0	17	9	0	35	2	0
Gondegaon (Godavari) .	9,166	1	7	0	5	7	0	10	14	0
Retra (Krishna) ...	8,000	9	9	0	15	4	0	30	8	0

At Retra and to a less extent, at Nikora, the engines employed, brought in a hurry, were not very efficient, but taking the other cases the cost of pumping was very low. This experiment shows what can be done even in an emergency. The weak point was that at the beginning of the famine suitable sites for pumping were not known to anyone, the matter was rushed on the cultivators in a hurry and that the machinery had to be purchased when prices were very high indeed and when all available was second hand. If only a regular survey of the rivers is made and suitable sites fixed beforehand, the cultivators educated to the use of water and to the arrangements which would be proposed, and engines and pumps rushed to those spots in November of a famine year, instead of in February, March and April as in the past season, the success of the method of producing large quantities of the best type of cheap fodder would be assured. Under these circumstances two crops could be produced between November and the following June and would be invaluable.

9. The second line of work, on which attention was concentrated on famine account, was that of shallow boring. All the boring machines belonging to department even though they were old and had previously been almost scrapped were got out and concentrated as far as possible in those famine districts where bores have given the best results in supplementing the water-supply in wells. It may at once be said that up to the present in all our experience the best results have been obtained in Upper Gujarat and in the Thana District. In the Deccan and Karnatak while water sufficient for domestic purposes can generally be obtained on a well selected site, the amount tapped by boring to greater depth than those reached by an ordinary well is not usually sufficient for irrigation. For the reason the machines were concentrated during the famine in the districts where it was practically certain that water could be obtained. Two hundred and thirty-nine bores were made during the year. Of these one hundred and fifty-six were successful, success being considered to have been reached when five hundred gallons per hour in sand or two hundred gallons per hour in rock boring have been yielded by the bore. Of the bores completed, 85.6 per cent. were successful in Gujarat, and 89 per cent. in Thana. No boring was done in Sind, owing to the necessity of concentration in the famine areas. The 156 successful bores yielded an aggregate of 3,35,000 gallons of water per hour from the bore in the dry season, or enough to irrigate between five and six hundred acres of fodder crops through the hot weather. The average yield of water for each successful bore is shown below:—

	Yield per successful bore.		
Upper Gujarat	2,778 gallons per hour.
Thana	1,577 " "
Kolaba	1,475 " "
Ratnagiri	747 " "
Dharwar	252 " "
Bijapur	600 " "
Belgaum	250 " "

The value of boring for agricultural purposes thus differs widely in the different parts of the Presidency, and it is only occasionally that one of the shallow bores (to 200 feet) that we make gives an amount of water of real value for agriculture in the Deccan or Karnatak.

10. The recent famine has been pre-eminently a famine of fodder and hence it was quickly obvious that any new and unusual resources in the way of fodder should be utilised as far as possible. The most important of these was prickly pear, which had been used as fodder at Dhond for a number of years by Rev. A. Norton and had been successfully fed to animals on a large scale in the Ahmednagar Famine of 1912. Based on that experience, and on the careful results recorded at that time by Mr. Horne (Bulletin of the Bombay Department of Agriculture, No. 58 of 1913) the Collector of Ahmednagar and the Revenue Officers in Poona commenced using the fodder in large quantities. The real success of its use in the present famine has however depended on the abandonment of any kind of lamp for burning the thorn from the fodder and the substitution of the ordinary blacksmith's forge for the purpose, which was suggested by the Agricultural Department in December and came into general use in the succeeding months. The new fodder was at first unpopular and

* This excludes the cost of land and labour which the cultivators gave in exchange for one-third or one-half of the crop in different cases.

rightly so, for if not used with care, the animals are injured and die. But with greater experience, these difficulties were overcome and at one time there were 40,000 cattle living on prickly pear in the Ahmednagar District alone. At the end it became so popular that if a forge for the preparation of the fodder were put down in a famine tract, a demand for thousands of pounds per day would rise at once, as we found that it could be prepared and sold at five annas per one hundred pounds. Much help was given throughout to district officers by supplying burning apparatus, by keeping it in repair, and by keeping for three months a continuous training school for men intended to prepare the prickly pear for use. The whole experience as regards prickly pear as a fodder is being put together as a bulletin of the agricultural department and will shortly be issued. In Gujarat the fodder supply was supplemented by 17 lakhs lbs. of good fodder much better than the coarse forest grass, by the chaffing of jowar stubbles left in the fields in the coast talukas of the Surat District which would otherwise have been wasted. The stubbles were chaffed by power chaff-cutters set up at four places on the Railway line and sent to other parts of Gujarat. The scheme sanctioned for the purpose by Government proved successful but owing to long railway transport and heavy packing charges of double gunny bags on account of the voluminous nature of the fodder it did not pay its way.

Many other unusual fodders were used by the people during the recent famine as has always been the case in similar visitation. It would require almost a book to give even a list of these, but among new materials I may mention the very successful use of the sliced stalks of the plantain (Banana) plant, which have been fed to buffaloes and bullocks with great success, up to an amount of 35 pounds per day per head.

11. The next line of famine activity was the extensive stimulation of the production of fodder during the famine. The various Collectors at my suggestion, gave special facilities for the cultivation of river beds where the moisture was sufficient to produce a fodder crop. Large quantities of fodder seed for use in the cold and hot weather, chiefly maize, sundhia jowar, hundi and kalbondi jowar, etc., were purchased and distributed to cultivators with wells. The sale was made much easier by concession of 25 per cent. of the price given by the Bombay Famine Relief Committee for seed purchased through the Agricultural Department. No less than 68,500 pounds of such seed were distributed in the Central Division and 1,66,000 pounds in Gujarat. In many of our districts the activities so far described absorbed almost the whole of the time and energy of the district staff.

12. In spite of all that was being done to save cattle, it became evident that there were a large number of good cattle, which would die if they were not actually purchased from the cultivators, kept during the famine, and resold after the famine was over. In order to see whether it was possible to save these cattle without serious financial loss an experiment was carried out under Professor Knight, to purchase such cattle outright, keep them in camps and sell them when fodder again became available. 1,046 cattle were purchased in a starving condition. Many of them could hardly walk. These were restored to health and condition, being fed after the first few days on a ration consisting of 80 per cent. of prickly pear, a little dry fodder, and a small quantity of cotton seed. They have now all been sold to cultivators and no loss is anticipated to Government on the whole scheme.

13. In the early stages of the famine it became probable that when the rains came a serious shortage of certain kinds of seed would occur, and in some cases it seemed likely that valuable strains of seed would die out, particularly of rice, bajri, jowar, wheat, potatoes, etc., Government made therefore special grants amounting in all to Rs. 1,66,000 for the purchase and storage of such seed. These stores have formed a most valuable resource, and will be wholly distributed in the present *Kharif* and *Rabi* seasons. I must particularly call attention to the value of the work in the case of potatoes, where about two-thirds of the acreage grown in the Poona District in the *Kharif* season of 1919 has been planted with seed stored by the Agricultural Department; otherwise the crop (as the same variety cannot now be imported from Italy) would almost have disappeared.

14. In order to make cultivation possible in the absence of cattle, the steam plough belonging to the Agricultural Department was made available in the Ahmednagar District during April and May, but was not much welcomed by the cultivators as an implement for ordinary cultivation. A Moghul tractor was also purchased, and did good work on a limited scale. In anticipation of a serious difficulty in getting the land cultivated in the *Kharif* season, a large number of implements to be worked by hand, on the lines of those suggested by Mr. Mollison after the last big famine, were prepared and their use extensively demonstrated in the famine districts, before the beginning of the monsoon. They were not however widely adopted and on the whole, it is astonishing how, in spite of the very great mortality among cattle, the cultivators have been able to get their crops into the ground this year with comparatively little delay.

15. On the whole, the experience of the recent famine indicates what a great deal can be done on the agricultural side both before the famine and in its early stages to minimise the very great loss of cattle, and to increase production in spite of the long drought. This year we were largely unprepared but it is hoped that measures may be taken in the immediate future which will not only mitigate the effects of a famine, but also enable us to utilize the small amount of rain that falls in a famine year to much greater advantage than is done at present.

APPENDIX 14.

(Referred to in paragraph 35 of the Report)

Note on the Cattle Census of 1919-20.

Till the year 1901-02 cattle censuses were held every year, but the labour involved was considerable and the value of necessarily rough statistics taken at such short intervals did not justify the expenditure they entailed. The censuses were therefore made quinquennial. The figures for the previous censuses can be found in the annual Season and Crop reports of the Agricultural Department.

2. The present census was taken in a year of severe fodder famine and possesses special interest. The appended statement A shows the variations in the numbers of plough cattle, milch cattle, young stock and total cattle in the Presidency proper for a series of years since 1895-96 and covers the disastrous famine of *samvat* 1956 (1899) which is still remembered by all in Gujarat who were then alive as Chhapanio. The number of cattle in this year (1895-96) may be considered as normal and as is shown in the statement it took till 1915-16 for the countryside to recover from the enormous loss of live stock in this one fatal year, when as Mr. Mollison phrased it the rabari's song had become a dirge. It is even now questionable whether, in spite of Government's efforts to preserve the high quality of the famous Kankreji stock, the magnificent cattle of Gujarat have ever fully recovered from the blow. The record since 1901-02 has been one of steady increase, and, in spite of minor and local famines, by 1915-16 the standard of 1895-96 had been reached and in some cases passed. The number of plough and of milch cattle had returned about exactly to the normal, while the young stock foreshadowed an increase beyond it. Horses had never recovered the famine loss, though they were gradually doing so. The variation in sheep and goats is extraordinary, and it is difficult to account for it.

3. Since 1915-16 there has occurred the famine of 1918-19, certainly the most widely generalised since that of 1899-1900 and perhaps more so even than the latter. This famine, from a fodder point of view, broke only six months before the present census was taken. A comparison of the number of livestock with the figures of 1895-96 (the normal) and with 1915-16 (the latest pre-famine census) is interesting :—

	Increase (+) or decrease (-) in 1901-02 on 1895-96.	Increase (+) or decrease (-) in 1919-20 on 1895-96.	Increase (+) or decrease (-) in 1919-20 on 1915-16.
	Per cent.	Per cent.	Per cent.
Plough cattle	-22	-5.06	-6.0
Breeding bulls	-38	+38.0	+20.8
Cattle for other purposes	-47	-17.4	+10.4
Milch cattle	-36	-11.2	-12.9
Young stock	-35	-3.1	-17.7
Total cattle	-31	-6.9	-11.5
Horses and ponies	-46	-17.3	+1.6
Sheep	-21	-21.8	-15.4
Goats	+22	-12.1	-38.3

4. The salient feature of these figures is the very much smaller loss of cattle than in previous famines, the total being 11½ per cent. as compared with 31 per cent. in 1901-02. The loss is sufficiently serious, but it is an enormous improvement on the past. Naturally the loss was greatest (17.7 per cent.) among the young stock, which means that recovery is likely to be slow. Then comes the loss in cows (12.9 per cent.). The loss of plough cattle was relatively small (six per cent.) which however means an actual net loss of 1,93,478 animals. It must always be remembered however that many worthless animals go to swell the total loss reported in any famine, and in the Deccan in particular more cattle are kept in a normal year than are actually needed for agricultural operations. The loss of farm-yard manure is however a serious matter.

5. Horses and ponies were not appreciably reduced by the famine, though the rate of increase has been checked. The number of sheep is probably of no use as a comparison, as the fact that the census, previously taken in June, was this year taken in January partially vitiates it.

6. Statement B shows the distribution of the loss compared with 1915-16 over the Bombay Presidency. All districts show a loss of cattle except Ratnagiri, which is not

shown in the statement as the apparent increase in this district is due to an increase in the reporting area, and is not real. Poona suffered most. The main area of loss in the Deccan is contained in a strip from Poona due north, including Ahmednagar, Nasik and West Khandesh. To the south of Poona, Satara has also lost heavily, but south of that district the reduction in the number of cattle, though serious, is considerably less. In Gujarat, the Panch Mahals have suffered the most with Ahmedabad and Broach standing next, but the loss in no part of Gujarat approached the loss in the Poona district.

7. The loss everywhere fell most severely on the young stock, three districts (Poona, Ahmednagar and West Khandesh) showing a reduction in numbers of more than thirty per cent. In addition, both Ahmedabad and the Panch Mahals as well as Nasik and East Khandesh show losses of over twenty per cent.

8. The milch cattle suffered next to the young stock. Poona again lost more than thirty per cent. (30.3), and Satara, Ahmednagar, Nasik and West Khandesh in the Deccan, with Ahmedabad and the Panch Mahals in Gujarat, show a reduction of over twenty per cent.

9. Plough cattle were preserved much better, especially in the charotar or rich alluvial soil of north Gujarat where the value of good plough cattle is fully appreciated. Only the Panch Mahals lost more than twenty per cent. of the plough cattle.

10. In order to get an accurate picture we must discriminate still further. Statistics for small areas can never carry the same weight as larger statistics; but it is important to note that in any one district losses vary to a great degree. Perhaps the most affected talukas of the whole Presidency were Parner, Shevgaon and Shrigonda in the Ahmednagar district, and Sirur and Khed in the Poona district, and Nandurbar in the West Khandesh district. The actual losses of cattle in these talukas are shown below:—

			Plough cattle.	Milch cattle.	Young stock.	Total cattle.	Loss p. c.
<i>Ahmednagar—</i>							
1.	Parner	{ 1915-16 ... 1919-20 ...	31,947 23,352	26,040 11,478	21,929 8,135	80,416 43,270	} 45
2.	Shevgaon	{ 1915-16 ... 1919-20 ...	39,314 15,122	21,627 7,417	23,617 7,558	85,868 30,315		} 64.5
3.	Shrigonda	{ 1915-16 ... 1919-20 ...	25,718 19,662	19,692 9,968	18,329 9,577	63,596 38,483	} 40
<i>Poona—</i>							
1.	Sirur	{ 1915-16 ... 1919-20 ...	29,164 20,137	21,042 8,344	19,969 5,125	70,721 33,869	} 52
2.	Khed	{ 1915-16 ... 1919-20 ...	47,975 36,402	41,429 30,379	30,195 13,666	1,24,844 81,203		} 35
<i>West Khandesh—</i>							
1.	Nandurbar	{ 1915-16 ... 1919-20 ...	34,158 18,686	32,327 13,101	30,875 10,398	1,04,589 43,612	} 59

In Sind the figures of the present census show a large decline (*vide* statement A). In this province comparison can only be made with the live stock population for 1915-16, and not for 1895-96, as figures are not available before 1901-02. But the phenomena seen in the figures in the Presidency proper are reproduced in Sind. From 1901-02 to 1915-16 there was a general and steady rise in almost all classes of live stock, so that year may be taken to represent a normal number. The percentage fall since that time is shown in statement B.

11. The reduction in the total of all kinds of cattle is very large, much greater in fact than in the Presidency proper. Pre-eminently a grazing country, stocks were large when the famine came, and the difficulties of organising adequate relief proportionately great. As would be expected, the loss is least in the case of bulls and bullocks; it is greatest in the young stock, as is always the case when there is reduction in number due to starvation. Milch cattle lost seriously, while on the whole nearly one-fifth of the cattle have died.

12. The loss of horses and ponies has been over twelve per cent. and the number now in the province is less even than in 1901-02. Sheep and goat fared better, of course.

13. As regards the distribution of the losses of cattle this is greatest in Karachi, and least in Thar Parkar, where plough and milch cattle were heavily affected. The loss of young stock in the Upper Sind Frontier district was extraordinarily heavy.

14. The figures given show sufficiently clearly the extent of the loss to the Presidency as the result of a wide-spread fodder famine, in spite of official as well as non-official efforts to stem the tide. The proposals of Government, providing in future years for fodder storage as a provision to tide over the early months of any serious fodder famine which the Presidency may be called upon to face, have already been detailed, and emphasis has been rightly laid on the necessity for individual and communal effort in the work of cattle

preservation. It is at least clear that in the past famine, owing to the efforts of Government and, it must be added, the valuable co-operation of the Famine Relief Fund, which were on a larger scale than ever before, the loss of cattle has sensibly diminished, and, with greater experience, both on the part of cultivators and of relief organisations, it may safely be hoped that a larger measure of success will be obtained in future years.

STATEMENT A.

Presidency Proper.

Details.	1895-96.	1897-98.	1901-02.	1905-06.	1909-10.	1915-16.	1919-20
	Thousands.	Thousands.	Thousands.	Thousands.	Thousands.	Thousands.	Thousands.
Plough cattle ...	3,211	2,965	2,504	2,583	2,830	3,224	3,031
Breeding bulls ...	21	116	13	21	20	24	28
Cattle for other purposes ...	155	116	81	88	107	116	128
Milch cattle ...	2,843	2,444	1,817	2,148	2,472	2,904	2,529
Young stock ...	2,255	1,835	1,471	1,875	2,143	2,656	2,186
Total Cattle ...	3,490	7,376	5,886	6,715	7,572	8,924	7,902
Horses and ponies ...	156	122	85	92	113	127	129
Sheep ...	1,786	1,307	1,416	1,824	1,847	1,652	1,397
Goats ...	1,602	1,675	1,959	2,161	2,052	2,281	1,408

Sind.

Plough cattle ...	Not available	Not available	537	351	582	601	} 554
Breeding bulls ...	...	...	7	8	10	8	
Cattle for other purposes ...	...	...	12	14	14	15	
Milch cattle ...	...	...	717	759	998	988	
Young stock ...	...	...	386	376	501	566	835
Total Cattle ...	...	...	1,659	1,708	2,105	2,178	1,779
Horses and ponies ...	...	...	79	78	84	81	71
Sheep ...	...	...	273	302	424	514	564
Goats ...	...	...	822	969	1,074	1,101	1,028
Camels ...	...	...	102	113	116	117	117

STATEMENT B.

Percentage increase or decrease as compared with the census of 1915-16.

District.	Plough cattle.	Milch cattle.	Young stock.	Total cattle.	Horses and ponies.	Sheep.	Goats.
Ahmedabad ...	- 1.8	- 23.7	- 28.8	- 15.8	- 20.0	- 18.8	- 9.0
Kaira ...	- 0.1	- 10.4	- 13.5	- 9.2	+ 22.5	+ 66.1	- 7.5
Panch Mahals ...	- 21.3	- 27.6	- 26.3	- 25.2	- 12.3	- 34.0	- 33.0
Broach ...	- 3.9	- 13.9	- 5.6	- 10.2	- 46.7	- 36.7	- 24.9
Surat ...	- 4.4	- 5.0	- 6.1	- 4.6	+ 21.3	- 15.1	- 8.1
West Khandesh ...	- 13.4	- 29.1	- 37.6	- 25.2	- 19.6	+ 21.6	- 46.7
East Khandesh ...	- 1.4	- 14.4	- 27.3	- 11.2	- 6.1	- 3.6	- 35.3
Nasik ...	- 18.9	- 27.5	- 27.2	- 23.5	- 20.5	- 25.3	- 35.6
Ahmednagar ...	- 17.3	- 29.7	- 41.3	- 27.8	- 1.1	- 29.4	- 55.2
Poona ...	- 19.5	- 30.3	- 47.7	- 30.7	- 50.3	+ 35.9	- 42.2
Sholapur ...	- 7.0	- 10.2	- 10.7	- 8.6	- 42.6	- 8.6	- 20.2
Satara ...	- 5.9	- 24.5	- 17.7	- 12.0	- 49.6	- 14.1	- 36.9
Belgaum ...	- 6.0	- 13.9	- 14.2	- 12.5	- 42.6	- 2.3	- 2.6
Bijapur ...	- 8.1	- 12.9	- 20.0	- 13.4	- 49.1	- 0.1	- 37.4
Dharwar ...	- 9.3	- 10.1	- 17.3	- 12.1	- 45.7	- 9.9	- 34.9
Thana ...	- 13.2	- 6.8	- 9.9	- 9.3	+ 14.0	+ 96.8	- 46.2
Kolaba ...	- 13.7	- 5.9	- 4.4	- 7.8	- 14.6	+ 86.1	- 39.2
Kanara ...	- 5.0	- 1.8	+ 5.5	- 0.2	- 51.6	- 37.4	- 17.5
Total Presidency ...	- 6.0	- 20.1	- 17.7	- 11.5	- 2.3	- 15.4	- 39.3
Karachi ...	- 1.3	- 40.1	- 25.0	- 28.6	- 10.6	+ 29.0	- 0.7
Larkana ...	- 17.6	- 19.9	- 36.9	- 23.0	- 18.7	+ 5.1	- 25.9
Sukkur ...	- 8.4	- 14.7	- 19.3	- 18.1	+ 2.9	+ 16.2	+ 14.4
Hyderabad ...	- 9.2	- 17.2	- 34.9	- 20.0	+ 35.4	- 16.8	+ 7.8
Nawabshah ...	- 13.2	- 11.8	- 18.2	- 14.5	- 54.6	+ 17.0	- 24.2
Thar Parkar ...	- 0.5	+ 3.3	- 19.0	- 8.3	- 59.4	+ 23.4	+ 8.3
Upper Sind Frontier ...	- 15.3	- 18.4	- 50.8	- 25.6	- 65.7	- 10.4	- 29.4