

Statutes of Sugar

produced within the provinces
of

Bugul out & crenzi and Bantay



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STATISTICS OF SUGAR

PRODUCED

WITHIN THE PRESIDENCIES

OF

Bengal, Fort St. George, and Bombay.

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1848.

STATISTICS
OF
BRITISH EAST INDIA SUGAR.

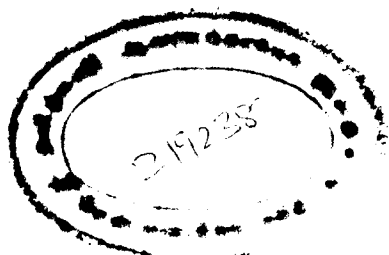
THE Bengal Chamber of Commerce, in their letter of 17th September 1846, applied to the Government of India to procure for them a Statistical Return of Lands, cultivated in Bengal and the North Western Provinces, for the growth of Cane and Date Goor and Sugar, and the probable consumption in each District. The object of the Chamber, in requesting this information, was to ascertain the capabilities of the Indian soil for extending the cultivation of Sugar at a cost which could compete at the Home Markets, with the Foreign Slave and Free Labor Sugar, the prohibitory duties on which were removed by 9 and 10 Victoria, Cap. 63.

According to a form, subsequently furnished by the Chamber, the Governments of Bengal and the North Western Provinces, as well as those of Madras and Bombay, were called upon on the 17th October 1846, to furnish the required Returns.

B E N G A L.

The Bengal Government has furnished an Abstract Statement containing the details as regards the districts in that Division of the Presidency, as also one received from the Governor of Prince of Wales' Island, Singapore and Malacca. These figured Statements will be found annexed, and are here analyzed for the purpose of testing the probable accuracy or otherwise of the details therein contained.

From the inconsistencies which are apparent as to the produce in several districts within the Bengal Division, it is to be doubted whether the details are founded upon correct data.



	Mds.	Srs.	Chs.	
In the Jessore Division Burdwan appears to produce,.....	10	26	11½	per Beegah.
Hooghly,.....	8	5	3½	"
and				
Baraset,.....only	3	36	1½	"
Whereas the 24-Pergunnahs, so near to the last mentioned district, gives,...	9	30	3¾	"

It has been since ascertained from an authentic source at Baraset that the produce there varies from 8 to 12 Maunds, the lands bordering on the river yielding the highest figure.

No apparent cause being assigned for the low produce in Baraset the result here noticed is not to be depended upon. Hooghly and Burdwan, where Cane cultivation is resorted to with greater care and interest than in any other districts in Lower Bengal, ought to yield larger quantities.

Bhaugulpore, Moonghyr and Purneah are the next, which also exhibit low returns, and so do Cuttack and Khoordah.

	M.	S.	C.	
Rungpore,.....	4	4	15½	
Pubnah,.....	19	20	7¾	
Bagoorah,.....	14	25	5¾	
Rajshahye,.....	12	25	13½	

In the Division of Moorshedabad the result of Rungpore is questionable, especially when the produce of the adjacent localities as shewn in the margin, is contrasted therewith.

	M.	S.	C.	
Lohardugah,.....	14	25	5¾	
Hazareebaugh,.....	3	16	15¾	
Maunbhoom,.....	5	25	0½	

In the South West Frontier Lohardugah gives as much nearly as any other district, but the neighbouring districts of the Agency, namely, Hazareebaugh and Maunbhoom, produce much less.

The results of the principal Sugar growing districts comprising the Patna Division, as shewn in the Statement, would seem to be correct.

It would be difficult to test the probable accuracy of the returns of the Date Sugar, which is confined to fewer districts in Bengal: any discrepancies, which might be apparent, would be accounted for by the unproductiveness as yet of the Trees planted since the opening of the Home Markets for East India Sugar.

	M.	S.	C.	
* Dacca,.....	50	11	3¼	per 100 Trees.
Hooghly,.....	39	0	0	"
24-Pergunnahs,.....	29	10	11½	"
Jessore Division,.....	16	21	4	"
Moorshedabad Division,.....	24	22	4	"
Chittagong Division,.....	16	31	10	"
District of Furreedpore,.....	24	15	9¾	"

The districts of Dacca, Hooghly and Twenty-four Pergunnahs seem to give an out-turn of this description of Sugar, which, as shewn in the margin,* far exceeds the average standard noticed in the Abstract Statement under the head of remarks.

The next important point upon the correctness of which materially depends the promotion of the object sought by the Chamber is the local consumption of Sugar. The disproportion which the consumption per head in one District bears to that of another is striking. In the District of Purneah the consumption per head is shewn to be 1 seer only, Dinagepore 3 seers, Cuttack 2½ seers, Moorshedabad 2 seers, 5 chittacks, 17 gundahs, Bagoorah 2 seers, Beerbhoom 1 seer, 14 chittacks, 3 gundahs, Mymensing 1 seer, 5½ chittacks, Lohardugah 1 seer, Maunbhoom 10 chittacks, Rungpore 11 chittacks, 5 gundahs;—whereas, in Bhaugulpore it is 9¾ seers, in Tirhoot 10 seers, Midnapore 16 seers, Sylhet 15 seers, 6 chittacks, Hazareebaugh 20 seers, 6 chittacks.

These extraordinary differences in Districts, most of which border upon one another, would lead to the supposition that the consumption in several places has been incorrectly assumed.

In order to assist the views of the Chamber it would have been desirable to ascertain the cost at which Goor in its original and refined state in various grades, could be manufactured. To supply this omission Tables prepared from information obtained from credible sources are annexed, shewing the proximate cost of Goor, Khaur, Dulloo and Sugar in several Districts:

No. 1.

Table of assumed cost and selling prices of Sugar in the Provinces of Behar and Benares, during Seasons of moderate growth and demand.

		Rs.			
Ground Rent at 5 Rupees per Beegah for 10 Beegahs, cultivated in alternate years, 10 more lying fallow,		100			
Labor, cuttings and irrigation,		35			
Produce of Goor—150 Maunds of 80 lbs. at 2 Rupees per Maund, .....		.....	135 300	0 0	0 0
Profit, .....		.....	165	0	0
MANUFACTURE OF SUGAR.					
Cost of Goor,		300			
Charges for Manufacturing Sugar,		150			
PRODUCE.			450	0	0
		Mds. Srs.			
1st Quality,.....		37 20 at 10 Rupees per Maund,	375		
2d Ditto,		7 20 at 8 „ „	60		
3d Ditto,		5 „ at 6 „ „	30		
Molasses,		70 „ at 8 Annas „	35		
Profit, .....		.....	500	0	0
			50	0	0

These Provinces, including the Districts in the Patna Division, produce the largest quantities of Sugar, the greater part of which is sent down to Calcutta for the English Market. It is to be remarked that upon an invested Capital of only 285 Rupees, including the cost of cultivating 10 Beegahs of land or 20 Beegahs in alternate years and the manufacture of the produce thereof, an actual profit of 215 Rupees would accrue to the grower at the rates assumed above. The prices of this Season (1848) when they have ruled exceedingly lower than they were known of late years, form no criterion for judging of the average value of this staple.

No. 2.

Table of assumed cost and selling prices of Cane Goor, Khaur, Dullooa and Sugar, the growth of Lower Bengal in Seasons of moderate crop and demand.

QUALITY.	GOOR.		KHAUR.		*DULLOOA.		SUGAR.		REMARKS.
	Cost.	Selling Price.	Cost.	Selling Price.	Cost.	Selling Price.	Cost.	Selling Price.	
1st Quality.	2	2-8	†4-4	4-8	†7	7-8	†8	8-8 to 9	The Sugars refined by European process at the several Factories in the vicinity of Calcutta, Dhoba Factory and Tirhoot, are chiefly exported to England on the proprietor's account, and are seldom brought to the market for sale here.
2d Ditto.	1-12	2	4	4-4	6-8	7	7-8	8 to 8-4	
3d Ditto. ....	.....	.....	3-12	4	6	6-8	.....	.....	
4th Ditto. ....	.....	.....	3-8	3-12	5-8	6	.....	.....	

* Dullooa is a medium quality between Khaur and Sugar.

† These are prices which stand the importer at Calcutta, including transit charges and dryage.

Table of assumed cost and selling prices of Date Goor, Khaur, Dulloa and Sugar, the growth of Lower Bengal in seasons of moderate produce and demand.

QUALITY.	GOOR.		KHAUR.		DULLOA.		SUGAR CALLED GURPUTTEAH.		REMARKS.
	Cost.	Selling Price.	Cost.	Selling Price.	Cost.	Selling Price.	Cost.	Selling Price.	
1st Quality,	2	2-6	3-4	3-10	5-8	6	6-8 to 6-10	Date Sugar is used at the Factories here and exported chiefly for compounding with Cane Sugar for refining purposes.	
2d Ditto,	1-12	2	3	3-4	5	5-4	5-12		
3d Ditto,	1-10	1-14	2-14	3-2	4-12	5	5-8		
4th Ditto,	1-8	1-10	2-12	3	4-8	4-12	5-4		

6
ABSTRACT of Returns of the Manufacture and Consumption of Sugar, Goor, &c., in the Bengal Division.

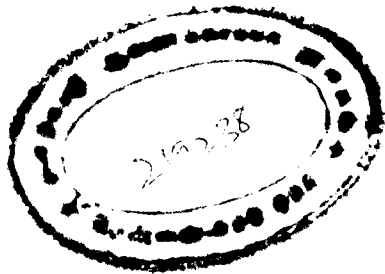
DIVISION.	DISTRICT.	CANE PRODUCE.		Produce per Beegah.	Trees Number.	PRODUCE.		Total Goor produced.	Population.	CONSUMPTION.		Remains for Export.	Average produce from Cane per Beegah in each Division.	REMARKS.		
		Beegah of 14,400 square feet.	Goor in Maunds of 82 lbs. each.			Goor in Maunds of 82 lbs. each.	Produce of 100 Trees.			Rate per head.	Goor in Maunds of 82 lbs. each.					
JESSORE.	Jessore,*	600 0 0	6,585 14 10	M. S. C.	25,00,000	3,65,853 26 5	14 25 5½	M. S. C. 3,72,439 0 15	3,81,744	About 4 Seers 14 Chs. of 82 lbs. to a Maund in each District.	46,688 11 11	M. S. C.	M. S. C.	* Jessore and Furreedpore are the chief fields for the production of Sugar in the Bengal Province, but the proportion of produce given is below known experience that there is reason to suppose that the trees here shown include a large proportion planted since the opening of the Sugar Market at Home and which are still unproductive.		
	24 Pergumalis,	4,000 0 0	39,024 15 9	10 39 0	20,000	5,853 26 5	29 10 11½	44,878 1 14	2,88,000		35,121 38 0					
	Burdwan,	37,512 0 0	4,00,160 39 0	10 26 11½	34,177	1,179 20 7	3 18 0½	4,01,340 19 7	18,54,152		2,26,116 3 14					
	Hooghly,	18,000 0 0	1,46,341 18 8	8 5 3½	5,000	1,951 8 12	39 0 0	1,48,292 27 4	15,20,840		1,85,468 11 11					
	Nuddea,	3,479 0 0	31,323 16 9	9 0 2½	6,23,823	1,33,456 3 14	21 1 9½	1,64,779 20 7	2,98,736		36,431 8 12					
	Bancoorah,	12,000 0 0	1,17,073 6 13	5 30 3½	0	0 0 0	0 0 0	1,17,073 6 13	4,80,000		58,536 28 4					
	Baraset,	4,000 0 0	15,609 30 4	3 36 1½	6,00,000	1,17,073 6 13	19 20 7½	1,32,682 37 1	5,22,000		63,658 21 7					
	Total,	79,591 0 0	7,56,118 21 5		37,83,000	6,25,367 12 8		13,81,485 33 13	53,45,472		6,52,021 3 11	7,29,464 30 2	† 9 20 0		† Cane—Date being 16 Mds. 21 Srs. 4 Chs. per 100 Trees.	
BHAUGULPORE.	Bhaugulpore,	16,875 0 0	51,219 20 7	3 1 8	4,00,000	0 0 0	0 0 0	51,219 20 7	20,00,000	9½ Seers of ditto,	4,87,804 35 2			† This must be all imported but chiefly from Districts of the same name.		
	Dinajpore,	30,000 0 0	2,92,682 37 11	9 30 3½	700	0 0 0	0 0 0	2,92,682 37 11	12,00,000	3 " of ditto,	87,804 35 1					
	Monghyr,	20,986 0 0	1,01,560 39 0	4 33 9½	2,00,000	0 0 0	0 0 0	1,01,560 39 0	8,00,000	9½ " of ditto,	1,95,121 38 0					
	Pooreeah,	33,750 0 0	1,95,121 38 0	5 31 4	2,500	0 0 0	0 0 0	1,95,121 38 0	16,00,000	1 " of ditto,	39,024 15 9					
	Tirhoot,	52,813 0 0	7,80,487 32 3	14 31 2	2,00,000	0 0 0	0 0 0	7,80,487 32 3	24,00,000	10 " of ditto,	5,85,365 34 2					
	Maldah,	0 0 0	0 0 0	0 0 0	Unknown	0 0 0	0 0 0	0 0 0	4,31,000	3 " of ditto,	1,29,268 10 7					
	Total,	1,54,424 0 0	14,21,073 7 5		8,03,200	0 0 0		14,21,073 7 5	84,31,000	6 Seers of 80 lbs. per Md.	14,24,390 8 5	None,	9 8 1			
CUTTACK.	Cuttack,	1,543 7 1	10,511 35 6	6 33 2	0	0 0 0	0 0 0	10,511 35 6	10,00,000	2½ Seers of 80 lbs.	48,875 30 3			§ The imports are from the Madras Presidency, the Tributary M. Sugar from the South, and Sugar-candy, &c. from the North Sale. The rates of consumption are taken in the average of the other the Collector not having supplied it in his Statement.		
	Balasore,	2,800 6 14	27,808 23 6	9 37 4	11,617	25 24 6	0 8 14½	27,834 7 12	5,56,395	7½ " of 82 lbs. per Md.	1,04,324 2 8					
	Midnapore,	32,701 5 15	3,70,103 14 10	11 12 11½	0	0 0 0	0 0 0	3,70,103 14 10	6,66,328	16 " " "	2,67,455 86 9					
	Khoordah,	4,343 4 12	11,988 24 6	2 31 11½	33,046	0 0 0	0 0 0	11,988 24 6	5,71,160	7 S. 10 C. of 80 lbs. per Md.	1,03,434 10 12					
	Total,	41,388 4 10	4,20,412 17 12		44,663	25 24 6		4,20,438 2 2	27,93,883	7½ Seers of 82 lbs.	5,24,090 0 0	None,	10 6 5			
MOORSHEEDABAD.	Moorsheedabad,	1,818 5 8	20,580 9 12	11 15 0½	30,399	7,488 22 7	24 26 3½	28,068 32 3	10,45,000	S. C. G.	60,305 18 8			* There are many trees about Naldore, Pooteeah, &c., but not made into Goor.		
	Bagoorah,	12,000 0 0	1,75,609 30 4	14 25 5½	0	0 0 0	0 0 0	1,75,609 30 4	9,00,000	2 5 17 of 80 lbs.	43,902 17 9					
	Rungpore,	19,403 0 0	86,764 0 15	4 4 15½	20	0 0 0	0 0 0	86,764 0 15	25,59,000	0 11 5 ditto,	44,258 9 4					
	Rajshahye,	4,000 0 0	50,585 14 10	12 25 13½	0	0 0 0	0 0 0	50,585 14 10	6,71,000	9 0 0 ditto,	1,47,292 27 5					
	Pubna,	5,000 0 0	97,560 39 0	19 20 7½	14,000	3,414 25 5	24 15 9½	1,00,975 24 5	6,00,000	5 0 0 ditto,	73,170 29 4					
	Beerbhoom,	10,000 0 0	97,560 39 0	9 30 3½	0	0 0 0	0 0 0	97,560 39 0	10,40,876	1 14 3 ditto,	48,780 19 8					
	Total,	52,221 5 8	5,28,661 13 9		44,413	10,903 7 12		5,39,564 21 5	68,15,876	2 8 0 of 80 lbs.	4,17,710 1 6	1,21,854 19 15	† 10 4 5½		† Date yielding 24 Mds. 22 Srs. 4 Chs. per 100 Trees.	
DACC.	Dacca,	27,000 0 0	98,475 0 0	3 25 14½	5,000	2,514 0 0	50 11 3½	1,00,989 0 0	6,00,000	10 Seers,	1,46,340 0 0			† Date yielding 16 Mds. 31 Srs. 10 Chs. per 100 Trees being 14 Mds. 25 Srs. 5 Chs. and in Furreedpore 24 Mds.		
	Furreedpore,	10,237 0 0	1,27,341 0 0	12 17 9	15,01,000	3,66,098 0 0	24 15 9½	4,93,439 0 0	8,55,000	12 " " "	2,50,990 0 0					
	Mymensing,	6,994 0 0	44,854 0 0	6 16 8½	0	0 0 0	0 0 0	44,854 0 0	14,87,000	1 Seer 5½ Chittacks.	48,508 0 0					
	Sylhet,	13,157 0 0	1,75,612 0 0	13 13 14½	10	0 0 0	0 0 0	1,75,612 0 0	3,80,000	15 Seers 6 " "	1,46,340 0 0					
	Backergunge,	25,000 0 0	1,17,074 0 0	4 27 4½	50,000	6,342 0 0	12 27 5½	1,23,416 0 0	7,33,800	5 " " "	89,486 0 0					
	Cachar,	1,200 0 0	2,342 0 0	1 38 1	0	0 0 0	0 0 0	2,342 0 0	Not stated,	.....	4,684 0 0					
	Total,	83,588 0 0	5,65,698 0 0		15,56,010	3,74,954 0 0		9,40,652 0 0	40,55,800	6½ Seers.	6,86,348 0 0	2,54,304 0 0	6½ Maunds,			
PATNA.	Shahabad,	41,593 15 0	6,43,902 17 9	15 19 3½	0	0 0 0	0 0 0	6,43,902 17 9	16,00,000		3,12,195 4 14			The only export is 3 to 400 Mds. from a Factory.		
	Patna,	22,687 10 0	4,09,756 3 14	18 28 7	0	0 0 0	0 0 0	4,09,756 3 14	12,00,000	.....	2,04,878 1 15					
	Behar,	47,265 12 8	8,53,658 21 7	18 2 7½	0	0 0 0	0 0 0	8,53,658 21 7	25,00,000	.....	4,26,829 10 12					
	Sarun,	51,046 17 8	7,21,951 1 10	14 5 4½	0	0 0 0	0 0 0	7,21,951 1 10	17,00,000	.....	3,31,707 12 10					
	Total,	1,62,593 15 0	26,29,268 14 8		0	0 0 0		26,29,268 14 8	70,00,000	7 Seers 5 Chs. of 82 lbs.	12,75,609 30 3	13,53,658 24 5	16 6 13			
ASSAM.	No return,													The consumption exceeds the produce by Mds. 11,081.		
ARRACAN.	Akyab,	74 7 4	248 0 0	3 13 6½	0	0 0 0	0 0 0	248 0 0	No return,	1 Seer each for Mughs and	10,825 0 0			The consumption exceeds the produce by Mds. 11,081.		
	Aeng,	1 5 3	0 0 0	0 0 0	0	0 0 0	0 0 0	0 0 0	Ditto,	Burmahs.	3,171 0 0					
	Ramree,	9 9 1	0 0 0	0 0 0	0	0 0 0	0 0 0	0 0 0	Ditto,	6 Seers for Natives.	2,082 0 0					
	Sandoway,	605 0 0	5,924 0 0	9 31 10½	0	0 0 0	0 0 0	5,924 0 0	Ditto,	12 " for Bengallees.	1,175 0 0					
	Total,	690 1 8	6,172 0 0		0	0 0 0		6,172 0 0	.....	.....	17,253 0 0	None,				
HAZAREEBAUGH.	Hazareebaugh,	51,979 10 0	1,78,027 12 11	3 16 15½	1,972	0 0 0	0 0 0	1,78,027 12 11	3,58,244	20 Seers 6 Chs. of 80 lbs.	1,78,027 12 11			* Date giving 16 Mds. 31 Srs. 10 Chs. per 100 Trees being 14 Mds. 25 Srs. 5 Chs. and in Furreedpore 24 Mds.		
	Lohurdoggah,	500 0 0	7,317 2 15	14 25 5½	308	0 0 0	0 0 0	7,317 2 15	4,80,000	1 Seer	11,707 11 7					
	Maunbhoom,	4,370 0 0	24,585 14 10	5 25 0½	1,023	0 0 0	0 0 0	24,585 14 10	6,40,000	0 Seer 10 Chs. ditto,	9,756 4 0					
	Total,	56,849 10 0	2,09,929 30 4		3,303	0 0 0		2,09,929 30 4	14,78,244	5 Srs. 6 Chs. of 82 lbs.	1,99,490 28 2	10,439 2 2	3 27 11			
CHITTAGONG.	Chittagong,	7,392 0 0	60,097 22 7	8 5 4½	1,00,000	12,195 4 14	12 7 12½	72,292 27 5	10,00,000	4 Seers 1 Ch. of 80 lbs.	99,609 30 4			* Date giving 16 Mds. 31 Srs. 10 Chs. per 100 Trees being 14 Mds. 25 Srs. 5 Chs. and in Furreedpore 24 Mds.		
	Tipperah,	33,333 6 10	1,46,341 9 4	4 15 9½	0	0 0 0	0 0 0	1,46,341 9 4								

The Cane Cultivation and the Manufacture of Sugar are steadily increasing in the District of Goruckpore for two reasons, which give it a decided advantage over the neighbouring Districts ;—one, the vast tract of waste and jungle-boory or forest lands brought under cultivation, and the cheap rates at which these are procurable there ; and the other is that firewood is more abundant and much cheaper there than in the other Sugar growing Districts, where all sorts of fuel are daily getting scarcer and dearer.

Several of the Manufacturers of Sugar in the latter have already removed to Goruckpore, and it is understood that others will follow at no distant period.

The following is the Native Process of manufacturing Sugar in the Behar and Benares Provinces :

A quantity of Goor, say 5 to 10 maunds, is put in an earthen vessel mixed with one-third of water ;—being strained it is put in a larger receptacle to settle. The clarified part of the Goor and the water are placed in an iron boiler. When the Goor becomes sticky it is removed to another vessel—being cooled it is put in a third, and when settled, the cork at the bottom of the earthen pot is removed and the Molasses with the impurities are allowed to run out and collect in a large hole made for that purpose. The Goor gets grainy and swells up. Moss* is then applied to the Goor for clarifying it ;— * Shecalla. the Molasses are drained off again for three days, after which the Moss is taken off and the clarified part, which then becomes white and swollen to a height of about $1\frac{1}{2}$ to 2 inches on the top of the mass of Sugar, is collected, and this process of clarifying is continued till 15 to 20 maunds are collected together, when the whole quantity is spread in the sun on a piece of cloth and trampled upon by Coolies employed for grinding ; by that means the large and thick grains, which before were of a yellowish colour, are reduced to the size of smaller crystals, and the whole quantity becomes of an uniform white colour.



STRAITS' SETTLEMENTS.

The following is a copy of the Abstract Statement furnished by the Governor of Prince of Wales' Island, Singapore and Malacca, to which have been added two columns shewing the average produce per beegah, and per 100 Coconut Trees : there are no Date Trees in the Straits' Settlements.

No. 1.
STRAITS' SETTLEMENTS.

Estimated cultivation of Canes in Beegahs of 14,400 square feet each.	Estimated produce of Canes in maunds of 82 lbs.	Average produce per Beegah.		ESTIMATED NUMBER OF TREES PRODUCING GOOR.		Estimated produce of Goor in maunds of 82 lbs. each.	Average produce per 100 Coconut Trees.		Estimated consumption whether in Sugar, Khar, Goor or the raw Cane itself, the whole being reduced into their equivalents in Goor, in maunds of 82 lbs. each.
		Mds.	S. C.	Coconut Trees.	Neepah.		Mds.	S. C.	
Prince Wales' Island and Province Wellesley... }	11,864	2,20,640	18	1,500	.....	5,684	3	31	Assumed Population 1,00,000 at an average consumption of 11 1/4 lbs. of Goor, gives maunds 13,720.
Singapore.....	1,152	8,172	7	The Coconut Plantations, of which there are several of considerable magnitude, are not of sufficient age to produce either fruit or Goor to any extent.	Growing wild, number	.....	..	..	Assumed Population 57,000, at an average of 12 lbs. of Goor each, gives maunds 8,341.
Malacca.	413	No Sugar is made from Canes which are all consumed in their raw state.	..		.....	10,389	0	23	Assumed Population 52,713, at an average of 12 3/8 lbs. of Goor each, gives maunds 7,907.
	13,429	2,28,812		19,175		16,073			

No. 2.

Return of the probable quantity of land cultivated for Sugar and of Sugar and Goor manufactured and consumed in the Island of Penang and Province Wellesley.

Names of Places or Estates in Penang and Province Wellesley.	Estimated cultivation of Cane in Acres of 43,560 square feet each.	Estimated produce of Goor from Cane in tons of 2,240 lbs. each.	Estimated number of Date Trees.	Estimated produce of Goor from Date Trees.	Estimated produce of Goor from the Cocoanut Tree and the Sugar or Goor is manufactured in these parts, none at least yielding fruit. But there are no Date Trees for 400 persons on the Estate, under 1 lb. a head.	Estimated consumption of the Settlement whether in Sugar, Khar, Goor, or the Raw Cane itself; the whole being reduced into their equivalents in Goor in tons of 2,240 lbs. each, computed at an average of lbs. 16-782, or of marketable Sugar lbs. 13-585 per head during the year on the assumed or ascertained population.*
Kreean,	180	450	.....	.....	.....	.....
Tuddenham,	140	175	.....	.....	.....	.....
Jajawi,	366	825	.....	.....	.....	.....
Val Dor,	325	796	.....	.....	.....	.....
Tussah,	280	357	.....	.....	.....	.....
Looboo Manani,	60	75	.....	.....	.....	.....
Caledonia,	170	300	.....	.....	.....	.....
Victoria,	320	700	.....	.....	.....	.....
Simpang Ampaty,	250	750	.....	.....	.....	.....
Batu Kawan,	206	712	.....	.....	.....	.....
Ochette,	170	428	.....	.....	.....	.....
Estates of Europeans, &c., Acres,	2,467	5,570	.....	.....	.....	.....
Captain Ferrier's estimate for the Natives, Province Wellesley,	1,391	2,506	.....	.....	.....	.....
Mr. Gottlieb's ditto of Penang,	64	1	.....	.....	.....	.....
	3,922	8,077	.....	.....	.....	.....

Total under Cane, &c. Acres 3,922, yielding Tons 8,077 of Goor, and with an assumed Population of 1,00,000 persons consuming 11 1/4 lbs. of Goor each, as the average of opinions. Total of Goor consumed, assumed to be lbs. 11,25,000, or Tons 502 per annum.

The following remarks of the Resident Councillor of Prince Wales' Island are deserving of notice.

"The Chinese are supposed to have under Cane, 962 square Orlongs, or 1,272 Acres. The average produce assumed after some experience is taken at 40 Peculs of Goor per Orlong. This would yield upwards of Tons 2,290 ⁹/₁₀.

"The Malays cultivate 91 square Orlongs or 119 Acres with Cane yielding upwards of Tons 216 ¹/₅.

"Of the Cocoanut Trees about 1,500 are devoted to Sugar Manufacture. These render Toddy which yield Sugar at the average of 12 Ounces per diem for each Tree. The process is carried on during 9 months of the year, giving a return in Sugar of Tons 137 ¹/₁₀ and upwards.

"Of Malays, Klings, Siamese and Bengalese who collect Goor from Neepah there are 54,200. It is calculated that these make 3 1/2 Chupahs each per annum. This supposes 1,89,700 Chupahs or 47,425 Gallons or Guntangs, say these contain 60 Ounces each, there would be 28,45,500 Ounces, lbs. 1,77,844, Tons 79. Captain Ferrier would seem to have made his calculations from 1,69,700 Chupahs which rated as above would give Tons 71.

"Of raw Canes, it is assumed, that 59,062 consume 46 Canes each annually. This would dispose of 27,16,852 Canes. Taking 10 Canes, for the average of a branch of Root, the total would give 2,71,685 roots. These again at 4,000 to a square Orlong would cover about 68 Orlongs or 89 Acres of land. It has been considered that 40 Peculs of Goor is the average produce of any Orlong of Land, hence there would be 2,720 Peculs or Tons 161 ⁹/₁₀ of Goor as the equivalent of 27,16,852 raw Canes.

"Captain Ferrier supposes that 54,200 Malays, Klings, Bengalese and Siamese consume 1 1/2 Chupahs each of Cane juice, that each Chupah yields 1 1/2 lbs. Goor: hence there will be 81,300 Chupahs, lbs. 1,21,950, Tons 54 ³/₅, as the equivalent of the above quantity of Cane juice. Area 30 Acres.

"The sum of the whole is, that the annual consumption of the Province with a population of 59,062 fixed inhabitants, and 974 of the Military, Convicts, and fluctuating part of the populace, consists of Goor or its equivalent as follows: Tons 142 ¹/₅ Cane Goor + Tons

121 $\frac{1}{10}$ of Coconut Goor + Tons 70 $\frac{1}{10}$ of Neepah Goor + Tons 161 $\frac{1}{10}$ of raw Cane Goor + Tons 54 $\frac{3}{10}$ of Cane juice Goor = Total of Tons 551 $\frac{3}{10}$ of Goor, or its equivalent, in respect of raw Cane and Cane juice."

Mr. Church, the Resident Councillor at Singapore, states that the produce of the Island is inadequate to the consumption and most of the Sugar manufactured on the spot is exported either to Great Britain or the Australian Colonies.

Further information is elicited on these points from a report since received from the Resident Councillor at Penang, dated 3rd April 1848.

* During the second Half-year of 1847, Peculs 29,521.20 or Tons 1,757 $\frac{1}{2}$ of Sugar were manufactured, and Peculs 29,169.20 or Tons 1 736 $\frac{1}{4}$ were exported. About 8,000 Men were employed upon the growth of the Cane and produce. 402 Tons of Sugar consumed by the population of Penang and the Province said to amount to 1,00,000 persons. Lands cultivated for the purpose of Sugar are estimated at 12,000 Acres or about 36,000 Beegahs, half of which may be actually under the Cane. The expected out-turn of the first half of 1848 was Tons 1,784 of Sugar.

Produce of one Acre of Cane Land varies from 54 $\frac{3}{4}$ to 26 $\frac{3}{4}$ Peculs, averaging 40 $\frac{3}{4}$ Peculs of Goor yielding 29 $\frac{5}{8}$ to 13 Peculs of good Sugar, average result 21 $\frac{5}{8}$ Peculs. Mr. Garling refers to a diversity of opinion, which prevails as to the quantity of Dry Sugar manufactured from a given quantity of Goor. Some Lands are shewn to supply 40 $\frac{3}{4}$ Peculs of Goor or 21 $\frac{5}{8}$ Peculs of Dry Sugar, or nearly half the quantity of the Goor. Some 27 $\frac{1}{2}$ Peculs of Sugar from 40 $\frac{1}{2}$ Peculs of Goor, while others only 6 $\frac{1}{2}$ Peculs from 25 Peculs of Goor. Mr. Garling does not appear to be satisfied with these results though he admits that in producing Sugar much would depend upon the care bestowed in the early stage of boiling and other circumstances with which he is not familiar. The process of manufacture is general, and is as follows.

* The following Abstract of the Manufacture and Export of Sugar during the three preceding Half-years, will show how they are progressing.

	Produce.			Export.		
	Tons.	Cwt.	Qr.	Tons.	Cwt.	Qr.
1st Half of 1846,	636	9	3	.....	509	
2d Ditto ditto,	1212	0	0	.....	829	
1st Ditto of 1847,	1697	15	2 $\frac{3}{4}$	.....	1014	

These Exports include quantities shipped to New South Wales, &c.

The Sugar is manufactured from the Cane juice and not from Goor as in the refineries in India. The juice after being sufficiently boiled, becomes what is termed Wet or Raw Sugar. This is put into pots or cases of certain construction, in which the Molasses drain off, leaving the dry, or what is termed "marketable" Sugar. The Molasses of good quality may be clarified, reboiled and made to yield an additional quantity of Sugar and the refine converted into Rum, but if of inferior quality (the produce of old or bad Canes) the Molasses are converted at once into Rum.

MADRAS.

An Abstract of Returns of Goor or Jaggery produced within the Madras Presidency furnished by that Government in November 1847, was compared with the return rendered by the Government of Bengal and the results are here shewn.

MADRAS PRESIDENCY.									BENGAL DIVISION.								
1.	2.	3.	4.	5.	6.	7.	8.	9.	1.	2.	3.	4.	5.	6.	7.	8.	9.
Total Area of Lands cultivated for the purpose of Sugar converted into Bengal Beegahs of 14,400 square feet.	Produce of Cane in Maunds of 80 lbs.	Average per Beegah.	Total No. of Date, Palmira and Coconut Trees.	Produce from Date, &c., Trees in Maunds.	Average produce per 100 Trees.	Total produce in Maunds of Cane, Date, Palmira and Coconut Trees.	Total consumption in Maunds of 80 lbs.	Available for Export.	Total Area of Lands cultivated for Sugar computed at Beegahs of 14,400 square feet.	Produce of Cane in Maunds of 82 lbs.	Average per Beegah.	Total No. of Date Trees.	Produce from Date Trees.	Average produce per 100 Trees.	Total produce of Cane and Date Goor.	Total Consumption.	Available for Export.
84,947 $\frac{3}{4}$	Mds. S. C. 11,00,740 36 11 $\frac{3}{4}$	Mds. S. C. 12 37 2	64,68,368	Mds. S. C. 6,62,218 33 0	Mds. S. C. 10 9 8	Mds. S. C. 17,62,959 29 11 $\frac{3}{4}$	10,67,720	6,95,239 29 11 $\frac{3}{4}$	6,72,071	67,43,772	Mds. S. C. 10 1 5 $\frac{3}{4}$	63,90,590*	10,37,445 Mds.	Mds. S. C. 16 9 5 $\frac{3}{4}$	77,81,217 Mds.	55,37,780 Mds.	22,43,437 Mds.

If the aggregate quantity of the Goor 17,62,959 maunds, 29 seers, 11 $\frac{3}{4}$ chittacks, produced within the Madras Presidency be converted into Sugar at the assumed rate of $\frac{1}{3}$ to a maund of Goor as in Bengal, the product would be equal to 5,87,653 maunds, and deducting therefrom the local consumption 3,55,906 the balance available for Exports by sea is maunds 2,31,747. In

* Exclusive of 9,37,278, the juice of which is used as liquor.

the Bengal Division the produce of Goor is 77,81,217 maunds; which will give about 25,93,739 maunds of Sugar, that remaining for Exports, after consumption 18,45,927 maunds, is 7,47,812 maunds. By referring to the above Abstract it will be seen that on the whole the average produce per Beegah of the Madras soil, as respects the Cane, exceeds that of Bengal by 2 maunds, 35 seers, 12 $\frac{1}{2}$ chittacks. Out

	Mds. S. C.	Mds. S. C.	
* Ganjam,	12 20 0	Salem,.....	8 13 2½
Rajamundry,.....	10 13 14	North Arcot,.....	9 13 1½
Bellary,	12 20 0	South Arcot,	8 4 5½
Kurnool,.....	12 20 0	Tinnevely,.....	12 22 11
Chingleput,.....	9 22 6	Madras,	11 11 10
† Nellore,			7 0 0
Tanjore,			5 13 13
Madura,			7 32 0
Trichinopoly,			5 39 6
Coimbatore,			7 17 6¾

tacks, 1 maund, 19 seers, and 1 maund, 4 seers, 10 chittacks. Of the remaining two, Vizagapatam produces 67,090 maunds, 20 seers, 8 chittacks, but the area of lands cultivated with Cane is not given, and Musulipatam appears to have no Cane Sugar of its own.

Mds. S. C.				Mds. S. C.			
* Tirhoot,	14	31	2	Patna,.....	18	28	7
Bugoorah,	14	25	5 $\frac{1}{4}$	Behar,.....	18	2	7
Pubna,.....	19	20	7	Sarun,.....	14	5	4
Sylhet,.....	13	13	14 $\frac{1}{4}$	Lohurdugga,.....	14	25	5 $\frac{3}{4}$
Shahabad,	15	19	3 $\frac{3}{4}$				
† Jessore,	10	39	0	Midnapore,	11	12	11 $\frac{1}{4}$
24-Pergunnahs,	9	30	3 $\frac{3}{4}$	Moorsheadabad,	11	15	0 $\frac{1}{4}$
Burdwan,	10	26	11 $\frac{1}{4}$	Rajshahye,	12	25	13 $\frac{1}{4}$
Hooghly,.....	8	5	3 $\frac{1}{4}$	Beerbhoom,	9	30	3 $\frac{3}{4}$
Nuddea,.....	9	0	2 $\frac{1}{4}$	Furreehpore,.....	12	17	9
Bancoorah,.....	9	30	3 $\frac{3}{4}$	Sandoway,	9	31	10 $\frac{1}{2}$
Dinagopore,.....	9	39	3 $\frac{3}{4}$	Chittagong,.....	8	5	4 $\frac{1}{2}$
Balasore,.....	9	37	4				
‡ Monghyr,	4	33	9 $\frac{1}{2}$	Rangpore,	4	4	15 $\frac{1}{2}$
Purnea,.....	5	31	4	Mymensing,	6	16	8 $\frac{1}{2}$
Maunbhoom,	5	25	0 $\frac{1}{2}$	Backergunge,	4	27	4 $\frac{1}{4}$
Cuttack,.....	6	33	2	Tipperah,	4	15	9 $\frac{1}{4}$
§ Baraset,	3	36	11 $\frac{1}{2}$	Cachar,	1	38	1
Bhaugulpore,	3	1	8	Akyab,.....	3	13	6 $\frac{1}{4}$
Khoorlah,	2	31	11 $\frac{1}{4}$	Hazareebaugh,	3	17	0
Dacca,.....	3	25	14 $\frac{1}{4}$				

The total quantity of Date, Palm and Cocoanut Jaggery manufactured within the Madras Presidency, is 6,62,218 maunds, which at the rate of 3 maunds to one maund of Sugar would give 2,20,739 maunds, 13 seers, 5½ chittacks of the latter, averaging per 100 Trees,

	Mds.	S.	C.		Mds.	S.	C.
* Malabar,	38	26	7	Tanjore,	20	12	2
Coimbatore,	24	23	11	Chingleput,	20	22	9½
† Rajamundry,	1	6	10½	Nellore,	1	17	5
Masulipatam,	0	31	5	Cuddapah,	1	7	15½
Guntoor,	0	20	9	Trichinopoly,	2	32	11

viz. 20 and 31 seers, to 2 maunds, 32 seers, 11 chittacks, per 100 Trees.

In the Bengal Division the average of Nine Districts* varies from 13 to 19½ Maunds per Beggah, of fifteen† from eight to twelve, of eight‡ from 4 maunds, 4 seers, to 6 maunds 33 seers, of seven§ from 1 maund 38 seers, to 3 maunds 36 seers, the remaining four Districts, Malda, Aeng, Ramree and Bullooah do not exhibit any produce of Cane Sugar.

[illegible]