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REVENUE DEPARTMENT.

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Revenue (1899) Department.

PRESS SERIES.

G.O., No. 614

Dated 11th September

[Despatch Abstract.]

Recording in the remarks Bds' Proceedings what rates shd be adopted to represent the standard or normal rating of Cotton in different parts of the Madras Presy.

BACK PAPERS.

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

FURTHER PAPERS.

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

Government {1899} of Madras.

REVENUE.

Recd. } 1899. *Enclosures*

Regd. *Spare copies*

G.O., No. 614, 11th September 1899.

SEPTEMBER.

R.

Outturn of Cotton.

Recording, with remark, Board's Proceedings discussing what rates should be adopted to represent the standard or normal — in different parts of the Madras Presidency.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

Read—the following Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), No. 190, dated 23rd June 1899:—

Mr. A. W. B. Higgens.

Read—again the following Proceedings of the Board of Revenue (R.S., L.R. and Agri.), Mis. No. 554, dated 26th January 1899:—

Read—the following letter from the Hon'ble Mr. S. R. TURNBULL, Chairman, Chamber of Commerce, Madras, to the Secretary to the Commissioner of Revenue Settlement, and Director of the Department of Land Records and Agriculture, dated 9th January 1899:—

I have the honour to acknowledge receipt of the Proceedings of the Board of Revenue, No. 421, dated the 19th November 1898, discussing the rates of outturn of cotton proposed by the Chamber. As the Board declines to modify the rates which it lately adopted, it will be of little use for the Chamber to enter further into lengthy discussion of the matter in support of its contention that the Board's estimates are too low. The Chamber wishes, however, to direct the Board's attention to the following extract from Diwan Bahadur S. Srinivasa Raghavaiyangar's "Memorandum on the Progress of the Madras Presidency during the last 40 years":—

"In fertile soils and under good treatment, 1,000 lb. seed cotton per acre is no unusual outturn; an ordinary good yield of cotton may be taken to vary from 750 to 900 lb. of seed cotton, while 500 lb. may be taken as a fair average of yields, taking all soils into consideration. These figures have been arrived at from the statements of different classes of ryots and include the first and second courses of pickings. It is assumed by dealers that six poodis (about 328 lb. each) of seed cotton are required to produce 500 lb. lint, and therefore the average outturn of an acre is 125 lb. of lint."

The difference between an average outturn per acre of 125 lb. as here estimated and 70 lb. per acre for Tinnevelly as estimated by the Board is so enormous as to lead to the irresistible conclusion that the sources of information from which these official figures are obtained cannot be held reliable, and the Chamber considers that the Board should institute further enquiries in order to ascertain the average outturn per acre of the two pickings in the Tinnevelly district.

2. The Chamber is not in a position to prove that the Board's statistics relating to the volume of the sea-borne cotton trade are inaccurate, but the average annual export of 570,000 cwt. for the quinquennium ending 1896–97 seems suspiciously small, considering that, according to reliable information supplied to the Chamber by shipping firms, the average exports from Tuticorin alone amount to 80,000 bales of 500 lb. or 360,000 cwt. The rail-borne traffic also seems to the Chamber to be underestimated, as a large percentage of the western crop—which averages 250,000 cwt. per annum—now finds its way to Bombay principally *vid* Marmagoa.

3. Lastly, the Chamber regards an allowance of one-third of the outturn for local consumption as inadequate, as the offtake by the mills has increased considerably, an allowance of 40 per cent. being, in its opinion, much nearer the mark. Messrs. Lyon & Co. of Bombay, who are the best authority on Indian cotton statistics, put down the mill and local consumption for all India during the quinquennium referred to at 1,665,000 bales per annum out of an average total outturn of 2,943,000 bales, or say 55 per cent.

4. In support of its opinion that the outturn per acre is underestimated by the Board, the Chamber would refer to the first forecast of the growing crop recently published, in which the yield is calculated at about 127,000 bales of 400 lb. Adding

to this 20 per cent. for Native States and Zamindaries as estimated by the Board, the total outturn of next crop would be 152,400 bales of 400 lb., while according to the figures supplied to the Chamber by press-owners and cotton-shippers an average crop for the Presidency is about 250,000 bales distributed as follows:—

Tinnevelly, 80,000 bales of 500 lb.	100,000	bales.
Westerns	80,000	,,
Northerns	25,000	,,
Cocanadas	30,000	,,
Salems, Coimbatore, &c.	15,000	,,
Total	250,000	,,

5. The Chamber is obliged to the Board for adopting its suggestion as regards giving different units of outturn for the various descriptions of cotton, and, while it cannot endorse the Board's views as to outturn, it fully appreciates the assistance which the mercantile community will derive from the publication of reliable figures of the acreage planted with cotton on Government lands, from which an approximate estimate may be made of the quantity likely to be available for export.

Resolution—Mis. No. 554, dated 26th January 1899.

Before submitting the letter read above for the information of Government in continuation of B.P., No. 421, dated 19th November 1898, the Board requests that the Chamber may be moved to consider the figures and remarks embodied in these proceedings.

2. In the subjoined table, the particulars from which the approximate average export by sea of 570,000 cwt. of cleaned cotton was derived are shown, as well as the particulars of exports from the port of Tuticorin, according to the volume of sea-borne trade statistics, and according to the table given (for calendar years) by the Chamber in its price current and market report:—

Description.	1892–93.	1893–94.	1894–95.	1895–96.	1896–97.	Average.
For the Presidency.						
Exports.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
Foreign ..	506,714	519,914	619,551	582,836	515,244	548,900
Coastwise ..	47,876	39,585	56,649	47,331	33,804	45,000
Imports.						
Coastwise ..	15,701	22,183	10,304	35,218	41,278	24,900
Foreign ..	73	645	364	448	508	400
For the Port of Tuticorin.						
Exports.						
According to sea-borne trade statistics	334,584	211,646	415,051	359,080	270,701	318,200
	1892.	1893.	1894.	1895.	1896.	Average.
Chamber of Commerce Price Current	323,740	189,699	423,175	376,175	268,799	316,300

The two sets of figures relating to Tuticorin agree as nearly as can be expected under the circumstances, and both sets forbid the acceptance of the statement that the average exports from that port amount to 360,000 cwt. per annum.

3. In regard to the rail-borne traffic, the Board regrets to observe that, in stating that the average balance of exports during the five years ending in 1896–97 might be put at 46,000 cwt. per annum, it fell into error. It should have been about 9,300 cwt. only. As the gross imports of cotton by rail are always very large, and the exports during 1896–97 were most exceptional, the average result for the five previous years was to show an annual import of about 23,200 cwt. If the figures for the whole period of six years already referred to be taken, they show an average

annual balance of imports amounting to about 2,400 cwt. It is possible that some of the large exports shown as despatched to the port of Bombay may have gone by through booking by rail and steamer, *viâ* Goa, and, if the Chamber desires it, enquiry on this point will be addressed to the Examiner of Guaranteed Railway Accounts, Bombay, who compiles the statistics; the coasting trade returns of the Bombay Presidency, however, show for 1896–97 that only 6,255 cwt. of cotton were received at Bombay from Goa.

Year.	Exports from Madras to						
	Bombay (port).	West India Portuguese Railway.	Other parts of Bombay.	Total.	Mysore.	Other places.	Grand Total.
1	2	3	4	5	6	7	8
	MDS.	MDS.	MDS.	MDS.	MDS.	MDS.	MDS.
1891–92	19,800	5,794	6,192	31,786	10,700	1	42,487
1892–93	17,684	14,847	1,275	33,706	11,303	440	45,449
1893–94	172,188	6,437	5,414	184,039	13,675	708	198,422
1894–95	75,553	2,621	1,794	79,968	17,944	365	98,277
1895–96	54,457	12,522	5,216	72,195	18,617	9	90,821
1896–97	111,460	1,982	66,913	180,355	37,804	1,822	219,981

Year.	Receipts into Madras from					Balance + or —.
	Bombay.	Hyderabad.	Mysore.	Other places.	Total.	
	9	10	11	12	13	14
	MDS.	MDS.	MDS.	MDS.	MDS.	MDS.
1891–92	36,421	81,333	7,587	..	125,341	+ 82,854
1892–93	25,553	82,490	7,452	16	115,511	+ 69,862
1893–94	57,491	89,036	11,689	..	158,216	— 40,206
1894–95	31,561	68,645	16,848	4	117,058	+ 18,781
1895–96	29,668	65,848	22,119	4	117,639	+ 26,818
1896–97	22,992	47,035	11,156	56	81,239	— 138,742

4. From the remarks made above it would appear that the rail-borne exports may be disregarded, and that the Board's estimate of 805,000 cwt. per annum as a normal crop would really leave 40 per cent. for local consumption.

5. In regard to the amount of cotton used by local mills, the Board would be glad to receive any definite information that can be obtained on the subject, but in the absence of any it is unable to see the bearing of Messrs. Lyon & Co.'s estimate for all India on the case of the Madras Presidency. The Board would be obliged if the Chamber would suggest how definite information for a series of years may be obtained on this point, if it is unable to furnish it from sources of information open to it. It appears, from a table published in the volume of Financial and Commercial Statistics of British India issued by the Government of India that, out of an average of about 427 million pounds of yarn spun in Indian mills during 1895–96 and 1896–97, only a little more than 29 million pounds or less than 7 per cent. was spun in Madras, and how this should be applied to Messrs. Lyon & Co.'s estimate of the yield would require a reference to that estimate which the Board is unable to make. The figures quoted, however, if reliable, would point to an even larger consumption of cotton by local mills than is suggested by the Chamber, and the Board is very desirous of obtaining an accurate estimate on this point.

6. In regard to the quotation made from Diwan Bahadur S. Srinivasa Raghavaiyangar's work, it will be pointed out that the quotation was taken by that officer from a report published by this department in 1891 (Bulletin No. 19, page 125), and attention should be specially given to the note made on that portion of the report at the time. The Board is not disposed to attach any great importance to the outturn estimated by the reporter. It would also remark that the carrying out of experiments such as the Chamber suggests should be made to determine the average yield of cotton is for all practical purposes an impossibility—not two, but twenty or more pickings

are commonly made in Tinnevelly—and before any average could be fixed it would be necessary to carry out several hundreds of experiments in order that they might embrace crops grown on soils of different qualities, under varying circumstances and during different seasons.

7. With regard to the first forecast of outturn, alluded to at paragraph 4 of the letter read above, the Board is unable to see what bearing the assumed amount of a normal, or average crop has thereon, unless allowance be made for the marked decrease in the area sown this year, and the condition in which the crop was reported to be at the time the forecast was prepared. It may also be pointed out that the amount of a normal crop is now reported to be about 893,000 cwt. against 1,238,000 cwt. at the rates proposed by the Chamber in its letter, dated 19th September 1898, whilst as regards the Western crop, which in this paragraph is estimated at 80,000 bales (of 400 lb.) in paragraph 2 of the letter it is said to be only 70,000 bales. These figures cannot all them, the Board considers, be correct.

8. As the I l is most anxious to arrive at some definite understanding as to what should be ed upon as the normal production of cotton in this Presidency, excluding the p ction of tracts in Mysore and Hyderabad which may in trade parlance be combin therewith, it trusts that the Chamber may submit the data given in these proceedings to criticism and furnish, where no information is available at present (*vide* paragraph 5 *supra*), any that is obtainable.

(True Copy and Extract.)

(Signed) C. BENSON,
Deputy Director,
for Secretary.

To the Chairman, Chamber of Commerce, Madras.

Read—again Proceedings of the Board of Revenue (R.S., L.R. and Agri.), Mis. No. 993, dated 16th February 1899.

Abstract.—Recording, with remarks, Government Order, accepting the Board's views regarding the preparation of forecasts of the outturn of cotton in the Madras Presidency.

Read—again the following Proceedings of the Board of Revenue (R.S., L.R. and Agri.), Mis. No. 1546, dated 21st March 1899:—

Read—the following letter from the Hon'ble Mr. S. R. TURNBULL, Chairman, Chamber of Commerce, Madras, to the Secretary to the Commissioner of Revenue Settlement and Director of the Department of Land Records and Agriculture, dated 10th March 1899:—

With reference to the Resolution of the Board of Revenue, No. 554, dated the 26th January 1899, regarding the forecasts of outturn of the cotton crop in the Madras Presidency, I have the honour to point out, with reference to the approximate amount of cotton exported by sea, that when the Chamber, in its last letter, stated that the exports from Tuticorin alone amounted to 80,000 bales of 500 lb. or 360,000 cwt., it referred to average exports in *normal* years which alone should be taken into consideration, the question at issue being what amount may be taken as the average outturn of cleaned cotton per acre in a normal year. In paragraph 2 of the Board's Resolution under reply, the figures quoted are for the quinquennium 1892–96, which includes one famine year (1893), in which there was only half a crop, and one year (1896) in which there was only a three quarter crop.

2. As regards the Board's statement that the figures in the Chamber's Price Current correspond fairly well with the figures given in the Volume of Sea Borne Trade Statistics, I have to [illegible] famine year—and does not tend to

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confirm the correctness of the Board's figures—considering that the Chamber's figures are compiled from the returns supplied to it by the Collector of Sea Customs, copies of which returns are, the Chamber believes, supplied to the Board for the compilation of its statistics.

3. The figures upon which the Chamber based its estimate of 80,000 bales of 500 lb. exported from Tuticorin are the pressing returns supplied by the different cotton presses in the district, which are undoubtedly correct, as the press-owners have to pay a contribution for each bale pressed to a General Fund. The following are details of these returns for the past eight years :—

Tuticorin Pressing Returns, 1891 *to* 1898.

1891	87,004 bales of 500 lb.		
1892	81,660	do.	
1893	46,107	do.	(Famine year).
1894	101,578	do.	
1895	83,124	do.	
1896	66,195	do.	
1897	44,583	do.	(Famine year).
1898	82,979	do.	

Excluding the two famine years 1893 and 1897, these figures show that the average number of bales pressed for export in a normal year is 83,756 or 373,107 cwt., while even if the famine years are included, the average is 74,153 bales of 500 lbs., or 331,040 cwt., as against 318,200 cwt., or 71,277 bales of 500 lb., the average for the five years 1892–93 to 1896–97 as quoted by the Board.

4. As regards the Western Crop, an error Crept into one paragraph of the Chamber's letter of the 9th January 1899, in which the crop was put down at 250,000 cwt., instead of as 280,000 cwt., or, about 80,000 bales of 400 lb. as stated in a subsequent paragraph.

5. It is almost impossible to ascertain the exact local consumption by mills and native weavers in the Madras Presidency, but according to a statement published in the Annual Report of the Bombay Millowners Association for 1897, the total approximate average quantity of cotton consumed during that year in eleven mills in the Madras Presidency was 46,286 candies of 784 lb., or, say, 90,720 bales of 400 lb. In Travancore, Mysore and Pondicherry—where mills draw their supplies largely from the cotton districts of the Madras Presidency—the aggregate approximate consumption during the year was 11,266 candies of 784 lb., say, 22,081 bales of 400 lb. Thus, adding these figures to those for the Madras Presidency, the total mill consumption was 112,801 bales of 400 lb., or 402,860 cwt., compared with only 205,000 cwt., or, say, 57,400 bales of 400 lb., estimated by the Board in the last portion of paragraph 2 of its Resolution, No. 421, dated the 19th November 1898. Taking this mill consumption of 402,860 cwt., and adding it to the Board's figures of an average gross export of 616,000 cwt., it will be seen that the total production amounts to 1,018,860 cwt., which approximates closely to the production at rates proposed by the Chamber, viz., 1,238,000 cwt., if allowance is made for the consumption by native weavers, which is not included in the above-mentioned mill consumption, and also for the probable incorrectness of Sea Borne Trade Statistics. It is true that a certain amount of the cotton consumed by the Madras mills is imported from Bombay and elsewhere, but *per contra* the mills in other Presidencies use a considerable quantity of Madras cotton, the Calcutta mills alone having taken 12,512 bales of Westerns, Northerns and Salems last year.

6. The Chamber is glad to notice the very great improvement in the Final Forecast of the Cotton Crop recently issued—which gives practically all the information that is required, though the Chamber is not prepared to admit the correctness of the estimated outturn in bales [illegible] thank the Board for preparing it in its preser form, which adds cons

he point is illustrated

1894–95.	1895–96.	1896–97.	1897–98.
9	1,624	1,394	1,509
583	515	324	
47	34	18	
630	549	342	
1	1	1	
5	42	51	
	43	52	
	506	290	
9		94	
1		44	
0	—	50	
2	—	87	
		327	

Resolution—Mis. No. 1546, dated 21st March 1899.

The following letter will be despatched to the Secretary, Chamber of Commerce, Madras :—

"With reference to the Chamber's letter, dated 10th current, regarding the outturn of cotton in this Presidency, I am directed to enquire whether the figures given in paragraph 3 thereof do not include cotton pressed at Virudupatti and Sáttúr for use in the mills, as well as for export.

"I am also to ask you to be so good as to favour this department with the loan of a copy of the latest reports of the Bombay Millowners' Association for reference with regard to the remarks in paragraph 5 of the same letter."

(True Copy and Extract.)

(Signed) C. BENSON,
for Secretary.

———

Read—again Proceedings of the Board of Revenue (R.S., L.R. and Agri.), Mis. No. 1833, dated 7th April 1899.

Abstract.—Recording letter from the Chamber of Commerce, Madras, staing that the figures regarding the export of cotton from Tuticorin given in its letter, dated 10th March 1899, represent only full-pressed export bales and not cotton pressed for the use of the local mills.

———

Read—again Proceedings of the Board of Revenue (R.S., L.R. and Agri.), Mis. No. 2029, dated 19th April 1899.

Abstract.—Asking the Secretary, Bombay Millowners' Association, Bombay to favour the Board with information as to the cotton consumed in cotton mills.

———

Read—again the Proceedings of the Board of Revenue (R.S., L.R. and Agri.), Mis. No. 2251, dated 5th May 1899, acknowledging receipt of the following letter from the Secretary, Millowners' Association, Bombay, to the Secretary to the Commissioner of Revenue Settlement and Director of the Department of Land Records and Agriculture, dated 27th April 1899 :—

I am directed to acknowledge the receipt of your letter, No. 2029 of the 19th instant. I have filled in the figures in the form forwarded by you, and now beg to return the same herewith.

As regards your paragraph 3, I am instructed to say that 19 per cent. would be a fair average allowance for waste in spinning cotton into yarn, and on this basis the figures you quote would work out somewhat as follows :—

	cwt.
Quantity of cotton used	324,000.
Less 19 per cent. for loss	61,560
Result yarn, say ...	262,440

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Enclosure.

Statement showing the quantity of cotton consumed in mills in Southern India for a series of years ending 30th June.

District.	1894.	1895.	1896.	1897.	1898.	Average.
	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
Bellary	10,318	1,750	11,914	17,640	15,400	11,400
Madras	141,344	136,836	139,356	151,977	142,863	142,476
Coimbatore	19,285	19,075	20,650	26,082	25,011	22,000
Madura	28,924	32,599	42,735	48,230	53,445	41,200
Tinnevelly *	67,669	76,888	80,514	71,435	79,219	75,150
Malabar †	18,200	21,420	19,012	8,638	16,772	16,800
Total ..	285,740	288,568	314,181	324,002	332,710	309,025
Pondicherry	14,000	14,000	14,350	15,820	19,838	15,600
Travancore	23,583	26,250	28,665	27,300	23,310	25,820

* Mills at Tuticorin, Ambásamudram and Koilpatti. † Mill at Calicut.

Resolution—No. 190, dated 23rd June 1899.

The papers read above relate to the question of the rates that should be adopted to represent the standard or normal outturn of cotton in different parts of the Madras Presidency. The rates which the Board proposed to adopt are given in its proceedings, Mis. No. 4745, dated 5th August 1898—*vide* B.P., No. 421, dated 19th November 1898. To these the Chamber took exception and suggested considerably higher standards. To these latter rates the Board did not, with the information before it, feel able to agree (B.P., No. 421, dated 19th November 1898).

2. In its letter, dated 9th January 1899, the Chamber pointed out that it considered that the average exports by sea, as given by the Board, appeared suspiciously small, and that the allowance of one-third the exports, by sea and by rail, for local consumption was inadequate; and quoted figures to show that an average crop of the Presidency is estimated by those concerned in the trade at 250,000 bales of 400 lb., each equal to about 893,000 cwt. It is not, however, quite clear whether the whole of this is to be regarded as exportable surplus, though from later correspondence it may be inferred that it is. On receipt of the above letter, the Chamber was again addressed in regard especially to its estimate of the normal exports from the port of Tuticorin and as to the consumption of cotton in local mills, and in a letter, dated 10th March 1899, gave further information on these points.

3. From the last-mentioned letter it appears that the considerable discrepancy between the estimates framed by the Board and by the Chamber as to the amount of the normal exports from the port of Tuticorin has arisen chiefly from a difference of procedure. The Chamber eliminates the figures for such years as it considers bad years in striking an average; the Board took the figures for a series of years, good and bad together.

It appears to the Board that the latter process is the more correct method of determining what the amount of a normal crop is; that is "that crop which past experience has shown to be a most generally recurring crop in a series of years"—*vide* B.P., No. 170, dated 5th May 1898. If the yield of bad years is to be excluded, so also must that of very good years, and great difficulties will arise in determining which should be included and which excluded. For instance it may be remembered that though the year 1896 was very unfavourable over a large part of the Presidency, there is nothing to show that in the southern districts it was especially unfavourable for the cotton crop.

4. In regard to the selection of the period, on the basis of which the averag
should be calculated, there is [illegible] much room for discussion, and this is furth
complicated by the fa[illegible]ed, a consider

development in the spinning mill industry in this Presidency. The point is illustrated by an examination of the figures in the table below :—

Particulars.	1887–88.	1888–89.	1889–90.	1890–91.	1891–92.	1892–93.	1893–94.	1894–95.	1895–96.	1896–97.	1897–98.
	In thousands of acres.										
Area sown	1,464	1,508	1,641	1,738	1,318	1,326	1,724	1,519	1,624	1,394	1,509
	In thousands of cwt.										
Exports by sea—											
Abroad	..	596	862	847	594	507	520	620	583	515	324
Coastwise	..	23	21	26	47	48	40	57	47	34	18
Total ..	..	619	883	873	641	555	560	677	630	549	342
Imports by sea—											
From abroad	..	..	..	..	..	..	1	1	1	1	1
Coastwise	..	3	12	15	16	16	22	10	35	42	51
Total ..	..	3	12	15	16	16	23	11	36	43	52
Net sea-borne exports	..	616	871	858	625	539	537	666	594	506	290
	In thousands of maunds.										
Exports by rail	..	24	44	26	42	46	198	98	91	220	94
Imports ,, ...	..	121	138	171	125	116	158	117	118	81	44
Net rail-borne trade	..	+ 97	+ 94	+145	+ 83	+ 70	− 40	+ 19	+ 27	−139	− 50
Do. in thousands of cwt.	..	+ 71	+ 69	+106	+ 61	+ 51	− 29	+ 14	+ 20	−102	− 37
Total net exports of cotton, cwt., thousands	..	545	802	752	564	488	566	652	574	608	327

For the five years ending in 1892–93, the average balance of exports amounted to 630,000 cwt. of raw cotton, whilst those for the next five years were only 545,000 cwt. The first period included the very bad seasons of 1891 and 1892, which affected both the Deccan and the southern districts, and the latter, the bad year 1896, when the Deccan Districts were chiefly affected. It is, however, a well-known fact that the yield of cotton in the southern districts in both 1888–89 and 1889–90 was exceptionally heavy. This was shown in the exports from Tuticorin for the two years following which were about 450,000 cwt. annually against about 350,000 cwt. in the years immediately preceding and following. The consumption in local mills in Tinnevelly and Madur has, however, of late years increased, and is estimated by the Bombay Millowners Association at an average of about 116,350 cwt. during recent years. The average imports by sea at Tuticorin has also been much larger of late years than formerly, so that the net balance of exports which was for the first five years 387,000 cwt. has been for the second 287,000 cwt., whilst a much larger quantity of cotton has been imported into the southern districts by rail than formerly, the increase being about 15,000 cwts. for the last five years of the decade over the first five.

5. After full consideration of the facts and the figures given above, the Board holds that for the Presidency as a whole no sufficient reason can be shown for estimating the present normal exportable crop at more than 570,000 cwt. The second factor which has to be determined is the amount of cotton consumed locally. In its letter, dated 10th March 1899, the Chamber of Commerce puts forward certain data published by the Bombay Millowners' Association, as the basis for a calculation showing a consumption by local mills of about 324,000 cwt. The Chamber also considers that the mill consumption in Pondicherry, Travancore and Mysore should be treated as drawn from the Madras Presidency districts and thus calculates that the total local mill consumption amounts to about 402,860 cwt. As regards the Mysore consumption, it may at once be stated that,

	cwt.
Pondicherry	15,820
Travancore	27,300
Mysore	35,740

except such small portion as may be taken across the frontier by road, all exports to that province from Madras will appear in the rail-borne trade returns. A comparison with the statistics of rail-borne trade shows that the consumption noted for Pondicherry is approximately correct. As regards the consumption in Travancore it is not known how much is imported by sea, but the available figures show that the exports by road to Travancore, on an average of three years, amount to about 11,000 cwt. only, sent chiefly from Tinnevelly. Adding to this the average consumption as stated by the Bombay Millowners' Association, the total consumption by mills may be put at 335,600 cwt. per annum including Pondicherry.

6. In B.P., No. 39 of 1890, an estimate was given of the amount of piece-good required by the people for clothing. Accepting the rates of consumption therein adopted and applying them to the total population as shown by the census of 1891, the following results work out:—

	YARDS.
10,823,060 male adults at 10 yards	108,230,000
11,366,000 female adults at 16 yards	181,856,000
4,377,000 boys at 5 yards	21,885,000
4,106,000 girls at 8 yards	32,848,000
Total ...	344,819,000

An addition of 5 per cent. to this amount to provide for the wants of the increasing population will place the present demands at about 362 million yards. The average balance of import of piece-goods into this Presidency for the last ten years amounts to 125,170,000 yards by sea; against which must be set an average balance of exports by rail of 82,400 maunds. Adopting the rate of 5 yards to the pound or 400 yards to the maund, the balance of imports would amount to 92,210,000 yards and the amount that must now be woven locally would be about 270 million yards or nearly 54 million pounds against 40,890,210 lb. estimated in 1890. Allowing, as in 1890, 3 per cent. for wastage in weaving, the amount of twist required for weaving this amount of cloth would be about 55,000,000 lb. The average imports of twist and yarn by rail and sea for the last ten years amounted to 19,335,000 lb., thus leaving 35,665,000 lb. for local production. An allowance of nearly 20 per cent. would have to be made for wastage in spinning and the amount of raw cotton required will be about 382,000 cwt. To this may be added about 3,000 cwt. to provide for the export trade in handkerchiefs, etc., which has been large of late years. Bringing the figures arrived at above together, the totals will be—

	CWT.
Net export	570,000
Local consumption	385,000
Total ...	955,000

The Board's estimate of 1890 amounted to about 782,400 cwt. and showed an average yield of about 50 lb. per acre. The latest available data show that an average area of about 1,525,000 acres of cotton is sown within the area for which agricultural statistics are received and an addition of 275,000 acres may be allowed as being sown in zemindari and other areas for which no detailed returns are available; making 1,800,000 acres in all. This would show an average yield of about 60 lb. per acre for the whole Presidency.

7. From what has been said above, the total surplus production of the southern districts at the present time cannot well be placed at more than 300,000 cwt. in a normal year, or allowing for local consumption and exports to Travancore at about 420,000 cwt. The Chamber places it at about 286,000 cwt. over and above the local consumption in mills and otherwise. The amount of native yarn spun in the southern districts is believed to be inconsiderable. The area planted with cotton in Government villages in the southern districts is about 300,000 acres, and it may be estimated that nearly 200,000 acres more are sown in the large zemindaris found there.

This would place the rate of yield at 94 lb. per acre against 70 lb. adopted by the Board. The Chamber proposed a rate of 90 lb. and on reconsideration the Board is willing to raise its estimate to that figure for the southern districts.

8. The Chamber, in a letter,* dated 6th August 1896, stated that the trade description of cotton called "Salems" is produced in the four central districts and South Arcot. The area of cotton grown in North Arcot and South Arcot is inconsiderable—4,000 acres—and some of the produce of South Arcot doubtless finds its way to Pondicherry by road if not used up locally. As to the three districts—Coimbatore, Salem and Trichinopoly—the average area of cotton sown is about 287,000 acres, but much of this is sown on very poor land, especially in Coimbatore. A good deal of the produce of the southern part of Coimbatore is believed to find its way by road into Madura for export as "Tinnevellies," and the rail-borne trade statistics show the marginally-noted balance of exports only. This would give an exportable surplus of about 102,500 cwt. only. The mill at Coimbatore is said to use up about 22,000 cwt. during the year and the spinning of yarn locally is believed not to be very great. The Chamber's estimate for this crop is about 53,600 cwt. per annum, but a considerable portion of this cotton goes westward into Malabar for shipment to Bombay and for use on the West Coast. On the basis of the figures given above, however, the local production for the four years for which alone figures are available must not be placed at a much higher figure than 150,000 cwt. The average area sown in the three districts during the four years immediately preceding was 310,000 acres, giving a yield of about 54 lb. per acre. The rate adopted by the Board has been 70 lb., the estimate of the Chamber 70 lb. per acre. Considering the large area of poor land in Coimbatore devoted to cotton, from which Mr. Nicholson, who had peculiar advantages for ascertaining local facts, estimated the yield at 30 lb. per acre, the Board considers that its estimate is sufficient.

	Thousands of maunds.
1894–95	202·9
1895–96	140·5
1896–97	101·4
1897–98	113·3

* *Vide* appendix and papers printed in B.P., No. 316, dated 26th April 1897.

9. In regard to the exportable surplus of Northerns and Westerns, which the Chamber puts at 375,000 cwt. in a normal year, it may be observed that under the grouping adopted with reference to B.P., No. 5203, dated 24th October 1896, this produce comprises that grown on the areas included in the Deccan districts and Nellore. The normal area sown in the latter district, so far as returns exist, is about 14,500 acres, out of a total of about 750,000 acres and may be disregarded. From the Deccan districts, the average net exports for ten years from 1888–89 to 1897–98 amounted to 224,000 cwt. only, and no inconsiderable portion of this is used up in the mills of Madras and Pondicherry. The Chamber's estimate in this case appears to be altogether excessive and during the period referred to has been reached, or nearly reached, in the gross exports from the Deccan in four years only of the decade. The estimate of the Chamber probably includes a considerable allowance for cotton produced in Hyderabad, and possibly for some in Mysore. An estimate of 240,000 cwt., as the normal despatches—not exports from the Presidency—for the deccan Districts would probably be as large as can be safely made. Allowing one-third more for local consumption in these districts, this would place the average outturn at a good deal less than half a hundred-weight per acre. The Board takes 40 lb. as a normal, or 12-anna crop per acre of cleaned cotton and the cultivation in Banaganapalle is not allowed for.

10. In regard to what are called "Cocanadas", the Chamber puts the crop at 107,000 cwt., but from its letter, dated 6th August 1896, addressed to the Government of India, it appears that this includes the produce of the Kistna and adjacent portion of the Nizam's territory. The estimate of a normal crop, based on the rate of outturn adopted by the Board is about 78,200 cwt., but it is impossible in the circumstances to make any comparison. So far as this department is concerned, it has nothing to do with the produce of the Nizam's territories. An examination of the statistics of

rail-borne trade for the nine years for which they are available, however, shows that on the average about 6,900 cwts. per annum have been received into the delta (Kistna—Gódávari) block from Hyderabad, and for the last five years only 4,300 cwt. per annum; whilst there have been exports to Bombay from the same block in several years, averaging 1,930 cwts. for the whole period and 2,570 cwt. for the last five years during the first three of which alone was cotton imported. The exports from this tract are shipped from Cocanada from which port for ten years the average exports have not amounted to 78,000 cwt., and to only 70,000 cwt. during the last five years for which figures are complete. On these data the exportable surplus may be placed at about 70 to 75 thousand cwt., and this would include any cotton exported from Gódávari and Vizagapatam and from part of Nellore also. The average area of cotton sown in Kistna is about 170,000 acres in Government villages and about 10,000 acres more is sown in Gódávari and Vizagapatam. Considering the large areas of zemindari in these northern districts, it does not seem necessary to modify the Board's rate of outturn, 50 lb. per acre, for a normal crop.

11. These calculations after allowing for local consumption may be summed up as follows:—

	cwt.
Southern districts (Tinnevellies)	420,000
Central districts (Salems)	150,000
Deccan districts (Northerns and Westerns)	320,000
Cocanadas, chiefly Kistna	90,000
Other districts	5,000
Total ...	985,000

The estimate arrived at above, paragraph 6, from the exports, and calculation of consumption, is 955,000 cwt. and the difference is such as might be expected. On the basis of these calculations, the Board resolves to adopt the following as the normal rates of outturn of cotton:—

Tinnevellies	90 lb. per acre.
Salems	55 „ „
Northerns and Westerns	40 „ „
Cocanadas and others	50 „ „

It is observed, however, that the Chamber, in its letter dated 10th March 1899, accepts the attempt made in the last forecast of the cotton crop as satisfactory, though it does not admit the correctness of the quantitative estimates. To the latter the Board also attaches small importance, and is of opinion that attempts to frame such estimates are out of place in official reports on the condition and prospects of the crops. Those interested in the trade are far better qualified to frame such estimates, and it would, the Board considers, suffice if the official report merely stated the area figures and gave a qualitative estimate of the probable yield.

(True Copies and Extract.)

(Signed) C. BENSON
Deputy Director
for Secretary.

To the Secretary to Government, Revenue Department.
„ the Chamber of Commerce.
„ all Collectors.

Copy to the Director-General of Statistics, with copies of Board's Proceedings, No. 316, dated 26th April 1897; No. 170, dated 5th May 1898; and No. 421, dated 19th November 1898.
„ „ Reporter, Economic Products,

APPENDIX.

From the Hon'ble Mr. G. L. CHAMBERS, Chairman, Chamber of Commerce, Madras, to the Secretary to the Government of India, Department of Revenue and Agriculture, Simla, dated 6th August 1896.

On the 5th July last year I had the honour of addressing you on the subject of the Crop Forecasts issued by your Department, and more particularly with reference to the statistics of Cotton Cultivation.

Recently the attention of this Chamber has been drawn to the Annual Review of the Cotton Crop of India published in the *Times of India* of the 23rd July, in which it is pointed out that the crop under review exceeded the official estimates by no less than 993,000 bales in a total of 3,296,000 bales that had come into sight. Such a result can hardly be called satisfactory, especially when it is borne in mind that it has been possible for private "crop estimators" to make calculations which have come out fairly accurately.

This Chamber does not feel competent to discuss the question so far as the rest of India is concerned, but as regards Cotton classed under the head of "Madras," it must emphasise most strongly the fact mentioned in its letter of the 5th July 1895 that any estimate is of little practical value to merchants unless the amount grown in the southern portion of Hyderabad Territory be also included. It is further believed that the returns on Government lands are greatly underestimated, and the Chamber cannot help feeling that the first step must be to cause more interest to be taken by the District officials immediately concerned in the collection of the figures. Until this is done, the more difficult task of estimating the yield in foreign territory and in Zemindari lands may be left over.

As regards classification of growths, I may express the hope that some effect may be given this season to previous recommendations. It is suggested that the following would be as near as could be got for practical purposes:—

Growth.	*Districts.*
Tinnevellies	Tinnevelly and Madura.
Salems	Coimbatore, Salem, Trichinopoly and North and South Arcot.
Northerns and Westerns	Nellore, Cuddapah, Anantapur, Bellary and Kurnool and the Raichore Doab of Hyderabad.
Cocanadas	Kistna and adjacent portion of Nizam's Territory.

ORDER—No. 614, Revenue, dated 11th September 1899.

Miscellaneous.

Recorded with an expression of concurrence in the Board's remarks and concluding recommendation.

(True Extract.)

(Signed) H. TREMENHEERE,
Ag. Secretary to Government.

To the Board of Revenue (Revenue Settlement, Land Records and Agriculture).

Exd. C. M. Thumbusawmy.

40 Copies.

NOTES CONNECTED WITH G.O., No. 614, REVENUE, DATED 11th SEPTEMBER 1899.

[Subject.—*The rates to be adopted to represent the standard or normal outturn of cotton.*]

Board's Proceedings (Revenue Settlement, Land Records and Agriculture), No. 190, *dated* 23*rd June* 1899.

To Under Secretary—

The Board's Proceedings gives a brief *precis* of the discussion that took place between the Board and the Chamber of Commerce on the question of the rates that should be adopted to represent the normal outturn of cotton in different parts of this Presidency. Reasons for the rates finally adopted by the Board are also set forth.

Submitted that the current may be recorded with an expression of concurrence in the Board's remarks.

A.A.
14-8-99.

To Secretary—

N. E. Marjoribanks.
19-8-99.

To the Honourable Member—

H. Tremenheere.
24-8-99.

I am not clear what the Board contemplates by a "qualitative" estimate. I suppose it does not mean to abandon the anna notation? Is Secretary clear what change we are making in approving the last sentence of the Board's Proceedings?

If the anna notation is adhered to, it is merely a question of multiplication to arrive at a quantitative estimate.

H. W[interbotham.]
27-8-99.

To Secretary—

By a qualitative estimate it is submitted the Board means an estimate of the crop as "Bumper" "average", etc., *i.e.*, an estimate on the anna notation or on the per cent. (or American notation).

The latter notation is used for forecasts under India's orders. The anna notation continues in the village and district reports (*vide* Board's Proceedings, No. 750, dated 23rd December 1897, paragraphs 2 and 6—in G.O., No. 87, dated 12th February 1898).

By a quantitative estimate the Board means an estimate of the outturn of the crop, *e.g.*, in the case of cotton, *in lbs.*

Assuming a normal outturn in lbs. per acre (*i.e.*, the unit), the quantitative estimate is a matter of arithmetic. But the Trade do not accept the Board's normal outturns in lbs. per acre. Hence the Board proposes to publish the qualitative estimate only and leave the Trade to take what normal outturns in lbs. per acre it thinks proper and to do the arithmetic, *i.e.*, the Board will supply the factor by which the unit should be multiplied but leaves it to the Trade to fix what they consider the

proper unit. The question whether the Board should not be told to accept something approaching the Trade's units has been raised and negatived (G.O., No. 63, dated 23rd January 1899—please see page 6 of notes.)

N.E.M.
6-9-99.

To the Honourable Member—

H.T.
7-9-99.

Very well. We will approve the proposed change.

H.W.
8-9-99.

Issue order on the docket.

H.T.

[Issued as G.O., No. 614, Revenue, dated 11th September 1899.]

REVENUE DEPARTMENT.

1899.

Board of Revenue

(Revenue Settlement, Land Records and Agriculture),

MADRAS.

Recd. 2nd Aug. } 1899. *Enclosures*

Regd. 3rd —do— } *Spare copies*

Printed July th.

Proceedings, No. 190, 23rd June 1899.

JUNE.

Outturn of Cotton.—Discussing what rates should be adopted to represent the standard or normal — in different parts of the Madras Presidency.

PROCEEDINGS OF THE BOARD OF REVENUE
(Revenue Settlement, Land Records and Agriculture).

Mr. A. W. B. Higgens.

Read—again the following Proceedings of the Board of Revenue (R.S., L.R. and Agri.), Mis. No. 554, dated 26th January 1899 :—

Read—the following letter from the Hon'ble Mr. S. R. TURNBULL, Chairman, Chamber of Commerce, Madras, to the Secretary to the Commissioner of Revenue Settlement, and Director of the Department of Land Records and Agriculture, dated 9th January 1899 :—

I have the honour to acknowledge receipt of the Proceedings of the Board of Revenue, No. 421, dated the 19th November 1898, discussing the rates of outturn of cotton proposed by the Chamber. As the Board declines to modify the rates which it lately adopted, it will be of little use for the Chamber to enter further into lengthy discussion of the matter in support of its contention that the Board's estimates are too low. The Chamber wishes, however, to direct the Board's attention to the following extract from Diwan Bahadur S. Srinivasa Raghavaiyangar's "Memorandum on the Progress of the Madras Presidency during the last 40 years" :—

"In fertile soils and under good treatment, 1,000 lb. seed cotton per acre is no unusual outturn; an ordinary good yield of cotton may be taken to vary from 750 to 900 lb. of seed cotton, while 500 lb. may be taken as a fair average of yields, taking all soils into consideration. These figures have been arrived at from the statements of different classes of ryots and include the first and second courses of pickings. It is assumed by dealers that six poodis (about 328 lb. each) of seed cotton are required to produce 500 lb. lint, and therefore the average outturn of an acre is 125 lb. of lint."

The difference between an average outturn per acre of 125 lb. as here estimated and 70 lb. per acre for Tinnevelly as estimated by the Board is so enormous as to lead to the irresistible conclusion that the sources of information from which these official figures are obtained cannot be held reliable, and the Chamber considers that the Board should institute further enquiries in order to ascertain the average outturn per acre of the two pickings in the Tinnevelly district.

2. The Chamber is not in a position to prove that the Board's statistics relating to the volume of the sea-borne cotton trade are inaccurate, but the average annual export of 570,000 cwt. for the quinquennium ending 1896–97 seems suspiciously small, considering that, according to reliable information supplied to the Chamber by shipping firms, the average exports from Tuticorin alone amount to 80,000 bales of 500 lb. or 360,000 cwt. The rail-borne traffic also seems to the Chamber to be underestimated, as a large percentage of the western crop—which averages 250,000 cwt. per annum—now finds its way to Bombay principally *viâ* Marmagoa.

3. Lastly, the Chamber regards an allowance of one-third of the outturn for local consumption as inadequate, as the offtake by the mills has increased considerably, an allowance of 40 per cent. being, in its opinion, much nearer the mark. Messrs. Lyon & Co. of Bombay, who are the best authority on Indian cotton statistics, put down the mill and local consumption for all India during the quinquennium referred to at 1,665,000 bales per annum out of an average total outturn of 2,945,000 bales, or say 55 per cent.

4. In support of its opinion that the outturn per acre is underestimated by the Board, the Chamber would refer to the first forecast of the growing crop recently published, in which the yield is calculated at about 127,000 bales of 400 lb. Adding

to this 20 per cent. for Native States and Zamindaries as estimated by the Board, the total outturn of next crop would be 152,400 bales of 400 lb., while according to the figures supplied to the Chamber by press-owners and cotton-shippers an average crop for the Presidency is about 250,000 bales distributed as follows :—

Tinnevelly, 80,000 bales of 500 lb.	100,000	bales.
Westerns	80,000	„
Northerns	25,000	„
Cocanadas	30,000	„
Salems, Coimbatore, &c.	15,000	„
Total ...	250,000	„

5. The Chamber is obliged to the Board for adopting its suggestion as regards giving different units of outturn for the various descriptions of cotton, and, while it cannot endorse the Board's views as to outturn, it fully appreciates the assistance which the mercantile community will derive from the publication of reliable figures of the acreage planted with cotton on Government lands, from which an approximate estimate may be made of the quantity likely to be available for export.

Resolution—Mis. No. 554, dated 26th January 1899.

Before submitting the letter read above for the information of Government in continuation of B.P., No. 421, dated 19th November 1898, the Board requests that the Chamber may be moved to consider the figures and remarks embodied in these proceedings.

2. In the subjoined table, the particulars from which the approximate average export by sea of 570,000 cwt. of cleaned cotton was derived are shown, as well as the particulars of exports from the port of Tuticorin, according to the volume of sea-borne trade statistics, and according to the table given (for calendar years) by the Chamber in its price current and market report :—

Description.	1892–93.	1893–94.	1894–95.	1895–96.	1896–97.	Average.
For the Presidency.						
	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
Exports.						
Foreign	506,714	519,914	619,551	582,836	515,244	548,900 } 59300
Coastwise	47,876	39,580	56,649	47,331	33,804	45,000 }
Imports.						
Coastwise	15,701	22,183	10,304	35,218	41,276	24,900 } 25300
Foreign	73	645	364	448	508	400 }
						568600 cwt.
For the Port of Tuticorin.						
Exports.						
According to sea-borne trade statistics	334,584	211,646	415,051	359,080	270,701	318,200
	1892.	1893.	1894.	1895.	1896.	Average.
Chamber of Commerce Price Current	323,740	189,699	423,175	376,175	268,799	316,300

The two sets of figures relating to Tuticorin agree as nearly as can be expected under the circumstances, and both sets forbid the acceptance of the statement that the average exports from that port amount to 360,000 cwt. per annum.

3. In regard to the rail-borne traffic, the Board regrets to observe that, in stating that the average balance of exports during the five years ending in 1896–97 might be put at 46,000 cwt. per annum, it fell into error. It should have been about 9,300 cwt. only. As the gross imports of cotton by rail are always very large, and the exports during 1896–97 were most exceptional, the average result for the five previous years was to show an annual import of about 23,200 cwt. If the figures for the whole period of six years already referred to be taken, they show an average

annual balance of imports amounting to about 2,400 cwt. It is possible that some of the large exports shown as despatched to the port of Bombay may have gone by through booking by rail and steamer, *viâ* Goa, and, if the Chamber desires it, enquiry on this point will be addressed to the Examiner of Guaranteed Railway Accounts, Bombay, who compiles the statistics; the coasting trade returns of the Bombay Presidency, however, show for 1896–97 that only 6,255 cwt. of cotton were received at Bombay from Goa.

Year.	Exports from Madras to						
	Bombay (port).	West India Portuguese Railway.	Other parts of Bombay.	Total.	Mysore.	Other places.	Grand Total.
1	2	3	4	5	6	7	8
	MDS.	MDS.	MDS.	MDS.	MDS.	MDS.	MDS.
1891–92	19,806	5,794	6,192	31,786	10,700	1	42,487
1892–93	17,584	14,847	1,275	33,706	11,503	440	45,649
1893–94	172,188	6,437	5,414	184,039	13,675	708	198,422
1894–95	75,553	2,621	1,794	79,968	17,944	365	98,277
1895–96	51,457	12,522	5,216	72,195	18,617	9	90,821
1896–97	111,460	1,982	66,913	180,355	37,804	1,822	219,981

Year.	Receipts into Madras from					Balance + or −.
	Bombay.	Hyderabad.	Mysore.	Other places.	Total.	
	9	10	11	12	13	14
	MDS.	MDS.	MDS.	MDS.	MDS.	MDS.
1891–92	36,421	81,333	7,587	..	125,341	+ 82,854
1892–93	25,553	82,490	7,452	16	115,511	+ 69,862
1893–94	57,491	89,036	11,689	..	158,216	− 40,206
1894–95	31,561	68,645	16,848	4	117,058	+ 18,781
1895–96	29,668	65,848	22,119	4	117,639	+ 26,818
1896–97	22,992	47,035	11,156	56	81,239	− 138,742

4. From the remarks made above it would appear that the rail-borne exports may be disregarded, and that the Board's estimate of 805,000 cwt. per annum as a normal crop would really leave 40 per cent. for local consumption.

5. In regard to the amount of cotton used by local mills, the Board would be glad to receive any definite information that can be obtained on the subject, but in the absence of any it is unable to see the bearing of Messrs. Lyon & Co.'s estimate for all India on the case of the Madras Presidency. The Board would be obliged if the Chamber would suggest how definite information for a series of years may be obtained on this point, if it is unable to furnish it from sources of information open to it. It appears, from a table published in the volume of Financial and Commercial Statistics of British India issued by the Government of India that, out of an average of about 427 million pounds of yarn spun in Indian mills during 1895–96 and 1896–97, only a little more than 29 million pounds or less than 7 per cent. was spun in Madras, and how this should be applied to Messrs. Lyon & Co.'s estimate of the yield would require a reference to that estimate which the Board is unable to make. The figures quoted, however, if reliable, would point to an even larger consumption of cotton by local mills than is suggested by the Chamber, and the Board is very desirous of obtaining an accurate estimate on this point.

6. In regard to the quotation made from Diwan Bahadur S. Srinivasa Raghavaiyangar's work, it will be pointed out that the quotation was taken by that officer from a report published by this department in 1891 (Bulletin No. 19, page 125), and attention should be specially given to the note made on that portion of the report at the time. The Board is not disposed to attach any great importance to the outturn estimated by the reporter. It would also remark that the carrying out of experiments such as the Chamber suggests should be made to determine the average yield of cotton is for all practical purposes an impossibility—not two, but twenty or more pickings

are commonly made in Tinnevelly—and before any average could be fixed it would be necessary to carry out several hundreds of experiments in order that they might embrace crops grown on soils of different qualities, under varying circumstances and during different seasons.

7. With regard to the first forecast of outturn, alluded to at paragraph 4 of the letter read above, the Board is unable to see what bearing the assumed amount of a normal, or average crop has thereon, unless allowance be made for the marked decrease in the area sown this year, and the condition in which the crop was reported to be at the time the forecast was prepared. It may also be pointed out that the amount of a normal crop is now reported to be about 893,000 cwt. against 1,238,000 cwt. at the rates proposed by the Chamber in its letter, dated 19th September 1898, whilst as regards the Western crop, which in this paragraph is estimated at 80,000 bales (of 400 lb.) in paragraph 2 of the letter it is said to be only 70,000 bales. These figures cannot all of them, the Board considers, be correct.

8. As the Board is most anxious to arrive at some definite understanding as to what should be looked upon as the normal production of cotton in this Presidency, excluding the production of tracts in Mysore and Hyderabad which may in trade parlance be combined therewith, it trusts that the Chamber may submit the data given in these proceedings to criticism and furnish, where no information is available at present (*vide* paragraph 5 *supra*), any that is obtainable.

(True Copy and Extract.)

(Signed) C. BENSON,
Deputy Director,
for Secretary.

To the Chairman, Chamber of Commerce, Madras.

Read—again Proceedings of the Board of Revenue (R.S., L.R. and Agri.), Mis. No. 993, dated 16th February 1899.

Abstract.—Recording, with remarks, Government Order, accepting the Board's views regarding the preparation of forecasts of the outturn of cotton in the Madras Presidency.

Read—again the following Proceedings of the Board of Revenue (R.S., L.R. and Agri.), Mis. No. 1546, dated 21st March 1899:—

Read—the following letter from the Hon'ble Mr. S. R. TURNBULL, Chairman, Chamber of Commerce, Madras, to the Secretary to the Commissioner of Revenue Settlement and Director of the Department of Land Records and Agriculture, dated 10th March 1899:—

With reference to the Resolution of the Board of Revenue, No. 554, dated the 26th January 1899, regarding the forecasts of outturn of the cotton crop in the Madras Presidency, I have the honour to point out, with reference to the approximate amount of cotton exported by sea, that when the Chamber, in its last letter, stated that the exports from Tuticorin alone amounted to 80,000 bales of 500 lb. or 360,000 cwt., it referred to average exports in *normal* years which alone should be taken into consideration, the question at issue being what amount may be taken as the average outturn of cleaned cotton per acre in a normal year. In paragraph 2 of the Board's Resolution under reply, the figures quoted are for the quinquennium 1892–96, which includes one famine year (1893), in which there was only half a crop, and one year (1896) in which there was only a three quarter crop.

2. As regards the Board's statement that the figures in the Chamber's Price Current correspond fairly well with the figures given in the Volume of Sea Borne Trade Statistics, I have to remark that this is not surprising—and does not tend to

confirm the correctness of the Board's figures—considering that the Chamber's figures are compiled from the returns supplied to it by the Collector of Sea Customs, copies of which returns are, the Chamber believes, supplied to the Board for the compilation of its statistics.

3. The figures upon which the Chamber based its estimate of 80,000 bales of 500 lb. exported from Tuticorin are the pressing returns supplied by the different cotton presses in the district, which are undoubtedly correct, as the press-owners have to pay a contribution for each bale pressed to a General Fund. The following are details of these returns for the past eight years :—

Tuticorin Pressing Returns, 1891 *to* 1898.

1891	87,004 bales of 500 lb.		
1892	81,660	do.	
1893	46,107	do.	(Famine year).
1894	101,578	do.	
1895	83,124	do.	
1896	66,195	do.	
1897	44,583	do.	(Famine year).
1898	82,979	do.	

Excluding the two famine years 1893 and 1897, these figures show that the average number of bales pressed for export in a normal year is 83,756 or 373,107 cwt., while even if the famine years are included, the average is 74,153 bales of 500 lbs., or 331,040 cwt., as against 318,200 cwt., or 71,277 bales of 500 lb., the average for the five years 1892–93 to 1896–97 as quoted by the Board.

4. As regards the Western Crop, an error Crept into one paragraph of the Chamber's letter of the 9th January 1899, in which the crop was put down at 250,000 cwt., instead of as 280,000 cwt., or, about 80,000 bales of 400 lb. as stated in a subsequent paragraph.

5. It is almost impossible to ascertain the exact local consumption by mills and native weavers in the Madras Presidency, but according to a statement published in the Annual Report of the Bombay Millowners Association for 1897, the total approximate average quantity of cotton consumed during that year in eleven mills in the Madras Presidency was 46,286 candies of 784 lb., or, say, 90,720 bales of 400 lb. In Travancore, Mysore and Pondicherry—where mills draw their supplies largely from the cotton districts of the Madras Presidency—the aggregate approximate consumption during the year was 11,266 candies of 784 lb., say, 22,081 bales of 400 lb. Thus, adding these figures to those for the Madras Presidency, the total mill consumption was 112,801 bales of 400 lb., or 402,860 cwt., compared with only 205,000 cwt., or, say, 57,400 bales of 400 lb., estimated by the Board in the last portion of paragraph 2 of its Resolution, No. 421, dated the 19th November 1898. Taking this mill consumption of 402,860 cwt., and adding it to the Board's figures of an average gross export of 616,000 cwt., it will be seen that the total production amounts to 1,018,860 cwt., which approximates closely to the production at rates proposed by the Chamber, viz., 1,238,000 cwt., if allowance is made for the consumption by native weavers, which is not included in the above-mentioned mill consumption, and also for the probable incorrectness of Sea Borne Trade Statistics. It is true that a certain amount of the cotton consumed by the Madras mills is imported from Bombay and elsewhere, but *per contra* the mills in other Presidencies use a considerable quantity of Madras cotton, the Calcutta mills alone having taken 12,512 bales of Westerns, Northerns and Salems last year.

6. The Chamber is glad to notice the very great improvement in the Final Forecast of the Cotton Crop recently issued—which gives practically all the information that is required, though the Chamber is not prepared to admit the correctness of the estimated outturn in bales—and to thank the Board for preparing it in its present form, which adds considerably to its value.

Resolution—Mis. No. 1546, dated 21st March 1899.

The following letter will be despatched to the Secretary, Chamber of Commerce, Madras :—

"With reference to the Chamber's letter, dated 10th current, regarding the outturn of cotton in this Presidency, I am directed to enquire whether the figures given in paragraph 3 thereof do not include cotton pressed at Virudupatti and Sáttúr for use in the mills, as well as for export.

"I am also to ask you to be so good as to favour this department with the loan of a copy of the latest reports of the Bombay Millowners' Association for reference with regard to the remarks in paragraph 5 of the same letter."

(True Copy and Extract.)

(Signed) C. BENSON,
for Secretary.

Read—again Proceedings of the Board of Revenue (R.S., L.R. and Agri.), Mis. No. 1833, dated 7th April 1899.

Abstract.—Recording letter from the Chamber of Commerce, Madras, staing that the figures regarding the export of cotton from Tuticorin given in its letter, dated 10th March 1899, represent only full-pressed export bales and not cotton pressed for the use of the local mills.

Read—again Proceedings of the Board of Revenue (R.S., L.R. and Agri.), Mis. No. 2029, dated 19th April 1899.

Abstract.—Asking the Secretary, Bombay Millowners' Association, Bombay to favour the Board with information as to the cotton consumed in cotton mills.

Read—again the Proceedings of the Board of Revenue (R.S., L.R. and Agri.), Mis. No. 2251, dated 5th May 1899, acknowledging receipt of the following letter from the Secretary, Millowners' Association, Bombay, to the Secretary to the Commissioner of Revenue Settlement and Director of the Department of Land Records and Agriculture, dated 27th April 1899 :—

I am directed to acknowledge the receipt of your letter, No. 2029 of the 19th instant. I have filled in the figures in the form forwarded by you, and now beg to return the same herewith.

As regards your paragraph 3, I am instructed to say that 19 per cent. would be a fair average allowance for waste in spinning cotton into yarn, and on this basis the figures you quote would work out somewhat as follows :—

	cwt.
Quantity of cotton used	324,000
Less 19 per cent. for loss	61,560
Result yarn, say ...	262,440

ENCLOSURE.

STATEMENT showing the quantity of cotton consumed in mills in Southern India for a series of years ending 30th June.

District.	1894.	1895.	1896.	1897.	1898.	Average.
	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
Bellary	10,318	1,750	11,914	17,640	15,400	11,460
Madras	141,344	136,836	139,356	151,977	142,863	142,475
Coimbatore	19,285	19,075	20,650	26,082	25,011	22,000
Madura	28,924	37,599	42,735	48,230	53,445	41,200
Tinnevelly *	67,669	76,888	80,514	71,435	79,219	75,150
Malabar †	18,200	21,420	19,012	8,638	16,772	16,800
Total ..	285,740	288,568	314,181	324,002	332,710	309,025
Pondicherry	14,000	14,000	14,350	15,820	19,838	15,600
Travancore	23,583	26,250	28,665	27,300	23,310	25,820

* Mills at Tuticorin, Ambásamudram and Koilpatti. † Mill at Calicut.

RESOLUTION—No. 190, dated 23rd June 1899.

The papers read above relate to the question of the rates that should be adopted to represent the standard or normal outturn of cotton in different parts of the Madras Presidency. The rates which the Board proposed to adopt are given in its proceedings, Mis. No. 4745, dated 5th August 1898—*vide* B.P., No. 421, dated 19th November 1898. To these the Chamber took exception and suggested considerably higher standards. To these latter rates the Board did not, with the information before it, feel able to agree (B.P., No. 421, dated 19th November 1898).

2. In its letter, dated 9th January 1899, the Chamber pointed out that it considered that the average exports by sea, as given by the Board, appeared suspiciously small, and that the allowance of one-third the exports, by sea and by rail, for local consumption was inadequate; and quoted figures to show that an average crop of the Presidency is estimated by those concerned in the trade at 250,000 bales of 400 lb., each equal to about 893,000 cwt. It is not, however, quite clear whether the whole of this is to be regarded as exportable surplus, though from later correspondence it may be inferred that it is. On receipt of the above letter, the Chamber was again addressed in regard especially to its estimate of the normal exports from the port of Tuticorin and as to the consumption of cotton in local mills, and in a letter, dated 10th March 1899, gave further information on these points.

3. From the last-mentioned letter it appears that the considerable discrepancy between the estimates framed by the Board and by the Chamber as to the amount of the normal exports from the port of Tuticorin has arisen chiefly from a difference of procedure. The Chamber eliminates the figures for such years as it considers bad years in striking an average; the Board took the figures for a series of years, good and bad together.

It appears to the Board that the latter process is the more correct method of determining what the amount of a normal crop is; that is "that crop which past experience has shown to be a most generally recurring crop in a series of years"—*vide* B.P., No. 170, dated 5th May 1898. If the yield of bad years is to be excluded, so also must that of very good years, and great difficulties will arise in determining which should be included and which excluded. For instance it may be remembered that though the year 1896 was very unfavourable over a large part of the Presidency, there is nothing to show that in the southern districts it was especially unfavourable for the cotton crop.

4. In regard to the selection of the period, on the basis of which the average should be calculated, there is, however, much room for discussion, and this is further complicated by the fact that of late years there has been, it is believed, a considerable

development in the spinning mill industry in this Presidency. The point is illustrated by an examination of the figures in the table below :—

Particulars.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.
	In thousands of acres.										
Area sown	1,464	1,508	1,641	1,738	1,318	1,326	1,724	1,519	1,624	1,394	1,509
	In thousands of cwt.										
Exports by sea—											
Abroad	..	596	862	847	594	507	520	620	583	515	324
Coastwise	..	23	21	26	47	48	40	57	47	34	18
Total ..	..	619	883	873	641	555	560	677	630	549	342
Imports by sea—											
From abroad	..	..	..	..	..	..	1	1	1	1	1
Coastwise	..	3	12	15	16	16	22	10	35	42	51
Total ..	..	3	12	15	16	16	23	11	36	43	52
Net sea-borne exports	..	616	871	858	625	539	537	666	594	506	290
	In thousands of maunds.										
Exports by rail	..	24	44	26	42	46	198	98	91	220	94
Imports ,, ...	..	121	138	171	125	116	158	117	118	81	44
Net rail-borne trade	..	+ 97	+ 94	+145	+ 83	+ 70	— 40	+ 19	+ 27	—139	— 50
Do. in thousands of cwt.	..	+ 71	+ 69	+106	+ 61	+ 51	— 29	+ 14	+ 20	—102	— 37
Total net exports of cotton, cwt., thousands	..	545	802	752	564	488	568	652	574	608	327

For the five years ending in 1892–93, the average balance of exports amounted to 630,000 cwt. of raw cotton, whilst those for the next five years were only 545,000 cwt. The first period included the very bad seasons of 1891 and 1892, which affected both the Deccan and the southern districts, and the latter, the bad year 1896, when the Deccan Districts were chiefly affected. It is, however, a well-known fact that the yield of cotton in the southern districts in both 1888–89 and 1889–90 was exceptionally heavy. This was shown in the exports from Tuticorin for the two years following which were about 450,000 cwt. annually against about 350,000 cwt. in the years immediately preceding and following. The consumption in local mills in Tinnevelly and Madura has, however, of late years increased, and is estimated by the Bombay Millowners' Association at an average of about 116,350 cwt. during recent years. The average imports by sea at Tuticorin has also been much larger of late years than formerly, so that the net balance of exports which was for the first five years 387,000 cwt. has been for the second 287,000 cwt., whilst a much larger quantity of cotton has been imported into the southern districts by rail than formerly, the increase being about 15,000 cwts. for the last five years of the decade over the first five.

5. After full consideration of the facts and the figures given above, the Board holds that for the Presidency as a whole no sufficient reason can be shown for estimating the present normal exportable crop at more than 570,000 cwt. The second factor which has to be determined is the amount of cotton consumed locally. In its letter, dated 10th March 1899, the Chamber of Commerce puts forward certain data published by the Bombay Millowners' Association, as the basis for a calculation showing a consumption by local mills of about 324,000 cwt. The Chamber also considers that the mill consumption in Pondicherry, Travancore and Mysore should be treated as drawn from the Madras Presidency districts and thus calculates that the total local mill consumption amounts to about 402,860 cwt. As regards the Mysore consumption, it may at once be stated that,

	cwt.
Pondicherry	15,820
Travancore	27,300
Mysore	35,740
	78860

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development in the spinning mill industry in this Presidency. The point is illustrated by an examination of the figures in the table below :—

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5. After full consideration of the facts and the figures given above, the Board holds that for the Presidency as a whole no sufficient reason can be shown for estimating the present normal exportable crop at more than 570,000 cwt. The second factor which has to be determined is the amount of cotton consumed locally. In its letter, dated 10th March 1899, the Chamber of Commerce puts forward certain data published by the Bombay Millowners' Association, as the basis for a calculation showing a consumption by local mills of about 324,000 cwt. The Chamber also considers that the mill consumption in Pondicherry, Travancore and Mysore should be treated as drawn from the Madras Presidency districts and thus calculates that the total local mill consumption amounts to about 402,860 cwt. As regards the Mysore consumption, it may at once be stated that,

	CWT.
Pondicherry	15,820
Travancore	27,300
Mysore	35,740
	78860

402860
324000
78860

except such small portion as may be taken across the frontier by road, all exports to that province from Madras will appear in the rail-borne trade returns. A comparison with the statistics of rail-borne trade shows that the consumption noted for Pondicherry is approximately correct. As regards the consumption in Travancore it is not known how much is imported by sea, but the available figures show that the exports by road to Travancore, on an average of three years, amount to about 11,000 cwt. only, sent chiefly from Tinnevelly. Adding to this the average consumption as stated by the Bombay Millowners' Association, the total consumption by mills may be put at 335,600 cwt. per annum including Pondicherry.

6. In B.P., No. 39 of 1890, an estimate was given of the amount of piece-goods required by the people for clothing. Accepting the rates of consumption therein adopted and applying them to the total population as shown by the census of 1891, the following results work out:—

	YARDS.
10,823,000 male adults at 10 yards	108,230,000
11,366,000 female adults at 16 yards	181,856,000
4,377,000 boys at 5 yards	21,885,000
4,106,000 girls at 8 yards	32,848,000
Total ...	344,819,000

An addition of 5 per cent. to this amount to provide for the wants of the increasing population will place the present demands at about 362 million yards. The average balance of import of piece-goods into this Presidency for the last ten years amounts to 125,170,000 yards by sea; against which must be set an average balance of exports by rail of 82,400 maunds. Adopting the rate of 5 yards to the pound or 400 yards to the maund, the balance of imports would amount to 92,210,000 yards and the amount that must now be woven locally would be about 270 million yards or nearly 54 million pounds against 40,890,210 lb. estimated in 1890. Allowing, as in 1890, 3 per cent. for wastage in weaving, the amount of twist required for weaving this amount of cloth would be about 55,000,000 lb. The average imports of twist and yarn by rail and sea for the last ten years amounted to 19,335,000 lb., thus leaving 35,665,000 lb. for local production. An allowance of nearly 20 per cent. would have to be made for wastage in spinning and the amount of raw cotton required will be about 382,000 cwt. To this may be added about 3,000 cwt. to provide for the export trade in handkerchiefs, etc., which has been large of late years. Bringing the figures arrived at above together, the totals will be—

	CWT.
Net export	570,000
Local consumption	385,000
Total ...	955,000

The Board's estimate of 1890 amounted to about 782,400 cwt. and showed an average yield of about 50 lb. per acre. The latest available data show that an average area of about 1,525,000 acres of cotton is sown within the area for which agricultural statistics are received and an addition of 275,000 acres may be allowed as being sown in zemindari and other areas for which no detailed returns are available; making 1,800,000 acres in all. This would show an average yield of about 60 lb. per acre for the whole Presidency.

7. From what has been said above, the total surplus production of the southern districts at the present time cannot well be placed at more than 300,000 cwt. in a normal year, or allowing for local consumption and exports to Travancore at about 420,000 cwt. The Chamber places it at about 286,000 cwt. over and above the local consumption in mills and otherwise. The amount of native yarn spun in the southern districts is believed to be inconsiderable. The area planted with cotton in Government villages in the southern districts is about 300,000 acres, and it may be estimated that nearly 200,000 acres more are sown in the large zemindaris found there.

This would place the rate of yield at 94 lb. per acre against 70 lb. adopted by the Board. The Chamber proposed a rate of 90 lb. and on reconsideration the Board is willing to raise its estimate to that figure for the southern districts.

8. The Chamber, in a letter,* dated 6th August 1896, stated that the trade description of cotton called "Salems" is produced in the four central districts and South Arcot. The area of cotton grown in North Arcot and South Arcot is inconsiderable—4,000 acres—and some of the produce of South Arcot doubtless finds its way to Pondicherry by road if not used up locally. As to the three districts—Coimbatore, Salem and Trichinopoly—the average area of cotton sown is about 287,000 acres, but much of this is sown on very poor land, especially in Coimbatore. A good deal of the produce of the southern part of Coimbatore is believed to find its way by road into Madura for export as "Tinnevellies," and the rail-borne trade statistics show the marginally-noted balance of exports only. This would give an exportable surplus of about 102,500 cwt. only. The mill at Coimbatore is said to use up about 22,000 cwt. during the year and the spinning of yarn locally is believed not to be very great. The Chamber's estimate for this crop is about 53,600 cwt. per annum, but a considerable portion of this cotton goes westward into Malabar for shipment to Bombay and for use on the West Coast. On the basis of the figures given above, however, the local production for the four years for which alone figures are available cannot be placed at a much higher figure than 150,000 cwt. The average area sown in the three districts during the four years immediately preceding was 310,000 acres, giving a yield of about 54 lb. per acre. The rate adopted by the Board has been 55 lb., the estimate of the Chamber 70 lb. per acre. Considering the large area of poor land in Coimbatore devoted to cotton, from which Mr. Nicholson, who had peculiar advantages for ascertaining local facts, estimated the yield at 30 lb. per acre, the Board considers that its estimate is sufficient.

	Thousands of maunds.
1894-95	202·9
1895-96	140·5
1896-97	101·4
1897-98	113·3

9. In regard to the exportable surplus of Northerns and Westerns, which the Chamber puts at 375,000 cwt. in a normal year, it may be observed that under the grouping adopted with reference to B.P., No. 5203, dated 24th October 1896, this produce comprises that grown on the areas included in the Deccan districts and Nellore. The normal area sown in the latter district, so far as returns exist, is about 14,500 acres, out of a total of about 750,000 acres and may be disregarded. From the Deccan districts, the average net exports for ten years from 1888–89 to 1897–98 amounted to 224,000 cwt. only, and no inconsiderable portion of this is used up in the mills of Madras and Pondicherry. The Chamber's estimate in this case appears to be altogether excessive and during the period referred to has been reached, or nearly reached, in the gross exports from the Deccan in four years only of the decade. The estimate of the Chamber probably includes a considerable allowance for cotton produced in Hyderabad, and possibly for some in Mysore. An estimate of 240,000 cwt., as the normal despatches—not exports from the Presidency—for the deccan Districts would probably be as large as can be safely made. Allowing one-third more for local consumption in these districts, this would place the average outturn at a good deal less than half a hundred-weight per acre. The Board takes 40 lb. as a normal, or 12-anna crop per acre of cleaned cotton and the cultivation in Banaganapalle is not allowed for.

10. In regard to what are called "Cocanadas", the Chamber puts the crop at 107,000 cwt., but from its letter, dated 6th August 1896, addressed to the Government of India, it appears that this includes the produce of the Kistna and adjacent portion of the Nizam's territory. The estimate of a normal crop, based on the rate of outturn adopted by the Board is about 78,200 cwt., but it is impossible in the circumstances to make any comparison. So far as this department is concerned, it has nothing to do with the produce of the Nizam's territories. An examination of the statistics of

* *Vide* appendix and papers printed in B.P., No. 316, dated 26th April 1897.

rail-borne trade for the nine years for which they are available, however, shows that on the average about 6,900 cwts. per annum have been received into the delta (Kistna—Gódávari) block from Hyderabad, and for the last five years only 4,300 cwt. per annum; whilst there have been exports to Bombay from the same block in several years, averaging 1,930 cwts for the whole period and 2,570 cwt. for the last five years during the first three of which alone was cotton imported. The exports from this tract are shipped from Cocanada from which port for ten years the average exports have not amounted to 78,000 cwt., and to only 70,000 cwt. during the last five years for which figures are complete. On these data the exportable surplus may be placed at about 70 to 75 thousand cwt., and this would include any cotton exported from Gódávari and Vizagapatam and from part of Nellore also. The average area of cotton sown in Kistna is about 170,000 acres in Government villages and about 10,000 acres more is sown in Gódávari and Vizagapatam. Considering the large areas of zemindari in these northern districts, it does not seem necessary to modify the Board's rate of outturn, 50 lb. per acre, for a normal crop.

11. These calculations after allowing for local consumption may be summed up as follows:—

	cwt.
Southern districts (Tinnevellies)	420,000
Central districts (Salems)	150,000
Deccan districts (Northerns and Westerns)	320,000
Cocanadas, chiefly Kistna	90,000
Other districts	5,000
Total ...	985,000

The estimate arrived at above, paragraph 6, from the exports, and calculation of consumption, is 955,000 cwt. and the difference is such as might be expected. On the basis of these calculations, the Board resolves to adopt the following as the normal rates of outturn of cotton:—

Tinnevellies	90 lb. per acre.
Salems	55 " "
Northerns and Westerns	40 " "
Cocanadas and others	50 " "

It is observed, however, that the Chamber, in its letter dated 10th March 1899, accepts the attempt made in the last forecast of the cotton crop as satisfactory, though it does not admit the correctness of the quantitative estimates. To the latter the Board also attaches small importance, and is of opinion that attempts to frame such estimates are out of place in official reports on the condition and prospects of the crops. Those interested in the trade are far better qualified to frame such estimates, and it would, the Board considers, suffice if the official report merely stated the area figures and gave a qualitative estimate of the probable yield.

(True Copies and Extract.)

Deputy Director,
for Secretary.

To the Secretary to Government, Revenue Department.
" the Chamber of Commerce.
" all Collectors.
Copy to the Director-General of Statistics, with copies of B.P., No. 316, dated 26th April
" " Reporter, Economic Products, 1897; No. 170, dated 5th May 1898; and
No. 421, dated 19th November 1898.

APPENDIX.

From the Hon'ble Mr. G. L. CHAMBERS, Chairman, Chamber of Commerce, Madras, to the Secretary to the Government of India, Department of Revenue and Agriculture, Simla, dated 6th August 1896.

On the 5th July last year I had the honour of addressing you on the subject of the Crop Forecasts issued by your Department, and more particularly with reference to the statistics of Cotton Cultivation.

Recently the attention of this Chamber has been drawn to the Annual Review of the Cotton Crop of India published in the *Times of India* of the 23rd July, in which it is pointed out that the crop under review exceeded the official estimates by no less than 993,000 bales in a total of 3,296,000 bales that had come into sight. Such a result can hardly be called satisfactory, especially when it is borne in mind that it has been possible for private "crop estimators" to make calculations which have come out fairly accurately.

This Chamber does not feel competent to discuss the question so far as the rest of India is concerned, but as regards Cotton classed under the head of "Madras," it must emphasise most strongly the fact mentioned in its letter of the 5th July 1895 that any estimate is of little practical value to merchants unless the amount grown in the southern portion of Hyderabad Territory be also included. It is further believed that the returns on Government lands are greatly underestimated, and the Chamber cannot help feeling that the first step must be to cause more interest to be taken by the District officials immediately concerned in the collection of the figures. Until this is done, the more difficult task of estimating the yield in foreign territory and in Zemindari lands may be left over.

As regards classification of growths, I may express the hope that some effect may be given this season to previous recommendations. It is suggested that the following would be as near as could be got for practical purposes:—

Growth.	*Districts.*
Tinnevellies	Tinnevelly and Madura.
Salems	Coimbatore, Salem, Trichinopoly and North and South Arcot.
Northerns and Westerns	Nellore, Cuddapah, Anantapur, Bellary and Kurnool and the Raichore Doab of Hyderabad.
Cocanadas	Kistna and adjacent portion of Nizam's Territory.

Encl. Md. Pahilvan.

Please see below
a/a

H. Qrs note re Cir No 4994

Secy

By a qualitative estimate it is known the Bd means an estimate of the crop as 'Bumper' 'average' etc ~~Bad~~ i.e. an estimate in the anna notation or on the per cent. (or American notation).

The latter notation is used for forecasts under Indian orders. The anna notation continues in the village & District reports.
(Vide B.P. 7507 23 Sept 97 paras 2 & 6 – in E.O. 878 12 Feb 98 Pag 4)

By a quantitative estimate the Bd means an estimate of the outturn of the crop (in the case of cotton) in lbs.

Granting a normal outturn in lbs (i.e. the unit) per acre, the quantitative estimate is a matter of arithmetic. But the Board do not accept

the B.S. normal
outturns in lbs per acre
Hence the B.S. proposes
to publish the qualitative
estimate only & leaves
the trade to take what
normal outturns in lbs
per acre it thinks
proper & to do the
arithmetic i.e. the B.S.
will supply the factor
by which the unit B.S.
is multiplied but
leaves it to the trade
to fix what they consider
the proper unit. The Q. whether
the B.S. should not be left to accept something
approaching the Trade's unit has been raised & explained.

9.6.99

(E.O. 13 & 23 Jany 99)
please see p. 2 of this D.

26.9.

H.M.

H.T.

7.9.99

Very well - but only
approve the proposed
change W.S.—
8-9-99-

Letter sent to Press.

Returned for signature.

Despatched in print.

Number of copies required. { Order complete. / Letter only. / Order complete with Letter.

Read again G.O. No. , dated 189 .

Comment No.

Enclosures to C. No.

Order on Government.

Letter of Government.

Statement with ditto.

Papers not filed up, being meant for despatch in original.

N.B.—
A = Print in full.
B = Not to be printed.
P = Print abstract only.
Q = Print heading only.

17-6-14 ✓

20.9.24 II ✓

[R.O. / 10]

10,000—24-10-12.

MADRAS RECORD OFFICE.

Block No.

Paper taken out of the Records from the charge of the Referencer,

Dept. Press / Mis. / Rout. No. 615, dated 12-9-13 191 . Rank No. / Range,

Date taken out.	For what purpose.			Initials of Referencer.	Date returned.	Initials of attender.
	Department.	C. No.	Year.			
18-8-13	Rev	2102	M.R.C.		2980/13	QA

Date taken out.	For what purpose.			Initials of Referencer.	Date returned.	Initials of attender.
	Department.	C. No.	Year.			

27-11-02

2 5,000—20-3-02.

REVENUE DEPARTMENT.

Paper taken out of the Records from the charge of the Record-keeper.

Regular / Miscellaneous No. of 190 .

FOR WHAT CURRENT.		To whom given.	When taken out.
No.	Year.		

Revenue (1899) Department.

PRESS SERIES.

G.O., No. 614

Dated 11th September

[Despatch Abstract.]

Recording in the remarks Bds' Proceedings what rates shd be adopted to represent the standard or normal rating of Cotton in different parts of the Madras Presy.

BACK PAPERS.

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

FURTHER PAPERS.

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

Government {1899} of Madras.

REVENUE.

Recd. } 1899. *Enclosures*

Regd. *Spare copies*

G.O., No. 614, 11th September 1899.

SEPTEMBER.

R.

Outturn of Cotton.

Recording, with remark, Board's Proceedings discussing what rates should be adopted to represent the standard or normal — in different parts of the Madras Presidency.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

Read—the following Proceedings of the Board of Revenue (Revenue Settlement, Land Records and Agriculture), No. 190, dated 23rd June 1899:—

Mr. A. W. B. Higgens.

Read—again the following Proceedings of the Board of Revenue (R.S., L.R. and Agri.), Mis. No. 554, dated 26th January 1899:—

Read—the following letter from the Hon'ble Mr. S. R. TURNBULL, Chairman, Chamber of Commerce, Madras, to the Secretary to the Commissioner of Revenue Settlement, and Director of the Department of Land Records and Agriculture, dated 9th January 1899:—

I have the honour to acknowledge receipt of the Proceedings of the Board of Revenue, No. 421, dated the 19th November 1898, discussing the rates of outturn of cotton proposed by the Chamber. As the Board declines to modify the rates which it lately adopted, it will be of little use for the Chamber to enter further into lengthy discussion of the matter in support of its contention that the Board's estimates are too low. The Chamber wishes, however, to direct the Board's attention to the following extract from Diwan Bahadur S. Srinivasa Raghavaiyangar's "Memorandum on the Progress of the Madras Presidency during the last 40 years":—

"In fertile soils and under good treatment, 1,000 lb. seed cotton per acre is no unusual outturn; an ordinary good yield of cotton may be taken to vary from 750 to 900 lb. of seed cotton, while 500 lb. may be taken as a fair average of yields, taking all soils into consideration. These figures have been arrived at from the statements of different classes of ryots and include the first and second courses of pickings. It is assumed by dealers that six poodis (about 328 lb. each) of seed cotton are required to produce 500 lb. lint, and therefore the average outturn of an acre is 125 lb. of lint."

The difference between an average outturn per acre of 125 lb. as here estimated and 70 lb. per acre for Tinnevelly as estimated by the Board is so enormous as to lead to the irresistible conclusion that the sources of information from which these official figures are obtained cannot be held reliable, and the Chamber considers that the Board should institute further enquiries in order to ascertain the average outturn per acre of the two pickings in the Tinnevelly district.

2. The Chamber is not in a position to prove that the Board's statistics relating to the volume of the sea-borne cotton trade are inaccurate, but the average annual export of 570,000 cwt. for the quinquennium ending 1896–97 seems suspiciously small, considering that, according to reliable information supplied to the Chamber by shipping firms, the average exports from Tuticorin alone amount to 80,000 bales of 500 lb. or 360,000 cwt. The rail-borne traffic also seems to the Chamber to be underestimated, as a large percentage of the western crop—which averages 250,000 cwt. per annum—now finds its way to Bombay principally *vid* Marmagoa.

3. Lastly, the Chamber regards an allowance of one-third of the outturn for local consumption as inadequate, as the offtake by the mills has increased considerably, an allowance of 40 per cent. being, in its opinion, much nearer the mark. Messrs. Lyon & Co. of Bombay, who are the best authority on Indian cotton statistics, put down the mill and local consumption for all India during the quinquennium referred to at 1,665,000 bales per annum out of an average total outturn of 2,943,000 bales, or say 55 per cent.

4. In support of its opinion that the outturn per acre is underestimated by the Board, the Chamber would refer to the first forecast of the growing crop recently published, in which the yield is calculated at about 127,000 bales of 400 lb. Adding

to this 20 per cent. for Native States and Zamindaries as estimated by the Board, the total outturn of next crop would be 152,400 bales of 400 lb., while according to the figures supplied to the Chamber by press-owners and cotton-shippers an average crop for the Presidency is about 250,000 bales distributed as follows:—

Tinnevelly, 80,000 bales of 500 lb.	100,000	bales.
Westerns	80,000	,,
Northerns	25,000	,,
Cocanadas	30,000	,,
Salems, Coimbatore, &c.	15,000	,,
Total	250,000	,,

5. The Chamber is obliged to the Board for adopting its suggestion as regards giving different units of outturn for the various descriptions of cotton, and, while it cannot endorse the Board's views as to outturn, it fully appreciates the assistance which the mercantile community will derive from the publication of reliable figures of the acreage planted with cotton on Government lands, from which an approximate estimate may be made of the quantity likely to be available for export.

Resolution—Mis. No. 554, dated 26th January 1899.

Before submitting the letter read above for the information of Government in continuation of B.P., No. 421, dated 19th November 1898, the Board requests that the Chamber may be moved to consider the figures and remarks embodied in these proceedings.

2. In the subjoined table, the particulars from which the approximate average export by sea of 570,000 cwt. of cleaned cotton was derived are shown, as well as the particulars of exports from the port of Tuticorin, according to the volume of sea-borne trade statistics, and according to the table given (for calendar years) by the Chamber in its price current and market report:—

Description.	1892–93.	1893–94.	1894–95.	1895–96.	1896–97.	Average.
For the Presidency.						
Exports.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
Foreign ..	506,714	519,914	619,551	582,836	515,244	548,900
Coastwise ..	47,876	39,585	56,649	47,331	33,804	45,000
Imports.						
Coastwise ..	15,701	22,183	10,304	35,218	41,278	24,900
Foreign ..	73	645	364	448	508	400
For the Port of Tuticorin.						
Exports.						
According to sea-borne trade statistics	334,584	211,646	415,051	359,080	270,701	318,200
	1892.	1893.	1894.	1895.	1896.	Average.
Chamber of Commerce Price Current	323,740	189,699	423,175	376,175	268,799	316,300

The two sets of figures relating to Tuticorin agree as nearly as can be expected under the circumstances, and both sets forbid the acceptance of the statement that the average exports from that port amount to 360,000 cwt. per annum.

3. In regard to the rail-borne traffic, the Board regrets to observe that, in stating that the average balance of exports during the five years ending in 1896–97 might be put at 46,000 cwt. per annum, it fell into error. It should have been about 9,300 cwt. only. As the gross imports of cotton by rail are always very large, and the exports during 1896–97 were most exceptional, the average result for the five previous years was to show an annual import of about 23,200 cwt. If the figures for the whole period of six years already referred to be taken, they show an average

annual balance of imports amounting to about 2,400 cwt. It is possible that some of the large exports shown as despatched to the port of Bombay may have gone by through booking by rail and steamer, *viâ* Goa, and, if the Chamber desires it, enquiry on this point will be addressed to the Examiner of Guaranteed Railway Accounts, Bombay, who compiles the statistics; the coasting trade returns of the Bombay Presidency, however, show for 1896–97 that only 6,255 cwt. of cotton were received at Bombay from Goa.

Year.	Exports from Madras to						
	Bombay (port).	West India Portuguese Railway.	Other parts of Bombay.	Total.	Mysore.	Other places.	Grand Total.
1	2	3	4	5	6	7	8
	MDS.	MDS.	MDS.	MDS.	MDS.	MDS.	MDS.
1891–92	19,800	5,794	6,192	31,786	10,700	1	42,487
1892–93	17,684	14,847	1,275	33,706	11,303	440	45,449
1893–94	172,188	6,437	5,414	184,039	13,675	708	198,422
1894–95	75,553	2,621	1,794	79,968	17,944	365	98,277
1895–96	54,457	12,522	5,216	72,195	18,617	9	90,821
1896–97	111,460	1,982	66,913	180,355	37,804	1,822	219,981

Year.	Receipts into Madras from					Balance + or —.
	Bombay.	Hyderabad.	Mysore.	Other places.	Total.	
	9	10	11	12	13	14
	MDS.	MDS.	MDS.	MDS.	MDS.	MDS.
1891–92	36,421	81,333	7,587	..	125,341	+ 82,854
1892–93	25,553	82,490	7,452	16	115,511	+ 69,862
1893–94	57,491	89,036	11,689	..	158,216	— 40,206
1894–95	31,561	68,645	16,848	4	117,058	+ 18,781
1895–96	29,668	65,848	22,119	4	117,639	+ 26,818
1896–97	22,992	47,035	11,156	56	81,239	— 138,742

4. From the remarks made above it would appear that the rail-borne exports may be disregarded, and that the Board's estimate of 805,000 cwt. per annum as a normal crop would really leave 40 per cent. for local consumption.

5. In regard to the amount of cotton used by local mills, the Board would be glad to receive any definite information that can be obtained on the subject, but in the absence of any it is unable to see the bearing of Messrs. Lyon & Co.'s estimate for all India on the case of the Madras Presidency. The Board would be obliged if the Chamber would suggest how definite information for a series of years may be obtained on this point, if it is unable to furnish it from sources of information open to it. It appears, from a table published in the volume of Financial and Commercial Statistics of British India issued by the Government of India that, out of an average of about 427 million pounds of yarn spun in Indian mills during 1895–96 and 1896–97, only a little more than 29 million pounds or less than 7 per cent. was spun in Madras, and how this should be applied to Messrs. Lyon & Co.'s estimate of the yield would require a reference to that estimate which the Board is unable to make. The figures quoted, however, if reliable, would point to an even larger consumption of cotton by local mills than is suggested by the Chamber, and the Board is very desirous of obtaining an accurate estimate on this point.

6. In regard to the quotation made from Diwan Bahadur S. Srinivasa Raghavaiyangar's work, it will be pointed out that the quotation was taken by that officer from a report published by this department in 1891 (Bulletin No. 19, page 125), and attention should be specially given to the note made on that portion of the report at the time. The Board is not disposed to attach any great importance to the outturn estimated by the reporter. It would also remark that the carrying out of experiments such as the Chamber suggests should be made to determine the average yield of cotton is for all practical purposes an impossibility—not two, but twenty or more pickings

are commonly made in Tinnevelly—and before any average could be fixed it would be necessary to carry out several hundreds of experiments in order that they might embrace crops grown on soils of different qualities, under varying circumstances and during different seasons.

7. With regard to the first forecast of outturn, alluded to at paragraph 4 of the letter read above, the Board is unable to see what bearing the assumed amount of a normal, or average crop has thereon, unless allowance be made for the marked decrease in the area sown this year, and the condition in which the crop was reported to be at the time the forecast was prepared. It may also be pointed out that the amount of a normal crop is now reported to be about 893,000 cwt. against 1,238,000 cwt. at the rates proposed by the Chamber in its letter, dated 19th September 1898, whilst as regards the Western crop, which in this paragraph is estimated at 80,000 bales (of 400 lb.) in paragraph 2 of the letter it is said to be only 70,000 bales. These figures cannot all them, the Board considers, be correct.

8. As the I l is most anxious to arrive at some definite understanding as to what should be ed upon as the normal production of cotton in this Presidency, excluding the p ction of tracts in Mysore and Hyderabad which may in trade parlance be combin therewith, it trusts that the Chamber may submit the data given in these proceedings to criticism and furnish, where no information is available at present (*vide* paragraph 5 *supra*), any that is obtainable.

(True Copy and Extract.)

(Signed) C. BENSON,
Deputy Director,
for Secretary.

To the Chairman, Chamber of Commerce, Madras.

Read—again Proceedings of the Board of Revenue (R.S., L.R. and Agri.), Mis. No. 993, dated 16th February 1899.

Abstract.—Recording, with remarks, Government Order, accepting the Board's views regarding the preparation of forecasts of the outturn of cotton in the Madras Presidency.

Read—again the following Proceedings of the Board of Revenue (R.S., L.R. and Agri.), Mis. No. 1546, dated 21st March 1899:—

Read—the following letter from the Hon'ble Mr. S. R. TURNBULL, Chairman, Chamber of Commerce, Madras, to the Secretary to the Commissioner of Revenue Settlement and Director of the Department of Land Records and Agriculture, dated 10th March 1899:—

With reference to the Resolution of the Board of Revenue, No. 554, dated the 26th January 1899, regarding the forecasts of outturn of the cotton crop in the Madras Presidency, I have the honour to point out, with reference to the approximate amount of cotton exported by sea, that when the Chamber, in its last letter, stated that the exports from Tuticorin alone amounted to 80,000 bales of 500 lb. or 360,000 cwt., it referred to average exports in *normal* years which alone should be taken into consideration, the question at issue being what amount may be taken as the average outturn of cleaned cotton per acre in a normal year. In paragraph 2 of the Board's Resolution under reply, the figures quoted are for the quinquennium 1892–96, which includes one famine year (1893), in which there was only half a crop, and one year (1896) in which there was only a three quarter crop.

2. As regards the Board's statement that the figures in the Chamber's Price Current correspond fairly well with the figures given in the Volume of Sea Borne Trade Statistics, I have to [illegible] famine year—and does not tend to

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confirm the correctness of the Board's figures—considering that the Chamber's figures are compiled from the returns supplied to it by the Collector of Sea Customs, copies of which returns are, the Chamber believes, supplied to the Board for the compilation of its statistics.

3. The figures upon which the Chamber based its estimate of 80,000 bales of 500 lb. exported from Tuticorin are the pressing returns supplied by the different cotton presses in the district, which are undoubtedly correct, as the press-owners have to pay a contribution for each bale pressed to a General Fund. The following are details of these returns for the past eight years :—

Tuticorin Pressing Returns, 1891 *to* 1898.

1891	87,004 bales of 500 lb.		
1892	81,660	do.	
1893	46,107	do.	(Famine year).
1894	101,578	do.	
1895	83,124	do.	
1896	66,195	do.	
1897	44,583	do.	(Famine year).
1898	82,979	do.	

Excluding the two famine years 1893 and 1897, these figures show that the average number of bales pressed for export in a normal year is 83,756 or 373,107 cwt., while even if the famine years are included, the average is 74,153 bales of 500 lbs., or 331,040 cwt., as against 318,200 cwt., or 71,277 bales of 500 lb., the average for the five years 1892–93 to 1896–97 as quoted by the Board.

4. As regards the Western Crop, an error Crept into one paragraph of the Chamber's letter of the 9th January 1899, in which the crop was put down at 250,000 cwt., instead of as 280,000 cwt., or, about 80,000 bales of 400 lb. as stated in a subsequent paragraph.

5. It is almost impossible to ascertain the exact local consumption by mills and native weavers in the Madras Presidency, but according to a statement published in the Annual Report of the Bombay Millowners Association for 1897, the total approximate average quantity of cotton consumed during that year in eleven mills in the Madras Presidency was 46,286 candies of 784 lb., or, say, 90,720 bales of 400 lb. In Travancore, Mysore and Pondicherry—where mills draw their supplies largely from the cotton districts of the Madras Presidency—the aggregate approximate consumption during the year was 11,266 candies of 784 lb., say, 22,081 bales of 400 lb. Thus, adding these figures to those for the Madras Presidency, the total mill consumption was 112,801 bales of 400 lb., or 402,860 cwt., compared with only 205,000 cwt., or, say, 57,400 bales of 400 lb., estimated by the Board in the last portion of paragraph 2 of its Resolution, No. 421, dated the 19th November 1898. Taking this mill consumption of 402,860 cwt., and adding it to the Board's figures of an average gross export of 616,000 cwt., it will be seen that the total production amounts to 1,018,860 cwt., which approximates closely to the production at rates proposed by the Chamber, viz., 1,238,000 cwt., if allowance is made for the consumption by native weavers, which is not included in the above-mentioned mill consumption, and also for the probable incorrectness of Sea Borne Trade Statistics. It is true that a certain amount of the cotton consumed by the Madras mills is imported from Bombay and elsewhere, but *per contra* the mills in other Presidencies use a considerable quantity of Madras cotton, the Calcutta mills alone having taken 12,512 bales of Westerns, Northerns and Salems last year.

6. The Chamber is glad to notice the very great improvement in the Final Forecast of the Cotton Crop recently issued—which gives practically all the information that is required, though the Chamber is not prepared to admit the correctness of the estimated outturn in bales [illegible] thank the Board for preparing it in its preser form, which adds cons

he point is illustrated

1894–95.	1895–96.	1896–97.	1897–98.
9	1,624	1,394	1,509
583	515	324	
47	34	18	
630	549	342	
1	1	1	
5	42	51	
	43	52	
	506	290	
9		94	
1		44	
0	—	50	
2	—	87	
		327	

Resolution—Mis. No. 1546, dated 21st March 1899.

The following letter will be despatched to the Secretary, Chamber of Commerce, Madras :—

"With reference to the Chamber's letter, dated 10th current, regarding the outturn of cotton in this Presidency, I am directed to enquire whether the figures given in paragraph 3 thereof do not include cotton pressed at Virudupatti and Sáttúr for use in the mills, as well as for export.

"I am also to ask you to be so good as to favour this department with the loan of a copy of the latest reports of the Bombay Millowners' Association for reference with regard to the remarks in paragraph 5 of the same letter."

(True Copy and Extract.)

(Signed) C. BENSON,
for Secretary.

———

Read—again Proceedings of the Board of Revenue (R.S., L.R. and Agri.), Mis. No. 1833, dated 7th April 1899.

Abstract.—Recording letter from the Chamber of Commerce, Madras, staing that the figures regarding the export of cotton from Tuticorin given in its letter, dated 10th March 1899, represent only full-pressed export bales and not cotton pressed for the use of the local mills.

———

Read—again Proceedings of the Board of Revenue (R.S., L.R. and Agri.), Mis. No. 2029, dated 19th April 1899.

Abstract.—Asking the Secretary, Bombay Millowners' Association, Bombay to favour the Board with information as to the cotton consumed in cotton mills.

———

Read—again the Proceedings of the Board of Revenue (R.S., L.R. and Agri.), Mis. No. 2251, dated 5th May 1899, acknowledging receipt of the following letter from the Secretary, Millowners' Association, Bombay, to the Secretary to the Commissioner of Revenue Settlement and Director of the Department of Land Records and Agriculture, dated 27th April 1899 :—

I am directed to acknowledge the receipt of your letter, No. 2029 of the 19th instant. I have filled in the figures in the form forwarded by you, and now beg to return the same herewith.

As regards your paragraph 3, I am instructed to say that 19 per cent. would be a fair average allowance for waste in spinning cotton into yarn, and on this basis the figures you quote would work out somewhat as follows :—

	cwt.
Quantity of cotton used	324,000.
Less 19 per cent. for loss	61,560
Result yarn, say ...	262,440

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Enclosure.

Statement showing the quantity of cotton consumed in mills in Southern India for a series of years ending 30th June.

District.	1894.	1895.	1896.	1897.	1898.	Average.
	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
Bellary	10,318	1,750	11,914	17,640	15,400	11,400
Madras	141,344	136,836	139,356	151,977	142,863	142,476
Coimbatore	19,285	19,075	20,650	26,082	25,011	22,000
Madura	28,924	32,599	42,735	48,230	53,445	41,200
Tinnevelly *	67,669	76,888	80,514	71,435	79,219	75,150
Malabar †	18,200	21,420	19,012	8,638	16,772	16,800
Total ..	285,740	288,568	314,181	324,002	332,710	309,025
Pondicherry	14,000	14,000	14,350	15,820	19,838	15,600
Travancore	23,583	26,250	28,665	27,300	23,310	25,820

* Mills at Tuticorin, Ambásamudram and Koilpatti. † Mill at Calicut.

Resolution—No. 190, dated 23rd June 1899.

The papers read above relate to the question of the rates that should be adopted to represent the standard or normal outturn of cotton in different parts of the Madras Presidency. The rates which the Board proposed to adopt are given in its proceedings, Mis. No. 4745, dated 5th August 1898—*vide* B.P., No. 421, dated 19th November 1898. To these the Chamber took exception and suggested considerably higher standards. To these latter rates the Board did not, with the information before it, feel able to agree (B.P., No. 421, dated 19th November 1898).

2. In its letter, dated 9th January 1899, the Chamber pointed out that it considered that the average exports by sea, as given by the Board, appeared suspiciously small, and that the allowance of one-third the exports, by sea and by rail, for local consumption was inadequate; and quoted figures to show that an average crop of the Presidency is estimated by those concerned in the trade at 250,000 bales of 400 lb., each equal to about 893,000 cwt. It is not, however, quite clear whether the whole of this is to be regarded as exportable surplus, though from later correspondence it may be inferred that it is. On receipt of the above letter, the Chamber was again addressed in regard especially to its estimate of the normal exports from the port of Tuticorin and as to the consumption of cotton in local mills, and in a letter, dated 10th March 1899, gave further information on these points.

3. From the last-mentioned letter it appears that the considerable discrepancy between the estimates framed by the Board and by the Chamber as to the amount of the normal exports from the port of Tuticorin has arisen chiefly from a difference of procedure. The Chamber eliminates the figures for such years as it considers bad years in striking an average; the Board took the figures for a series of years, good and bad together.

It appears to the Board that the latter process is the more correct method of determining what the amount of a normal crop is; that is "that crop which past experience has shown to be a most generally recurring crop in a series of years"—*vide* B.P., No. 170, dated 5th May 1898. If the yield of bad years is to be excluded, so also must that of very good years, and great difficulties will arise in determining which should be included and which excluded. For instance it may be remembered that though the year 1896 was very unfavourable over a large part of the Presidency, there is nothing to show that in the southern districts it was especially unfavourable for the cotton crop.

4. In regard to the selection of the period, on the basis of which the averag
should be calculated, there is [illegible] much room for discussion, and this is furth
complicated by the fa[illegible]ed, a consider

development in the spinning mill industry in this Presidency. The point is illustrated by an examination of the figures in the table below :—

Particulars.	1887–88.	1888–89.	1889–90.	1890–91.	1891–92.	1892–93.	1893–94.	1894–95.	1895–96.	1896–97.	1897–98.
	In thousands of acres.										
Area sown	1,464	1,508	1,641	1,738	1,318	1,326	1,724	1,519	1,624	1,394	1,509
	In thousands of cwt.										
Exports by sea—											
Abroad	..	596	862	847	594	507	520	620	583	515	324
Coastwise	..	23	21	26	47	48	40	57	47	34	18
Total ..	..	619	883	873	641	555	560	677	630	549	342
Imports by sea—											
From abroad	..	..	..	..	..	..	1	1	1	1	1
Coastwise	..	3	12	15	16	16	22	10	35	42	51
Total ..	..	3	12	15	16	16	23	11	36	43	52
Net sea-borne exports	..	616	871	858	625	539	537	666	594	506	290
	In thousands of maunds.										
Exports by rail	..	24	44	26	42	46	198	98	91	220	94
Imports ,, ...	..	121	138	171	125	116	158	117	118	81	44
Net rail-borne trade	..	+ 97	+ 94	+145	+ 83	+ 70	− 40	+ 19	+ 27	−139	− 50
Do. in thousands of cwt.	..	+ 71	+ 69	+106	+ 61	+ 51	− 29	+ 14	+ 20	−102	− 37
Total net exports of cotton, cwt., thousands	..	545	802	752	564	488	566	652	574	608	327

For the five years ending in 1892–93, the average balance of exports amounted to 630,000 cwt. of raw cotton, whilst those for the next five years were only 545,000 cwt. The first period included the very bad seasons of 1891 and 1892, which affected both the Deccan and the southern districts, and the latter, the bad year 1896, when the Deccan Districts were chiefly affected. It is, however, a well-known fact that the yield of cotton in the southern districts in both 1888–89 and 1889–90 was exceptionally heavy. This was shown in the exports from Tuticorin for the two years following which were about 450,000 cwt. annually against about 350,000 cwt. in the years immediately preceding and following. The consumption in local mills in Tinnevelly and Madur has, however, of late years increased, and is estimated by the Bombay Millowners Association at an average of about 116,350 cwt. during recent years. The average imports by sea at Tuticorin has also been much larger of late years than formerly, so that the net balance of exports which was for the first five years 387,000 cwt. has been for the second 287,000 cwt., whilst a much larger quantity of cotton has been imported into the southern districts by rail than formerly, the increase being about 15,000 cwts. for the last five years of the decade over the first five.

5. After full consideration of the facts and the figures given above, the Board holds that for the Presidency as a whole no sufficient reason can be shown for estimating the present normal exportable crop at more than 570,000 cwt. The second factor which has to be determined is the amount of cotton consumed locally. In its letter, dated 10th March 1899, the Chamber of Commerce puts forward certain data published by the Bombay Millowners' Association, as the basis for a calculation showing a consumption by local mills of about 324,000 cwt. The Chamber also considers that the mill consumption in Pondicherry, Travancore and Mysore should be treated as drawn from the Madras Presidency districts and thus calculates that the total local mill consumption amounts to about 402,860 cwt. As regards the Mysore consumption, it may at once be stated that,

	cwt.
Pondicherry	15,820
Travancore	27,300
Mysore	35,740

except such small portion as may be taken across the frontier by road, all exports to that province from Madras will appear in the rail-borne trade returns. A comparison with the statistics of rail-borne trade shows that the consumption noted for Pondicherry is approximately correct. As regards the consumption in Travancore it is not known how much is imported by sea, but the available figures show that the exports by road to Travancore, on an average of three years, amount to about 11,000 cwt. only, sent chiefly from Tinnevelly. Adding to this the average consumption as stated by the Bombay Millowners' Association, the total consumption by mills may be put at 335,600 cwt. per annum including Pondicherry.

6. In B.P., No. 39 of 1890, an estimate was given of the amount of piece-good required by the people for clothing. Accepting the rates of consumption therein adopted and applying them to the total population as shown by the census of 1891, the following results work out:—

	YARDS.
10,823,060 male adults at 10 yards	108,230,000
11,366,000 female adults at 16 yards	181,856,000
4,377,000 boys at 5 yards	21,885,000
4,106,000 girls at 8 yards	32,848,000
Total ...	344,819,000

An addition of 5 per cent. to this amount to provide for the wants of the increasing population will place the present demands at about 362 million yards. The average balance of import of piece-goods into this Presidency for the last ten years amounts to 125,170,000 yards by sea; against which must be set an average balance of exports by rail of 82,400 maunds. Adopting the rate of 5 yards to the pound or 400 yards to the maund, the balance of imports would amount to 92,210,000 yards and the amount that must now be woven locally would be about 270 million yards or nearly 54 million pounds against 40,890,210 lb. estimated in 1890. Allowing, as in 1890, 3 per cent. for wastage in weaving, the amount of twist required for weaving this amount of cloth would be about 55,000,000 lb. The average imports of twist and yarn by rail and sea for the last ten years amounted to 19,335,000 lb., thus leaving 35,665,000 lb. for local production. An allowance of nearly 20 per cent. would have to be made for wastage in spinning and the amount of raw cotton required will be about 382,000 cwt. To this may be added about 3,000 cwt. to provide for the export trade in handkerchiefs, etc., which has been large of late years. Bringing the figures arrived at above together, the totals will be—

	CWT.
Net export	570,000
Local consumption	385,000
Total ...	955,000

The Board's estimate of 1890 amounted to about 782,400 cwt. and showed an average yield of about 50 lb. per acre. The latest available data show that an average area of about 1,525,000 acres of cotton is sown within the area for which agricultural statistics are received and an addition of 275,000 acres may be allowed as being sown in zemindari and other areas for which no detailed returns are available; making 1,800,000 acres in all. This would show an average yield of about 60 lb. per acre for the whole Presidency.

7. From what has been said above, the total surplus production of the southern districts at the present time cannot well be placed at more than 300,000 cwt. in a normal year, or allowing for local consumption and exports to Travancore at about 420,000 cwt. The Chamber places it at about 286,000 cwt. over and above the local consumption in mills and otherwise. The amount of native yarn spun in the southern districts is believed to be inconsiderable. The area planted with cotton in Government villages in the southern districts is about 300,000 acres, and it may be estimated that nearly 200,000 acres more are sown in the large zemindaris found there.

This would place the rate of yield at 94 lb. per acre against 70 lb. adopted by the Board. The Chamber proposed a rate of 90 lb. and on reconsideration the Board is willing to raise its estimate to that figure for the southern districts.

8. The Chamber, in a letter,* dated 6th August 1896, stated that the trade description of cotton called "Salems" is produced in the four central districts and South Arcot. The area of cotton grown in North Arcot and South Arcot is inconsiderable—4,000 acres—and some of the produce of South Arcot doubtless finds its way to Pondicherry by road if not used up locally. As to the three districts—Coimbatore, Salem and Trichinopoly—the average area of cotton sown is about 287,000 acres, but much of this is sown on very poor land, especially in Coimbatore. A good deal of the produce of the southern part of Coimbatore is believed to find its way by road into Madura for export as "Tinnevellies," and the rail-borne trade statistics show the marginally-noted balance of exports only. This would give an exportable surplus of about 102,500 cwt. only. The mill at Coimbatore is said to use up about 22,000 cwt. during the year and the spinning of yarn locally is believed not to be very great. The Chamber's estimate for this crop is about 53,600 cwt. per annum, but a considerable portion of this cotton goes westward into Malabar for shipment to Bombay and for use on the West Coast. On the basis of the figures given above, however, the local production for the four years for which alone figures are available must not be placed at a much higher figure than 150,000 cwt. The average area sown in the three districts during the four years immediately preceding was 310,000 acres, giving a yield of about 54 lb. per acre. The rate adopted by the Board has been 70 lb., the estimate of the Chamber 70 lb. per acre. Considering the large area of poor land in Coimbatore devoted to cotton, from which Mr. Nicholson, who had peculiar advantages for ascertaining local facts, estimated the yield at 30 lb. per acre, the Board considers that its estimate is sufficient.

	Thousands of maunds.
1894–95	202·9
1895–96	140·5
1896–97	101·4
1897–98	113·3

* *Vide* appendix and papers printed in B.P., No. 316, dated 26th April 1897.

9. In regard to the exportable surplus of Northerns and Westerns, which the Chamber puts at 375,000 cwt. in a normal year, it may be observed that under the grouping adopted with reference to B.P., No. 5203, dated 24th October 1896, this produce comprises that grown on the areas included in the Deccan districts and Nellore. The normal area sown in the latter district, so far as returns exist, is about 14,500 acres, out of a total of about 750,000 acres and may be disregarded. From the Deccan districts, the average net exports for ten years from 1888–89 to 1897–98 amounted to 224,000 cwt. only, and no inconsiderable portion of this is used up in the mills of Madras and Pondicherry. The Chamber's estimate in this case appears to be altogether excessive and during the period referred to has been reached, or nearly reached, in the gross exports from the Deccan in four years only of the decade. The estimate of the Chamber probably includes a considerable allowance for cotton produced in Hyderabad, and possibly for some in Mysore. An estimate of 240,000 cwt., as the normal despatches—not exports from the Presidency—for the deccan Districts would probably be as large as can be safely made. Allowing one-third more for local consumption in these districts, this would place the average outturn at a good deal less than half a hundred-weight per acre. The Board takes 40 lb. as a normal, or 12-anna crop per acre of cleaned cotton and the cultivation in Banaganapalle is not allowed for.

10. In regard to what are called "Cocanadas", the Chamber puts the crop at 107,000 cwt., but from its letter, dated 6th August 1896, addressed to the Government of India, it appears that this includes the produce of the Kistna and adjacent portion of the Nizam's territory. The estimate of a normal crop, based on the rate of outturn adopted by the Board is about 78,200 cwt., but it is impossible in the circumstances to make any comparison. So far as this department is concerned, it has nothing to do with the produce of the Nizam's territories. An examination of the statistics of

rail-borne trade for the nine years for which they are available, however, shows that on the average about 6,900 cwts. per annum have been received into the delta (Kistna—Gódávari) block from Hyderabad, and for the last five years only 4,300 cwt. per annum; whilst there have been exports to Bombay from the same block in several years, averaging 1,930 cwts. for the whole period and 2,570 cwt. for the last five years during the first three of which alone was cotton imported. The exports from this tract are shipped from Cocanada from which port for ten years the average exports have not amounted to 78,000 cwt., and to only 70,000 cwt. during the last five years for which figures are complete. On these data the exportable surplus may be placed at about 70 to 75 thousand cwt., and this would include any cotton exported from Gódávari and Vizagapatam and from part of Nellore also. The average area of cotton sown in Kistna is about 170,000 acres in Government villages and about 10,000 acres more is sown in Gódávari and Vizagapatam. Considering the large areas of zemindari in these northern districts, it does not seem necessary to modify the Board's rate of outturn, 50 lb. per acre, for a normal crop.

11. These calculations after allowing for local consumption may be summed up as follows:—

	cwt.
Southern districts (Tinnevellies)	420,000
Central districts (Salems)	150,000
Deccan districts (Northerns and Westerns)	320,000
Cocanadas, chiefly Kistna	90,000
Other districts	5,000
Total ...	985,000

The estimate arrived at above, paragraph 6, from the exports, and calculation of consumption, is 955,000 cwt. and the difference is such as might be expected. On the basis of these calculations, the Board resolves to adopt the following as the normal rates of outturn of cotton:—

Tinnevellies	90 lb. per acre.
Salems	55 „ „
Northerns and Westerns	40 „ „
Cocanadas and others	50 „ „

It is observed, however, that the Chamber, in its letter dated 10th March 1899, accepts the attempt made in the last forecast of the cotton crop as satisfactory, though it does not admit the correctness of the quantitative estimates. To the latter the Board also attaches small importance, and is of opinion that attempts to frame such estimates are out of place in official reports on the condition and prospects of the crops. Those interested in the trade are far better qualified to frame such estimates, and it would, the Board considers, suffice if the official report merely stated the area figures and gave a qualitative estimate of the probable yield.

(True Copies and Extract.)

(Signed) C. BENSON
Deputy Director
for Secretary.

To the Secretary to Government, Revenue Department.
„ the Chamber of Commerce.
„ all Collectors.

Copy to the Director-General of Statistics, with copies of Board's Proceedings, No. 316, dated 26th April 1897; No. 170, dated 5th May 1898; and No. 421, dated 19th November 1898.
„ „ Reporter, Economic Products,

APPENDIX.

From the Hon'ble Mr. G. L. CHAMBERS, Chairman, Chamber of Commerce, Madras, to the Secretary to the Government of India, Department of Revenue and Agriculture, Simla, dated 6th August 1896.

On the 5th July last year I had the honour of addressing you on the subject of the Crop Forecasts issued by your Department, and more particularly with reference to the statistics of Cotton Cultivation.

Recently the attention of this Chamber has been drawn to the Annual Review of the Cotton Crop of India published in the *Times of India* of the 23rd July, in which it is pointed out that the crop under review exceeded the official estimates by no less than 993,000 bales in a total of 3,296,000 bales that had come into sight. Such a result can hardly be called satisfactory, especially when it is borne in mind that it has been possible for private "crop estimators" to make calculations which have come out fairly accurately.

This Chamber does not feel competent to discuss the question so far as the rest of India is concerned, but as regards Cotton classed under the head of "Madras," it must emphasise most strongly the fact mentioned in its letter of the 5th July 1895 that any estimate is of little practical value to merchants unless the amount grown in the southern portion of Hyderabad Territory be also included. It is further believed that the returns on Government lands are greatly underestimated, and the Chamber cannot help feeling that the first step must be to cause more interest to be taken by the District officials immediately concerned in the collection of the figures. Until this is done, the more difficult task of estimating the yield in foreign territory and in Zemindari lands may be left over.

As regards classification of growths, I may express the hope that some effect may be given this season to previous recommendations. It is suggested that the following would be as near as could be got for practical purposes:—

Growth.	*Districts.*
Tinnevellies	Tinnevelly and Madura.
Salems	Coimbatore, Salem, Trichinopoly and North and South Arcot.
Northerns and Westerns	Nellore, Cuddapah, Anantapur, Bellary and Kurnool and the Raichore Doab of Hyderabad.
Cocanadas	Kistna and adjacent portion of Nizam's Territory.

ORDER—No. 614, Revenue, dated 11th September 1899.

Miscellaneous.

Recorded with an expression of concurrence in the Board's remarks and concluding recommendation.

(True Extract.)

(Signed) H. TREMENHEERE,
Ag. Secretary to Government.

To the Board of Revenue (Revenue Settlement, Land Records and Agriculture).

Exd. C. M. Thumbusawmy.

40 Copies.

NOTES CONNECTED WITH G.O., No. 614, REVENUE, DATED 11th SEPTEMBER 1899.

[Subject.—*The rates to be adopted to represent the standard or normal outturn of cotton.*]

Board's Proceedings (Revenue Settlement, Land Records and Agriculture), No. 190, *dated* 23*rd June* 1899.

To Under Secretary—

The Board's Proceedings gives a brief *precis* of the discussion that took place between the Board and the Chamber of Commerce on the question of the rates that should be adopted to represent the normal outturn of cotton in different parts of this Presidency. Reasons for the rates finally adopted by the Board are also set forth.

Submitted that the current may be recorded with an expression of concurrence in the Board's remarks.

A.A.
14-8-99.

To Secretary—

N. E. Marjoribanks.
19-8-99.

To the Honourable Member—

H. Tremenheere.
24-8-99.

I am not clear what the Board contemplates by a "qualitative" estimate. I suppose it does not mean to abandon the anna notation? Is Secretary clear what change we are making in approving the last sentence of the Board's Proceedings?

If the anna notation is adhered to, it is merely a question of multiplication to arrive at a quantitative estimate.

H. W[interbotham.]
27-8-99.

To Secretary—

By a qualitative estimate it is submitted the Board means an estimate of the crop as "Bumper" "average", etc., *i.e.*, an estimate on the anna notation or on the per cent. (or American notation).

The latter notation is used for forecasts under India's orders. The anna notation continues in the village and district reports (*vide* Board's Proceedings, No. 750, dated 23rd December 1897, paragraphs 2 and 6—in G.O., No. 87, dated 12th February 1898).

By a quantitative estimate the Board means an estimate of the outturn of the crop, *e.g.*, in the case of cotton, *in lbs.*

Assuming a normal outturn in lbs. per acre (*i.e.*, the unit), the quantitative estimate is a matter of arithmetic. But the Trade do not accept the Board's normal outturns in lbs. per acre. Hence the Board proposes to publish the qualitative estimate only and leave the Trade to take what normal outturns in lbs. per acre it thinks proper and to do the arithmetic, *i.e.*, the Board will supply the factor by which the unit should be multiplied but leaves it to the Trade to fix what they consider the

proper unit. The question whether the Board should not be told to accept something approaching the Trade's units has been raised and negatived (G.O., No. 63, dated 23rd January 1899—please see page 6 of notes.)

N.E.M.
6-9-99.

To the Honourable Member—

H.T.
7-9-99.

Very well. We will approve the proposed change.

H.W.
8-9-99.

Issue order on the docket.

H.T.

[Issued as G.O., No. 614, Revenue, dated 11th September 1899.]

REVENUE DEPARTMENT.

1899.

Board of Revenue

(Revenue Settlement, Land Records and Agriculture),

MADRAS.

Recd. 2nd Aug. } 1899. *Enclosures*

Regd. 3rd —do— } *Spare copies*

Printed July th.

Proceedings, No. 190, 23rd June 1899.

JUNE.

Outturn of Cotton.—Discussing what rates should be adopted to represent the standard or normal — in different parts of the Madras Presidency.

PROCEEDINGS OF THE BOARD OF REVENUE
(Revenue Settlement, Land Records and Agriculture).

Mr. A. W. B. Higgens.

Read—again the following Proceedings of the Board of Revenue (R.S., L.R. and Agri.), Mis. No. 554, dated 26th January 1899 :—

Read—the following letter from the Hon'ble Mr. S. R. TURNBULL, Chairman, Chamber of Commerce, Madras, to the Secretary to the Commissioner of Revenue Settlement, and Director of the Department of Land Records and Agriculture, dated 9th January 1899 :—

I have the honour to acknowledge receipt of the Proceedings of the Board of Revenue, No. 421, dated the 19th November 1898, discussing the rates of outturn of cotton proposed by the Chamber. As the Board declines to modify the rates which it lately adopted, it will be of little use for the Chamber to enter further into lengthy discussion of the matter in support of its contention that the Board's estimates are too low. The Chamber wishes, however, to direct the Board's attention to the following extract from Diwan Bahadur S. Srinivasa Raghavaiyangar's "Memorandum on the Progress of the Madras Presidency during the last 40 years" :—

"In fertile soils and under good treatment, 1,000 lb. seed cotton per acre is no unusual outturn; an ordinary good yield of cotton may be taken to vary from 750 to 900 lb. of seed cotton, while 500 lb. may be taken as a fair average of yields, taking all soils into consideration. These figures have been arrived at from the statements of different classes of ryots and include the first and second courses of pickings. It is assumed by dealers that six poodis (about 328 lb. each) of seed cotton are required to produce 500 lb. lint, and therefore the average outturn of an acre is 125 lb. of lint."

The difference between an average outturn per acre of 125 lb. as here estimated and 70 lb. per acre for Tinnevelly as estimated by the Board is so enormous as to lead to the irresistible conclusion that the sources of information from which these official figures are obtained cannot be held reliable, and the Chamber considers that the Board should institute further enquiries in order to ascertain the average outturn per acre of the two pickings in the Tinnevelly district.

2. The Chamber is not in a position to prove that the Board's statistics relating to the volume of the sea-borne cotton trade are inaccurate, but the average annual export of 570,000 cwt. for the quinquennium ending 1896–97 seems suspiciously small, considering that, according to reliable information supplied to the Chamber by shipping firms, the average exports from Tuticorin alone amount to 80,000 bales of 500 lb. or 360,000 cwt. The rail-borne traffic also seems to the Chamber to be underestimated, as a large percentage of the western crop—which averages 250,000 cwt. per annum—now finds its way to Bombay principally *viâ* Marmagoa.

3. Lastly, the Chamber regards an allowance of one-third of the outturn for local consumption as inadequate, as the offtake by the mills has increased considerably, an allowance of 40 per cent. being, in its opinion, much nearer the mark. Messrs. Lyon & Co. of Bombay, who are the best authority on Indian cotton statistics, put down the mill and local consumption for all India during the quinquennium referred to at 1,665,000 bales per annum out of an average total outturn of 2,945,000 bales, or say 55 per cent.

4. In support of its opinion that the outturn per acre is underestimated by the Board, the Chamber would refer to the first forecast of the growing crop recently published, in which the yield is calculated at about 127,000 bales of 400 lb. Adding

to this 20 per cent. for Native States and Zamindaries as estimated by the Board, the total outturn of next crop would be 152,400 bales of 400 lb., while according to the figures supplied to the Chamber by press-owners and cotton-shippers an average crop for the Presidency is about 250,000 bales distributed as follows :—

Tinnevelly, 80,000 bales of 500 lb.	100,000	bales.
Westerns	80,000	„
Northerns	25,000	„
Cocanadas	30,000	„
Salems, Coimbatore, &c.	15,000	„
Total ...	250,000	„

5. The Chamber is obliged to the Board for adopting its suggestion as regards giving different units of outturn for the various descriptions of cotton, and, while it cannot endorse the Board's views as to outturn, it fully appreciates the assistance which the mercantile community will derive from the publication of reliable figures of the acreage planted with cotton on Government lands, from which an approximate estimate may be made of the quantity likely to be available for export.

Resolution—Mis. No. 554, dated 26th January 1899.

Before submitting the letter read above for the information of Government in continuation of B.P., No. 421, dated 19th November 1898, the Board requests that the Chamber may be moved to consider the figures and remarks embodied in these proceedings.

2. In the subjoined table, the particulars from which the approximate average export by sea of 570,000 cwt. of cleaned cotton was derived are shown, as well as the particulars of exports from the port of Tuticorin, according to the volume of sea-borne trade statistics, and according to the table given (for calendar years) by the Chamber in its price current and market report :—

Description.	1892–93.	1893–94.	1894–95.	1895–96.	1896–97.	Average.
For the Presidency.						
	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
Exports.						
Foreign	506,714	519,914	619,551	582,836	515,244	548,900 } 59300
Coastwise	47,876	39,580	56,649	47,331	33,804	45,000 }
Imports.						
Coastwise	15,701	22,183	10,304	35,218	41,276	24,900 } 25300
Foreign	73	645	364	448	508	400 }
						568600 cwt.
For the Port of Tuticorin.						
Exports.						
According to sea-borne trade statistics	334,584	211,646	415,051	359,080	270,701	318,200
	1892.	1893.	1894.	1895.	1896.	Average.
Chamber of Commerce Price Current	323,740	189,699	423,175	376,175	268,799	316,300

The two sets of figures relating to Tuticorin agree as nearly as can be expected under the circumstances, and both sets forbid the acceptance of the statement that the average exports from that port amount to 360,000 cwt. per annum.

3. In regard to the rail-borne traffic, the Board regrets to observe that, in stating that the average balance of exports during the five years ending in 1896–97 might be put at 46,000 cwt. per annum, it fell into error. It should have been about 9,300 cwt. only. As the gross imports of cotton by rail are always very large, and the exports during 1896–97 were most exceptional, the average result for the five previous years was to show an annual import of about 23,200 cwt. If the figures for the whole period of six years already referred to be taken, they show an average

annual balance of imports amounting to about 2,400 cwt. It is possible that some of the large exports shown as despatched to the port of Bombay may have gone by through booking by rail and steamer, *viâ* Goa, and, if the Chamber desires it, enquiry on this point will be addressed to the Examiner of Guaranteed Railway Accounts, Bombay, who compiles the statistics; the coasting trade returns of the Bombay Presidency, however, show for 1896–97 that only 6,255 cwt. of cotton were received at Bombay from Goa.

Year.	Exports from Madras to						
	Bombay (port).	West India Portuguese Railway.	Other parts of Bombay.	Total.	Mysore.	Other places.	Grand Total.
1	2	3	4	5	6	7	8
	MDS.	MDS.	MDS.	MDS.	MDS.	MDS.	MDS.
1891–92	19,806	5,794	6,192	31,786	10,700	1	42,487
1892–93	17,584	14,847	1,275	33,706	11,503	440	45,649
1893–94	172,188	6,437	5,414	184,039	13,675	708	198,422
1894–95	75,553	2,621	1,794	79,968	17,944	365	98,277
1895–96	51,457	12,522	5,216	72,195	18,617	9	90,821
1896–97	111,460	1,982	66,913	180,355	37,804	1,822	219,981

Year.	Receipts into Madras from					Balance + or −.
	Bombay.	Hyderabad.	Mysore.	Other places.	Total.	
	9	10	11	12	13	14
	MDS.	MDS.	MDS.	MDS.	MDS.	MDS.
1891–92	36,421	81,333	7,587	..	125,341	+ 82,854
1892–93	25,553	82,490	7,452	16	115,511	+ 69,862
1893–94	57,491	89,036	11,689	..	158,216	− 40,206
1894–95	31,561	68,645	16,848	4	117,058	+ 18,781
1895–96	29,668	65,848	22,119	4	117,639	+ 26,818
1896–97	22,992	47,035	11,156	56	81,239	− 138,742

4. From the remarks made above it would appear that the rail-borne exports may be disregarded, and that the Board's estimate of 805,000 cwt. per annum as a normal crop would really leave 40 per cent. for local consumption.

5. In regard to the amount of cotton used by local mills, the Board would be glad to receive any definite information that can be obtained on the subject, but in the absence of any it is unable to see the bearing of Messrs. Lyon & Co.'s estimate for all India on the case of the Madras Presidency. The Board would be obliged if the Chamber would suggest how definite information for a series of years may be obtained on this point, if it is unable to furnish it from sources of information open to it. It appears, from a table published in the volume of Financial and Commercial Statistics of British India issued by the Government of India that, out of an average of about 427 million pounds of yarn spun in Indian mills during 1895–96 and 1896–97, only a little more than 29 million pounds or less than 7 per cent. was spun in Madras, and how this should be applied to Messrs. Lyon & Co.'s estimate of the yield would require a reference to that estimate which the Board is unable to make. The figures quoted, however, if reliable, would point to an even larger consumption of cotton by local mills than is suggested by the Chamber, and the Board is very desirous of obtaining an accurate estimate on this point.

6. In regard to the quotation made from Diwan Bahadur S. Srinivasa Raghavaiyangar's work, it will be pointed out that the quotation was taken by that officer from a report published by this department in 1891 (Bulletin No. 19, page 125), and attention should be specially given to the note made on that portion of the report at the time. The Board is not disposed to attach any great importance to the outturn estimated by the reporter. It would also remark that the carrying out of experiments such as the Chamber suggests should be made to determine the average yield of cotton is for all practical purposes an impossibility—not two, but twenty or more pickings

are commonly made in Tinnevelly—and before any average could be fixed it would be necessary to carry out several hundreds of experiments in order that they might embrace crops grown on soils of different qualities, under varying circumstances and during different seasons.

7. With regard to the first forecast of outturn, alluded to at paragraph 4 of the letter read above, the Board is unable to see what bearing the assumed amount of a normal, or average crop has thereon, unless allowance be made for the marked decrease in the area sown this year, and the condition in which the crop was reported to be at the time the forecast was prepared. It may also be pointed out that the amount of a normal crop is now reported to be about 893,000 cwt. against 1,238,000 cwt. at the rates proposed by the Chamber in its letter, dated 19th September 1898, whilst as regards the Western crop, which in this paragraph is estimated at 80,000 bales (of 400 lb.) in paragraph 2 of the letter it is said to be only 70,000 bales. These figures cannot all of them, the Board considers, be correct.

8. As the Board is most anxious to arrive at some definite understanding as to what should be looked upon as the normal production of cotton in this Presidency, excluding the production of tracts in Mysore and Hyderabad which may in trade parlance be combined therewith, it trusts that the Chamber may submit the data given in these proceedings to criticism and furnish, where no information is available at present (*vide* paragraph 5 *supra*), any that is obtainable.

(True Copy and Extract.)

(Signed) C. BENSON,
Deputy Director,
for Secretary.

To the Chairman, Chamber of Commerce, Madras.

Read—again Proceedings of the Board of Revenue (R.S., L.R. and Agri.), Mis. No. 993, dated 16th February 1899.

Abstract.—Recording, with remarks, Government Order, accepting the Board's views regarding the preparation of forecasts of the outturn of cotton in the Madras Presidency.

Read—again the following Proceedings of the Board of Revenue (R.S., L.R. and Agri.), Mis. No. 1546, dated 21st March 1899:—

Read—the following letter from the Hon'ble Mr. S. R. TURNBULL, Chairman, Chamber of Commerce, Madras, to the Secretary to the Commissioner of Revenue Settlement and Director of the Department of Land Records and Agriculture, dated 10th March 1899:—

With reference to the Resolution of the Board of Revenue, No. 554, dated the 26th January 1899, regarding the forecasts of outturn of the cotton crop in the Madras Presidency, I have the honour to point out, with reference to the approximate amount of cotton exported by sea, that when the Chamber, in its last letter, stated that the exports from Tuticorin alone amounted to 80,000 bales of 500 lb. or 360,000 cwt., it referred to average exports in *normal* years which alone should be taken into consideration, the question at issue being what amount may be taken as the average outturn of cleaned cotton per acre in a normal year. In paragraph 2 of the Board's Resolution under reply, the figures quoted are for the quinquennium 1892–96, which includes one famine year (1893), in which there was only half a crop, and one year (1896) in which there was only a three quarter crop.

2. As regards the Board's statement that the figures in the Chamber's Price Current correspond fairly well with the figures given in the Volume of Sea Borne Trade Statistics, I have to remark that this is not surprising—and does not tend to

confirm the correctness of the Board's figures—considering that the Chamber's figures are compiled from the returns supplied to it by the Collector of Sea Customs, copies of which returns are, the Chamber believes, supplied to the Board for the compilation of its statistics.

3. The figures upon which the Chamber based its estimate of 80,000 bales of 500 lb. exported from Tuticorin are the pressing returns supplied by the different cotton presses in the district, which are undoubtedly correct, as the press-owners have to pay a contribution for each bale pressed to a General Fund. The following are details of these returns for the past eight years :—

Tuticorin Pressing Returns, 1891 *to* 1898.

1891	87,004 bales of 500 lb.		
1892	81,660	do.	
1893	46,107	do.	(Famine year).
1894	101,578	do.	
1895	83,124	do.	
1896	66,195	do.	
1897	44,583	do.	(Famine year).
1898	82,979	do.	

Excluding the two famine years 1893 and 1897, these figures show that the average number of bales pressed for export in a normal year is 83,756 or 373,107 cwt., while even if the famine years are included, the average is 74,153 bales of 500 lbs., or 331,040 cwt., as against 318,200 cwt., or 71,277 bales of 500 lb., the average for the five years 1892–93 to 1896–97 as quoted by the Board.

4. As regards the Western Crop, an error Crept into one paragraph of the Chamber's letter of the 9th January 1899, in which the crop was put down at 250,000 cwt., instead of as 280,000 cwt., or, about 80,000 bales of 400 lb. as stated in a subsequent paragraph.

5. It is almost impossible to ascertain the exact local consumption by mills and native weavers in the Madras Presidency, but according to a statement published in the Annual Report of the Bombay Millowners Association for 1897, the total approximate average quantity of cotton consumed during that year in eleven mills in the Madras Presidency was 46,286 candies of 784 lb., or, say, 90,720 bales of 400 lb. In Travancore, Mysore and Pondicherry—where mills draw their supplies largely from the cotton districts of the Madras Presidency—the aggregate approximate consumption during the year was 11,266 candies of 784 lb., say, 22,081 bales of 400 lb. Thus, adding these figures to those for the Madras Presidency, the total mill consumption was 112,801 bales of 400 lb., or 402,860 cwt., compared with only 205,000 cwt., or, say, 57,400 bales of 400 lb., estimated by the Board in the last portion of paragraph 2 of its Resolution, No. 421, dated the 19th November 1898. Taking this mill consumption of 402,860 cwt., and adding it to the Board's figures of an average gross export of 616,000 cwt., it will be seen that the total production amounts to 1,018,860 cwt., which approximates closely to the production at rates proposed by the Chamber, viz., 1,238,000 cwt., if allowance is made for the consumption by native weavers, which is not included in the above-mentioned mill consumption, and also for the probable incorrectness of Sea Borne Trade Statistics. It is true that a certain amount of the cotton consumed by the Madras mills is imported from Bombay and elsewhere, but *per contra* the mills in other Presidencies use a considerable quantity of Madras cotton, the Calcutta mills alone having taken 12,512 bales of Westerns, Northerns and Salems last year.

6. The Chamber is glad to notice the very great improvement in the Final Forecast of the Cotton Crop recently issued—which gives practically all the information that is required, though the Chamber is not prepared to admit the correctness of the estimated outturn in bales—and to thank the Board for preparing it in its present form, which adds considerably to its value.

Resolution—Mis. No. 1546, dated 21st March 1899.

The following letter will be despatched to the Secretary, Chamber of Commerce, Madras :—

"With reference to the Chamber's letter, dated 10th current, regarding the outturn of cotton in this Presidency, I am directed to enquire whether the figures given in paragraph 3 thereof do not include cotton pressed at Virudupatti and Sáttúr for use in the mills, as well as for export.

"I am also to ask you to be so good as to favour this department with the loan of a copy of the latest reports of the Bombay Millowners' Association for reference with regard to the remarks in paragraph 5 of the same letter."

(True Copy and Extract.)

(Signed) C. BENSON,
for Secretary.

Read—again Proceedings of the Board of Revenue (R.S., L.R. and Agri.), Mis. No. 1833, dated 7th April 1899.

Abstract.—Recording letter from the Chamber of Commerce, Madras, staing that the figures regarding the export of cotton from Tuticorin given in its letter, dated 10th March 1899, represent only full-pressed export bales and not cotton pressed for the use of the local mills.

Read—again Proceedings of the Board of Revenue (R.S., L.R. and Agri.), Mis. No. 2029, dated 19th April 1899.

Abstract.—Asking the Secretary, Bombay Millowners' Association, Bombay to favour the Board with information as to the cotton consumed in cotton mills.

Read—again the Proceedings of the Board of Revenue (R.S., L.R. and Agri.), Mis. No. 2251, dated 5th May 1899, acknowledging receipt of the following letter from the Secretary, Millowners' Association, Bombay, to the Secretary to the Commissioner of Revenue Settlement and Director of the Department of Land Records and Agriculture, dated 27th April 1899 :—

I am directed to acknowledge the receipt of your letter, No. 2029 of the 19th instant. I have filled in the figures in the form forwarded by you, and now beg to return the same herewith.

As regards your paragraph 3, I am instructed to say that 19 per cent. would be a fair average allowance for waste in spinning cotton into yarn, and on this basis the figures you quote would work out somewhat as follows :—

	cwt.
Quantity of cotton used	324,000
Less 19 per cent. for loss	61,560
Result yarn, say ...	262,440

ENCLOSURE.

STATEMENT showing the quantity of cotton consumed in mills in Southern India for a series of years ending 30th June.

District.	1894.	1895.	1896.	1897.	1898.	Average.
	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
Bellary	10,318	1,750	11,914	17,640	15,400	11,460
Madras	141,344	136,836	139,356	151,977	142,863	142,475
Coimbatore	19,285	19,075	20,650	26,082	25,011	22,000
Madura	28,924	37,599	42,735	48,230	53,445	41,200
Tinnevelly *	67,669	76,888	80,514	71,435	79,219	75,150
Malabar †	18,200	21,420	19,012	8,638	16,772	16,800
Total ..	285,740	288,568	314,181	324,002	332,710	309,025
Pondicherry	14,000	14,000	14,350	15,820	19,838	15,600
Travancore	23,583	26,250	28,665	27,300	23,310	25,820

* Mills at Tuticorin, Ambásamudram and Koilpatti. † Mill at Calicut.

RESOLUTION—No. 190, dated 23rd June 1899.

The papers read above relate to the question of the rates that should be adopted to represent the standard or normal outturn of cotton in different parts of the Madras Presidency. The rates which the Board proposed to adopt are given in its proceedings, Mis. No. 4745, dated 5th August 1898—*vide* B.P., No. 421, dated 19th November 1898. To these the Chamber took exception and suggested considerably higher standards. To these latter rates the Board did not, with the information before it, feel able to agree (B.P., No. 421, dated 19th November 1898).

2. In its letter, dated 9th January 1899, the Chamber pointed out that it considered that the average exports by sea, as given by the Board, appeared suspiciously small, and that the allowance of one-third the exports, by sea and by rail, for local consumption was inadequate; and quoted figures to show that an average crop of the Presidency is estimated by those concerned in the trade at 250,000 bales of 400 lb., each equal to about 893,000 cwt. It is not, however, quite clear whether the whole of this is to be regarded as exportable surplus, though from later correspondence it may be inferred that it is. On receipt of the above letter, the Chamber was again addressed in regard especially to its estimate of the normal exports from the port of Tuticorin and as to the consumption of cotton in local mills, and in a letter, dated 10th March 1899, gave further information on these points.

3. From the last-mentioned letter it appears that the considerable discrepancy between the estimates framed by the Board and by the Chamber as to the amount of the normal exports from the port of Tuticorin has arisen chiefly from a difference of procedure. The Chamber eliminates the figures for such years as it considers bad years in striking an average; the Board took the figures for a series of years, good and bad together.

It appears to the Board that the latter process is the more correct method of determining what the amount of a normal crop is; that is "that crop which past experience has shown to be a most generally recurring crop in a series of years"—*vide* B.P., No. 170, dated 5th May 1898. If the yield of bad years is to be excluded, so also must that of very good years, and great difficulties will arise in determining which should be included and which excluded. For instance it may be remembered that though the year 1896 was very unfavourable over a large part of the Presidency, there is nothing to show that in the southern districts it was especially unfavourable for the cotton crop.

4. In regard to the selection of the period, on the basis of which the average should be calculated, there is, however, much room for discussion, and this is further complicated by the fact that of late years there has been, it is believed, a considerable

development in the spinning mill industry in this Presidency. The point is illustrated by an examination of the figures in the table below :—

Particulars.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.
	In thousands of acres.										
Area sown	1,464	1,508	1,641	1,738	1,318	1,326	1,724	1,519	1,624	1,394	1,509
	In thousands of cwt.										
Exports by sea—											
Abroad	..	596	862	847	594	507	520	620	583	515	324
Coastwise	..	23	21	26	47	48	40	57	47	34	18
Total ..	..	619	883	873	641	555	560	677	630	549	342
Imports by sea—											
From abroad	..	..	..	..	..	..	1	1	1	1	1
Coastwise	..	3	12	15	16	16	22	10	35	42	51
Total ..	..	3	12	15	16	16	23	11	36	43	52
Net sea-borne exports	..	616	871	858	625	539	537	666	594	506	290
	In thousands of maunds.										
Exports by rail	..	24	44	26	42	46	198	98	91	220	94
Imports ,, ...	..	121	138	171	125	116	158	117	118	81	44
Net rail-borne trade	..	+ 97	+ 94	+145	+ 83	+ 70	— 40	+ 19	+ 27	—139	— 50
Do. in thousands of cwt.	..	+ 71	+ 69	+106	+ 61	+ 51	— 29	+ 14	+ 20	—102	— 37
Total net exports of cotton, cwt., thousands	..	545	802	752	564	488	568	652	574	608	327

For the five years ending in 1892–93, the average balance of exports amounted to 630,000 cwt. of raw cotton, whilst those for the next five years were only 545,000 cwt. The first period included the very bad seasons of 1891 and 1892, which affected both the Deccan and the southern districts, and the latter, the bad year 1896, when the Deccan Districts were chiefly affected. It is, however, a well-known fact that the yield of cotton in the southern districts in both 1888–89 and 1889–90 was exceptionally heavy. This was shown in the exports from Tuticorin for the two years following which were about 450,000 cwt. annually against about 350,000 cwt. in the years immediately preceding and following. The consumption in local mills in Tinnevelly and Madura has, however, of late years increased, and is estimated by the Bombay Millowners' Association at an average of about 116,350 cwt. during recent years. The average imports by sea at Tuticorin has also been much larger of late years than formerly, so that the net balance of exports which was for the first five years 387,000 cwt. has been for the second 287,000 cwt., whilst a much larger quantity of cotton has been imported into the southern districts by rail than formerly, the increase being about 15,000 cwts. for the last five years of the decade over the first five.

5. After full consideration of the facts and the figures given above, the Board holds that for the Presidency as a whole no sufficient reason can be shown for estimating the present normal exportable crop at more than 570,000 cwt. The second factor which has to be determined is the amount of cotton consumed locally. In its letter, dated 10th March 1899, the Chamber of Commerce puts forward certain data published by the Bombay Millowners' Association, as the basis for a calculation showing a consumption by local mills of about 324,000 cwt. The Chamber also considers that the mill consumption in Pondicherry, Travancore and Mysore should be treated as drawn from the Madras Presidency districts and thus calculates that the total local mill consumption amounts to about 402,860 cwt. As regards the Mysore consumption, it may at once be stated that,

	cwt.
Pondicherry	15,820
Travancore	27,300
Mysore	35,740
	78860

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5. After full consideration of the facts and the figures given above, the Board holds that for the Presidency as a whole no sufficient reason can be shown for estimating the present normal exportable crop at more than 570,000 cwt. The second factor which has to be determined is the amount of cotton consumed locally. In its letter, dated 10th March 1899, the Chamber of Commerce puts forward certain data published by the Bombay Millowners' Association, as the basis for a calculation showing a consumption by local mills of about 324,000 cwt. The Chamber also considers that the mill consumption in Pondicherry, Travancore and Mysore should be treated as drawn from the Madras Presidency districts and thus calculates that the total local mill consumption amounts to about 402,860 cwt. As regards the Mysore consumption, it may at once be stated that,

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Travancore	27,300
Mysore	35,740
	78860

402860
324000
78860

except such small portion as may be taken across the frontier by road, all exports to that province from Madras will appear in the rail-borne trade returns. A comparison with the statistics of rail-borne trade shows that the consumption noted for Pondicherry is approximately correct. As regards the consumption in Travancore it is not known how much is imported by sea, but the available figures show that the exports by road to Travancore, on an average of three years, amount to about 11,000 cwt. only, sent chiefly from Tinnevelly. Adding to this the average consumption as stated by the Bombay Millowners' Association, the total consumption by mills may be put at 335,600 cwt. per annum including Pondicherry.

6. In B.P., No. 39 of 1890, an estimate was given of the amount of piece-goods required by the people for clothing. Accepting the rates of consumption therein adopted and applying them to the total population as shown by the census of 1891, the following results work out:—

	YARDS.
10,823,000 male adults at 10 yards	108,230,000
11,366,000 female adults at 16 yards	181,856,000
4,377,000 boys at 5 yards	21,885,000
4,106,000 girls at 8 yards	32,848,000
Total ...	344,819,000

An addition of 5 per cent. to this amount to provide for the wants of the increasing population will place the present demands at about 362 million yards. The average balance of import of piece-goods into this Presidency for the last ten years amounts to 125,170,000 yards by sea; against which must be set an average balance of exports by rail of 82,400 maunds. Adopting the rate of 5 yards to the pound or 400 yards to the maund, the balance of imports would amount to 92,210,000 yards and the amount that must now be woven locally would be about 270 million yards or nearly 54 million pounds against 40,890,210 lb. estimated in 1890. Allowing, as in 1890, 3 per cent. for wastage in weaving, the amount of twist required for weaving this amount of cloth would be about 55,000,000 lb. The average imports of twist and yarn by rail and sea for the last ten years amounted to 19,335,000 lb., thus leaving 35,665,000 lb. for local production. An allowance of nearly 20 per cent. would have to be made for wastage in spinning and the amount of raw cotton required will be about 382,000 cwt. To this may be added about 3,000 cwt. to provide for the export trade in handkerchiefs, etc., which has been large of late years. Bringing the figures arrived at above together, the totals will be—

	CWT.
Net export	570,000
Local consumption	385,000
Total ...	955,000

The Board's estimate of 1890 amounted to about 782,400 cwt. and showed an average yield of about 50 lb. per acre. The latest available data show that an average area of about 1,525,000 acres of cotton is sown within the area for which agricultural statistics are received and an addition of 275,000 acres may be allowed as being sown in zemindari and other areas for which no detailed returns are available; making 1,800,000 acres in all. This would show an average yield of about 60 lb. per acre for the whole Presidency.

7. From what has been said above, the total surplus production of the southern districts at the present time cannot well be placed at more than 300,000 cwt. in a normal year, or allowing for local consumption and exports to Travancore at about 420,000 cwt. The Chamber places it at about 286,000 cwt. over and above the local consumption in mills and otherwise. The amount of native yarn spun in the southern districts is believed to be inconsiderable. The area planted with cotton in Government villages in the southern districts is about 300,000 acres, and it may be estimated that nearly 200,000 acres more are sown in the large zemindaris found there.

This would place the rate of yield at 94 lb. per acre against 70 lb. adopted by the Board. The Chamber proposed a rate of 90 lb. and on reconsideration the Board is willing to raise its estimate to that figure for the southern districts.

8. The Chamber, in a letter,* dated 6th August 1896, stated that the trade description of cotton called "Salems" is produced in the four central districts and South Arcot. The area of cotton grown in North Arcot and South Arcot is inconsiderable—4,000 acres—and some of the produce of South Arcot doubtless finds its way to Pondicherry by road if not used up locally. As to the three districts—Coimbatore, Salem and Trichinopoly—the average area of cotton sown is about 287,000 acres, but much of this is sown on very poor land, especially in Coimbatore. A good deal of the produce of the southern part of Coimbatore is believed to find its way by road into Madura for export as "Tinnevellies," and the rail-borne trade statistics show the marginally-noted balance of exports only. This would give an exportable surplus of about 102,500 cwt. only. The mill at Coimbatore is said to use up about 22,000 cwt. during the year and the spinning of yarn locally is believed not to be very great. The Chamber's estimate for this crop is about 53,600 cwt. per annum, but a considerable portion of this cotton goes westward into Malabar for shipment to Bombay and for use on the West Coast. On the basis of the figures given above, however, the local production for the four years for which alone figures are available cannot be placed at a much higher figure than 150,000 cwt. The average area sown in the three districts during the four years immediately preceding was 310,000 acres, giving a yield of about 54 lb. per acre. The rate adopted by the Board has been 55 lb., the estimate of the Chamber 70 lb. per acre. Considering the large area of poor land in Coimbatore devoted to cotton, from which Mr. Nicholson, who had peculiar advantages for ascertaining local facts, estimated the yield at 30 lb. per acre, the Board considers that its estimate is sufficient.

	Thousands of maunds.
1894-95	202·9
1895-96	140·5
1896-97	101·4
1897-98	113·3

9. In regard to the exportable surplus of Northerns and Westerns, which the Chamber puts at 375,000 cwt. in a normal year, it may be observed that under the grouping adopted with reference to B.P., No. 5203, dated 24th October 1896, this produce comprises that grown on the areas included in the Deccan districts and Nellore. The normal area sown in the latter district, so far as returns exist, is about 14,500 acres, out of a total of about 750,000 acres and may be disregarded. From the Deccan districts, the average net exports for ten years from 1888–89 to 1897–98 amounted to 224,000 cwt. only, and no inconsiderable portion of this is used up in the mills of Madras and Pondicherry. The Chamber's estimate in this case appears to be altogether excessive and during the period referred to has been reached, or nearly reached, in the gross exports from the Deccan in four years only of the decade. The estimate of the Chamber probably includes a considerable allowance for cotton produced in Hyderabad, and possibly for some in Mysore. An estimate of 240,000 cwt., as the normal despatches—not exports from the Presidency—for the deccan Districts would probably be as large as can be safely made. Allowing one-third more for local consumption in these districts, this would place the average outturn at a good deal less than half a hundred-weight per acre. The Board takes 40 lb. as a normal, or 12-anna crop per acre of cleaned cotton and the cultivation in Banaganapalle is not allowed for.

10. In regard to what are called "Cocanadas", the Chamber puts the crop at 107,000 cwt., but from its letter, dated 6th August 1896, addressed to the Government of India, it appears that this includes the produce of the Kistna and adjacent portion of the Nizam's territory. The estimate of a normal crop, based on the rate of outturn adopted by the Board is about 78,200 cwt., but it is impossible in the circumstances to make any comparison. So far as this department is concerned, it has nothing to do with the produce of the Nizam's territories. An examination of the statistics of

* *Vide* appendix and papers printed in B.P., No. 316, dated 26th April 1897.

rail-borne trade for the nine years for which they are available, however, shows that on the average about 6,900 cwts. per annum have been received into the delta (Kistna—Gódávari) block from Hyderabad, and for the last five years only 4,300 cwt. per annum; whilst there have been exports to Bombay from the same block in several years, averaging 1,930 cwts for the whole period and 2,570 cwt. for the last five years during the first three of which alone was cotton imported. The exports from this tract are shipped from Cocanada from which port for ten years the average exports have not amounted to 78,000 cwt., and to only 70,000 cwt. during the last five years for which figures are complete. On these data the exportable surplus may be placed at about 70 to 75 thousand cwt., and this would include any cotton exported from Gódávari and Vizagapatam and from part of Nellore also. The average area of cotton sown in Kistna is about 170,000 acres in Government villages and about 10,000 acres more is sown in Gódávari and Vizagapatam. Considering the large areas of zemindari in these northern districts, it does not seem necessary to modify the Board's rate of outturn, 50 lb. per acre, for a normal crop.

11. These calculations after allowing for local consumption may be summed up as follows:—

	cwt.
Southern districts (Tinnevellies)	420,000
Central districts (Salems)	150,000
Deccan districts (Northerns and Westerns)	320,000
Cocanadas, chiefly Kistna	90,000
Other districts	5,000
Total ...	985,000

The estimate arrived at above, paragraph 6, from the exports, and calculation of consumption, is 955,000 cwt. and the difference is such as might be expected. On the basis of these calculations, the Board resolves to adopt the following as the normal rates of outturn of cotton:—

Tinnevellies	90 lb. per acre.
Salems	55 " "
Northerns and Westerns	40 " "
Cocanadas and others	50 " "

It is observed, however, that the Chamber, in its letter dated 10th March 1899, accepts the attempt made in the last forecast of the cotton crop as satisfactory, though it does not admit the correctness of the quantitative estimates. To the latter the Board also attaches small importance, and is of opinion that attempts to frame such estimates are out of place in official reports on the condition and prospects of the crops. Those interested in the trade are far better qualified to frame such estimates, and it would, the Board considers, suffice if the official report merely stated the area figures and gave a qualitative estimate of the probable yield.

(True Copies and Extract.)

Deputy Director,
for Secretary.

To the Secretary to Government, Revenue Department.
" the Chamber of Commerce.
" all Collectors.
Copy to the Director-General of Statistics, with copies of B.P., No. 316, dated 26th April
" " Reporter, Economic Products, 1897; No. 170, dated 5th May 1898; and
No. 421, dated 19th November 1898.

APPENDIX.

From the Hon'ble Mr. G. L. CHAMBERS, Chairman, Chamber of Commerce, Madras, to the Secretary to the Government of India, Department of Revenue and Agriculture, Simla, dated 6th August 1896.

On the 5th July last year I had the honour of addressing you on the subject of the Crop Forecasts issued by your Department, and more particularly with reference to the statistics of Cotton Cultivation.

Recently the attention of this Chamber has been drawn to the Annual Review of the Cotton Crop of India published in the *Times of India* of the 23rd July, in which it is pointed out that the crop under review exceeded the official estimates by no less than 993,000 bales in a total of 3,296,000 bales that had come into sight. Such a result can hardly be called satisfactory, especially when it is borne in mind that it has been possible for private "crop estimators" to make calculations which have come out fairly accurately.

This Chamber does not feel competent to discuss the question so far as the rest of India is concerned, but as regards Cotton classed under the head of "Madras," it must emphasise most strongly the fact mentioned in its letter of the 5th July 1895 that any estimate is of little practical value to merchants unless the amount grown in the southern portion of Hyderabad Territory be also included. It is further believed that the returns on Government lands are greatly underestimated, and the Chamber cannot help feeling that the first step must be to cause more interest to be taken by the District officials immediately concerned in the collection of the figures. Until this is done, the more difficult task of estimating the yield in foreign territory and in Zemindari lands may be left over.

As regards classification of growths, I may express the hope that some effect may be given this season to previous recommendations. It is suggested that the following would be as near as could be got for practical purposes:—

Growth.	*Districts.*
Tinnevellies	Tinnevelly and Madura.
Salems	Coimbatore, Salem, Trichinopoly and North and South Arcot.
Northerns and Westerns	Nellore, Cuddapah, Anantapur, Bellary and Kurnool and the Raichore Doab of Hyderabad.
Cocanadas	Kistna and adjacent portion of Nizam's Territory.

Encl. Md. Pahilvan.

Please see below
a/a

H. Qrs note re Cir No 4994

Secy

By a qualitative estimate it is known the Bd means an estimate of the crop as 'Bumper' 'average' etc ~~Bad~~ i.e. an estimate in the anna notation or on the per cent. (or American notation).

The latter notation is used for forecasts under Indian orders. The anna notation continues in the village & District reports.
(Vide B.P. 7507 23 Sept 97 paras 2 & 6 – in E.O. 878 12 Feb 98 Pag 4)

By a quantitative estimate the Bd means an estimate of the outturn of the crop (in the case of cotton) in lbs.

Granting a normal outturn in lbs (i.e. the unit) per acre, the quantitative estimate is a matter of arithmetic. But the Board do not accept

the B.S. normal
outturns in lbs per acre
Hence the B.S. proposes
to publish the qualitative
estimate only & leaves
the trade to take what
normal outturns in lbs
per acre it thinks
proper & to do the
arithmetic i.e. the B.S.
will supply the factor
by which the unit B.S.
is multiplied but
leaves it to the trade
to fix what they consider
the proper unit. The Q. whether
the B.S. should not be left to accept something
approaching the Trade's unit has been raised & explained.

9.6.99

(E.O. 13 & 23 Jany 99)
please see p. 2 of this D.

26.9.

H.M.

H.T.

7.9.99

Very well - but only
approve the proposed
change W.S.—
8-9-99-

Letter sent to Press.

Returned for signature.

Despatched in print.

Number of copies required. { Order complete. / Letter only. / Order complete with Letter.

Read again G.O. No. , dated 189 .

Comment No.

Enclosures to C. No.

Order on Government.

Letter of Government.

Statement with ditto.

Papers not filed up, being meant for despatch in original.

N.B.—
A = Print in full.
B = Not to be printed.
P = Print abstract only.
Q = Print heading only.

17-6-14 ✓

20.9.24 II ✓

[R.O. / 10]

10,000—24-10-12.

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