Revenue (1899) Department.

MISCELLANEOUS SERIES.

G.O., No. 1399(a)

DATED 18th april 99

[Despatch Abstract.]

Recording Rs. Progs submitting an estimate of the food supply and consumption of food grains in the Madras Presidency.

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.
Cus	6777/00						
Go.	3077	Revenue	26-11-00				

$\frac{O}{18}$ 4,000—1-10-98.

Revenue (1899) Department.

CURRENT No. 686.

From

The Under Secretary to the Govt of Bombay - Revenue Dept.

Order

No. 574

Dated 25 Jan.
Received 27 Jan. } January 1899.
Registered 27 Jan.

Enclosures 2

Spare copies.

SUBJECT.

Forwarding copies of the Notifications of the Bombay Government explaining the data on which the figures in the Statement of outturn, Consumption and Surplus of food-grains in the Bombay Presidency given in the report of the Indian Famine Commission of 1898 were compiled.

BACK PAPERS.

G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.C.	No.	Department.	Date.

No. 574 of 1899.

Revenue Department.

Famine

Bombay Castle, 25th January 1899.

To

The Secretary to the Government of Madras.

Revenue Department.

Sir,

With reference to your letter No. 136, dated 9th -- instant, I am directed to forward for the information of the Government of Madras copies of -- the Notifications of this Government noted on the margin, which explain the data on which the -- figures in the statement of outturn, consumption and surplus of food-grains in the Bombay Presidency given in the report of the Indian Famine Commission of 1898 were compiled.

No. 931-Fam., dated 23rd March 1897.
No. 336-Fam., dated 9th May 1898.

I have the honour to be,

Sir,

Your most obedient Servant,

Acting Under Secretary to Government.

Famine.

Estimated outturn of food-grain crops, consumption and surplus for the two years 1895-96 and 1894-95.

No. 931-FAM.

REVENUE DEPARTMENT.
(*Famine.*)

Bombay Castle, 23rd March 1897.

Letter from the Survey Commissioner and Director of Land Records and Agriculture, No. A.—788, dated 16th March 1897—Submitting, with reference to Government memorandum No. 10539, dated 22nd December 1896, Statements A and A′ showing the estimated outturn of food-grain crops, consumption and surplus for the two years 1895-96 and 1894-95, together with their subsidiary statements marked respectively B, C and D and B′ and D′ and an explanatory note.

RESOLUTION.—The note and statements should be published in the *Bombay Government Gazette* for general information.

A. M. T. JACKSON,
Under Secretary to Government.

To

The Survey Commissioner and Director of Land Records and Agriculture,
The Commissioner, C. D.,
The Commissioner, S. D.,
All Collectors in the Central and Southern Divisions (except the Collector of Kánara),
The Public Works Department of the Secretariat,
The Public Works Department of the Secretariat, Railway.

} With copies of the note and statements referred to in the Resolution.

The Secretary, Chamber of Commerce (by letter).

No. of 1897.

Copy forwarded for information and guidance to

REVENUE DEPARTMENT (FAMINE.)

Bombay Castle, 23rd March 1897.

No. 931-FAM.—The following note and statements are published for general information:—

NOTE.

Estimated outturn, consumption and surplus, during the years 1895-96 and 1894-95.

In order to obtain an estimate of outturn, consumption and surplus of food-grains Statements A—D have been compiled. In Table B the estimated outturn for the reported areas and anna valuation has been worked out with the help of the crop formulæ.

These formulæ are estimates of the average yield per acre of the various crops in the different districts. They were originally compiled by a Committee of experienced Survey Officers. They have for the affected districts been recently revised by the Deputy Director of Agriculture, and are probably as near an approximation to facts as can be made upon existing knowledge. The average yields of the principal food-crops have been placed at a much lower figure than they were assigned in the original formulæ. The crops dealt with comprise pulses as well as all cereals including wheat.

2. In Table C the estimated consumption of food-grains for human beings has been calculated for each district on the basis adopted for the reports previously submitted to Government in 1888 and 1891. Additions have been made for seed, feed of stock, and wastage.

3. In Table D the principal agricultural factors which affect the production of the district and the length to which it will last as food-supply, have been summarised in a convenient form. These factors are briefly—(1) "the anna valuations" of the principal crops, (2) the density of the population per square mile, (3) the cropped areas per hundred head of the population, and (4) the average assessment per acre of the occupied area. The anna valuations, it may be explained, represent the number of annas in the rupee at which the crop of the district was actually estimated for the season concerned by the local officers. The average assessment on the occupied area has been given as a rough gauge of the relative fertility of the soil in the different divisions. The gauge, it must be remembered, is a very rough one; since the assessment is affected not merely by the fertility of the soil, but by the relative advantages which the tract or "group," as it is called, in which it is situated possesses in matter of rainfall, communications, markets, and general development. Land of corresponding fertility is generally more highly assessed in Gujarát than in the Deccan. This is due principally to generally superior fertility, but largely also to the other reasons mentioned, chief among these being, perhaps, the uniformity and sufficiency of the rainfall.

4. Table A, which summarises the results of Tables B and C, shows the estimated surplus after deducting consumption from outturn. This table has thus been prepared on the model of the statement adopted in the Famine Commission's Report (paragraph 156); but it must be noted that, for the Bombay Presidency the materials required for the calculation were, at the time when the Commission prepared its report, most deficient, and the Commission had to rely upon, and to use, for the most part, the estimates prepared for other provinces. In the present statement the estimates have been framed upon materials which have since been locally collected, revised and checked so far as has been possible.

5. An examination of Table A shows that during the year 1895-96 the total outturn in the Presidency is estimated to amount to 1,445 L. M., consumption 1,166 L. M., surplus 279 L. M. During the year 1894-95 the estimated outturn according to Table A amounted to 1,453 L. M., consumption 1,172 L. M., and surplus 281 L. M. The estimated consumption of food-grains for human beings for both the years was 81 per cent., feed of stock 9 per cent., seed 4 per cent, and wastage 6 per cent. The following statement shows details for the different divisions :—

Division.	1895-96.				1894-95.			
	Outturn.	Consumption.	Surplus.	Percentage of surplus over consumption.	Outturn.	Consumption.	Surplus.	Percentage of surplus over consumption.
	L. m.	L. m.	L. m.		L. m.	L. m.	L. m.	
Deccan	673	494	180	38·3	713	497	216	43·5
Karnátak	353	233	120	51·8	293	230	63	27·5
Gujarát	245	228	17	7·4	294	234	60	26·7
Konkan	164	211	—47	—22·4	153	211	—58	—28
Total ...	1,445	1,166	279	23·9	1,453	1,172	281	24

Division.	Months for which surplus is expected to last.	1895-96.	1894-95.
Deccan	5		
Karnátak	3¼		
Gujarát	1		
Konkan	—2¾		
Total ...	2¾		

The surplus in 1895-96 is sufficient to provide a supply of food-grains estimated to last for about 6¾ months in the Karnátak, for about 4½ months in the Deccan, and for about one month in Gujarát. In the Konkan there is a regular deficit to the extent of about one-fifth the consumption; but the net surplus, after making allowance for all deficits, is estimated to yield about three months' supply for the whole Presidency. During 1894-95, also, the net surplus for the Presidency is also estimated at nearly three months' supply, though the variations in the different divisions are considerable.

6. From the statistics of Rail-borne Traffic it appears that, during 1895-96, the Presidency (exclusive of Bombay Port) exported food-grains to the extent of 54 L. M., and imported to the extent of 22 L. M., or in other words there were net exports of 32 L. M.; the net export represents ·116 per cent. of the estimated surplus. Making deduction on account of exports, the net surplus amounts to about 247 L. M., which represents about 21 per cent. of the estimated consumption and a supply for about 2½ months. During 1894-95 the exports of food-grains amounted to 38 L. M., and the imports to 23¾ L. M., with net exports of about 8¼ L. M. or about 3 per cent. of the estimated surplus. Making deduction on account of exports the net surplus amounts to about 272 L. M. or 23 per cent. of the estimated consumption and a supply for 2¾ months.

7. Table A does not take into account the consumption of the large population of Bombay Port, which is provided with its food-supply from all parts of India. In the preceding para., therefore, for estimating the *net* supply the exports from the rest of the Presidency to the Port have been deducted from the *gross* supply.

8. From tables D and D1 it will be gathered that the number of acres of food-crops per 100 persons of agricultural population and the average assessment per acre, &c., for the different divisions are as follows :—

Division.	Percentage of surplus food-grains over consumption.	Percentage of area under food-crops over total cropped area.	Density of population per square mile.		Percentage of agricultural on total Population.	Cropped acres per 100 heads of Agricultural Population.		Assessment per acre of occupied area.
			Total.	Agricultural.		Total crops.	Food-grain crops.	
			1895-96.					
Deccan	38·3	79	162	104	64	342	272	0 12 9
Karnátak	51·8	75	192	128	67	351	264	0 13 7
Gujarát	7·4	74	301	185	61	179	133	0 13 7
Konkan	—22·4	91	219	154	70	90	82	1 1 0
Presidency Proper...	23·9	78	196	123	65	269	203	1 1 11
			1894-95.					
Deccan	43·5	80	162	104	64	345	279	0 12 10
Karnátak	27·5	75	192	128	67	348	262	0 13 7
Gujarát	26·7	77	301	185	61	195	151	2 11 8
Konkan	—28·0	91	219	154	70	91	83	1 10 9
Presidency Proper...	24	80	196	123	65	266	215	1 0 11

* These figures help to explain the existence of the comparative large surpluses in the Deccan and the Karnátak, of the small surplus in Gujarát, and of the deficit in the Konkan.

(Signed) J. W. P. MUIR-MACKENZIE,
Acting Survey Commissioner and Director,
Land Records and Agriculture.

Poona, 16th March 1897.

By order of His Excellency the Right Honourable the Governor in Council,

J. MONTEATH,
Acting Chief Secretary to Government.

A.—*Estimated Outturn of Food-grain Crops, Consumption and Surplus during 1895-96.*

	District.	Population.	Average under food-grain crops.	Outturn of food-grain crops in Indian maunds as per table B.	Ordinary Consumption (Indian maunds).					Surplus (Indian maunds).	Percentage of surplus over consumption.	Months for which surplus is expected to lost.
					Food as per table C.	Seed.	Feed of Stock.	Wastage.	Total.			
	1	2	3	4	5	6	7	8	9	10	11	12
	Deccan.											
1	Khándesh	1,460,851	1,750,664	14,458,397	8,987,851	300,972	875,332	722,920	10,887,975	3,571,322	32·8	4
2	Násik	843,582	1,582,511	12,710,260	5,234,045	298,849	791,255	625,513	6,959,662	5,750,598	82·7	10
3	Ahmednagar	888,755	2,364,764	11,974,351	5,554,665	362,310	1,182,382	598,717	7,698,074	4,276,277	55·5	7
4	Poona	1,067,800	1,846,733	10,567,236	6,696,303	283,536	923,367	728,362	8,431,568	2,135,668	25·3	3
5	Sholápur	750,689	1,779,638	7,151,274	4,702,888	245,612	889,819	357,564	6,195,883	955,391	15·3	2
6	Sátára	1,225,989	1,523,590	11,397,412	7,616,487	251,340	761,795	569,871	9,199,493	2,197,919	23·8	3
	Total, Deccan ...	6,237,666	10,847,900	68,258,930	38,792,239	1,742,619	5,423,950	3,412,947	49,371,755	18,887,175	38·3	4½
	Karnátak.											
7	Belgaum	1,013,261	1,412,508	13,025,831	6,353,710	325,078	706,254	651,201	8,016,333	5,009,498	62·4	7½
8	Bijápur	796,339	2,165,898	9,582,297	4,976,667	359,693	1,082,949	479,115	6,898,424	2,683,873	38·9	4½
9	Dhárwár	1,051,314	1,453,355	12,753,558	6,591,519	421,051	726,678	537,678	8,376,926	4,376,632	52·2	6¼
	Total, Karnátak ...	2,860,914	5,031,761	35,361,686	17,901,896	1,105,822	2,518,881	1,768,084	23,291,683	12,070,003	51·8	6½
	Gujarát.											
10	Ahmedábad	921,712	840,379	6,898,241	5,886,940	245,547	420,189	344,912	6,897,588	653	...	...
11	Kaira	871,579	634,039	6,268,406	5,556,332	125,026	317,020	313,420	6,311,798	—43,392	—0·6	...
12	Panch Mahals ...	313,417	383,352	3,539,643	1,931,325	95,746	191,676	176,532	2,395,279	1,135,364	47·4	6
13	Broach	341,490	267,982	2,985,465	2,205,197	69,263	133,991	149,323	2,557,774	428,691	16·7	2
14	Surat	649,989	405,672	4,784,678	4,064,731	129,258	202,836	230,234	4,636,159	148,519	3·2	⅓
	Total, Gujarát ...	3,098,197	2,531,424	24,468,433	19,644,525	664,940	1,265,712	1,233,421	22,798,598	1,669,835	7·4	1
	Konkan.											
15	Thána	1,414,452	436,229	8,581,444	8,823,804	226,230	218,115	429,072	10,082,959	—1,501,515	—14·9	—1½
16	Kolába		398,471			186,503	199,235					
17	Ratnágiri	1,105,926	669,649	5,573,566	6,770,289	249,846	334,825	278,679	7,633,639	—2,060,073	—26·9	—3
18	Kánara	446,351	205,502	2,223,024	2,891,953	285,433	102,751	111,151	3,391,288	—1,168,264	—34·4	—4
	Total, Konkan ...	2,966,729	1,709,851	16,378,034	18,486,046	948,012	854,926	818,902	21,107,886	—4,729,852	—22·4	—2⅔
	Grand Total ...	15,163,506	20,120,936	144,467,083	94,824,706	4,461,393	10,060,469	7,233,354	116,569,922	27,897,161	23·9	2¾

(Signed) J. W. P. MUIR-MACKENZIE,
Acting Survey Commissioner and Director,
Land Records and Agriculture.

B.—Detailed Calculation of Outturn under principal Food-grains (Cereals and Pulses) for the Year 1895-96.

District.	Cereals.																					
	Jowári.			Bájri.			Rice. Paddy.			Equivalent yield in husked or clean rice.	Wheat.			Ragi.			Maize.					
	Area and anna estimate of outturn.	Yield per acre.	Total yield.	Area and anna estimate of outturn.	Yield per acre.	Total yield.	Area and anna estimate of outturn.	Yield per acre.	Total yield in unhusked rice.		Area and anna estimate of outturn.	Yield per acre.	Total yield.	Area and anna estimate of outturn.	Yield per acre.	Total yield.	Area and anna estimate of outturn.	Yield per acre.	Total yield.			
	Acres.	Lbs.	In. Mds.	Acres.	Lbs.	In. Mds.	Acres.	Lbs.	In. Mds.	Ind. Mds.	Acres.	Lbs.	Ind. Mds.	Acres.	Lbs.	Ind. Mds.	Acres.	Lbs.	Ind. Mds.			
Deccan.																						
Khándesh	486,709 12	970	5,901,347	625,846 11	440	3,442,153	2,087 11	1,650	43,044	292,293	11,594 10	1,000	144,925	8,820 15	1,100	12,127	2,345		32,830			
							28,756 11	1,100	395,395		242,232 10	583	1,765,266									
Násik	126,838 14	653	1,010,315	669,546 13	520	4,352,049	4,598 15	2,250	129,319	710,538	23,469 12	1,180	346,168	132,836 14	1,240	2,058,958	1,633		22,862			
							49,946 15	1,500	936,487		269,554 12	560	1,886,878									
Ahmednagar ...	835,771 10	400	4,178,855	829,837 10	283	2,935,548	988 10	1,750	21,612	113,866	23,862 10	983	416,079	23,364 12	1,060	338,778	860	1,120	12,040			
							11,935 10	1,000	149,187		201,113 10	467	1,173,985									
Poona	729,656 11	458	4,177,281	623,071 11	312	2,429,977	1,901 14	2,217	52,681	806,974	21,124 12	1,080	285,174	53,392 13	1,300	867,620	1,280		17,920			
							66,159 14	1,400	1,157,782		77,684 12	470	456,393									
Sholápur	1,203,533 8	307	4,618,558	252,343 5	150	473,143	3,292 7	1,050	43,207	141,988	26,890 10	983	335,554	44 4	1,060	583	11,972		167,608			
							19,403 7	700	169,776		24,307 10	467	141,892									
Sátára	491,406 11	788	4,849,349	464,449 7	292	1,697,739	8,855 10	1,769	195,806	426,502	24,755 11	1,082	335,186	58,517 11	1,100	804,595	8,948		125,272			
							32,287 10	1,100	443,946		38,017 11	513	243,784									
Total, Deccan ...	3,873,913	...	24,726,705	3,465,092	...	15,330,609	Irrigated. 21,721 Unirrigated. 208,486	...	Irrigated. 485,669 Unirrigated. 3,252,573	2,492,161	Irrigated. 131,694 Unirrigated. 852,907	...	Irrigated. 1,863,086 Unirrigated. 5,668,198	376,973	...	4,082,661	27,038	...	378,532			
Karnátak.																						
Belgaum	630,580 14	817	6,439,798	163,163 15	475	968,780	10,696 12	2,000	267,400	1,271,576	3,351 12	1,040	43,563	47,576 13	1,300	773,110	7,607		87,280			
							100,921 12	1,300	1,639,966		112,878 12	560	790,146									
Bijápur	1,381,955 9	345	5,959,681	311,731 8	240	935,593	1,035 12	1,800	23,287	167,525	1,331 9	885	14,724	210 9	900	2,363	618	1,120	8,652			
							15,200 12	1,200	228,000		178,803 9	420	938,716									
Dhárwár	647,234 11	852	6,893,042	4,219 5	221	116,550	77,338 10	1,667	161,443	695,874	17 12	1,040	221	46,626 13	1,300	757,705	43		497			
							72,998 10	967	882,363		240,468 12	660	2,033,361									
Total, Karnátak ...	2,659,769	...	19,292,521	479,113	...	2,020,523	Irrigated 89,069 Unirrigated 189,119	...	Irrigated 452,130 Unirrigated 2,750,329	2,134,975	Irrigated 4,699 Unirrigated 538,149	...	Irrigated 58,508 Unirrigated 3,762,223	94,412	...	1,533,178	8,268	...	96,429			
Gujarát.																						
Ahmedabad	279,053 8	713	2,487,060	128,750 10	708	1,139,437	78,452 9	1,318	1,292,497	861,664	16,698 9	1,110	231,685	7,513 8	980	92,934	4,027	1,050	52,867			
											53,343 9	664	1,272,747									
Kaira...	63,588 8	700	556,395	162,734 10	792	1,611,067	142,804 8	1,180	2,106,418	1,404,278	2,407 8	827	24,882	73,389 5	610	559,551	280	1,050	3,675			
											10,613 8	600	79,597									
Panch Mahals ...	5,340 12	1,000	66,750	42,134 18	547	288,091	68,533 7	857	734,160	489,440	652 8	933	7,604	17,074 6	700	149,391	109,535	1,150	1,574,580			
											17,386 8	800	173,860									
Broach	123,589 15	1,462	2,264,072	11,651 7	624	90,878	20,720 5	506	131,054	87,370	43,436 6	480	293,616	159 5	620	1,232	13	1,050	171			
											1 10	1,100	14									
Surat...	131,633 12	1,120	1,842,862	7,122 8	720	64,098	106,967 10	1,642	2,195,498	1,463,666	18,871 10	850	200,504	12,472 10	1,030	160,577	7	1,050	92			
Total, Gujarát ...	603,503	...	7,217,139	352,391	...	3,193,571	417,480	...	4,459,627	4,306,418	268,907	...	2,284,509	110,607	...	962,785	113,862	...	1,631,385			
Konkan.																						
Thána	30 12	800	300	...	...	.....	305,128 14	1,412	5,385,509	3,590,338	107 14	560	749	61,175 12	730	558,231	64	1,120	736			
							243,011 14	1,400	4,252,693	2,835,128	.....	...	.....	61,504 10	650	499,720	...		...			
Kolába	...	...	.....	...	...	.....	50,846 14	1,200	762,690	508,460	.....	...	.....	23,051 11	630	181,503	2		23			
Ratnágiri	...	...	.....	7 12	320	28	188,906 12	1,300	3,069,722	2,046,482	.....	...	.....	6,106 12	1,400	106,855	359		4,128			
Kánara	1,999 14	933	20,813	...	...	.....	188,906 13															
Total, Konkan ...	2,029	...	21,113	7	...	28	787,891	...	13,470,614	8,980,408	107	...	749	151,836	...	1,346,309	425	...	4,887			
GRAND TOTAL ...	7,139,214	...	51,257,478	4,296,603	...	20,544,731	1,713,766	...	26,870,942	17,913,962	1,796,463	...	13,637,273	633,828	...	7,924,933	149,593	...	2,111,233			

B.—*Detailed Calculation of Outturn under principal Food-grains (Cereals and Pulses) for the Year 1895-96.*

District.	Cereals—*continued.*								Pulses.									
	Kodra.			Other Cereals.			Total.		Tur.			Gram.			Other Pulses.			Total.	
	Area and anna estimate of outturn.	Yield per acre.	Total yield.	Area and anna estimate of outturn.	Yield per acre.	Total yield.	Area.	Total yield.	Area and anna estimate of outturn.	Yield per acre.	Total yield.	Area and anna estimate of outturn.	Yield per acre.	Total yield.	Area and anna estimate of outturn.	Yield per acre.	Total yield.	Area.	Total yield.
	Acres.	Lbs.	Ind. Mds.	Acres.	Lbs.	Ind. Mds.	Acres.	Ind. Mds.	Acres.	Lbs.	Ind. Mds.	Acres.	Lbs.	Ind. Mds.	Acres.	Lbs.	Ind. Mds.	Acres.	Ind. Mds.
Deccan.																			
Khándesh	5,152 10	550	35,420	13,109 12	600	98,317	1,426,650	11,724,678	77,371 11	880	851,081	52,506 13	650	426,611	194,137 12	600	1,456,027	324,014	2,733,719
Násik...	2 11	560	14	37,818 12	600	283,635	1,316,240	10,671,417	26,003 12	960	312,036	75,203 13	520	488,819	165,065 12	600	1,237,988	266,271	2,038,843
Ahmednagar	122 7	380	578	28,020 12	560	196,140	1,955,872	9,365,869	90,855 10	800	908,550	120,952 11	440	665,236	197,085 10	420	1,034,696	408,892	2,608,482
Poona...	37 8	530	245	44,654 12	560	172,578	1,618,958	9,214,162	44,169 10	670	369,915	76,911 11	440	423,010	106,695 10	420	560,149	227,775	1,353,074
Sholápur	82 2	130	133	14,269 4	150	26,754	1,556,135	5,906,213	73,952 7	560	517,664	68,120 10	400	340,600	81,431 9	380	386,797	223,503	1,245,061
Sátára	220 3	160	410	77,361 10	460	444,826	1,204,815	8,918,693	63,106 10	1,200	946,590	75,202 11	430	404,211	18,467 10	500	1,127,918	318,775	2,478,719
Total, Deccan ...	5.615	...	36.830	215.231	...	1,222.250	9,078.670	55.801.932	375.456	...	3,905.836	478,894	...	2,748,487	924,889	...	5,803.575	1,769,230	12,457,898
Karnátak.																			
Belgaum	71 15	820	728	108,138 12	560	756,966	1,184,981	11,131,947	67,801 11	880	745,811	49,871 13	520	324,161	109,855 12	600	823,912	227,527	1,893,884
Bijápur	35 10	666	2,914	32,932 9	600	216,990	1,923,850	8,276,758	86,173 6	480	517,038	71,184 11	440	391,512	84,691 9	375	396,989	212,048	1,305,539
Dhárwár	185 13	160	370	119,256 12	560	834,972	1,214,384	11,332,412	58,257 6	500	364,106	54,032 11	510	344,454	126,682 9	450	732,586	238,971	1,421,146
Total, Karnátak ...	291	...	4.012	260.326	...	1.838.748	4.323.215	30.741.117	212.231	...	1.626.955	175.087	...	1,060,127	321.228	...	1.933.487	708.546	4.620.569
Gujarát.																			
Ahmedabad	16,768 7	800	167,680	44,975 8	660	337,312	729,579	6,642,487	5,946 6	280	20,811	18,129 7	110	24,927	86,725 6	250	210,016	110,800	255,754
Kaira...	108,205 12	1,230	1,663,652	4,192 12	1,200	62,880	568,216	5,965,978	20,226 9	460	102,616	8,407 4	220	23,129	37,190 9	380	176,653	65,823	302,428
Panch Mahals ...	19,462 4	380	92,587	22,117 6	480	132,702	302,233	2,975,003	5,533 7	330	22,824	59,285 9	620	459,459	16,301 9	360	73,355	81,119	555,638
Broach	6,952 7	560	48,664	28 6	500	175	212,348	2,786,177	8,969 7	350	39,239	1,301 3	140	2,275	45,364 6	280	158,774	55,634	200,288
Surat...	31,285 11	1,140	445,811	675 10	730	6,159	309,033	4,183,782	26,374 10	570	187,929	2,029 2½	140	3,551	68,236 9	480	409,416	76,639	600,896
Total, Gujarát ...	182.672	...	2.418.394	91,987	...	539,228	2,121,409	22,553,428	47.048	...	373,449	89,151	...	513,341	253,816	...	1.028.214	410,015	1.915.004
Konkan.																			
Thána	17,868 12	730	108,295	23,878 12	640	191,244	402,250	4,449,895	6,192 7	220	17,028	2,544 11	360	10,198	25,243 10	330	104,127	33,979	131,353
Kolába	17,461 11	720	156,609	50,988 10	600	382,410	372,904	3,873,868	2,180 12	410	11,172	2,372 13	340	10,081	21,015 12	400	105,075	25,567	126,328
Ratnágiri	17,086 11	630	134,552	10,290 10	600	77,175	588,172	5,236,798	353 10	360	1,588	37 12	320	148	13,638 10	330	56,257	81,477	336,773
Kánara	...	...	...	741 12	800	7,410	198,111	2,185,687	218 8	370	1,008	464 12	480	2,784	6,709 10	400	33,545	7,391	37,337
Total, Konkan ...	46.355	...	399,456	85.897	...	658.239	1,561,437	15,746,248	8,943	...	30.796	5,417	...	23,211	66,605	...	299.004	148.414	631.791
Grand Total ...	234,933	...	2.858.692	633,441	...	4,258,465	17,084.731	124.841.821	6 3.678	...	5,937,036	738,549	...	4.345.166	1,566,529	...	9,064,280	3.036,205	19,625,262

Note.—(1) The black figures under areas represent reported anna valuation of outturn.
(2) The equivalent outturn in *rice husked* has been calculated at ⅔ of that for unhusked rice.
(3) In the case of Ratnágiri District for which large areas do not return Agriculture Statistics, approximate addition for these areas has been made under tota areas and outturn under cereals and pulses. The area of non-reporting villages is roughly estimated at 486,892 acres under cereals and 67,447 acres under pulses.

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Land Records and Agriculture.

District.	Total Population.					Estimated consumption of food.				Remarks.
	Children up to 2 years.	Children above 2 and up to 14 years.	Females above 14 years.	Males above 14 years.	Total Population.	Children above 2 and up to 14 years at 1 lb. per diem.	Females above 14 years at 1½ lbs. per diem.	Males above 14 years at 2 lbs. per diem.	Total.	
1	2	3	4	5	6	7	8	9	10	11
					No.	Ind. mds.	Ind. mds.	Ind. mds.	Ind. mds.	
Deccan.										
1 Khándesh	137,443	468,391	416,970	438,047	1,460,851	2,137,034	2,853,638	3,997,179	8,987,851	
2 Násik	74,592	268,542	244,500	255,948	843,582	1,225,223	1,673,296	2,335,526	5,234,045	
3 Ahmednagar	81,811	262,584	267,686	276,674	888,755	1,198,039	1,831,976	2,524,650	5,554,665	
4 Poona	96,643	313,114	323,034	335,009	1,067,800	1,428,583	2,210,763	3,056,957	6,696,303	
5 Sholápur	73,429	207,919	231,664	237,677	750,689	948,630	1,585,455	2,168,803	4,702,888	
6 Sátára	109,981	371,782	381,734	362,492	1,225,989	1,696,256	2,612,492	3,307,739	7,616,487	
Total, Deccan ..	573,899	1,892,332	1,865,588	1,905,847	6,237,666	8,633,765	12,767,620	17,390,854	38,792,239	
Karnátak.										
7 Belgaum	89,742	303,996	309,663	309,860	1,013,261	1,386,982	2,119,256	2,827,472	6,333,710	
8 Bijápur	77,682	220,893	251,289	246,475	796,339	1,007,824	1,719,759	2,249,084	4,976,667	
9 Dhárwár	92,126	311,242	324,835	323,111	1,051,314	1,420,042	2,223,089	2,948,388	6,591,519	
Total, Karnátak ...	259,550	836,131	885,787	879,446	2,860,914	3,814,848	6,062,104	8,024,944	17,901,896	
Gujarát.										
10 Ahmedabad	68,874	272,634	285,507	294,697	921,712	1,243,893	1,953,937	2,689,110	5,886,940	
11 Kaira	68,233	257,122	263,528	282,706	871,589	1,173,119	1,803,520	2,579,693	5,556,332	
12 Panch Mahális	27,917	104,001	87,390	94,109	313,417	474,505	598,075	858,745	1,931,325	
13 Broach	26,206	93,092	108,290	113,902	341,490	424,732	741,109	1,039,356	2,205,197	
14 Surat	53,238	200,826	203,552	192,373	649,989	916,268	1,393,059	1,455,404	4,064,731	
Total, Gujarát ...	244,468	927,675	948,267	977,787	3,098,197	4,232,517	6,489,700	8,922,308	19,644,525	
Konkan.										
15 Thána	120,008	449,528	410,552	434,264	1,414,452	2,051,428	2,809,717	3,962,659	8,823,804	
16 Kolába										
17 Ratnágiri	94,772	352,565	371,688	286,901	1,105,926	1,608,578	2,543,739	2,617,972	6,770,289	
18 Kánara	30,129	131,860	133,462	150,900	446,351	601,611	913,380	1,376,962	2,891,953	
Total, Konkan ...	244,909	934,053	915,702	872,065	2,966,729	4,261,617	6,266,836	7,957,593	18,486,046	
Total for the Presidency Proper.	1,322,826	4,590,191	4,615,344	4,635,145	15,163,506	20,942,747	31,586,260	42,295,699	94,824,706	
Bombay City	38,794	171,179	207,638	404,153	821,764	781,004	1,421,023	3,687,896	5,889,923	

Note.—As separate details for Thána and Kolába owing to territorial transfers are not available, the figures for the two districts have been lumped together.

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D.

Percentage of Surplus of Food-grains over consumption and percentage of Agricultural Population. Food-grain Crop and Assessment per acre, 1895-96.

District.	Percentage of surplus food-grains over consumption, 1895-96.	Reported annawari valuation for principal cereals.				Percentage of area under food crops over total cropped area.	Density of population per square mile.		Percentage of agricultural on total population.	Cropped acres per 100 heads of agricultural population.		Assessment per acre of occupied area.
		Jowár.	Bájri.	Rice.	Wheat.		Total.	Agricultural.		Total crops.	Food-grain crops.	
1	2	3				4	5	6	7	8	9	10
												Rs. a. p.
Deccan.												
1. Khándesh	32·8	12	11	11	10	57	193	88	66	319	182	1 4 5
2. Násik	82·7	14	13	15	12	80	142	90	63	370	297	0 11 1
3. Ahmednagar	55·5	10	10	10	10	86	133	87	65	479	412	0 9 5
4. Poona	25·3	11	11	14	12	90	198	115	58	333	299	0 10 2
5. Sholápur	15·3	8	5	7	10	85	165	100	60	463	393	0 8 1
6. Sátára	23·8	11	7	10	11	89	245	172	70	200	178	1 0 3
Total, Deccan ...	383	...	...	...	...	79	182	104	64	342	272	0 12 9
Karnátak.												
7. Belgaum	62·4	14	15	12	12	80	217	152	70	249	199	0 15 2
8. Bijápur	38·9	9	8	12	9	77	140	95	67	523	404	0 8 5
9. Dhárwár	52·2	11	5	10	12	68	298	44	63	321	220	1 3 6
Total, Karnátak ...	518	...	...	...	...	75	192	128	67	351	264	0 13 7
Gujarát.												
10. Ahmedábad	... 8	10	9	9	71	233	116	50	257	183	2 0 7	
11. Kaira	—0·6 8	10	8	8	91	541	378	70	114	104	3 13 7	
12. Panch Mahális ...	47·4 12	8	7	8	91	194	145	75	180	163	0 15 5	
13. Broach	16·7 15	7	5	6	47	233	140	60	276	131	4 2 7	
14. Surat	3·2 12	8	10	10	75	391	268	61	138	103	3 4 9	
Total, Gujarát ...	74	...	...	...	...	74	301	185	61	179	133	3 1 0
Konkan.												
15. Thána	—14·9	...	14	...	...	94	280	157	69	83	77	1 3 9
16. Kolába		...	14	...	...	98	272	199	72	96	93	2 2 6
17. Ratnágiri	—26·9	...	12	...	...	87	282	209	75	93	81	0 13 4
18. Kánara	—34·4	...	13	...	...	84	114	72	63	87	72	2 15 9
Total, Konkan ...	—22·4	...	...	...	...	91	219	154	70	90	82	1 11 3
Grand Total ...	239	...	...	...	...	78	196	128	65	259	203	1 1 11

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Acting Survey Commissioner and Director,
Land Records and Agriculture.

A.[1]—*Estimated Outturn of Food-grain Crops, Consumption and Surplus during 1894-95.*

	District.	Population.	Acreage under Food-grain Crops.	Outturn of Food-grain Crops in Indian Maunds as per Table B-1.	Ordinary Consumption (Indian Maunds).					Surplus (Indian Maunds).	Percentage of Surplus over Consumption.	Months for which Surplus is expected to last.
					Food as per Table C.	Seed.	Feed of Stock.	Wastage.	Total.			
	1	2	3		5	6	7	8	9	10	11	12
	Deccan.											
1	Khándesh	1,460,851	1,792,114	14,782,026	8,987,851	309,682	896,057	739,101	10,932,691	3,849,335	35	4
2	Násik	843,582	1,696,874	13,617,090	5,234,045	313,678	848,437	680,855	7,077,015	6,540,075	92	11
3	Ahmednagar	888,755	2,443,333	12,962,783	5,554,665	376,640	1,221,669	603,139	7,756,113	4,306,670	56	7
4	Poona	1,067,800	1,857,143	10,598,133	6,696,303	285,527	928,574	529,906	8,440,310	2,157,823	25	3
5	Sholápur...	750,689	1,799,188	9,067,540	4,702,888	245,708	899,594	453,377	6,301,567	2,765,973	44	5
6	Sátára	1,225,989	1,533,413	11,220,309	7,616,487	251,814	766,707	561,016	9,196,024	2,024,285	22	2½
	Total, Deccan ...	6,237,666	11,122,075	71,347,881	38,792,239	1,783,049	5,561,038	3,567,394	49,703,720	21,644,161	43·5	5
	Karnátak,											
7	Belgaum	1,013,261	1,409,947	9,478,818	6,333,710	323,702	704,973	473,941	7,836,326	1,642,492	21	2½
8	Bijápur	796,339	2,118,934	9,337,085	4,976,667	352,606	1,059,467	466,854	6,855,594	2,481,491	36	4
9	Dhárwár	1,051,314	1,459,486	10,486,633	6,591,519	438,016	729,743	524,332	8,283,610	2,203,023	26	3
	Total, Karnátak ...	2,860,914	4,988,367	29,302,536	17,901,896	1,114,324	2,494,183	1,465,127	22,975,530	6,327,006	27·5	3½
	Gujarát.											
10	Ahmedábád	921,712	1,028,142	8,766,326	5,886,940	329,473	514,071	438,316	7,168,800	1,597,526	22	2½
11	Kaira	871,589	697,338	8,541,136	5,556,332	143,967	348,669	427,057	6,476,025	2,065,111	32	3½
12	Panch Mahals	313,417	397,154	3,640,737	1,931,325	106,649	198,577	182,037	2,418,588	1,222,149	50	6
13	Broach	341,490	337,259	3,739,444	2,205,197	116,234	168,629	186,972	2,677,032	1,062,412	40	4½
14	Surat	649,989	408,523	4,704,513	4,064,731	141,938	204,262	235,225	4,646,156	58,357	1	.....
	Total, Gujurát ...	3,098,197	2,868,416	29,392,156	19,644,525	838,261	1,434,208	1,469,607	23,386,601	6,005,555	25·7	3
	Konkan.											
15	Thána	1,414,452	436,631	7,288,948	8,823,804	225,397	218,315	157,109	10,018,412	−2,729,464	−27	−3½
16	Kolába		400,721			186,087	200,361	207,339				
17	Batnágiri	1,105,926	688,046	5,892,013	6,770,289	250,073	344,023	294,601	7,658,986	−1,766,973	−23	−2¾
18	Kánara	446,351	207,668	2,092,632	2,891,953	290,702	103,834	104,651	3,391,120	−1,298,488	−38	−4½
	Total, Konkan ...	2,966,729	1,733,066	15,273,593	18,486,046	952,259	866,533	763,680	21,068,518	−5,794,925	−28	−3½
	Grand Total ...	15,163,506	20,711,924	145,316,166	94,824,706	4,687,893	10,355,962	7,265,808	117,134,369	28,181,797	24	2¾

Note.—For the description of the mode in which this table has been drawn up reference is invited to the explanatory notes on Table A for 1895-96.

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Acting Survey Commissioner and Director, Land Records and Agriculture.

B.—*Detailed calculation of Outturn under principal Food-grains (Cereals and Pulses) for the Year 1894-95.*

District.	Cereals.																			
	Jowári.			Bájri.			Rice.				Wheat.			Ragi.			Maize.			
							Paddy.			Equivalent yield in husked or clean rice.										
	Area and anna estimate of outturn.	Yield per acre.	Total yield.	Area and anna estimate of outturn.	Yield per acre.	Total yield.	Area and anna estimate of outturn.	Yield per acre.	Total yield in unhusked rice.		Area and anna estimate of outturn.	Yield per acre.	Total yield.	Area and anna estimate of outturn.	Yield per acre.	Total yield.	Area and anna estimate of outturn.	Yield per acre.	Total yield.	
Deccan.	Acres.	Lbs.	In. Mds.	Acres.	Lbs.	In. Mds.	Acres.	Lbs.	In. Mds.	In. Mds.	Acres.	Lbs.	In. Mds.	Acres.	Lbs.	In. Mds.	Acres.	Lbs.	In. Mds.	
Khándesh	513,241 11	890	5,709,896	625,987 11	440	3,442,928	Irrigated 2,176 Unirrigated. 27,339 13	1,950 1,300	53,040 444,259	331,543	Irrigated 12,094 Unirrigated, 256,495 13	1,300 758	196,527 2,430,290	9,307 12	880	107,877	1,962 12	1,120	27,468	
Násik...	119,652 13	780	1,166,607	758,576 13	520	4,950,744	Irrigated 5,389 Unirrigated. 46,994 14	2,100 1,400	141,461 822,395	642,571	Irrigated 28,361 Unirrigated, 269,551 12	1,180 560	418,325 1,886,857	142,496 14	1,240	2,208,688	1,593 12		22,302	
Ahmednagar... ...	864,171 10	400	4,320,855	870,809 10	280	3,047,831	Irrigated 1,481 Unirrigated. 11,642 12	2,100 1,200	38,876 174,630	142,337	Irrigated 23,584 Unirrigated, 217,516 11	1,082 513	318,973 1,394,821	25,007 10	883	276,015	1,026 12		14,364	
Poona	703,377 10	416	3,657,560	652,670 13	360	2,937,015	Irrigated 1,681 Unirrigated. 65,945 14	2,217 1,400	46,585 1,154,037	800,415	Irrigated 22,719 Unirrigated, 79,185 10	900 392	255,589 388,006	55,150 13	1,300	896,187	1,710 12		123,930	
Sholápur	1,317,229 11	420	6,915,452	210,891 6	190	1,509,866	Irrigated 2,806 Unirrigated. 14,604 9	1,350 900	47,351 164,295	141,097	Irrigated 28,789 Unirrigated, 21,558 10	983 467	353,745 63,357	50 3	300	187	15,681 12		219,534	
Sátára	465,789 11	788	4,598,022	483,563 9	375	2,266,702	Irrigated 8,120 Unirrigated. 32,305 10	1,608 1,000	163,212 403,812	378,016	Irrigated 24,723 37,662 11	1,082 513	334,378 241,507	55,659 9	900	626,164	9,134 12		127,876	
Total Deccan ...	3,983,459	...	26,368,302	3,602,496	..	17,155,086	Irrigated 21,653 Unirrigated. 198,829 220,482	...	490,525 3,163,428 3,653,953	2,435,969	Irrigated 140,270 Unirrigated, 881,967 1,022,237	...	1,877,537 6,404,838 8,282,375	288,169	...	4,115,118	31,106		435,474	

B.—*Detailed calculation of Outturn under principal Food-grains (Cereals and Pulses) for the Year 1894-95.*—continued.

CEREALS.

District.	Jowári.			Bájri.			Rice. Paddy.			Equivalent yield in husked or clean rice	Wheat.			Ragi.			Maize.		
	Area and anna estimate of outturn.	Yield per acre.	Total yield.	Area and anna estimate of outturn.	Yield per acre.	Total yield.	Area and anna estimate of outturn.	Yield per acre.	Total yield unhusked rice.		Area and anna estimate of outturn.	Yield per acre.	Total yield.	Area and anna estimate of outturn.	Yield per acre.	Total yield.	Area and anna estimate of outturn.	Yield per acre.	Total yield.
Karnátak.																			
Belgaum	691,168 10	580	4,358,468	193,640 9	285	689,842	Irrigated. 8,617 Unirrigated. 102,733 9	1,500 975	161,569 1,252,058	942,478	Irrigated. 3,229 Unirrigated. 111,119 9	780 420	31,463 583,375	51,272 11	1,100	704,990	8,280 12		115,920
Bijápur	1,382,401 9	345	5,961,604	289,385 8	210	868,155	Irrigated. 1,337 Unirrigated. 11,307 10	1,500 1,000	25,069 141,338	110,938	Irrigated. 1,866 Unirrigated. 180,620 10	983 466	22,923 1,052,111	299 9	900	2,576	783 12	1,120	10,962
Dhárwár	633,147 8	660	4,906,889	4,637 8	360	20,866	Irrigated. 67,480 Unirrigated. 83,338 7	1,166 700	983,521 729,207	1,141,819	Irrigated. 51 Unirrigated. 282,510 12	1,040 660	663 2,030,707	43,680 4	400	218,400	33 12		462
Total, Karnátak ..	2,616,716	...	15,226,961	487,662	...	1,578,863	Irrigated. 77,434 Unirrigated. 197,378 274,812	... ...	1,161,802 2,075,396 3,237,198	2,195,175	Irrigated. 5,146 Unirrigated. 574,249 579,395	... ...	55,074 3,666,193 3,721,267	95,181	...	925,966	9,096	...	127,344
Gujarát.																			
Ahmedabad... ...	287,845 5	535	1,924,963	141,132 4	285	502,783	109,097 14	2,050	2,795,098	1,563,400	246,550 11	811	2,499,400	5,376 9	1,162	74,054	3,625 12	1,040	47,125
Kaira	64,611 8	700	565,609	170,464 8	630	1,342,404	156,935 15	2,210	4,335,329	2,890,219	22,850 13	975	278,484	67,455 11	1,347	11,35,774	133 12	1,040	1,729
Panch Mahals ...	5,665 6	500	35,406	46,085 7	480	276,510	73,797 12	1,470	1,356,020	904,013	26,735 11	1,100	367,606	16,295 8	933	190,040	100,410 12	560	702,870
Broach	119,003 11	1,070	1,591,665	11,364 6	535	75,997	23,507 14	1,416	181,004	120,669	109,120 13	1,040	1,418,560	185 6	750	1,734	1 12	1,040	13
Surat...	114,220 9	840	1,199,310	6,133 8	720	55,197	111,637 12	1,970	2,749,061	1,832,707	33,759 12	1,020	430,427	11,3 6 9	930	132,362	6 12	1,040	78
Total, Gujarát ...	591,374	...	5,316,953	375,178	...	2,252,891	474,973	...	11,416,512	7,611,008	439,014	...	4,994,477	100,697	...	1,533,964	104,175	...	751,815
Konkan.																			
Thána	...	...	.....	...	...	.....	303,518 13	870	3,300,758	2,200,505	143 14	560	1,001	59,212 11	669	495,160	67 12		938
Kolába	...	...	.....	...	...	.....	241,774 14	1,400	4,231,045	2,820,697	.....	...	.....	60,664 12	780	591,474	...		...
Ratnágiri	...	..	.....	...	...	.....	49,689 12	1,200	745,335	496,890	.....	...	.....	23,834 12	690	205,568	1 12	1,120	14
Kánara	1,582 12	800	15,820	...	...	.....	192,541 12	1,200	2,888,115	1,925,410	.....	...	.....	6,396 12	1,400	111,930	22 12		308
Total, Konkan ...	1,582	...	15,820	...	...	.....	787,522	...	11,165,253	7,443,502	143	...	1,001	150,106 12	...	1,404,132	90		1,260
Grand Total ...	7,193,131	...	4,692,836	4,465,336	...	20,957,840	1,757,789	...	29,472,916	19,685,654	2,040,789	...	16,999,129	634,153	...	2,979,180	144,467	...	1,315,893

Note.—(1) The black figures under areas represent reported anna valuation of outturn.
(2) The equivalent outturn in *rice husked* has been calculated at ⅔ of that for unhusked rice.
(3) In the case of Ratnágiri District, for which large areas do not return Agricultural Statistics, approximate addition for these areas has been made under total areas and outturn under Cereals and Pulses. The area of non-reporting villages is estimated at 469,268 acres under Cereals and 71,684 acres under Pulses.

CEREALS—*continued.* PULSES.

District.	Kodra.			Other Cereals.			Total.		Tur.			Gram.			Other Pulses.			Total.	
	Area and anna estimate of outturn.	Yield per acre.	Total yield.	Area and anna estimate of outturn.	Yield per acre.	Total yield.	Area.	Total yield.	Area and anna estimate of outturn.	Yield per acre.	Total yield.	Area and anna estimate of outturn.	Yield per acre.	Total yield.	Area and anna estimate of outturn.	Yield per acre.	Total yield.	Area.	Total yield.
Deccan.	Acres.	Lbs.	In. Mds.	Acres.	Lbs.	In. Mds.	Acres.	In. Mds.	Acres.	Lbs.	In. Mds.	Acres.	Lbs.	In. Mds.	Acres.	Lbs.	In. Mds.	Acres.	In. Mds.
Khándesh	4,710 12	660	38,857	13,170 10	500	82,312	1,466,981	12,367,598	82,959 10	800	829,590	57,001 12	600	427,507	185,173 10	500	1,157,331	325,133	2,414,428
Násik	53 12	560	371	42,281 12	600	317,108	1,414,946	11,593,573	28,106 10	800	281,060	80,604 11	440	443,322	173,218 12	600	1,299,135	281,928	2,023,517
Ahmednagar ...	136 7	380	646	27,356 10	480	164,136	2,042,728	9,679,978	83,147 9	720	748,323	128,794 10	400	643,970	188,669 10	420	990,512	400,610	2,382,805
Poona	26 8	530	172	48,532 12	560	339,724	1,630,995	9,298,598	42,306 10	670	354,313	29,899 10	400	399,495	103,948 10	420	1,545,727	226,153	1,299,535
Sholápur	66 2	130	107	14,510 6	225	40,809	1,626,184	8,235,154	45,614 6	480	273,684	69,180 9	360	311,310	58,210 8	340	247,392	173,004	832,386
Sátára	53 6	320	212	80,622 10	460	463,576	1,197,630	9,036,453	64,592 8	800	645,920	84,869 9	352	373,423	186,322 10	500	1,164,513	335,783	2,183,85
Total Deccan ...	5,044	...	40,365	226,471	...	1,407,665	9,379,464	60,211,354	346,724	...	3,132,890	500,347	...	2,599,027	895,540	...	5,404,610	1,742,611	11,136,527

B 2530—4

District.	Cereals. Kodra. Area and anna estimate of outturn.	Kodra. Yield per acre.	Kodra. Total yield.	Other Cereals. Area and anna estimate of outturn.	Other Cereals. Yield per acre.	Other Cereals. Total yield.	Total. Area.	Total. Total yield.	Pulses. Gram. Area and anna estimate of outturn.	Gram. Yield per acre.	Gram. Total yield.	Other Pulses. Area and anna estimate of outturn.	Other Pulses. Yield per acre.	Other Pulses. Total yield.	Total. Area.	Total. Total yield.
Karnátak.																
Belgaum ...	49 10	540	331	114,036 10	480	684,216	1,194,443	8,711,043	49,988 9	360	224,946	103,560 9	450	582,525	216,804	1,367,775
Bijápur ...	27 10	666	225	47,849 10	460	225,132	1,915,804	8,394,631	63,606 10	400	378,030	69,479 10	500	434,244	203,180	1,032,454
Dhárwár ...	68 6	80	68	126,074 10	480	756,444	1,241,018	9,076,318	54,247 10	467	316,666	110,407 10	500	690,044	218,468	1,470,315
Total, Karnátak...	144	...	624	287,959	...	1,715,792	4,350,965	25,491,992	167,841	...	859,642	283,446	...	1,706,813	637,402	13,810,544
Gujarát.																
Ahmedabad ...	15,536 11	1,265	245,663	66,704 10	825	687,885	875,865	7,845,573	8,825 12	620	398,600	97,109 10	415	503,753	162,277	921,053
Kaira... ...	108,840 12	1,230	1,673,415	5,892 10	1,000	7,365	597,210	7,894,939	42,063 10	558	293,389	37,748 12	500	235,925	100,128	646,137
Panch Maháls ...	17,722 6	570	126,269	21,829 6	480	130,974	308,538	2,733,688	64,451 14	957	770,995	19,399 12	480	116,394	88,616	907,049
Broach	6,527 12	960	78,324 10	16	830	166	269,723	3,287,128	2,443 10	483	14,749	56,051 12	560	392,357	67,536	452,316
Surat...	31,258 12	1,240	242,249 10	1,157 10	730	10,558	309,556	3,902,888	1,863 10	558	12,994	73,506 12	640	588,048	98,967	801,625
Total, Gujarát ...	179,883	...	2,365,920	95,598	...	836,948	2,360,892	25,663,976	160,645	...	1,490,727	283,813	...	1,836,477	507,524	3,728,180
Konkan.																
Thána	12,304 13	791	121,656	25,221 12	640	201,768	400,465	3,021,028	2,678 11	360	12,051	26,884 8	264	88,552	36,166	121,147
Kolába	17,890 10	650	145,356	52,877 12	720	475,893	373,205	4,033,420	2,670 10	283	9,445	22,878 10	330	92,309	27,516	113,353
Ratnágiri	17,158 11	630	142,994	10,887 12	720	97,533	601,787	5,595,469	46 8	320	184	14,275 10	330	58,884	86,259	356,605
Kánara	...	...	...	670 12	800	6,700	101,211	2,000,168	262 12	480	1,572	5,974 10	400	29,870	6,467	32,464
Total, Konkan ...	48,352	...	410,006	89,605	...	781,894	1,576,668	14,650,025	5,656	...	23,252	69,461	...	269,615	156,398	623,569
Grand Total ...	233,423	...	2,816,915	699,633	...	4,742,299	17,667,969	126,017,347	334,489	...	2,372,648	1,532,360	...	9,217,515	3,043,935	19,298,820

(Signed) J. W. P. Muir-Mackenzie,
Acting Survey Commissioner and Director, Land Records and Agriculture.

D.—Percentage of surplus of food-grains over consumption and percentage of agricultural population and food-grain crops and assessment per acre during 1894-95.

District.	Percentage of surplus food-grains over consumption, 1894-95.	Reported Anna valuation for principal cereals. Jowár.	Bájra.	Rice.	Wheat.	Percentage of area under food-crops over total cropped area.	Density of population per square mile. Total.	Agricultural.	Percentage of agricultural to total population.	Cropped acres per 100 heads of agricultural population. Total crops.	Food-grain crops.	Assessment per acre of occupied area.	Remarks.
1	2	3				4	5	6	7	8	9	10	11
Deccan.												Rs. a. p.	
1 Khándesh	35	11	11	13	13	58	133	88	66	320	186	1 4 7	
2 Násik...	92	13	13	14	12	84	142	90	63	380	319	0 10 11	
3 Ahmednagar ...	56	10	10	12	11	88	133	87	65	481	425	0 9 7	
4 Poona...	25	10	13	14	10	90	198	115	58	335	301	0 10 3	
5 Kholápur	44	11	6	9	10	86	165	100	60	463	398	8 2	
6 Sátára	22	11	9	10	11	89	245	172	70	202	179	1 0 2	
Total, Deccan ...	43·5	...	...	...	...	80	162	104	64	345		12 10	
Karnátak.													
7 Belgaum	21	10	9	9	9	80	217	152	70	248	199	0 15 3	
8 Bijápur	36	9	8	10	10	76	140	95	67	518	395	0 8 5	
9 Dhárwár	26	8	8	7	12	69	228	44	63	319	221	1 6	
Total, Karnátak ...	27·5	...	...	...	...	75	192	128	67	343	262	0 13 7	
Gujarát.													
10 Ahmedabad	52	5	4	14	11	75	233	116	50	301	225	2 0 3	
11 Kaira...	32	8	8	15	13	92	541	378	70	121	115	3 1 10	
12 Panch Maháls ...	50	6	7	12	11	89	194	145	75	185	169	0 15 6	
13 Broach	40	11	6	14	13	58	233	140	60	285	165	4 0 8	
14 Surat	1	9	8	12	12	73	391	238	61	140	104	3 4 8	
Total, Gujarát ...	25·7	...	...	...	...	77	301	185	61	195	151	2 11 8	
Konkan.													
15 Thána...	—27	...	...	13	...	93	230	157	69	83	78	1 2 7	
16 Kolába		...	...	14	...	98	272	199	72	97	94	2 2 6	
17 Ratnágiri	—23	...	...	12	...	83	282	209	75	96	84	0 13 3	
18 Kánara	—38	12	...	12	...	84	114	72	63	88	74	2 15 11	
Total, Konkan ...	—28	...	...	...	...	91	219	154	70	91	83	1 10 9	
Grand Total ...	24	...	...	...	...	80	196	128	65	266	215	1 0 11	

(Signed) J. W. P. Muir-Mackenzie,
Acting Survey Commissioner and Director,
Land Records and Agriculture.

EXPLANATORY NOTES.

Table A.

Population.—The figures are for the census of 1891 and include those for children under two years of age, who consume little or no grain. The number of these children has been taken as approximately balancing the increase in population that has occured between 1891 and 1896.

Area under food-grains.—These figures include areas sown with cereals and pulses. For Ratnágiri the area for which statistics are available is even less than one-sixth of the total area. In order to make the information as complete as practicable, and at the same time to remove any disturbing element from comparison for this district, estimates of area have been taken for those areas for which statistics are not available and the same standards of outturn have been applied to them.

The total area shown under this head in the accompanying statement is appreciably smaller than that given in the Report (Part I, page 50) of the Famine Commission who included Sind in their estimate.

Outturn of food.—The principal factors in estimating outturn of food are the scales of estimated yield per acre fixed for each district for the several food crops, and the estimated yield reported in annas by Mámlatdárs.

In estimating the outturn of food-grains in the districts of Gujarát and the Konkan the printed formulæ have been employed. For the Deccan and the Karnátak Districts these formulæ have on many occasions been found to be unreliable; the outturn calculations for these districts have therefore been based on estimates revised by the Deputy Director of Agriculture, who had a considerable number of crop experiments to guide him. Mr. Mollison's estimates are considerably lower than those given in the formulæ, except in the case of irrigated wheat, rice, ragi and tur.

The calculations show that the outturn per acre in 1895-96 amounted to about 7 maunds or 574 lbs. This will not be thought an over-estimate when it is remembered that of the total food-grain area jowári had 36 per cent. with an acre yield of 574 lbs., rice 9 per cent. with 950 lbs., wheat 9 per cent. with 600 lbs., and ragi 3 per cent. with 1,000 lbs. The rate of yield per acre here calculated is considerably above that given in the Famine Commission Report, *viz.*, nearly 6 maunds or 470 lbs. But it must be borne in mind that in the absence of any reliable estimate for this Presidency, the Famine Commissioners had to frame their estimate on the figures for the Centra Provinces.*

* Famine Commission Report, Part I, page 51.

Consumption food.—These figures have been arrived at by taking the daily ration rate of one lb. for children above two and below 14 years of age, 1½ lbs. for adult females and 2 lbs. for adult males. These rates give 6¼ maunds per annum or a little more than 1¼ lbs. per diem per head of population, as against 5⅞ maunds and 1¼ lbs. as given in the Report of the Famine Commission. The maximum famine ration for a man is 1⅞ lbs., for a woman 1¼ lbs., and for a working child (7 to 12 years old) 1 lb.-5 oz. The grain and pulse in prison diet for an adult amount to 1 lb. 13 oz. The present estimate is, it is believed, by no means too low.

Consumption seed.—The seed rates have been based upon the formulæ. They are too low for some crops, and too high for others. The total allowance for seed is purhaps insufficient; but is balanced by the allowance for feed of stock, which is probably too high.

Feed of stock.—This item has been calculated at the rate of half a maund of grain to the acre. The same rate was taken by the Famine Commissioners. As a matter of fact work cattle eat more oilcake than food-grains; but when the feed of horses and milch cattle is taken into account the allowance is fairly correct, though probably rather high.

Wastage and shrinkage.—This item has been computed at 5 per cent. of the total outturn. The same rate was taken by the Famine Commissioners.

(Signed) J. W. P. Muir-Mackenzie,
Acting Survey Commissioner and Director,
Land Records and Agriculture.

1899
REVENUE DEPT.
Encl. No. 1
686

Famine.
Revised estimates of outturn, consumption and surplus of food-grains for 1894-95 and 1895-96 and original estimates for 1896-97.

No. 336-Fam.

Revenue Department.
(*Famine.*)

Bombay Castle, 9th May 1898.

Letter from the Survey Commissioner and Director of Land Records and Agriculture, No. A.—1120, dated 23rd April 1898—Submitting a note containing revised estimates of outturn, consumption and surplus of food-grains for 1894-95 and 1895-96 and original estimates for 1896-97, together with statistical tables A to F mentioned in it.

Resolution.—The note and statements should be published in the *Bombay Government Gazette* for general information.

H. S. LAWRENCE,
Under Secretary to Government.

To
The Survey Commissioner and Director of Land Records and Agriculture,
The Commissioner, N. D.,
The Commissioner, C. D.,
The Commissioner, S. D.,
All Collectors in the Presidency Proper,
The Public Works Department of the Secretariat,
The Public Works Department of the Secretariat, Railway,
The Secretary, Chamber of Commerce (by letter).

with copies of note & statement referred to in Resolution

No. of 1898.

Copy forwarded for information and guidance to

REVENUE DEPARTMENT (FAMINE).

Bombay Castle, 9th May 1898.

No. 336-FAM.—The following note and statements showing the estimated outturn, consumption and surplus of food-grains for 1894-95, 1895-96 and 1896-97 in the several districts of the Bombay Presidency excluding Sind are published for general information:—

"NOTE.

Estimated outturn, consumption and surplus during the years 1896-97, 1895-96 and 1894-95.

In this note and statements appended to it it is intended to give a revised estimate of the production of food crops in the Presidency proper during the two years 1894-95 and 1895-96 and an original estimate for 1896-97. The previous estimates for the two earlier years are contained in the note of this Department published in the *Bombay Government Gazette* of the 23rd March 1897.

2. The figured statements contain —

(1) Full details of calculation for the year 1896-97—Statements A and B.

(2) Summaries of detailed statements for the years 1894-95 and 1895-96—Statements C and D.

It was not considered worth while to repeat the details for the years 1894-95 and 1895-96. The only factors which have been materially altered have been the yields per acre in the Deccan and Karnátak. These yields have now been fixed for all districts in accordance with the quinquennial return submitted to the Government of India in 1897.

3. The revised figures of outturn have resulted in a considerable reduction in the total outturn in the Deccan and a trifling reduction in Gujarát, but in a large increase in the Konkan and a small increase in the Karnátak.

4. In the districts of Ahmednagar and Násik (Deccan), despite the reductions made in the average yields, the total outturn resulting is probably still too high. In Belgaum and Bijápur (Karnátak) the same is perhaps the case. But it is very difficult to tell where the mistake lies; probably it lies in the average yields or the anna valuation. In the districts of the Deccan and Karnátak, the difficulty of arriving at correctness for purposes of calculating either of the above factors is very great, owing to the great variety in the soil and the capricious effects of rainfall, not merely over different tracts but in different fields and different parts of the same field. It is obvious that this must render the calculations of an average yield per acre particularly hard. But it is perhaps not so perfectly realized how difficult owing to the same cause becomes the estimation of an average crop. Fault is found universally with the anna valuations because a sixteen-anna crop is never admitted to have been obtained. But it is by no means certain that in the Deccan and Karnátak a sixteen-anna crop is ever known over a whole district, seldom perhaps over even a whole táluka. In order that such a crop should be realised the rainfall will probably have to be altogether exceptional in its adaptability to widely varying soils, not only in the total quantity, but in the timeliness and volume of particular falls. A sixteen-anna crop means to a cultivator the full crop that a given field will produce if no check has occurred from start to finish. But if Survey No. 100 has such a crop, Survey No. 101 in a Deccan village will often not have it.

5. Take for instance the bájri crop in Sholápur. It is seldom that an eight-anna valuation is admitted for this crop. Now the full average crop is put at 320 lbs. It is suspected that the yield rarely exceeds 200 lbs. But it is probable enough that 320 lbs. is the correct figure for the sixteen-anna crop. The average soil, say, of six to eight annas in survey parlance, when everything is favourable, produces the 320 lbs., and a cultivator cannot be induced to regard anything less as what he ought to expect from the soil. (It is really a question whether the anna valuation system should be maintained and whether if the reporting agency were told to give pounds per acre they would not get nearer the mark.)

6. But while the results are thus uncertain at present for the Deccan and Karnátak the uniform character of the soils and the constancy and abundance of the rainfall over considerable tracts make the results far less untrustworthy in the Konkan and Gujarát.

7. To turn now to the estimate for 1896-97 for the Deccan and Karnátak. It was most closely and carefully framed and checked, and it is believed represents something near the truth. In the other parts of the Presidency the estimates did not receive the same check. But then, as observed above, the danger of error in these regions is less than above ghats.

8. With these preliminary observations the figures may be briefly discussed.

The following shows the results (Statement E) obtained over the Presidency as a whole in lákhs of tons—

	1894-95.	1895-96.	1896-97.
Outturn	53	52	20
Consumption	42	41	39
Surplus + deficit (−) ...	+11	+11	−19
Equivalent of surplus or deficit, in month's supply	3	3	$-5\frac{4}{5}$

9. The first point to be considered is how far these figures may be accepted. As above indicated for the first two years they may be accepted without qualification for Gujarát and the Konkan, but for the Karnátak and the Deccan they must be taken as too high. Careful consideration, however, shows that the error in those two divisions cannot exceed 25 per cent. If it did, the anna valuations and estimates of yield per acre would be reduced to absurdity. A reduction by 25 per cent. will bring down the surplus for the whole Presidency to the following figures—

1894-95.	1895-96.
8½ lákhs of tons	8¼ lákhs of tons
or	or
2·8 months' supply nearly.	2·4 months' supply.

For the Deccan and Karnátak the corrected surplus will be –

1894-95.	1895-96.
6½ lákhs of tons	7½ lákhs of tons
or	or
3 months' supply.	3½ months' supply.

It results from these figures that the surplus of two average years will supply the deficiencies of one famine year. This result may at first sight appear unduly favourable, but on reflection it need not be regarded in that light.

10. The statistics of import and export of food-grains are given in Statement F. From these it will be seen that during the whole of the period of scarcity (October 1896 to September 1897) the Presidency imported a net quantity of only 2¾ lákhs of tons or not sufficient for one month's consumption.

11. Now as pointed out in the undersigned's Notes of Evidence to the Famine Commission there is reason to believe that the stocks in possession at the beginning of the famine amounted to something like eighteen months' supply. This with the produce of 1896-97 would have sufficed to carry over the people for two years from the commencement of the famine, that is, over a second famine year if it had unhappily occurred. Now this estimate would represent the stock held at the beginning of the famine as the savings of six or seven years, or since the year 1890-91. In that period, it will be remembered, occurred in the Karnátak a year of decided scarcity, 1891-92, when probably a portion of previous year's surpluses was consumed. But even allowing that the estimate of the amount of the stocks held at the beginning of the famine is over-sanguine, it seems unlikely that it represented more than six years' savings. These perhaps also should be taken at only twelve months' supply. It may be objected that 2½ months is the average surplus, then six years' savings would represent not less than fifteen months' supply. But the answer is that as time goes on, the percentage of the grain stored which decays, or becomes unfit for food, or is lost in other ways, largely increases. The grain which was exposed for sale in the bazárs during the famine was seldom more than three or four years' old, not often so old as that. Every season large losses by flooding of the pits, rats, weevilling and the like are complained of. The safe conclusion seems to be that with famines of such intensity as that of 1896-97 in view, the provident cultivators and grain merchants will store grain until they have a full year's supply. For this purpose they must go on storing for from four to six years. They have probably stored for much longer if the years have been favourable. But after four, certainly after six years, a good deal of the grain stored is lost, decayed, or becomes unfit for food so that the stores of longer standing have to be neglected.

12. It has been objected to this view that if grain was stored in the manners suggested, prices would go down. But the answer is that to get a year's surplus *ex hypothesi* the storing process must go on for from four to six years, and that *except in a famine year* grain would not be saleable after the second or third year of storage. With the necessity therefore of guarding against famine or the chance of selling high in it before him, the storer of grain has no temptation to lower prices.

13. Another reason why prices do not go down is perhaps this. The principal storers of grain for sale are the traders and lenders who obtain their stocks from the cultivator in payment of advances and loans made, or at least booked, in money. The traders would incur a heavy book loss, if not an actual grain loss, by flooding the market with grain which they took when comparatively dear as an equivalent for money. The bulk of Bunyas if they receive grain from their clients when the market rate is 13 sers, would hold on for a famine year rather than sell at even 14 sers, much rather than flood the market and force the price down to 16 or 20 sers.

On the other hand it is well known that before railways equalised prices and encouraged export such prices as 20 and 25 sers were not uncommon in plentiful times.

14. On the whole then the careful examination of these statistics gives ground for supposing that the surplus of production over consumption is in ordinary years not much less than 2½ months' supply for the Presidency as a whole, in the Deccan districts some three months' supply and in the Karnátak with the rich tracts of Dhárwár and Belgaum districts about four months. But in reckoning the amount of stock available at the beginning of any famine it must be remembered that the supplies older than the fourth year will have been largely diminished and those older than the sixth year can probably be neglected.

(Signed) J. W. P. Muir-Mackenzie,

Survey Commissioner and Director, Land Revenue and Agriculture."

A.—Estimated Outturn of Food-grain Crops, Consumption and Surplus during 1896-97.

No.	District.	Population.	Acreage under Food-grain Crops.	Outturn of Food-grain Crops in Indian Maunds as per Table B.	Ordinary Consumption (Indian Maunds).			Surplus (Indian Maunds).	Percentage of Surplus over Consumption.	Months for which Surplus is expected to last.
					Seed.	Food.	Wastage.	Total.			
1	2		3	4	6	5	8	9	10	11	12
	Deccan.										
1	Khándesh ...	1,460,861	1,653,875	3,995,479	254,168	8,987,851	199,774	10,239,818	— 6,244,339	— 60·9	— 7¼
2	Násik ...	843,582	1,314,260	3,657,351	234,346	5,234,045	182,868	6,309,815	— 2,652,464	— 42·0	— 5
3	Ahmednagar ...	8 7,755	1,878,493	4,833,510	257,541	5,554,665	241,675	6,998,297	— 2,164,787	— 30·9	— 3⅓
4	Poona ...	1,067,800	1,085,451	2,863,135	240,244	6,696,303	143,157	7,886,497	— 5,023,362	— 63·6	— 7⅝
5	Sholápur ...	760,689	343,000	810,000	160,492	4,702,888	40,500	5,499,729	— 4,689,729	— 85·2	— 10⅛
6	Sátára ...	1,295,989	1,411,999	6,122,210	228,649	7,616,487	306,110	8,857,488	— 2,735,278	— 30·8	— 3⅝
	Total, Deccan ...	6,237,665	7,586,378	22,281,685	1,375,440	38,792,239	1,114,084	45,791,644	—23,509,959	— 51·3	— 6 1/16
	Karnátak.										
7	Belgaum ...	1,013,261	1,066,991	3,042,413	278,500	6,333,710	152,121	7,370,299	— 4,327,886	— 58·7	— 7
8	Bijápur ...	796,339	165,324	401,183	78,951	4,976,667	20,059	5,365,569	— 4,907,386	— 92·5	— 11 1/16
9	Dhárwár ...	1,051,314	1,184,912	5,301,750	384,916	6,591,519	265,087	7,907,139	— 2,605,389	— 32·9	— 4
	Total, Karnátak ...	2,830,914	2,417,227	8,745,346	737,367	17,901,896	437,267	20,646,007	—11,900,661	— 57·7	— 7
	Konkan.										
10	Thána ...	1,414,462	422,016	2,314,362	222,688	8,823,894	115,718	9,879,472	— 5,014,775	— 50·8	— 6
11	Kolába ...	357,182	2,550,335	193,691	6,770,239	127,317	7,369,592	— 3,906,170	— 53·8	— 6¼	
12	Ratnágiri ...	1,105,926	3,403,432	320,934	2,591,953	170,172	3,350,682	— 1,756,972	— 52·4	— 6½	
13	Kánara ...	446,351	1,503,710	99,849	4,702,888	79,685	7,886,497	— 10,737,907	— 58·1	— 6½	
	Total Konkan ...	2,963,729	9,861,839	795,226	18,486,046	493,093	20,599,746				
	Gujarát.										
14	Ahmedabad ...	921,712	789,779	236,548	6,333,710	239,532	6,757,909	— 1,967,259	— 29·1	— 3¾	
15	Kaira ...	871,559	632,690	129,990	4,976,667	181,421	6,184,088	— 2,555,677	— 41·3	— 5	
16	Panch Mahals ...	318,417	354,286	82,377	6,591,519	93,665	2,284,510	— 111,217	— 18·0	— 2½	
17	Broach ...	341,490	314,709	75,843	2,591,953	113,272	2,550,167	— 284,718	— 11·1	— 1⅛	
18	Surat ...	649,959	350,362	126,341	4,702,888	127,326	4,498,579	— 1,947,055	— 43·3	— 5⅛	
	Total, Gujarát ...	3,098,137	2,438,826	651,099	15,104,327	755,216	22,270,253	— 7,165,926	— 32·2	— 3⅛	
	Grand Total ...	15,163,506	14,093,195	3,559,132	55,993,197	2,799,659	109,307,650	— 53,314,453	— 48·8	— 5⅛	

(Signed) Ichharam B.,

for Survey Commissioner and Director,

Land Records and Agriculture.

B.—*Detailed calculation of Outturn under principal*

District.		CEREALS.											
		Jowári.			Bájri.			Rice (cleaned).			Wheat.		
		Area.	Yield per acre.	Total yield.	Area.	Yield per acre.	Total yield.	Area.	Yield per acre.	Total yield.	Area.	Yield per acre.	Total yield.
		Acres.	Lbs.	In. Mds.	Acres.	Lbs.	In. Mds.	Acres.	Lbs.	In. Mds.	Acres.	Lbs.	In. Mds.
Deccan.													
Khándesh	Dry-crop ..	464,649	258	1,500,873	628,578	123	969,331	25,575	472	154,482	126,316	154	243,015
	Irrigated ..	.....	...	.....	.....	...	.....	.....	...	.....	30,597	1,200	458,955
Nasik	Dry-crop ..	38,434	106	51,258	667,326	104	870,961	55,504	610	423,218	135,928	128	217,042
	Irrigated ..	8,550	1,325	130,922	.....	...	.....	.....	...	.....	42,937	1,105	593,074
Ahmednagar	Dry-crop ..	680,837	95	808,126	771,736	96	931,518	11,935	232	34,611	25,573	...	12,716
	Irrigated ..	77,800	1,933	1,880,563	.....	...	.....	.....	...	.....	36,103	1,264	570,528
Poona	Dry-crop ..	168,957	213	450,953	571,545	77	551,611	67,006	372	311,578	11,351	158	22,418
	Irrigated ..	66,405	1,141	947,238	.....	...	.....	.....	...	.....	14,290	964	172,187
Sholápur	Dry-crop ..	149,000	398	742,500	.....	...	.....	.....	...	.....	.....	...	.....
	Irrigated ..	.....	...	.....	.....	...	.....	.....	...	.....	.....	...	.....
Sattára	Dry-crop ..	407,262	486	2,478,096	463,845	129	749,582	43,071	694	372,857	19,522	185	45,232
	Irrigated ..	45,871	1,190	682,455	.....	...	.....	.....	...	.....	19,630	1,156	283,669
Total, Deccan ..	Dry-crop ..	1,909,139	...	6,031,896	3,103,030	...	4,073,003	203,191	...	1,296,746	318,690	...	540,423
	Irrigated ..	198,626	...	3,641,178	.....	...	.....	.....	...	.....	143,557	...	2,078,413
Karnátak.													
Belgaum		570,894	200	1,427,235	144,300	75	135,281	112,492	642	902,748	Dry-crop. 2,662 Irrigated. 48,372	375 175	12,478 105,814
Bijápur	Dry-crop ..	121,457	99	150,025	11,163	15	2,146	55	26	18	780	162	1,585
	Irrigated ..	9,601	1,200	144,015	.....	...	.....	401	720	3,609	2,182	1,040	28,366
Dhárwár		599,765	394	2,953,843	2,892	197	7,121	152,319	570	1,085,273	Dry-crop. 20 Irrigated. 194,797	225 225	56 547,867
Total, Karnátak ..	Dry-crop ..	1,292,116	...	4,531,103	158,355	...	144,548	264,866	...	1,988,039	3,462	...	14,119
	Irrigated ..	9,601	...	144,015	.....	...	.....	401	...	3,609	245,351	...	632,047
Konkan.													
Thána		46	300	172	.....	...	.....	302,047	525	1,982,183	56	140	98
Kolába		.....	...	.....	.....	...	.....	243,108	660	2,005,641	.....	...	.....
Ratnágiri		.....	...	.....	6	190	14	49,710	638	396,437	2	140	3
Kánara		1,908	300	7,155	.....	...	.....	184,897	660	1,525,400	.....	...	.....
Total, Konkan		1,954	...	7,327	6	...	14	779,762	...	5,903,661	58	..	101
Gujarát.													
Ahmedabad		227,289	472	1,341,005	131,212	472	774,151	73,570	720	662,130	Dry-crop. 153,701 Irrigated. 15,580	455 1,056	874,174 205,656
Kaira		73,635	197	181,326	167,491	303	634,372	136,080	495	841,995	Dry-crop. 6,123 Irrigated. 8,291	412 894	31,533 92,652
Panch Mahals		5,449	328	22,341	24,208	309	163,028	64,549	450	363,088	Dry-crop. 6,817 Irrigated. 877	175 325	14,912 3,563
Broach		153,652	870	1,670,965	10,794	262	35,350	19,084	338	80,630	Dry-crop. 51,374 Irrigated.	300 ...	192,652 .....
Surat		116,332	580	843,407	6,785	375	31,805	108,679	780	1,059,620	Dry-crop. 23,394 Irrigated.	280 ...	81,754 .....
Total, Gujarát		576,357	...	4,059,044	358,490	...	1,638,706	401,963	...	3,007,463	241,409 24,748	.. ..	1,195,025 301,871
Grand Total ..		3,987,793	...	18,414,473	3,619,881	...	5,856,271	1,950,182	...	12,205,513	977,275	..	4,811,999

Note 1.—In the columns of yield per acre, fractions have been omitted.

,, 2.—Areas in the famine districts are those estimated for the special famine reports and those for non-affected districts taken from Agricultural returns.

,, 3.—The area shown in the statement differs from that in the annual Report of the Agricultural Department, as the area in famine districts which yielded no grain is excluded.

,, 4.—In the case of Ratnágiri District for which large areas do not return agricultural statistics, approximate addition for these areas has been made. The area of non-reporting villages is roughly estimated at 472,641 acres under cereals and 50,544 acres under pulses.

food-grains (Cereals and Pulses) for the year 1896-97.

Other Cereals.			Total.		PULSES.								
					Tur.			Gram.			Other pulses.			Total.	
Area.	Yield per acre.	Total yield.	Area.	Total yield.	Area.	Yield per acre.	Total yield.	Area.	Yield per acre.	Total yield.	Area.	Yield per acre.	Total yield.	Area.	Total yield.
Acres.	Lbs.	In. Mds.	Acres.	In. Mds.	Acres.	Lbs.	In. Mds.	Acres.	Lbs.	In. Mds.	Acres.	Lbs.	In. Mds.	Acres.	In. Mds.
16,179	225	45,503	1,261,397	2,913,204	66,001	300	247,504	31,850	170	68,027	157,365	112	220,311	255,216	535,842
1,613	1,050	21,171	32,210	480,126	....	..	.....	3,000	1,050	39,375	2,052	1,050	26,932	5,052	66,307
156,775	431	844,561	1,053,967	2,407,040	18,036	218	49,345	47,186	155	91,252	133,587	139	232,638	198,809	373,236
3,270	1,225	50,210	54,766	774,206	....	..	....	6,718	1,225	102,870	....	..	.....	6,718	102,869
38,100	175	83,344	1,528,181	1,870,315	51,836	145	93,761	30,206	36	13,822	136,238	98	167,509	218,280	275,092
5,[illegible]1	1,225	80,865	119,184	2,531,956	.....	..	....	12,848	972	156,147	....	..	.....	12,848	156,147
77,417	169	163,543	896,276	1,500,103	20,044	50	12,527	6,034	100	7,543	70,965	125	110,883	97,043	130,953
....	..	....	80,695	1,119,425	....	..	....	11,437	788	112,654	....	..	.....	11,437	112,654
124,000	29	45,125	273,000	787,625	.....	..	.....	.....	..	.....	.....	..	.....	70,000	23,375
....	..	....	....	....	....	..	....	....	..	.....	.....	..	.....	....	....
122,579	205	314,973	1,056,279	3,960,740	56,436	454	320,612	33,425	183	76,603	175,653	211	463,750	265,514	860,965
....	..	....	65,501	966,124	.....	..	....	8,990	1,169	131,361	15,015	1,081	203,020	24,005	334,381
535,050	..	1,497,049	6,059,100	13,439,027	212,353	..	723,749	148,701	..	257,247	673,803	..	1,195,091	1,104,852	2,193,453
10,173	..	152,245	352,356	5,871,837	....	..	....	43,993	..	512,497	17,067	..	229,952	60,060	772,358
....	..	.....	Dry-crop. 830,348 Irrigated. 48,372	2,477,742 105,814	58,829	180	132,365	32,722	125	51,127	96,720	225	272,025	188,271	455,517
1,759	20	439	135,214	154,213	....	..	.....	....	..	.....	.....	..	.....	12,978	3,340
4,588	1,200	68,820	16,772	244,810	....	..	....	.....	..	.....	.....	..	.....	360	2,160
....	..	....	Dry-crop. 754,996 Irrigated. 194,797	4,046,293 547,867	47,824	300	179,340	64,257	156	125,301	123,038	262	402,949	235,119	707,590
1,759	..	439	1,720,558	6,673,248	105,653	..	311,705	96,979	..	176,428	219,758	..	674,974	433,368	1,156,447
4,588	..	63,820	250,941	898,491	....	..	.....	.....	..	.....	.....	..	.....	360	2,160
92,122	200	300,033	394,271	2,282,486	5,230	69	4,511	1,245	50	778	21,270	100	26,587	27,745	31,876
124,494	311	485,338	367,602	2,490,979	2,381	282	8,393	1,700	119	2,529	15,499	250	48,434	19,580	59,356
47,692	260	155,344	570,051	3,229,165	217	215	583	7	80	7	12,048	125	18,825	71,816	174,267
6,366	524	41,774	193,171	1,574,329	137	210	360	203	180	457	6,188	240	18,564	6,528	19,381
270,674	..	982,489	1,525,095	9,573,959	7,935	..	13,847	3,155	..	3,771	55,035	..	112,410	125,669	281,880
67,823	721	612,299	Dry-crop 653,565 Irrigated. 15,580	4,263,759 205,656	5,588	249	17,393	25,992	281	91,297	89,024	191	212,545	120,604	321,235
177,930	724	1,612,744	Dry-crop 561,259 Irrigated. 8,291	3,301,970 92,652	20,446	517	132,132	5,502	187	12,861	37,192	191	88,796	63,140	233,789
172,454	551	1,187,721	Dry-crop. 291,477 Irrigated. 877	1,751,099 3,563	6,416	249	19,970	41,056	150	76,980	14,460	120	21,090	61,932	118,640
8,177	454	46,460	243,081	2,026,057	10,418	300	39,067	1,760	125	2,750	56,450	280	197,575	68,628	239,192
44,914	569	319,742	300,104	2,336,328	18,246	297	67,738	1,171	251	3,674	30,841	360	138,784	50,258	210,196
		3,778,966	3,049,513	13,679,204	61,114	..	276,200	75,431	..	187,563	227,967	..	659,390	364,562	1,123,252
			24,748	301,871											
	..	6,480,009	12,001,314	57,445,637	338,035	..	1,325,601	387,309	..	1,167,415	1,193,605	..	2,871,817	2,091,881	5,547,560

Note 5.—As separate estimates for ragi, maize and kodra were not made for the affected districts, their area and outturn are included under "Other cereals" in all districts.

,, 6.—Famine reports place the rice area in Khándesh very low. Area reported in the agricultural returns is taken.

(Signed) ICHHARAM B.,

for Survey Commissioner and Director, Land Records and Agriculture.

C.—*Revised Estimates of Outturn of Food-grain Crops, Consumption and Surplus during 1895-96.*

No.	District.	Population.	Acreage under Food-grain Crops.	Outturn of Food-grain Crops in Indian Maunds as per Table B.	Ordinary Consumption (Indian Maunds).					Surplus (Indian Maunds).	Percentage of Surplus over Consumption.	Months for which Surplus is expected to last.
					Food.	Seed.	Feed of Stock.	Wastage.	Total.			
	1	2	3	4	5	6	7	8	9	10	11	12
	Deccan.											
1	Khándesh	1,460,851	1,750,664	12,119,392	8,987,851	300,972	875,332	605,969	10,770,124	1,349,268	12·5	1½
2	Násik	843,582	1,582,511	10,943,998	5,234,045	298,849	791,255	547,200	6,871,349	4,072,649	59·3	7
3	Ahmednagar	888,755	2,364,764	12,018,577	5,554,665	362,310	1,182,382	600,929	7,700,286	4,318,291	56·1	6¾
4	Poona	1,067,800	1,846,733	10,397,438	6,696,303	283,536	923,367	519,872	8,423,078	1,974,360	23·4	2⅘
5	Sholápur	750,689	1,779,638	7,742,611	4,702,888	245,612	889,819	387,131	6,225,450	1,517,161	24·4	3
6	Sátára	1,225,989	1,523,590	9,920,905	7,616,487	251,340	761,795	496,045	9,125,667	795,238	8·7	1
	Total, Deccan ...	6,237,666	10,847,900	63,142,921	38,792,239	1,742,619	5,423,950	3,157,146	49,115,954	14,026,967	28·6	3⅗
	Karnátak.											
7	Belgaum	1,013,261	1,412,508	14,069,317	6,333,710	325,078	706,254	703,466	8,068,508	6,000,809	74·4	9
8	Bijápur	796,339	2,165,898	10,125,032	4,976,667	359,693	1,082,949	506,251	6,925 560	3,199,472	46·2	5½
9	Dhárwár	1,051,314	1,453,355	13,252,823	6,591,519	421,051	726,678	662,641	8,401,889	4,850,934	57·7	7
	Total, Karnátak ...	2,860,914	5,031,761	37,447,172	17,901,896	1 105,822	2,515,881	1,872,358	23,395,957	14,051,215	60·1	7⅕
	Konkan.											
10	Thána	1,414,452	436,229	6,349,316	8,823,804	226,230	218,115	317,466	10,264,406	1,945,972	18·9	2¼
11	Kolába		398,471	5,861,062		186,503	199,235	293,053				
12	Ratnágiri	1,105,926	669,649	6,360,338	6,770,289	249,846	334,825	318,017	7,672,977	—1,312,639	—17·1	—2
13	Kánara	446,351	205,502	3,558,581	2,891,953	285,433	102,751	177,929	3,458,066	100,515	2·9	⅓
	Total, Konkan ...	2,966,729	1,709,851	22,129,297	18,486,046	948,012	854,926	1,106,465	21,395,449	733,848	3·4	⅜
	Gujarát.											
14	Ahmedabad	921,712	840,379	6,644,424	5,886,940	245,547	420,189	332,221	6,884,897	—240,473	—3·5	—⅖
15	Kaira	871,589	634,039	6,488,341	5,556,332	125,026	317,020	324,417	6,322,795	165,546	2·6	⅛
16	Panch Mahals	313,417	383,352	3,443,248	1,931,325	95,746	191,676	172,162	2,390,909	1,052,339	44·0	5½
17	Broach	341,490	267,982	2,700,990	2,205,197	69,263	133,991	135,050	2,543,501	157,489	6·2	⅔
18	Surat	649,989	405,672	4,956,430	4,064,731	129,358	202,836	247,821	4,644,746	311,684	6·7	⅔
	Total, Gujarát ...	3,098,197	2,531,424	24,233,433	19,644,525	664,940	1,265,712	1,211,671	22,786,848	1,446 585	6·4	⅔
	Grand Total ...	15,163,506	20,120,936	146,952,823	94,824,706	4,461,393	10,060,469	7,347,640	116,694,208	30,258,615	25·8	3

(Signed) ICHHARAM B.,
for Survey Commissioner and Director, Land Records and Agriculture.

D.—*Revised estimates of Outturn of Food-grain Crops, Consumption and Surplus during 1894-95.*

No.	District.	Population.	Acreage under Food-grain Crops.	Outturn of Food-grain Crops in Indian Maunds as per Table B.	Ordinary Consumption (Indian Maunds).					Surplus (Indian Maunds).	Percentage of Surplus over Consumption.	Months for which Surplus is expected to last.
					Food.	Seed.	Feed of Stock.	Wastage.	Total.			
	1	2	3	4	5	6	7	8	9	10	11	12
	Deccan.											
1	Khándesh	1,460,851	1,792,114	12,298,914	8,987,851	309 682	896,057	614,946	10,508,536	1,490,378	13·8	1½
2	Násik	843,582	1,696,874	11,372,114	5,234,045	313,678	848,437	568,606	6,964,766	4,407,348	63·3	7⅔
3	Ahmednagar ...	888,755	2,443,338	12 277,329	5,554,665	376,640	1,221,669	613,866	7,766,840	4,510,489	58·1	7
4	Poona	1,067,800	1,857,148	10,520,759	6,696,303	285,527	928,574	526,038	8,436,442	2,084,317	24·7	3
5	Sholápur	750,689	1,799,188	10,147,839	4,702,888	245,708	899,594	507,392	6,355,582	3,792,257	59·5	7
6	Sátára	1,225,989	1,533,413	9,769,852	7,616,487	251,814	766,707	485,493	9,120,501	589,351	6·4	¾
	Total, Deccan ...	6,237,666	11,122,075	66,326,807	38,792,239	1,783,049	5,561,038	3,316,341	49,452,667	16,874,140	34·1	4
	Karnátak.											
7	Belgaum	1,013,261	1,409,947	10,207,635	6,333,710	323,702	704,973	510,382	7,872,767	2,334,868	29·7	3½
8	Bijápur	796,339	2,118,934	9,875,461	4,976,667	352,606	1,059,467	493,773	6,882,513	2,992,948	43·5	5¼
9	Dhárwár	1,051,314	1,459,486	10,490,938	6,591,519	438,016	729,743	524,547	8,283,825	2,207,113	26·6	3⅘
	Total, Karnátak ...	2,860,914	4,988,367	30,574,034	17,901,896	1,114,324	2,494,183	1,528,702	23,039,105	7,534,929	32·7	4
	Konkan.											
10	Thána	1,414,452	436,631	5,886,385	8,823,804	225,397	218,315	294,319	10,248,299	1,638,415	15·9	2
11	Kolába		400,721	6,000,329		186,087	200,361	300,016				
12	Ratnágiri	1,105,926	688,046	6,661,619	6,770,289	250,073	344,023	333,081	7,697,466	– 1,035,847	—13·4	– 1⅗
13	Kánara	446,351	207,668	3,349,744	2,891,953	290,702	103,834	167,487	3,453,976	– 104,232	—3·0	– ⅕
	Total, Konkan ...	2,966,729	1,733,066	21,898,077	18,486,046	952,259	866,533	1,094,903	21,399,741	498,336	2·3	¼
	Gujarát.											
14	Ahmedabad	921,712	1,028,142	7,849,056	5,886,940	329,473	514,071	392,453	7,122,937	726,119	10·2	1¼
15	Kaira	871,589	697,338	8,795,417	5,556,332	143,967	348,669	439,771	6,488,739	2,306,678	35·5	4¼
16	Panch Mahals	313,417	397,154	3,485,893	1,931,325	106,649	198,577	174,295	2,410,846	1,075.047	44·5	5⅓
17	Broach	341,490	337,259	3,266,737	2,205,197	116,234	168,629	163,337	2,653,397	613,340	23·1	2¾
18	Surat	649,989	408,523	5,060,723	4,064,731	141,938	204,262	253,036	4,663,967	396,756	8·5	1
	Total, Gujarát ...	3,098,197	2,868,416	28,457,826	19.644.525	838,261	1,434,208	1,422,892	23,339,886	5,117,940	21·9	2⅓
	Grand Total ...	15.163.506	20,711,924	147,256,744	94,824,706	4,687,893	10.355,962	7,362 838	117,231,399	30,025,345	25·6	3

(Signed) ICHHARAM B.,
for Survey Commissioner and Director,
Land Records and Agriculture.

E.—Comparative Statement showing outturn, consumption, surplus, &c., of food-grains (cereals and pulses) for the three years 1894-95 to 1896-97.

(Figures in lakhs of maunds, 00,000 omitted).

	1894-95, Statement D.					1895-96, Statement C.					1896-97, Statement A.				
	Outturn.	Consumption.	Surplus.	Percentage of surplus over consumption.	Months for which surplus expected to last.	Outturn.	Consumption.	Surplus.	Percentage of surplus over consumption.	Months for which surplus expected to last.	Outturn.	Consumption.	Surplus.	Percentage of surplus over consumption.	Months for which surplus expected to last.
	L. m.	L. m.	L. m.			L. m.	L. m.	L. m.			L. m.	L. m.	L. m.		
Deccan	663	494	169	34·1	4	631	491	140	28·6	3⅗	223	458	—235	—51·3	—6 1/10
Karnátak	306	231	75	32·7	4	375	234	141	60·1	7⅕	87	206	—119	—57·7	—7
Konkan	219	214	5	2·3	¼	221	214	7	3·4	⅖	99	206	—107	—52·1	—6⅕
Gujarát	284	233	51	21·9	2⅖	242	228	14	6·4	¾	151	223	—72	—32·2	—3⅕
Total ...	1,472	1,172	300	25·6	3	1,469	1,167	302	25·8	3 0	560	1,093	—533	—48·8	—5⅗

(Signed) Ichharam B.,
for Survey Commissioner and Director,
Land Records and Agriculture.

F.—Imports and Exports of Food-grains for the twelve months of October 1896 to September 1897 compared with the corresponding previous twelve months.

(Figures in Maunds—000 omitted.)

	Bombay Port.										Bombay Presidency, excluding Bombay Port.										
	Imports into					Exports from					Excess of Imports Col. 6 over Exports Col. 11.	Imports into					Exports from					Excess of Exports Col. 10 over Imports Col. 5
	By Rail.		By Sea.	By Coast*.	Total Imports Cols. 2 to 5.	By Rail.		By Sea.	By Coast*.	Total Exports Cols. 7 to 10.		By Rail.		By Sea.	By Coast*.	Total Imports Cols. 1 to 4.	By Rail.		By Sea.	By Coast*.	Total Exports Cols. 6 to 9.	
	Internal.	External.				Internal.	External.					Internal from Bombay Port.	External.				Internal to Bombay Port.	External.				
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5.	6	7	8	9	10	11
October 1896 to September 1897.																						
Jowári and Bájri ...	120	68	367	1,510	2,065	812	102	132	520	1,566	499	812	3,572	...	...	4,384	120	101	...	...	221	—4,163
Wheat	345	260	142	1,818	2,565	295	96	57	219	667	1,898	295	456	...	...	751	345	244	...	...	589	—162
Rice in husk	...	...	...	868	868	1	2	...	659	662	206	1	64	...	...	65	...	4	...	...	4	—61
Rice, husked	54	15	582	6,781	7,432	1,150	292	...	2,197	3,639	3,793	1,150	395	...	...	1,545	54	32	...	...	86	—1,459
Gram and Pulse ...	231	238	143	1,128	1,740	128	29	122	533	812	928	128	1,110	...	...	1,238	231	174	...	...	405	—833
Others...	51	23	301	174	549	160	109	41	138	448	101	160	1,398	...	...	1,558	51	420	...	...	471	—1,087
Total Grains ...	801	604	1,535	12,279	15,219	2,546	630	352	4,266	7,794	7,425	2,546	6,995	...	...	9,541	801	975	...	...	1,776	—7,765
October 1895 to September 1896.																						
Jowári and Bájri ...	1,972	169	19	33	2,496	...	...	1,061	1,135	2,196	300	...	376	...	...	376	1,972	163	...	...	2,135	1,759
Wheat...	1,947	1,810	90	2,227	6,074	7	2	2,284	299	2,592	3,482	7	469	...	...	476	1,947	505	...	...	2,452	1,976
Rice in husk	4	...	...	1,372	1,376	1	...	...	1,867	1,868	—492	1	1	...	...	2	4	1	...	...	5	3
Rice, husked	73	232	12	4,237	4,554	89	6	...	1,960	2,055	2,499	89	458	...	...	547	73	17	...	...	90	—457
Gram and Pulse ...	746	886	8	593	2,233	39	4	255	825	1,123	1,110	39	245	...	...	284	746	79	...	...	825	541
Others...	169	16	80	300	565	6	...	203	422	631	—66	6	131	...	...	137	169	110	...	...	279	142
Total Grains ...	4,911	3,113	209	9,065	17,298	142	12	3,803	6,508	10,465	6,833	142	1,680	...	...	1,822	4,911	875	...	...	5,786	3,964

Note.—Information for coloums 5 and 10 is not separately available for the Bombay Port and rest of the Presidency, but as the traffic is mostly with Bombay Port, the traffic has all been entered under Bombay Port.

(Signed) Ichharam B.,
for Survey Commissioner and Director, Land Records and Agriculture."

By order of His Excellency the Right Honourable the Governor in Council,
J. MONTEATH,
Chief Secretary to Government.

D 4 1,000—11-8-96.

C No. 7434 of 1898

From 1. the Board of Revenue (Rev. Sett)
2. the Govt of Bombay

1 No. 382 Dated 6th October 1898.
2. No. 574 E — 25th January 1898

FOR ORDERS.

E.

The Board of Rev. Submits the estimate called for in G.O. 404 / 21-7-98 of the food supply and consumption of food grains in the Madras Presidency. It will be remembered that a statement was prepared in the Govt Office last July and forwarded to the Indian Famine Commission in reply to a telegram from them; Subsequently a call was received from the Govt of India for the same information and this was communicated to the Board in the above G.O.

2. The Board submits two estimates, one prepared on the basis of the settlement data

Telegram under G.O. 370-71 / 2-7-98
Flagged A.

No 404 / 21-7-98 E

appendices I + II to B.P in the current.

1899
REVENUE DEPT.
Encl. No. 2
Case No. 686

FOR ORDERS.

data which exhibits an annual deficit of 2.349 Millions tons ~~against the Receipts of 5,000,000 tons~~ and which the Board characterizes as ~~altogether unreliable~~ absurd. The Second estimate is embodied in a Memorandum by Mr Benson appended to the B.P. and shows an annual deficit of 2,00,000 tons which the Board says is probably not far from the truth. The areas and the rates of outturn for the various crops adopted in appendices I & II are not given, but it is presumed that the rates are those given in B.P. 532 27.7.97 and adopted by Govt. The difference between the Govts result (surplus of over one million tons) and the Boards result (a deficit of over 2 1/4 million tons) is due to the Board having made deductions from the gross

para 9 of the BP.

Para 3 of the BP.

flag X Statement No 1 at fols 7 to 10.

The Govts statement took into account only cultivated areas.

The Boards estimate covers also Inundation areas.

Foot-notes to Statement at para 4 of Mr Benson's memo at page 10 of the current.

R

Para 5 of Mr Wilson's letter No. 492A in 23-3-85 B.P. 2563 5-9-85

M

please see para 3 below.

RD 17-11-98

But we took the average rates of yields?

It was an unfortunate omission. But see below para 11.

gross outturn on account (1) of vicissitudes of season, (2) of loss in husking paddy and Varagu.

3. The allowances for the Vicissitudes of Seasons which the Board makes from the outturn are shown in Cols 3 and 12 of Appendix II at page 8 of the current, and vary from one-sixteenth to one-fourth. The rates of outturn per acre are stated to have generally been worked out from the settlement data as explained in B.P 473 29-6-96, ~~data~~, a few of them are estimates worked out from Settlement data by Mr Wilson in 1885 as follows:—

"× × the total area under "each class and sort of soil "and the total outturn cal- "culated on the grain value, "that is, the gross estimated "outturn less wholesale de- "duction may have been "made for ordinary vicis- "situdes of season and

96. For 1896-97

fictitious

d, fitable portions of fields
h" assigned to each acre of each
s "class and sort of soil have
, been tabulated from re-
a turns recorded in the Settle-
a ment Office". It is not clear from
B.P. 473/29-6-92 whether the other rates have
If the other rates have
also been worked out on the
same principles; if they have been
it is ob-
vious that the rates require
no deduction on account of
Vicissitudes of season.

4. Loss by husking varies from 5 to 40 p.c. in the case of different grains as noted on the margin; but the Board itself made no allowance for this loss in B.P. 532/27-7-97 on the basis of which the Govt Statement was prepared. A deduction on this account will, however, become unnecessary, if the allowance made for consumption includes a sufficient margin for loss by husking. Con-
sumption due to the
assumption that the consumption has

R

If we certainly seem that to make this deduction is to falsify our estt. data. 11/11/88 I think we need make no further deduction on this account for the present purpose 8/12

Cumbu, cholum	5 p.c	paras 3+4 of B.P 1976 in G.O 8-4-93
Ragi	10 p.c	357 1-5-93 flag H
Paddy	33⅓ p.c	paras 4+5 of B.P in the current
Varagu	40 p.c	

X

⊗ X

Para 13 of B.P 532/27-7-97 in G.O 767/8-9-97

D

Para 9 of the B.P in the current

has been taken at 455 + 1/5 of 465 (= 546 lbs) in Madras and 494 lbs in the Punjab, the Madras allowance may be taken to include provision for loss by husking. It must, however, be noted here, that the Bombay allowance per head of the population is 630 lbs.

5. The Board, however, attaches no importance to the calculation based on the Settlement data which results in a deficit of 2.349 Million tons and observes with reference to this result:-

"The absurdity of the result, "if it answer no other use-
"ful purpose, may serve to
"throw an instructive side-
"light on the complaints of
"the Ryots, and their repre-
"sentatives, against the alleged
"enormity of the Settlement
"estimates upon which
"Revenue is asse-

96. For 1896-

Considerably

Considerably more than half Mr. Benson's Memorandum is devoted to a discussion of what ratio of outturn should be adopted for the various kinds of grain. He rates that he adopts are compared on the sheet annexed with the ratios calculated from the Settlement data and adopted in the Govt Statement. His calculation of the Consumption also differs from that adopted by Govt on the basis of allowing the former Famine Commissioners Method of allowing 455 lbs per head for human consumption plus 20 p.c. of this for wastage (6·7), Seed grain (6·3) and Cattle food (7 p.c). Mr Benson makes an allowance of 5 p.c. on the gross outturn for wastage; for Seed grain [illegible] due to these the marginally [illegible] allowances for acre

Para 12 of Mr. Benson's memo

Para 13 ibid

Paddy	0·5 cwt
cholum	0·0625 to 0·125 cwt
Cumbum	00
Ragi	0·1 cwt
all others	0·125 cwt

para 14 ibid

But see note further on

A

acre, and for Cattle food he makes certain allowances per head for a certain percentage of the live stock — all in unhusked grain. After deducting these allowances he makes a further deduction for loss in the husking of paddy and arrives at a net balance available for food of 7·0982 million tons; human consumption at 4 cwts per head amounts to 7·299 million tons thus giving rise to a deficit of 2 00,000 tons annually.

RS
17-11-98

Secy

Mr Benson's estimate being, it is submitted to be forwarded to the Govt of India & also, in supersession of the estimate sent with our letter 371 d 2 Inl p. to the Secy Ind 96. for 1896-97 Commission

17-11-98

1021-3

The report of the Indian Famine Commission of 1898 received since the above notes were written embodies the totals given in the Statement of outturn, consumption and surplus of food grains in this Presidency forwarded to the Commission with this Govt's letter No. 371 of 2-7-98 and gives similar particulars for the other provinces. The Bombay Govt was addressed for information with regard to the data on which the figures given for Bombay in the report were compiled, more particularly:—

(1) the rates of yield per acre assumed in the calculation of the gross outturn.

(2) Whether any, and if so, what deductions were made from the gross outturn on account of husking, wastage &c in treating the [illegible] due to husked grain.

(3) the rate of consumption of the husked grain assumed per head of the population.

2. In reply the Bombay Govt forwards copies of two notifications of 23-3-97 & 9-5-98 containing the detailed calculations as to the estimated outturn of food grain crops, consumption and surplus for the three years 1894-95, 1895-96 and 1896-97 in the four divisions of Deccan, Karnatak, Gujarat and Konkan and says that the notifications explain the data on which the Bombay figures in the Famine Commission Report have been compiled. The figures in the Famine Commission Report which were apparently furnished in compliance to a call from the Commission similar to that under G.O. 370 2-7-98 apparently refer to an average year and include particulars for Sind also p. while the Calcula[illegible]96. For 1896-[illegible] the

8

Page 357 of the Report

I

Letter 136 9-1-99. Y

C. No. 686

G

the notifications refer to particular years of which one (1896-97) was a famine year. Owing to the inclusion of such it is not possible to identify the figures in the Report as those of either 1894-95 or 1895-96 or as their average, nor is any information available as to what rates of outturn have been taken for their calculation.

3. The outturn in the first notification for the reported areas and anna valuations is stated to have been worked out with the aid of the crop formulae; the crop formulae being the estimates of the average yield per acre of the various crops in the different districts originally compiled by a Committee of Experienced Survey officers and revised for the affected districts by the Director of Agriculture, and due to

Outturn

Para 1 of note prefixed to the notification

Para 3 ibid

† This has been calculated from the figures for 1895-96. The figures do not always tally with the rates adopted for 1894-95. Statement No. 1 gives the (settlement) rates adopted for the statement in G.O. 370 Rev. 2-7-98

Para 2 of the note prefixed to the notification of 1898.

and the anna valuations representing the number of annas in the rupee at which the crop was actually estimated for the season concerned by the local officers. The most important crops are Jowari (Cholam), Bajri (Cumbu) and Paddy, and the average (i.e the normal?) outturns assumed for the various districts are shown in Statement No. 2 appended to this note. The outturn for 1896-97 is stated in the notification of 1898 to have been based on the rates of yield fixed for all districts in the latest (1897) quinquennial returns to India, but as the anna valuations are not stated, it is not possible to calculate from the actual outturn in this what average (i.e normal) outturns have been assumed. Revised figures (without details) are also given for 1896-97 and 1894-95

1894-96 and 1895-96 based on the above rates; these revised figures result in a considerable reduction of out-turn in the Deccan, a trifling reduction in Gujarat, but in a large increase in Konkan and a small increase in the Karnatak; so that the average yields must have been raised in the two latter divisions. It is stated that the total out-turn in the Deccan is still probably too high and the mistake is stated to be due probably to the average yield or the anna valuation which latter is not stated in the statement for 1896-97.

Para 3 ibid

Para 4 ibid

4. The principle of calculating the out-turn of any particular year by applying to the reported area of the year the average yield per acre, and the anna valuation out-turn, is the same as

X

(Revd. Madras)

as that adopted by the Board of Rev. in their report under Go. 767/8-9-97. It will be seen from paras 15 and 16 of this report that in B as in M this method is attended by various difficulties, that it is not perhaps possible to frame any correct estimate of the average yield per acre for such a large area as a District and that the anna valuation of the Village Officers whose impression is that 12 annas represents our average crop leads to an underestimate of the crop. In Bombay the same remarks are made as regards the assumed average yield per acre, but the remarks made as to valuation seem to show that the local valuation results in an overestimate (in the note prefixed to the Notification of 1896-97) and it is suggested that of the reporting agency were told to give the yields instead of

Paras 4 & 5 of said ibid

Para 5

(the yields in the statements for 1896-97.

instead of an annual estimate, they would be nearer the mark. This is apparently only an annual estimate as given in the 1898 Notification.

The above applies as already stated only to the outturn of the particular years taken: the data on which the normal out-turn given in the Famine Commissioner's Report have been framed are not known.

5. Deductions from out-turn

It is not known whether any deductions have been made in Bombay for vicissitudes of seasons. The outturn of particular years for which details are given in the notification are ~~annotated~~ (being based on reported outturn per acre) the questions of deductions for vicissitudes of season does not arise

and the

Case.

(a)

Bombay

Madras.

Reply of March 8/2

I doubt if March this was wrong 8/2

Bombay

Explanatory notes at page 16 of the 1897 Bombay notification in C.No. 686.

Madras.

Para 12 of memo at page 15 of B.P $\frac{382}{6-10-98}$

Bombay

Pp-4, 5, 12 & 13 of 1897 notfn

15

(a) No allowance was made for vicissitudes of seasons in the statement in Fo. $\frac{370-1}{2-7-98}$

(b) In appendix II at page 8 of B.P. $\frac{382}{6-10-98}$ (Cuo 7434), the Board has made deductions on this account varying from $\frac{1}{16}$ to $\frac{1}{4}$. (Please see remarks at para 3 of this note. pp 3 & 4 supra.)

(c) Mr. Benson makes no allowance.

Wastage and shrinkage — This item has been computed at 5 p.c. of the total outturn. The percentage has been adopted by Mr. C. Benson.

(a) 6·7 p.c. was allowed for wastage in the statement in Fo. $\frac{370-1}{2-7-98}$ on the basis adopted in the previous Famine Commissioner's Report.

(b) The Board makes the same allowance (Column 17 of appendix I at page 7 of B.P. 382 of 6-10-98 - Cuo 7434)

(c) Mr. Benson allows 5 p.c.

Husking — The only grain for which a deduction for husking is allowed in Para 2 the deduction averaging 33 p.c. for 1894-95 and 1895-96. For 1896-97 the

the outturn is calculated in cleaned rice.

(a) No allowance was made for husking in the Statements G.O. $\frac{370-1}{2-7-98}$. (vide para 4 of this Note at pp 4 & 5 supra).

(b) The Board makes a deduction of $\frac{1}{3}$ weight for paddy, $\frac{2}{3}$ for varagu (page 5 of Circ 7434).

(c) Mr Benson makes a deduction only for paddy; rate not known (page 17 of B.P. 382 dt 6-10-98. C No 7434).

6. Consumption. The ratios adopted are (Explanatory notes appended to notification of 1897).

For males above 14 years 2 lbs
for females above 14 years 1½ lbs
for children between 2 & 14 years 1 lb

The average comes to about 544 lbs per head of the population.

(a) Allowance in G.O. 370-1 dated 2-7-98 - 455 lbs (unhusked)

(b) Board in Circ 7434 allows 455 lbs of husked paddy or varagu or other grains

Page 4 of the 1898 notfn

Madras.

Para 4 & 5 of B.P $\frac{382}{6-10-98}$ page 5

Bombay

Corresponding case ration of husked grains or flour:

A 1½ lbs, B 1.36 lbs, C 1.14 lbs
" 1¼ " " 1.18 " " 0.99
¼ to ¾ of the adult wages.

(K) What grains? cleaned rice & unhusked dry grains

Madras

i.e. the same quantity as that adopted in G.O $\frac{370}{2-7-98}$ (vide para 7 of B.P $\frac{382}{6-10-98}$ at page 5)

Para 15 of memo at page 16 of B.P $\frac{382}{6-10-98}$

Bombay

Explanatory notes at page 16 of the 1897 Bombay notfn.

Madras

Col: 16 of app I at page 7 of B.P $\frac{382}{6-10-98}$

Para 14 of memo at pp 15 & 16 of B.P $\frac{382}{6-10-98}$

Bombay

Explanatory notes at page 16 of the 1897 Bombay Notfn.

Madras

Col: 15 of app I at page 7 of B.P $\frac{382}{6-10-98}$

Para 13 of memo at page 15 of B.P $\frac{382}{6-10-98}$

grains unhusked).

(c) Mr Benson 448 lbs (cleaned rice and unhusked dry grains).

Stock — The feed of stock has been calculated at half a maund per acre. This it is stated is rather high.

(a) Allowance in G.O. 370-1 dated 2-7-98 — 7 p.c of outturn

(b) Board in the Current } 7 p.c of outturn

(c) Mr Benson makes allowances varying from 1 cwt to 15 cwts per head for a certain percentage of stock.

Seed Grain — The seed rates are stated to have been based on the crop forecast & where the rates are not given, they are stated to be too low for some crops.

(a) G.O. 370-1 dated 2-7-98 } 6.3 p.c of outturn.

(b) Board in the Current } 6.3 p.c of outturn

(c) No particulars as to data so as to ascertain if accurate figures are

~~Statement showing the reasons~~
~~for the reductions~~

RS
10-2-99

Secy

E

* Letter in G.O. 404 d 21-7-98

I

G.O. 370 d 2-7-98

The Govt of India wanted* the m/s for the Fam. Commission. We had already furnished* the course with the information available. Now that the Famine Commission Report is out, the pp. may be recorded & a copy with copy of G.O. 370 d 2-7-98 sent to the Govt of India with ref. to their letter. The Bombay figure does not help.

11/2/99

(Personal instructions from the Secretary. So calculate what corrections will be necessary in the [illegible] forwarded to Govt as per [illegible] No. 371 2-7-98, if as declared in the Famine Commission Report the deductions made from out-turn for husking should be the weight of paddy required to produce the quantity of husked grain (as per Board's Cir. No. 7434 dated 2-7-98) actually obtained in the calculations. The deduction made is ⅓ of the weight of husked grain (331 p.c.) made in the Board's Cir. No. 7434 dated 2-7-98 allowing for husking charges.

(b) Board's Cir. No. 7434 allows for paddy equivalent of husked paddy required to produce the grains

Grains

the data assumed in the notes under G.O. 370 2-7-98, and the deductions to be made for husking are shown in Statement No. 3 appended. The aggregate paddy production is 4,390,000 tons against 4,353,000 tons in appendix II on page 8 of P. 382 6-10-98 (C. No. 7434 of 98). The ~~deductions~~ corrected figures to be given in columns 4 and 11 of the Statement forwarded with letter No. 371 2-7-98 are shown in Statement No. 4 appended.

RS
1-3-99

Ans

The Fam. Comm. wanted the m/s urgently, & figures were hastily compiled in this office, & sent to them. No allowance was made for husking, as it had been in the case of paddy, but the whole calculation is founded on data to ensure that accurate figures are

almost impossible of ascertainment.

There is one important point which vitiates all calculations that is the extent to which the poorer & more numerous classes of the people live on food stuffs other than grain. In Tirinvelly for instance, in the Southern taluqs especially, the palmyra & other vegetation supplies a much far larger share of the food of the people than ~~most people~~ is generally supposed

The papers may be recorded. It is too late now to attempt to correct the former hurried calculations which were made for the famine commission

J. Burns

			.92	4·75	6·34	4·0	6.60	5·0	5·3
		14·5	3.57	4·75	3.30	3·25	3.48	5·0	5.3
	12.05	14·0	4.69	4·75	5.66	4·0	7.27	5·0	9.7
Tanjore	14.32	14·75	4.46	4·75	4.78	4·0	6.62	5·0	8.3
Madura	9.02	11·0	3.80	4·75	3.57	4·0	5.80	5·0	5.3
Tinnevelly	12.05	14·0	4.46	5·0	3.57	4·0	5.80	5·0	5.3
The Nilgiris	12.05	12·0	"	"	"	"	5.80	"	5.3
Malabar	12.05	12·0	4.46	"	3.57	"	5.80	"	"
South Canara	12.05	12·0	"	"	"	"	5.80	"	"

(1)

Rates of principal crops (Madras).

Districts	Paddy		Cholam		Cumbu		Ragi		Varagu	Korra	Other cereals & pulses.	
	Settlement rates	Normal Benami rates	Settlement rates	Normal Benami rates	Settlement rates	Normal Benami rates	Settlement rates	Normal Benami rates	Settlement rates	Settlement rates	Settlement rates	Normal Benami rates
	cwts	cwts	cwts	cwts	cwts	cwts	cwts	cwts	cwts	cwts	cwts	cwts
Ganjam	13·34	13·0	4·46	6·25	3·57	5·0	4·60	4·5		5·36	5·36	4·75
Vizagapatam	13·86	14·0	4·46	6·25	4·90	5·0	4·99	5·0	"	5·36	5·36	4·75
Godavari Delta	15·38	15·5	8·92	6·25	7·14	5·0	10·71	5·0	5·8	5·36	5·36	4·76
Godavari Upland	11·60	14·0		6·25		5·0						
Kistna Delta	15·38	15·5	6·20	6·25	3·30	5·0	5·80	"	6.47	5·36	5·36	4·76
Kistna Upland	13·40	14·0		6·25		5·0						
"	14·15	14·0	3·75	3·75	3·57	3·25	5·80	"	5·36	2·54	5·36	3·50
"	12·05		3·00									
"		14·0	4·27	3·75	3·57	3·25	5·80	"	"	5·36	5·36	3·5
"		14·0	3·39	3·75	3·57	3·25	4·10	"	"	5·36	5·36	3·5
	3.66	3·75	1·92								36	3·6
									"	5·36	5·36	4·0
									"	5·36	5·36	4·0
	.41	3·5	2·68						"	5·36	5·36	4·0
	.46	3·5	3·57						"	5·36	5·36	4·0
	.70	3·5	4·24						"	5·36	5·36	4·0
	.46	4·75	3·75						"	5·36	5·36	4·0
									"	5·36	5·36	4·0
									"	5·36	5·36	4·0
									"	5·36	5·36	4·0

Rate of Out-turn per Acre (Bombay) as calculated from the details given for 1895-98.

Number	District	Jowári	Bájri	Paddy.
		Cwts	Cwts	Cwts
1	Khándesh	11.5	5.7	21.4 Irrigated 14.3 Unirrigated
2	Násik	6.7	5.7	21.4 Irrigated 14.3 "
3	Ahmednagar	5.7	3.3	25.0 Irrigated 14.3 "
4	Poona	6.0	2.8	22.6 " 14.3 "
5	Sholápur	5.5	4.3	21.4 " 14.3 "
6	Sátára	10.2	5.7	25.6 " 15.7 "
7	Belgaum	8.4	4.5	23.8 " 15.0 "
8	Bijápur	5.7	4.3	21.4 " 14.3 "
9	Dhárwár	11.0	6.3	23.8 " 13.9 "
10	Ahmedábad	[illegible]	10.1	20.9
11	Kaira	12.5	11.3	21.0
12	Panch Mahals	11.9	4.3	17.4
13	Broach	14.9	12.7	14.4
14	Surat	13.3	13.8	23.4
15	Thána	9.5	"	14.4
16	Kolába	"	"	14.3
17	Ratnagiri	"	3.8	14.3
18	Kánara	6.5	"	14.3

No. XIA 3.

Production of paddy in the Ryotwari Tracts of the Madras Presidency in a normal year.

Districts	Area under paddy in hundreds of acres	Grass production in tons	Deduction for smoking of [illegible]
Ganjam	3245	215330	71777
Vizagapatam	970	67120	22373
Godavari - Delta	6210	476840	158947
uplands	375	21760	7253
Kistna Delta	4845	372030	124010
uplands	210	14060	4687
Nellore Principal D	2350	150020	50006
Sub-division	300	19420	6473
Kurnool - Proper	530	37380	12460
Cumbum and Markapur	200	12950	4317
Bellary	410	30750	10250
Anantapur	885	67960	22653
Cuddapah - main Divis	860	62580	20860
Sub-division	755	32690	10897
N. arcot	3660	269600	89866
chingleput	4935	229130	76377
S. arcot	5040	303750	101250
Salem	1170	84090	28030
Coimbatore	915	55550	18517
Trichinopoly	2100	135940	45313
Tanjore	10820	772860	257620
Madura	1940	87470	29157
Tinnevelly	2510	151270	50423
Nilgiris	~~570~~	3010	1003
Malabar	7050	424890	141630
South Canara	4845	292000	97333
		4390~~55~~0	1463483

Corrected figures to be substituted for those in columns 4 & 11 of Statement forwarded with letter No. 371 dy 2-7-98

Districts	Gross production in tons (Col 4)	Surplus (Col 11)
Ganjam	1,77,000	4,400
Vizagapatam	77,000	-38,600
Godavari	4,25,000	73,200
Kistna	5,93,000	214,100
Nellore	2,84,000	41,100
Kurnool	2,72,000	62,200
Bellary	4,12,000	186,100
Anantapur	3,07,000	121,300
Cuddapah	3,34,000	9,100
N. arcot	2,90,000	-80,700
Chingleput	1,92,000	-59,200
S. arcot.	4,54,000	-89,900
Salem	4,12,000	58,000
Coimbatore	4,16,000	-82,700
Trichinopoly	3,49,000	52,300
Tanjore	5,76,000	30,401
Madura	2,36,000	-158,900
Tinnevelly	2,66,000	-110,000
Nilgiris	8,000	-17,200
Malabar	2,95,000	-380,200
S. Canara	2,05,000	-65,300
Madras	"	-115,200
Total	6,580,000	-346,700

Revenue Department

B.P. 382/6-10-98 (Sett). C.No. 7434/98

Letter from the Govt of Bombay
No. 5747/25-1-99. C.No. 686/99.

Memo. 1399(a) Dt 18th April 1899

Order ~~Passed as per Dt 18th April 1899~~

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