

REPORT
OF THE
Indian Tariff Board
REGARDING THE
GRANT OF PROTECTION TO THE
SERICULTURAL INDUSTRY



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INTRODUCTORY NOTE.

Burma was separated from India in April 1937 and the statistics in Tables XV, XVI, LXI, LXVIII, LXXI, LXXV, LXXVI, LXXVII, LXXXI, LXXXIX and XC have been corrected in the statements accompanying this note by excluding the figures for Burma. Certain other minor statistical details in the Report have also been corrected.

(Page 32 of the Report).

TABLE XV.—Imports of raw silk into India (excluding Burma).

(Quantity in thousands of pounds and value in thousands of rupees.)

Year.	Burma.		China including Hongkong.			Japan.			Other Countries.			Total.		
	Quantity.	Value.	Quantity.	Value.	Average value per lb.	Quantity.	Value.	Average value per lb.	Quantity.	Value.	Average value per lb.	Quantity.	Value.	Average value per lb.
	lbs.	Rs.	lbs.	Rs.	Rs.	lbs.	Rs.	Rs.	lbs.	Rs.	Rs.	lb.	Rs.	Rs.
1933-34	8	18	2,101	64,27	3.1	220	657	3.0	58	90	1.6	2,387	71,92	3.0
1934-35	15	33	1,299	35,52	2.7	901	2,155	2.4	22	39	1.9	2,237	57,79	2.6
1935-36	20	80	563	15,22	2.7	1,610	4,204	2.6	2	4	2	2,195	58,10	2.6
1936-37	103	256	900	28,03	3.1	1,074	3,628	3.4	Negligible.	...	...	2,077	66,98	3.2
1937-38	94	273	1,018	34,06	3.3	1,405	5,724	4.1	18	64	3.6	2,535	94,67	3.7
1938-39	418	949	1,442	38,08	2.6	274	1,175	4.3	114	285	2.5	2,248	62,17	2.8

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TABLE XVI.—*Different kinds of silk imported into India (excluding Burma).*
(Quantity in thousands of pounds and value in thousands of rupees.)

Year.	From China (exclusive of Hongkong).						From Japan.					
	Hand-reeled.		Other sorts.		Total.		Hand-reeled.		Other sorts.		Total.	
	Quantity lbs.	Value Rs.	Quantity lbs.	Value Rs.	Quantity lbs.	Value Rs.	Quantity lbs.	Value Rs.	Quantity lbs.	Value Rs.	Quantity lbs.	Value Rs.
1934-35 . .	Figures not available in this form.				1,102	33,32	Figures not available in this form.				901	21,55
1935-36 . .	130	3,70	180	5,80	401	13,81	..	..	1,416	37,21	1,610	42,04
1936-37 . .	40	1,05	652	22,34	816	20,38	..	..	075	33,00	1,074	36,28
1937-38 . .	56	1,69	809	27,08	920	31,00	44	1,83	1,241	52,40	1,405	57,24
1938-39 . .	323	7,65	850	23,83	1,210	32,27	..	..	274	11,75	274	11,75

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TABLE LXI.—Imports of raw silk into India (excluding Burma).
(Quantity in thousands of pounds and value in lakhs of rupees.)

Year.	China (exclusive of Hongkong).		Japan.		Other Countries.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	lbs.	Rs.	lbs.	Rs.	lbs.	Rs.	lbs.	Rs.
1934-35	1,191.9	33.32	901.3	21.55	143.5	2.92	2,236.7	57.79
1935-36	490.7	13.81	1,610.4	42.04	94.2	2.25	2,195.3	58.10
1936-37	815.6	26.38	1,073.8	36.28	188.1	4.32	2,077.5	66.98
1937-38	928.7	31.09	1,405.4	57.24	201.1	6.34	2,535.2	94.67
1938-39	1,218.9	32.27	274.0	11.75	754.6	18.15	2,247.5	62.17

INTRODUCTORY NOTE.

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TABLE LXVIII.—Imports of silk yarns made from silk waste and noils into India (excluding Burma).

	Quantity Lbs. (000).	Value Rs. (Lakhs).
1934-35	3,135.0	72.63
1935-36	3,514.9	79.09
1936-37	2,267.1	63.59
1937-38	2,059.2	47.46
1938-39	820.7	19.03

(Page 107 of the Report.)

TABLE LXXI.—Quantity of raw silk imported and produced in India (excluding Burma).

(In lakhs of pounds.)

	1931-32.	1937-38.	Percentage of variation.
<i>Imports (less re-exports).</i>			
Raw silk	15.32	25.30	+64
Silk yarn	17.06	23.15 ^(b)	+35
Art silk yarn	78.43	315.59	+302
Spun silk	(a)	(c)	...
Staple fibre	...	26.32	...
<i>Production in India (less exports).</i>			
Raw silk	28.07	31.86	+22
Total	135.93	412.92	

(a) Not separately recorded.

(b) Inclusive of spun silk.

(c) Included under silk yarn.

(Page 114 of the Report.)

TABLE LXXV.—Imports of silk piecegoods into India (excluding Burma).

(Quantity in thousands of yards and value in lakhs of rupees.)

From	Quantity.						Value.					
	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	Yds.	Yds.	Yds.	Yds.	Yds.	Yds.	Ra.	Ra.	Ra.	Ra.	Ra.	Ra.
United Kingdom .	35·7	81·1	10·5	20·4	19·2	7·5	·53	·60	·21	·59	·39	·17
Ceylon . . .	20·7	204·7	179·3	22·0	15·7	49·2	·24	·81	·72	·09	·07	·14
Straits Settlements	17·3	48·6	155·0	50·3	264·3	251·5	·15	·30	·79	·12	·83	1·03
Hongkong . .	900·0	622·9	1,447·3	1,934·0	582·8	461·5	3·34	2·37	3·02	4·67	1·90	1·68
Japan . . .	32,360·0	25,103·6	19,949·5	15,229·2	18,718·4	11,800·9	141·86	94·62	67·52	60·12	73·12	45·02
China . . .	5,541·6	4,379·6	3,776·0	3,241·7	3,005·5	3,752·9	26·74	18·09	12·64	11·89	11·76	16·90
Other countries .	100·1	75·1	47·9	83·4	265·5	549·5	1·52	1·29	·52	·71	1·85	2·51
Total .	38,975·4	30,515·6	25,565·5	20,581·0	22,871·4	16,873·0	174·38	117·98	85·42	78·18	89·02	67·45

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TABLE LXXVI.—*Imports of goods of silk mixed with other materials into India (excluding Burma).*
(Quantity in thousands of yards and value in lakhs of rupees).

From	Quantity.						Value.					
	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.
	Yds.	Yds.	Yds.	Yds.	Yds.	Yds.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
United Kingdom .	40·5	55·0	0·3	16·2	24·0	18·0	·73	·59	·20	·28	·30	·29
Ceylon . . .	1·2	68·5	253·4	135·0	7·0	20·0	Negligi- ble.	·32	1·03	·46	·03	·14
Germany . . .	241·7	305·0	200·7	235·7	223·0	107·0	3·04	3·85	2·28	2·46	2·87	1·44
Japan . . .	7,280·1	11,271·3	7,548·7	5,038·1	6,006·4	3,756·3	36·61	57·86	34·07	24·03	28·00	17·02
China . . .	1,200·2	813·8	250·0	581·8	503·8	1,640·0	6·93	4·70	1·37	3·38	3·53	8·51
Other Countries .	126·8	110·3	104·5	74·5	176·5	339·1	2·23	1·93	2·00	1·64	2·18	2·61
Total .	8,980·8	12,724·4	8,436·5	6,081·9	7,031·0	5,888·8	40·54	60·25	41·04	32·25	37·00	30·01

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TABLE LXXVII.—Imports of piecegoods entirely made of artificial silk into India (excluding Burma).
(Quantity in thousands of yards and value in lakhs of rupees).

From.	1932-33.		1933-34.		1934-35.		1935-36.		1936-37.		1937-38.		1938-39.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Yds.	Rs.	Yds.	Rs.	Yds.	Rs.	Yds.	Rs.	Yds.	Rs.	Yds.	Rs.	Yds.	Rs.
United Kingdom	401.50	3.25	418.12	2.66	446.72	2.78	337.35	2.31	445.15	3.30	795.55	5.72	845.00	6.08
Ceylon	25.14	.07	10.28	.04	14.74	.06	123.07	.29	26.70	.09	17.39	.06	256.63	.80
Straits Settlements	24.72	.08	16.85	.09	22.11	.08	71.52	.14	79.69	.13	52.16	.13	630.79	1.17
Kenya	48.09	.15	20.49	.11	26.93	.10	..	..	7.58	.02	..	..	..	..
Germany	3.94	.03	40.28	.35	9.98	.08	20.78	.12	78.69	.61	80.68	.85	92.16	1.10
Belgium	..	..	1.61	.03	1.06	.01	1.55	.03	4.03	.05	1.72	.04	.67	.01
France	112.16	1.00	70.32	.84	36.87	.34	16.88	.16	17.58	.32	28.78	.36	40.06	.36
Switzerland	3.12	.04	15.55	.14	15.98	.18	..	..	8.25	.05	.82	.01	7.74	.08
Italy	127.39	.67	79.17	.61	144.72	.93	58.95	.35	11.29	.09	23.35	.20	14.17	.12
Iraq	231.38	.52	2.29	.01	21.55	.10	25.36	.06	10.95	.03	.98	..	4.96	.02
Iran	Negligible	..	..	..	110.38	.18	..	..	..	..	..	..	..	..
China	12.04	.06	4.41	.03	4.67	.02	1.26	..	.89	..	24.74	.08	27.43	.09
Japan	105,916.66	234.21	38,695.21	100.58	65,144.06	173.18	70,817.76	175.66	97,299.30	222.07	88,455.09	209.68	26,291.51	87.08
Other Countries	53.84	.37	35.87	.14	45.65	.12	46.83	.22	107.45	.27	210.70	1.00	831.76	1.57
Total	106,957.98	240.50	39,410.48	195.43	66,043.42	178.14	71,522.51	179.34	98,097.55	227.03	89,694.94	218.13	28,592.88	98.28

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TABLE LXXXI.—Consumption of raw silk (other than wild silk) in India (excluding Burma).

(In lakhs of pounds.)

—\	Indian production.	Exports by sea.	Net consumption of Indian production.	Imports by sea.	Re-exports by sea.	Net consumption of foreign imports.	Total consumption.	Percentage of consump- tion met from Indian Production.
1931-32.								
Raw	20.69	.05	20.64	15.62	} .34	15.32	43.39	54.8
Silk waste	10.35	2.92	7.43	.04				
1937-38.								
Raw	15.22	.14	15.08	23.35	} .15	25.20	47.06	46.5
Silk waste	9.26	2.48	6.78	2.00				

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TABLE LXXXIX.—*Imports of artificial silk yarn into India (excluding Burma).*
(Quantity in thousands of pounds and value in lakhs of rupees.)

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From	1932-33.		1933-34.		1934-35.		1935-36.		1936-37.		1937-38.		1938-39.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	lbs.	Rs.	lbs.	Rs.	lbs.	Rs.	lbs.	Rs.	lbs.	Rs.	lbs.	Rs.	lbs.	Rs.
United Kingdom.	1,541	13·10	1,562	12·58	852	6·66	522	3·33	242	1·59	497	3·77	131	·78
Germany .	404	3·34	499	4·12	41	·41	37	·21	18	·22	·4	·02	Negligible.	
Netherlands .	840	7·08	212	1·96	30	·28	166	1·29	207	·78	14	·18	49	·53
Italy . .	5,524	47·17	4,216	37·02	6,425	45·92	3,901	23·64	1,940	11·89	2,766	18·94	10,546	53·18
Japan . .	1,721	13·12	2,506	19·70	8,788	60·90	9,926	52·92	15,118	84·32	28,238	181·93	6,509	41·27
Other countries.	680	6·05	674	5·33	307	2·16	275	1·85	94	·53	73·6	·51	13	·12
Total .	10,710	89·86	9,669	80·71	16,443	116·53	14,827	83·24	17,617	99·33	31,559	205·35	17,248	95·88

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TABLE XC.—Imports of piecegoods entirely made of artificial silk (excluding Burma.)
(Quantity in thousands of yards and value in lakhs of rupees.)

From	1932-33.		1933-34.		1934-35.		1935-36.		1936-37.		1937-38.		1938-39.	
	Quantity	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	yds.	Rs.	yds.	Rs.	yds.	Rs.	yds.	Rs.	yds.	Rs.	yds.	Rs.	yds.	Rs.
United Kingdom (including Channel Islands).	401	3.25	418	2.07	447	2.75	337	2.31	445	3.30	700	5.72	845	6.08
Straits Settlements.	25	.08	17	.08	22	.07	72	.14	80	.13	52	.13	631	1.17
Germany .	4	.08	40	.35	10	.08	21	.11	70	.02	81	.85	92	1.00
France .	112	1.00	70	.64	37	.24	17	.16	17	.32	29	.36	40	.36
Italy (including Fiume)	127	.67	70	.61	145	.92	50	.35	11	.08	23	.20	14	.12
Japan .	105,917	234.21	98,995	100.58	65,144	173.17	70,818	175.66	97,209	222.07	68,455	209.68	20,292	87.08
Other Countries.	372	1.22	91	.50	238	.81	108	.61	167	.51	256	1.10	679	2.38
Total .	106,958	240.51	39,410	105.43	66,043	178.14	71,522	179.34	98,098	227.03	89,695	218.13	28,503	98.28

INTRODUCTORY NOTE.

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MAJORITY REPORT.

PRELIMINARY.

This, the second tariff enquiry into the Sericultural Industry, was referred to the Tariff Board under the terms of a Resolution of the Government of India in the Commerce Department, No. 28-T. (2)/38, dated the 9th April, 1938, which is reproduced below:—

“ The Protection afforded to the Sericultural Industry in India by the Indian Tariff (Textile Protection) Amendment Act, 1934, will determine on the 31st March, 1939. The Tariff Board is requested to examine the question of the protection enjoyed by the Industry and to report what protective measures, if any, should be continued after that date.

2. The Tariff Board, in making its recommendations, will take into account all relevant considerations including the financial needs of the country and the dependence of the Government of India on import, export and excise duties for a large part of its revenue. It will have regard also to part (c) of the Resolution adopted by the Legislative Assembly on the 16th February, 1923, and will consider in particular how its recommendations will affect the handloom weaving industry.

3. Firms or persons interested who desire that their views should be considered by the Tariff Board should address their representations to the Secretary to the Board.”

2. The Board entered upon its duties on the 7th May, 1938, at Bombay and issued a Press Communiqué on the same day in the following terms:—

“ The Government of India in their Resolution No. 28-T. (2)/38, dated the 9th April, 1938, have directed the Tariff Board to examine the question of the protection enjoyed by the Sericultural Industry under the Indian Tariff (Textile Protection) Amendment Act, 1934, which will determine on the 31st March, 1939, and to report what protective measures, if any, should be continued after that date.

2. Firms or persons who desire that their views should be considered by the Board, should address their representations (with six spare copies) to the Secretary, Tariff Board, Matheran (Bombay Presidency), so as to reach the Board's office not later than the 1st June, 1938, and up to 15th June, at Board's office at Poona. On receipt of such representations the Board will issue, as early as possible, a questionnaire setting out the points on which detailed information is required. The dates for the public examination of witnesses will be notified in due course.”

3. In paragraph 3 of the preliminary Chapter of its report which issued in 1933 the last Tariff Board discussed the peculiarities of the enquiry and the complex nature of the problems to be investigated.

The problems of the raw silk industry.

In the main those observations hold good for the present day but one change of importance has occurred. Japan whose silk industry is highly organised and owes much to the assistance which it receives from her Government has taken the place of China as the principal exporter to India of raw silk and silk goods.

4. After the issue of the Press Communiqué the Board proceeded to Matheran where its office was situated, and halted there

Tour programme.

till the 3rd June, 1938, for the purpose of drafting the questionnaires and for the collection of relevant data. Thereafter it moved to Poona and stopped there up to the 5th August, 1938. At Poona the Board interviewed representatives of the Governments of Mysore, Bombay, Hyderabad and Kashmir and other bodies and persons interested in the enquiry. It issued four questionnaires between the 14th May and the 27th June, 1938. Copies of them were sent to all Provincial Governments and the Chief Commissioner, Delhi, and to the Indian States interested in the enquiry. (During the period of its stay at Poona the Board paid short visits to Bangalore, Mysore, Bombay, Surat and local handloom centres and held informal discussions with sericulturists, silk merchants and others.) It also received a deputation of Poona Handloom Weavers. After receipt of written replies to the questionnaires the Board proceeded on tour on the 5th August to record oral evidence, visiting Bangalore, Hyderabad (Deccan), Aurangabad and Bombay. From Bangalore the Board paid a visit to Kollegal, the centre of sericulture in the Madras Presidency. At Hyderabad and Aurangabad the Board inspected the local silk factories and the products of the local weavers known as Himru, Mashru, and Kimkhab; it also visited Paithan which is noted for its silk sari borders. The Board reached Simla on the 4th September and recorded there the oral evidence of the representatives of the Governments of Kashmir and Jammu and the Punjab. It also examined the Imperial Sericultural Committee and a number of officials and non-officials. While at Simla the Board received from the Government of India a representation from the Handkerchief Manufacturers' Association, Delhi, regarding the import duty leviable on silk handkerchiefs and proceeded to Bombay to initiate that enquiry on which a report has already been submitted to the Government of India. It took the opportunity to obtain further information from the Collector of Customs of that place. The Board arrived in Calcutta on the 7th October, 1938, and from there visited Jammu and Srinagar the headquarters of the Kashmir Sericultural Industry. While in Calcutta the Board inspected the Silk Conditioning House, the research laboratories and the Mulberry Nursery maintained by the Government of Bengal, and also paid a visit to Malda, the principal centre of

sericulture in Bengal. In Calcutta the Board recorded oral evidence of the representatives of the Governments of Bengal, Assam and Bihar. It also summoned a Conference of the Directors of Industries of the Provinces and States interested in sericulture in order to co-ordinate the results of its enquiries and ascertain the extent to which the local authorities were likely to assist the industry in the future. A detailed list of the places visited and witnesses examined will be found in Appendix A.

5. We desire to acknowledge the assistance which we received from the witnesses who appeared before the Board to give oral

Acknowledgments. evidence. Our special thanks are due to those gentlemen both official and non-official who made arrangements for our comfort in various places, and particularly to the Governments of His Highness the Maharaja of Mysore, His Exalted Highness the Nizam of Hyderabad and His Highness the Maharaja of Jammu and Kashmir for their hospitality to us during our visits to their States. We also desire to acknowledge the uniform courtesy shown by the representatives of local Governments and the Indian States and the prompt and willing response to many requests for supplementary information. We are also greatly indebted to the Indian Trade Commissioners in Japan and America for the prompt manner in which they have supplied us with information about the position of the industry in those countries.

6. We regret that it has not been possible to present a unanimous report, but there is a wide divergence between our views and those of our colleague, Mr. Anklesaria. He has, therefore, decided to present them in the form of a minute of dissent.

Report

regarding the

Grant of Protection to the Sericultural Industry.

CHAPTER I.

The World Position of the Silk Industry.

7. The report of the Indian Tariff Board regarding the grant of protection to the Sericultural Industry in India, which was published in 1933 contains a full account of the history of the industry in India prior to that date, and the world factors by which it was affected. Before we proceed to the examination of the changes which have occurred since 1933, we describe briefly the course of the industry prior to that date with particular reference to India. We do not propose to go further back than 1875. Prior to that year the silk industry in India was on the whole in a prosperous condition with an annual export of silk at times exceeding 2,000,000 lbs. (In 1875 the ravages of a silk worm disease now identified as having been Pebrine in Bengal and probably also in Kashmir and Mysore were primarily responsible for a decline in the industry which then commenced. The industry was completely wiped out in Kashmir and survived with difficulty in Mysore. In Bengal the competition of other crops, particularly jute, with mulberry, and the changes of fashion in Europe contributed to the decline. The industry was resuscitated in Kashmir in 1895, but it was not until 1915 that it received a new lease of life in Mysore. During the early years of the twentieth century the principal feature was the gradual loss of its export market by Bengal, and the growing importance of exports from Kashmir. During this period the industry benefited as a whole from the rising prices of Indian agricultural produce and the consequent increase in the internal demand for silk. (After an initial set back prices of raw silk were well maintained during the Great War, and the post-war boom saw a period of great prosperity, prices, which reached their peak in 1922, attaining to unprecedented levels.) Assisted by the fall of the rupee-sterling exchange prices remained at a remunerative level until 1928. In the following year the industry was overtaken by a

drastic fall in prices; and in a short time the whole of the export trade was lost, while China assisted by a depreciating exchange made serious inroads on the home market. (At the same time the increase in quantity and improvement in quality of artificial silk substitutes diverted a portion of the demand from the natural product.) Prices continued to depreciate, and the process was not complete when the Tariff Board reported in 1933. The Board recommended the imposition for a period of five years of enhanced import duties on raw silk, silk manufactures, and other competing articles. It also pointed out the necessity for the organization of the Sericultural Industry in India and for the overhaul of the costs of production in order to meet the growing menace of foreign competition.

8. We now proceed to examine the changes which have occurred in the world position of the industry since 1933. (During

the quinquennium Japan has been able to maintain her position as the premier silk producer in the world and increased the distance between herself and her competitors.) In the year 1937 she was responsible for 86 per cent. of the world's production as against 84 per cent. in 1933 and 77 per cent. in 1928. Japan's nearest competitor is China whose production shows a steady decline and in 1937 was only 11 per cent. of the world's total. It should, however, be noted that the figures for China are for exports only, no reliable statistics being available for internal consumption of that country. Among European countries production is negligible except in Italy which is responsible for about 6 per cent. of the world's output. The figures we have quoted are taken from the Statistical Year Book of the League of Nations for 1937-38. We have given the figures of production from the year 1928 in order to include within our purview a period prior to the slump which began to affect the price of silk in the year 1929. Although the world price of silk fell from 59.82 gold francs per kilogramme in 1928 to 10.85 in 1934 and had only risen to 17.22 in 1936, it is noticeable that the world production remained steady throughout the period under review. This steadiness is all the more remarkable in that the production of artificial silk rose from 163,690 metric tons in 1928 to 548,850 in 1937 and of staple fibre from 3,260 metric tons in 1929 to 280,690 in 1937. (It is a legitimate inference to draw that the production of silk is affected to a comparatively small extent by the fall in price, or the invention of artificial silk substitutes.) There has, however, been no increased consumption such as might have been expected to result from the natural increase in the world population. A fairly accurate picture of the world demand for silk can be obtained from the statistics of production and export which we give below;—

TABLE I.—*Production of raw silk in thousands of pounds.*

THE WORLD POSITION OF THE SILK INDUSTRY.

Countries.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.
Japan . . .	87,500	93,360	94,000	96,600	91,700	93,000	99,700	96,100	93,300	94,000*
Italy . . .	10,060	10,640	10,800	7,200	8,300	7,500	6,300	3,700	7,100	6,600
Korea . . .	1,960	2,310	2,900	3,200	2,800	3,500	4,600	3,800	2,800	Not available.†
Soviet Union . .	2,540	2,830	1,700	1,800	1,900	1,700	2,000	2,500	3,500	3,700
Greece . . .	390	390	400	400	500	500	700	600	600	700
Turkey . . .	280	300	200	200	300	400	600	500	400	400
Bulgaria . . .	360	440	400	200	200	200	300	300	300	300
France . . .	450	430	300	200	200	200	200	100	100	100
Other countries (a) .	24,650	24,750	19,000	16,300	10,200	14,700	10,600	13,200	10,900	12,900
Total .	128,790	135,440	129,700	126,100	116,100	121,700	125,000	120,800	119,000	121,500

* Provisional estimates.

(a) Includes exports from China, India, Indo-China and Iran.

† Assumed the same as in previous year in total.

TABLE II.—Exports of raw silk from the principal exporting countries.

(In thousands of pounds.)

Countries.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937 (prov.).
Japan	62,153	73,532	72,297	63,923	66,928	73,166	66,582	62,613
China	20,190	18,158	10,429	10,278	7,270	10,172	8,385	9,187
Italy	14,236	12,637	6,980	7,672	4,172	4,629	5,079	4,492
Korea (b)	2,604	2,708	2,181	2,449	2,924	2,582	2,605	3,065
Manchukuo (c)	(d)	(d)	3,223	3,561	3,291	3,031	2,208	3,301
Soviet Union	18	364	309	710	287	18	..	..
Syria and Lebanon	305	76	239	141	124	128	70	58
Iran (e)	83	15	29	26	48	44	45	22
India (f)	47	5	4	9	23	48	42	35
Turkey	45	5	10	6	4	10	6	..
Yugoslavia	75	49	36	(a)	22	7	(a)	32
Indo-China	31	26	2	11	9	2	..	..
Cyprus	16	9	9	23	1	..	..	..
Total	99,903	107,584	95,748	88,809	85,103	93,837	85,602	82,805

(a) Less than 500 lbs.

(b) Excluding exports of Tussar silk which were as follows (in thousands of pounds):—

1930	1931	1932	1933	1934	1935	1936	1937
2,138	3,201	3,100	3,144	2,722	2,344	1,478	2,573

(c) "Wild" silk forms the bulk of the exports.

(d) Exports to countries other than China were included in Chinese domestic exports until June, 1931.

(e) Year ended 21st March up to 1931; thereafter year ended 21st June.

(f) Includes Burma.

It will be seen that the world exports of raw silk fell appreciably from 1930-33 but that the fall was arrested after that year; although there was a further fall in 1937, the fluctuating figures for the intervening period suggest that there is some approach to stability. Taken over the period as a whole the figures for Japan are stationary though her exports were higher both at the beginning and at the end of the period than those in the intermediate years. The figures indicate that in spite of a decline in the total trade Japan has maintained her position mainly at the expense of China and Italy.

9. Full details of the imports of silk into different consuming centres are given in the three tables which we publish below. The

United States is the chief purchaser of raw silk, and during the last 5 years nearly 70 per cent. of the total world exports have been consigned to that country. It is noticeable that imports fell from 82 million pounds in 1931 to 53½ million pounds in 1934, and since that year have averaged just over 60 million pounds. A further slight fall occurred in 1937. The bulk of these imports is obtained from Japan. Japan imports on an average about 5½ million pounds of raw silk including raw silk and tassar silk from Korea which now forms a part of it. Imports into France amounted to 5·3 million pounds in 1937, and were considerably below those of 1930 and 1931. Imports into the United Kingdom, on the other hand, have risen steadily from 1·3 million pounds in 1930 to 4·9 million pounds in 1937. Canada and India are also taking increasing quantities. It is noticeable that the increased imports into India in 1937 were accompanied by a higher and not as might be expected a lower price of silk. This confirms the view set forth in Chapter IV that the import of silk from Japan into India was controlled by the Government of the former country:—

TABLE III.—*Distribution of exports of raw silk from certain producing countries in 1937.*

	Japan.		China.		Italy.	
	Million lbs.	Per cent.	Million lbs.	Per cent.	Million lbs.	Per cent.
United States . . .	50·1	80	2·6	28	1·8	29
France	4·0	6	1·6	17	0·3	4
United Kingdom . .	4·6	7	0·5	6	0·1	2
India	1·6	3	1·3	15	...	...
Australia	1·1	2	0·2	2	...	...
Switzerland	0·1	(a)	...	...	0·5	11
Germany	...	...	...	...	1·8	40
Burma	...	...	0·8	9	...	...
French Indo-China .	...	...	1·3	14	...	...
Other countries . .	1·2	2	0·9	9	0·6	14
Total	82·6	100	9·2	100	4·5	100

(a) Less than 0·5 per cent.

TABLE IV.—*Export of Raw Silk from Japan classified by countries.*

(Quantity in 1,000 kins and value ¥1,000. 100 kin = 133 lbs.)

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	1934.		1935.		1936.		1937.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
India	406	1,789	1,363	5,535	728	3,872	1,099	8,460
Great Britain	2,287	14,237	2,843	21,450	2,893	23,628	3,467	31,430
France	3,657	20,334	3,479	23,764	2,770	21,771	3,026	26,111
Italy	157	997	16	130	1	11	29	269
Switzerland	17	101	38	264	16	142	50	433
United States of America .	42,591	239,568	46,657	323,910	42,762	333,949	37,898	323,225
Canada	75	411	12	70	102	823	74	727
Australia	552	4,017	508	4,232	640	5,231	863	8,132
Other Countries	854	5,318	397	2,675	423	3,379	831	6,331

CHAPTER I.

TABLE V.—*Retained imports of raw silk of the principal importing countries.*

(In thousands of lbs.)

Countries.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937 (prov.).
<i>Empire.</i>								
United Kingdom . . .	1,325	1,806	2,321	2,703	3,516	4,113	4,275	4,865
India and Burma . . .	2,444	1,720	3,040	3,164	2,773	3,070	2,467	2,689
Canada (a) . . .	1,823	2,260	2,860	2,416	2,617	3,275	2,146	2,446
Australia (b) . . .	207	411	533	539	661	556	777	1,065
<i>Foreign.</i>								
United States . . .	72,321	82,015	71,319	61,031	53,400	64,317	60,363	57,816
Japan (c) . . .	5,166	6,109	5,656	5,823	5,847	5,163	4,207	5,731
France . . .	9,760	7,243	4,448	6,440	6,000	8,304	5,408	5,330
Germany . . .	3,558	2,526	1,537	1,133	2,122	2,435	2,712	2,504
Italy (d) . . .	901	982	879	640	959	413	176	479
Indo-China . . .	116	66	262	560	1,042	1,124	1,561	1,694
Switzerland . . .	751	570	334	224	369	580	474	540
Czechoslovakia (e) . . .	371	476	279	178	177	258	424	459
Austria . . .	219	269	131	93	132	164	176	219
Belgium . . .	81	134	100	138	132	151	69	65
Spain (f) . . .	220	178	118	104	342	81	(g)	(g)
Total . . .	99,308	107,216	94,422	88,872	81,388	93,925	86,355	85,881

(a) Cocoons and raw silk.

(b) Years ended June 30th of year shown.

(c) Imports from foreign countries plus imports of raw silk and Tusser silk from Korea.

(d) Gross imports. The bulk of these imports consists of quantities temporarily imported.

(e) Silk yarn reeled or spun-raw.

(f) Natural silk yarn not twisted.

(g) Not available.

It will be seen from Table VI below that prices reached the peak at the beginning of 1930 and remained above 2 Dollars until the end of 1931. Since then barring the two months of June and July 1933 a continuous decline set in until August, 1935. We are informed by the importers that since the advent of Japanese raw silk into India which began in April, 1935, New York prices influenced Indian prices greatly. It is for this reason that we have dwelt at length with the condition of the market in the United States and the export trade of Japan. The best qualities of Japanese silk find a market in New York and the Japanese industry depends on the profits it earns there. As America is the biggest consumer of Japanese raw silk, the prices in India and other markets are adjusted according to the demand and supply in that country. We propose to discuss in a later Chapter the movements of Indian prices in the last five years in relation to both the Chinese and the Japanese imports.

10. The world price of silk is governed by the demand in the United States and supply from Japan, the average price of raw silk in New York which is recorded in the table which we give below is a fair index of the trend of prices elsewhere. The Table illustrates the heavy fall which occurred in the period immediately preceding the Tariff Board report, and the slight recovery following the exceptionally low prices prevailing in 1934 and the first part of 1935. (The price curve in India has on the whole followed closely that depicted in the Table except that owing to the operation of special factors which we shall describe later the lowest price level was reached in 1934 and 1935 somewhat later in India than in the United States.

TABLE VI.—Average prices of raw silk in New York.
(Japanese 12/15 in dollars per lb.)

Months.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
January	4.63	2.81	1.95	1.31	1.45	1.35	1.06	2.05	1.57
February	4.43	2.71	1.89	1.20	1.55	1.43	1.78	1.99	1.59
March	4.43	2.56	1.62	1.16	1.41	1.33	1.73	2.01	1.63
April	4.19	2.27	1.42	1.32	1.32	1.39	1.68	1.98	..
May	3.04	2.27	1.23	1.59	1.28	1.42	1.60	1.83	..
June	3.25	2.46	1.19	2.16	1.20	1.38	1.60	1.83	..
July	2.06	2.30	1.23	2.27	1.14	1.45	1.71	1.87	..
August	2.06	2.51	1.05	1.88	1.13	1.71	1.79	1.87	..
September	2.41	2.32	1.81	1.80	1.18	1.87	1.70	1.85	..
October	2.51	2.27	1.67	1.65	1.19	2.08	1.76	1.72	..
November	2.40	2.32	1.56	1.47	1.29	2.09	1.94	1.65	..
December	2.71	1.97	1.55	1.42	1.36	1.96	1.97	1.58	..
Average	3.42	2.40	1.56	1.61	1.20	1.63	1.77	1.86	..

One conclusion clearly emerges from the statistics we have given. During the last five years Japan has been making a strenuous and successful effort to obtain compensation for the decline of her principal market in the United States of America by developing her trade in other countries. We describe in Chapter IV the manner in which the Indian market was captured.

11. At the end of 1937 there was a sudden setback. This was partly due to the effects of the trade recession which have made themselves felt in a large number of industries, and partly to another factor of peculiar importance to the silk industry, that is the Sino-Japanese War. Owing to the fear of aggression or the need for foreign currency China has been disposing of her stocks of raw silk at abnormally low prices, and for the time being exports from Japan to India have fallen to a remarkably low level while those from China have risen correspondingly.

TABLE VII.—*Exports of raw silk to India from China and Japan.*

Year.	Japan	Average price per lb.	China	Average price per lb.
	Lbs.	Rs. A. P.	Lbs.	Rs. A. P.
1935-36 . .	1,025,300	2 9 9	490,693	2 13 0
1936-37 . .	1,073,775	3 6 1	815,580	3 3 9
1937-38 . .	1,405,439	4 1 2	928,738	3 5 7
1938-39 (7 months)	82,066	4 3 0	835,979	2 10 5

It has been suggested to us that Japan has deliberately refrained from exporting to India at the present time at prices which would compete with those accepted by China in view of the enquiry which we are now conducting. We have no means of proving or disproving this contention, but in any case it is clear that as soon as the Chinese stocks are exhausted the force of this factor will be spent and Japan will again be in a position to recapture her former position in the Indian market. The fact that the price of raw silk was at an abnormally low level for causes which, in part at any rate, are of a temporary nature, at the time of the Tariff Board enquiry has made the task of making proposals for the assistance to be given to the Sericultural Industry more difficult than it would otherwise have been.

CHAPTER II.

Brief Description of the Industry.

12. The manufacture of raw silk is a specialised art confined to certain localities in India, and the general public is not familiar with the various processes involved. We, therefore, in order to facilitate the better

understanding of our report, begin by giving a brief account of the different operations. The silkworm may either be wild or domesticated. The former is not a mulberry-fed worm, and the raw silk obtained from it is of little importance compared with that of the domesticated varieties in India and other silk exporting countries. A description of the various species of wild silkworms will be found in Chapter IX.

13. The leaf of the mulberry forms the diet of all silkworms of commercial importance, and the success of the silkworm industry

depends on a supply of mulberry being available. In India mulberry is grown in two forms, tree and bush. The climates of Kashmir and the Punjab, where the cold in winter is severe, are particularly suited to the tree mulberry which is found isolated or in small clumps scattered over a large area, while in order to supplement the natural grown supply such areas as waste lands, road sides, canal banks and field embankments are being utilised for plantations. Unlike tree mulberry, bush mulberry is a field crop. It is distinguished from other field crops by the fact that it requires an appreciable initial capital outlay and has a life of from 10 to 15 years, after which time replanting is necessary. In Bengal a method of cultivation has been discovered in accordance with which the life of the bush plantation can be prolonged for a considerable time by the addition of earth at the bases of the plants; but there is a disadvantage that the level of the fields is raised. Bush mulberry is found in the silk-producing areas of Mysore, Madras and Bengal. Tree mulberry also grows naturally in these areas, though the trees are smaller and shorter lived than in Kashmir. The trees are generally scattered as in Kashmir and the Punjab, but efforts are being made to popularise plantations in the cultivators' fields. (The initial cost of tree mulberry when cultivated as a crop is heavier than that of bush mulberry, owing to the fact that a full supply of leaves is not obtained until the seventh year but from then onwards the leaves are considerably lower in cost.)

14. There is a large variety of mulberry silkworms in India indigenous, imported and crossed between indigenous and imported parents. All worms are either univoltine, bivoltine or multivoltine, that is they breed once, twice or more times a year. A period of hibernation is necessary to univoltines before they can be hatched and they are thus suited by nature to tree mulberry areas like Kashmir, where the winter is severe. On the other hand, the multivoltine which

gives 5 or more crops a year requires for its food a plant like the bush mulberry which produces a new crop of leaves the same number of times annually. Kashmir therefore is the natural home of the univoltine, while that of the multivoltine is found in Mysore, Madras and Bengal. The latter area also produces one univoltine race. Imported bivoltines are bred to a very limited extent in Assam but are used in Government experimental stations for crossing with local multivoltines; in such cases the progeny is multivoltine. (The amount of raw silk obtained varies greatly with the race of silkworm, and research is continually being carried on to improve the yield by the processes of selection and crossing.) Nature has compensated the univoltine for the comparative infrequency with which it produces silk by allowing it a greater yield per brood than the multivoltine. But there are appreciable differences between univoltine and univoltine, and between multivoltine and multivoltine. The most striking result so far obtained is that of the Mysore crossbreed which is a cross between a Japanese univoltine and the ordinary Mysore multivoltine. The progeny is multivoltine. So also in Bengal two improved varieties, Nismo and Nistid, have been obtained from the result of hybridisation carried out in Burma. These, however, have hardly got beyond the experimental stage, and the results obtained from them by selected village rearers, to whom the seed has been distributed, are now awaited.

15. The egg, or seed as it is called, is the first stage in the life of the silkworm. Silkworms are subject to a variety of

The seed. diseases of which the most destructive known as Pebrine, as well as being extremely contagious, is hereditary. It is, therefore, of the utmost importance that the egg or seed should be disease-free. The most efficacious method is to use what is known as cellular seed. For this purpose the mother moth is enclosed in a paper cell or tin funnel at the time of laying eggs. After the laying is complete the moth is examined microscopically for the pebrine germ, and only seed which is free from pebrine is issued for hatching. Another and less efficacious method is to produce and distribute cocoons, which are the product of disease-free seed, to rearers who obtain their seed from the moth which emerges from the cocoons. Owing to the expense of the apparatus required and the necessity for microscopic examination disease-free cellular seed can only be produced by a Government or Government-controlled agency.

16. In bush mulberry areas the rearer sets aside a portion of his agricultural holding for the cultivation of the mulberry, and

Rearing. where the tree mulberry grows he either has trees growing in his holding or access to and rights over trees within easy reach. (Mulberry leaves are not sold as a general rule but this may occur when the supply available to an individual rearer is in excess of his requirements.) In univoltine areas rearing begins towards the end of the winter, and in multivoltine areas it occurs intermittently five or more times

1. a year, when a fresh supply of leaves becomes available on the bushes. The rearing industry is thus essentially a cottage industry subsidiary to agriculture.

17. After hatching the worm rapidly increases in size passing through five stages and four moults at the end of each of which it casts its skin. The proper feeding and

Cocoon production. tending of the worm in its various stages is a matter of considerable importance. Inadequate or excessive feeding, insufficient ventilation and unsuitable temperature or humidity frequently result in disease, and the loss of part or the whole of the crop. After the worm has passed the fourth moult it feeds voraciously and then gets ready to spin its cocoon. It has then to be taken from the rearing trays and mounted on "chandrikes". These chandrikes are constructed of any light material available locally, and contain a number of walls or similar projections arranged spirally between which the worm can spin its cocoons. If the worms are placed too thickly on the chandrikes there will be an excessive production in the case of hybrid worms of double cocoons which cannot be reeled as each occupant of the cocoon spins in a different direction. When the cocoons are ready, they are sold for reeling. Usually, though not invariably, the rearer has completed his operations, when he has produced his cocoons, and a new agency then comes into operation. This may be either the village reeler working on a charkha or a filature.

18. Silk reeled on charkhas varies considerably in quality depending on the skill of the reeler and the rapidity with which he works. (The best hand-reeled silk is usually inferior to filature silk.) Most Indian raw silk is hand-reeled, but a filature has recently been established in Kollegal in Madras, and a Government filature in Mysore has recently been transferred to a Company for operating on commercial lines. In Kashmir there is a State monopoly; the rearer receives his seed from Government, and has to sell his cocoons to Government at a price fixed by his Government. The whole of the output is converted into silk at Government filatures established at Srinagar and Jammu.

19. Before the raw silk can be used it has to be converted into silk yarn by twisting the threads together and combining them to make up the thickness of yarn required. Throwing and twisting. This process which is known as throwing may be done in a factory which is either a separate unit for producing silk yarn or is an adjunct to a silk weaving mill. For hand woven silk goods the raw silk is usually converted into silk yarn by the female members of the weavers family.

20. During the process of reeling the cocoons a considerable quantity of silk waste consisting of pierced and spoilt cocoons, fluff, loose ends of silk, etc., is produced. Spun silk. This can be converted into silk of an inferior quality (known as spun silk) by a process of spinning similar to that of spinning of cotton. The bulk of the silk waste is

collected in small quantities by middlemen and exported, but a spun silk mill has recently been established in the Mysore State with the assistance of the Government of that State. Pierced cocoons obtained in the process of egg production and spoilt cocoons are spun by hand to form a thread known as Mutka in Bengal.

21. In the last report the Tariff Board stressed the importance of Government assistance to the silk industry. We endorse every Government assistance. ~~thing that has been said in that report.~~

In times of world prosperity, when the price of silk is high it is possible for the industry to exist and even to flourish without the assistance of scientific and up-to-date methods. (But in times of depression, felt only too keenly by a luxury industry such as silk production, when supply is in excess of demand and markets are hard to find and difficult to retain, the producer of inferior goods at non-competitive prices will be the first to go to the wall. Japan owes her pre-eminence as a silk producing country to the fact that she has made an intense scientific study of all the problems relating to sericulture for a period of more than 30 years. The most important questions which have to be investigated are the selection of prolific varieties of mulberry whose leaves are of good silk growing quality, the selection of the best method of culture, the selection of the best variety of moth or the creation of new varieties by importation and cross breeding and the provision of disease-free seed after microscopic examination of the mother moth. Finally, when a problem has been solved, no other agency in India other than Government is capable of carrying out the patient propaganda necessary to ensure the adoption of the new and improved method. The silk rearer and the silk reeler are people of no scientific training, and of small monetary resources. It is recognised in every silk producing country in the world that the scientific investigations required by the industry can only be undertaken by a central authority. The need for this centralisation of effort is even more urgent in India than elsewhere.)

CHAPTER III.

Review of the Industry during the period of protection.

22. In the tables below we give statistics relating to the production of raw silk for 1931-32 and 1937-38. We have given the figures for 1931-32, because they are available from the Tariff Board Report of 1933. In order to estimate the progress of the industry during the period of protection it is necessary to compare the figures for 1933-34 which is the year immediately preceding the grant of protection with the latest now available, that is those of 1937-38. Figures for 1933-34, however, are not in all cases available, but we have given those which have been supplied to us. It is particularly unfortunate that the Bengal Government is unable to supply figures for that province, as it is important to know how much of the very heavy fall in production in that area occurred prior to 1933-34.

TABLE VIII.—*Production statistics in round figures.*

Name of area.	Acreage exclusively under mulberry.	Number of persons depending on silk worm rearing (mostly part-time).	Number of country-reeling machines of one basin each.	Number of power-driven filatures.	Number of power-driven filature basins.	Total number of basins.	Number of persons engaged in reeling and connected branches.
MULBERRY SILK.							
Bengal—							
1931-32	25,000	160,000	5,000	..	..	5,000	15,000
1933-34	..	..	Approximately the same as in 1937-38.			..	..
1937-38	10,000	79,000	4,175(a)	2	6	4,181	17,300
Mysore—							
1931-32	37,000	240,000	4,000	2	58	4,058	12,152
1933-34	32,870	Not available.		2	..	Not available.	..
1937-38	26,500	200,000 to 225,000	2,500	1	54(b)	2,554	40,000
Kashmir—							
1931-32	..	124,000	..	4	992	992	2,250
1933-34	..	191,775	..	Not available.		..	1,790
1937-38	..	200,000	..	3(c)	456(c)	456	1,683
Jammu—							
1931-32	..	33,000	79	1	15	94	350
1933-34	..	41,930	No information.		Not available.	..	197
1937-38	..	40,000	..	2	107(d)	107	191

(a) Number in existence; number working is 2,160. (b) This is the number at present but it will be increased to 200 basins in three months. (c) A fourth filature of 200 basins is under construction and is expected to start operations by June 1939. (d) Another 85 basins are being added shortly.

TABLE VIII.—*Production statistics in round figures—contd.*

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Name of areas.	Acreage exclusively under mulberry.	Number of persons depending on silk worm rearing (mostly part-time).	Number of country-reeling machines of one basin each.	Number of power-driven filatures.	Number of power-driven filature basins.	Total number of basins.	Number of persons engaged in reeling and connected branches.
MULBERRY SILK—contd.							
Madras—							
1931-32	6,105	30,000(e)	500	1	40	540	2,000
1933-34	7,944			Not available.			
1937-38	7,060	37,500	481	1	78(f)	537	2,000
Assam—							
1931-32	..	12,000	50	..	..	..	200
1933-34	The Provincial Government is unable to give an estimate.						
1937-38							
Punjab—							
1931-32	..	1,900	6	..	..	6	25
1933-34	..			No information.			
1937-38	..	598	..	1	5	5	311
Total Silk—							
1931-32	68,105	600,900	9,635	8	1,105	10,690	31,977
1937-38	43,560	582,098	7,136	10	704	7,840	61,485

(e) The number of persons in Madras was wrongly given as 120,000 in the last Tariff Board report. (f) This is the number at present; some more basins are being erected and the number by the end of February will be 150.

TABLE IX.—*Statistics of mulberry silk production (in round figures).*

Name of area.	Production of cocoons.	Value of cocoons.	Silk reeled.	Value of silk.	Silk waste.	Value of silk waste.
	Lbs.	Rs.	Lbs.	Rs.	Lbs.	Rs.
MULBERRY SILK						
Bengal—						
1931-32 .	14,500,000	36,50,000	1,000,000	50,00,000	500,000	1,25,000
1933-34 .	Approximately the same as in 1937-38.					
1937-38 .	6,000,000	15,10,000	400,000	20,00,000	400,000	1,00,000
Mysore—						
1931-32 .	9,620,000	30,00,000	740,000	41,62,500	376,000	92,000
1933-34 .	10,200,000	21,25,000	788,800	31,55,200	394,400	43,130
1937-38 .	10,300,000	28,20,000	795,000	37,99,000	351,300*	55,700*
Kashmir—						
1931-32 .	2,016,000	6,75,000	200,000	13,75,000	98,000	62,500
1933-34 .	2,112,976	4,83,928	218,555	9,28,859	134,885	61,810
1937-38 .	2,204,324	5,52,864	169,370	9,37,710	88,014	71,622
Jammu—						
1931-32 .	640,000	2,25,000	32,000	2,20,000	15,000	11,250
1933-34 .	589,662	1,58,125	35,415	1,47,933	30,713	14,922
1937-38 .	712,090	2,10,013	40,402	2,20,386	29,306	28,315
Madras—						
1931-32 .	1,260,000	4,20,000	90,000	4,50,000	45,000	8,000
1933-34 .	1,430,000	3,15,000	107,000	4,05,000	53,000	4,000
1937-38 .	1,483,000	4,89,000	115,000	5,53,000	55,000	19,000
Assam—						
1931-32 .	102,400	10,000	6,400	36,000	..	..
1933-34 .	The Provincial Government is unable to give an estimate.					
1937-38 .						
Punjab—						
1931-32 .	16,000	4,000	1,000	5,280	750	200
1933-34 .	Not available.					
1937-38 .	32,000	7,150	2,600	16,600	2,600	1,300
Total silk production—						
1931-32 .	28,154,400	79,90,000	2,069,400	1,12,48,780	1,034,750	2,98,950
1933-34 .	20,332,638	45,92,051	1,549,770	66,36,982	1,012,998	2,23,868
1937-38 .	20,732,314	55,89,027	1,522,462	75,26,696	926,220	2,75,997

* These figures are for the year 1936-37.

The continued decline in the raw silk industry in the areas for which figures are available from 1931-32 up to the end of the year 1933-34, when protection was introduced is most noticeable; there can be little doubt that during that period the decline in Bengal was as marked or even more marked than in the other important silk growing areas, and that in that province the industry has fared badly throughout the period of protection. The figures for 1937-38, however, present a somewhat too unfavourable picture of the position in that province, as the mulberry crop was damaged by floods and the outturn of raw silk appreciably below the normal. The normal production of cocoons in Bengal at the present day is 6,000,000 lbs. Elsewhere the depression has been much less pronounced than in Bengal. The very low prices prevalent in 1934 and 1935 undoubtedly adversely affected the industry but there was a distinct improvement in 1937 due to the rise in price of silk, and although some of the ground gained in that year has been lost during 1938, excluding Bengal the industry is certainly not worse off at the present day than it was when protection was granted. (The Mysore figures are of particular interest; although the mulberry acreage fell from 37,000 acres in 1931-32 to 32,870 acres in 1933-34 and has further receded to 26,500 acres in 1937-38, the production of silk has been maintained at its 1933-34 level owing to the larger use of disease-free seed, and the extension of the crossbreed variety in Mysore during the quinquennium.)

We shall now examine the progress made during the period of protection in the various branches of the industry.

23. Research into improvements of mulberry cultivation has been steadily carried on. In Kashmir a number of varieties of mulberry have been investigated in the

Mulberry.

Government nurseries and it has been proved that transplantation in the autumn instead of the spring gives a much more rapid growth in the initial stages. The existing trees in appreciable numbers are approaching the end of their life, and the problem of restocking has been tackled vigorously. The number of existing trees is estimated at 12 lakhs, and rearers are being encouraged by a free supply of seedlings to plant mulberry in all available areas. It is estimated that the number of trees is being increased annually by at least half a lakh. (In Mysore the advantage of the use of artificial manure in rotation with farmyard manure for bush mulberry has been demonstrated, and bushes raised from seedlings have been found to give a yield of 15 per cent. more leaves than cuttings.) Efforts are being made to popularise tree mulberry which has been found to yield a cheaper supply of leaf than bush when the tree comes to maturity, and mulberry topes have been planted in many available sites belonging to Government. The improvement of local varieties by grafting and selection has been undertaken, and imported varieties are being tested. In Madras attention has been devoted to the improvement of the bush mulberry by grafting and budding and by the introduction of foreign varieties. A method of eradicating

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a fungus pest by manuring has been discovered. Efforts have been made to popularise tree mulberry and experiments to determine the increased yield due to manure have been carried out. In Bengal experiments in mulberry cultivation have only been carried out since 1937.

(It cannot be expected, that the results of mulberry research will be reflected in the average price of mulberry leaf during a short period of 5 years in which the price of raw silk has been low.) Bush mulberry has a life of 10 to 15 years, and appreciable capital expenditure is required for replacing it. It will not be economical to incur this expenditure, until the existing bushes have reached the end of their life; improved varieties of bush mulberry therefore will only be planted when fresh land is put under mulberry, or existing gardens have to be restocked. Tree mulberry does not yield a full supply of leaves until the seventh year and in consequence improvements effected in its cultivation or in the discovery of new varieties cannot result in an immediate reduction of the cost of leaf. The table below shows the cost of cultivation of bush mulberry in Bengal, Mysore, Madras and Bihar in 1931-32 and 1937-38.

TABLE X.—Statement showing the cost of cultivation of mulberry leaves.

	1931-32.			1937-38.		
	Yield per acre.	Cost of cultivation.	Cost of cultivation per lb. of leaf.	Yield per acre.	Cost of cultivation.	Cost of cultivation per lb. of leaf.
	Lbs.	Rs. a. p.	Pies.	Lbs.	Rs. a. p.	Pies.
Mysore—						
Rainfed gardens	5,000	63 4 0	2·4	4,000	56 12 0	2·7
Tank Irrigated gardens . .	7,000	86 0 0	2·4	8,000	98 8 0	2·4
Deep Well Irrigated gardens .	10,000	142 8 0	2·7	10,000	149 2 0	2·9
Shallow Well Irrigated gardens	10,000	144 0 0	2·8	10,000	123 5 0	2·4
Madras—						
Kollegal—unirrigated . . .	3,500	26 8 0	1·5	3,450	24 9 0	1·4
Bihar—						
Unirrigated	16,400	62 10 8	0·7	12,000	15 0 0	0·24
Bengal—						
Unirrigated	19,080	135 0 0	1·3	18,000	78 0 0	0·8 (with twigs).

The figures for 1937-38 are those given by local Governments and States in answer to our questionnaire. (The Mysore figure of 2.7 pies for the cost per lb. of leaf in rainfed gardens has been subsequently reduced to 2.2 pies, the yield of leaf being raised to 5,000 lbs. per acre.) The Bengal figure is for leaves and twigs which in Bengal are plucked with them. Leaves alone weigh half the amount and the cost per lb. of leaves should be doubled. We give below a table showing the consumption of mulberry leaf per lb. of cocoons produced:—

TABLE XI.—Consumption of mulberry leaves per pound of cocoons produced.

	Lbs.
Kashmir	33
Jammu	23
Punjab	30
Bengal	16 (without twigs).
Madras	15.2 Pure Mysore.
	14 Cross-breed.
Mysore	16 Pure Mysore.
	14 Cross-breed.

24. (We have already indicated our views that it is highly desirable that seed distribution should be in the hands of a central authority.) The best method of obtaining disease-free seed is the cellular method. Under this system the moths lay their eggs in paper cells, and after they have done this they are crushed and examined microscopically for pebrine infection. Each cell is separately numbered, and if the mother moth is found to be infected the seed produced by it is destroyed. Considerable progress has been made in the last few years in the production of disease-free seed.

25. In Kashmir and Jammu all the seed is distributed by the State. Part of it is imported from France, and part of it is produced locally. (A few cases of pebrine occur from the imported seed which is suspected not always to be cellular as described, but the disease is not now a serious menace.) The cost of production of local seed is given as Rs. 1-14-1 per ounce in 1936-37 against Rs. 2-1-4 in 1931-32. The cost of univoltine seed compared with multivoltine is high owing to the necessity of keeping univoltine seed at a low temperature for a period of about 3 months in a hibernation house before it hatches.

26. The use of disease-free cellular seed prepared in Government or State aided grainages in Mysore is steadily increasing and the output has risen from 32 lakhs of layings in 1931-32 to 100 lakhs in 1937-38 (140 layings=1 ounce of seed). Seed of both varieties produced by Government together costs Rs. 1-14-9 per ounce in Government grainages and Rs. 1-6-5 per ounce in aided grainages. It is sold to the rearers at 11 annas 2 pies per ounce for Mysore layings and

Rs. 1-6-2 per ounce for crossbreeds. Aided grainages receive a bonus from Government of Rs. 5 per 1,000 layings or 11 annas 2 pies per ounce. The Government seed production is expected to increase to 135 lakhs of layings in 1938-39. About one-third of the total seed supply is at present from Government or Government-aided grainages. (It is claimed that as a result of supplying seed by Government and the inspection and advice of departmental officers in areas which supply non-controlled seed the occurrence of pebrine is now rare, whereas at one time the rearers used to lose 2 crops out of 5 from this disease.) The loss in rearing from causes other than pebrine—minor diseases, loss of worms in cleaning beds, losses due to enemies such as lizards, rats, etc.—is stated to be 25 per cent. for pure Mysore as against 30 per cent. in 1931-32 and 14 per cent. for crossbreeds at the present day.

According to the Mysore statement an ounce of seed produces 42,000 worms and the percentage of wastage is 25. The yield is 50 lbs. of cocoons to an ounce of pure Mysore seed and the weight of 550 cocoons is one lb. If we deduct the wastage which at 25 per cent. amounts to 10,500 worms, we are left with 31,500 worms which in due course form the same number of cocoons. We may thus expect 57 lbs. of cocoons from 1 ounce of seed. In a supplementary statement the Mysore Government suggest other minor causes of loss, e.g., worms which start spinning before they are mounted on the chandrikes and consequently when they are mounted only produce flimsy cocoons. The loss from this cause is estimated at 800 to 1,000 cocoons of which the weight would be less than 2 lbs. They further suggest that there is a further loss of 10 per cent. from eggs which fail to hatch at the same time as the bulk of the eggs, and are not therefore kept for rearing. We are not satisfied with this explanation as we were informed that in Madras all eggs hatch on the same day. So it appears that the Madras figure of 35,000 worms per ounce of seed is more accurate than that given by Mysore. Then again Mysore has stated that 26,500 acres of mulberry give sufficient leaf for 29,300,000 layings. This gives an average of 1,106 layings per acre which at the rate of 140 layings per ounce comes to 7.9 ounces of seed per acre. This at the rate of 50 lbs. of cocoons to an ounce of pure Mysore seed should produce 395 lbs. of cocoons to an acre as against 350 lbs. of cocoons if we take an average of 7 ounces reared. This means that there is a balance of 45 lbs. to be accounted for. They have given an average of $7\frac{1}{2}$ ounces for the whole area and on this basis they require only 27,800,000 layings for the existing acreage. Besides the Government is raising 70 lakhs of crossbred layings which at the rate of 140 layings to an ounce come to 50,000 ounces and the yield being 70 lbs. to an ounce the total production of crossbred cocoons will be 35 lakhs of lbs. In reply to a question the representatives of the Mysore Government stated that they get 27 lakhs of lbs. from the irrigated area and 682,000 lbs. from the rainfed area. The total of the two falls short of the figure of 3,500,000 lbs. by 118,000 lbs. of cocoons. The figure of 3,382,000 lbs. gives an average yield

of 69 lbs. per ounce. Then again they state that they get 30 lbs. of silk from an acre which means an average of 420 lbs. of cocoons. These discrepancies have not been satisfactorily explained. But as conditions are similar, we have been able to check these figures with those given by the Madras Government.

Of the 100 lakhs of disease-free seed supplied in 1937-38, 70 lakhs were crossbreeds. The progeny of the crossbreed does not remain true to type and it is necessary to produce fresh seed at each laying from the cross of a Japanese or Chinese univoltine or bivoltine and the indigenous Mysore race. It is not possible, therefore, to increase the output of crossbreed seed with greater rapidity than is being done at present. Legislation prohibiting the use of uncontrolled seed is under contemplation but obviously can only be applied initially to areas in which sufficiently controlled seed is available to satisfy the whole demand.

27. The action taken in Madras to supply disease-free seed is similar to that of Mysore. The cost of production is Re. 1-5-3 per ounce of seed. The aided grainages

are paid a bonus of Rs. 2-8 per 1,000 layings of cellular seed as against Rs. 5 in Mysore. The seed is sold at the same price as in Mysore, viz., As. 11-2 per ounce of Mysore seed and Re. 1-6-5 per ounce of crossbreed seed. The Department also maintains a staff for testing seed produced by rearers. The number of layings of cellular seed or of seed produced by rearers and tested by Government examiners has increased from 8½ lakhs of layings in 1933-34 to 39½ lakhs in 1937-38, when 93 per cent. of the total requirements were supplied. Of the 39½ lakhs 30½ lakhs consisted of layings tested by Government moth testers, 8½ lakhs were produced in Government silk farms and 5½ lakhs in aided grainages. It is reported that pebrine disease has now been successfully controlled. Crossbreeds are being pushed by the Department, and are said to be popular, but out of a total seed production of 30,000 ounces (1 ounce = 140 layings) only 1,335 ounces consisted of crossbreed seed.

28. In Bengal disease-free seed is not supplied, but seed cocoons which are the product of cellular disease-free seed. The percentage of the total so supplied was as follows:—

Bengal.	Per cent.
1934-35	60
1935-36	73
1936-37	53
1937-38	63

About 63 per cent. of the production of selected cocoons was financed by a grant from the Government of India. The cost of seed is 5 annas per ounce in Government nurseries and 2 annas 6 pies when produced by selected rearers. The sale price in both cases is 5 annas per lb. The method of securing a disease-free seed supply described above is much less efficacious than that of

cellular seed, as there is no certainty that the seed is in fact disease-free unless the moth is examined microscopically. This is one of the factors which has resulted in the great deterioration of the industry in Bengal. The seed supplied is mainly that of the indigenous Bengal varieties Nistari, Chhotopolu and Barapolu, but improved varieties from Burma by name Nistid and Nismo are now being introduced. These races have given satisfactory results in the laboratory, but have not yet been sufficiently tested under the conditions prevailing in the houses of the rearers.

29. The silk industry was restarted in the Punjab in 1936 after it had almost died out. In that year seed was imported from

The Punjab.

France and Italy at prices of Rs. 3 and Rs. 5 per ounce respectively. In 1937 146 ounces of disease-free seed were obtained from imported seed and 851 ounces of imported seed were distributed. During the present year the amount of local disease-free seed produced is 457 ounces. Next year it is expected that 1,500 ounces will be distributed so that local seed will amount to about one-third of the total. The department is working up to a cent. per cent. production of disease-free seed. No fewer than 13 varieties of seed have been obtained, in order to select the most suitable. The cost of the locally bred disease-free seed is given as Rs. 1.5 per ounce and it is expected that it will be reduced to Rs. 1. We have found that in most areas the Governments concerned are selling seed to the rearer below the cost of production and are subsidising the aided graineurs.

30. The skill of the rearer has an important bearing on the outturn of cocoons. It is not possible to indicate by figures the extent to which the rearer has improved

Matters to be attended to in rearing.

his methods, but the reply of the Mysore Government to question eight of the General Questionnaire which we reproduce below indicates the matters to which the rearer should pay attention not only in Mysore, but in other areas also:—

(1) *Brushing of eggs*.—Prior to hatching to ensure uniform hatching, by gentle stimulation.

(2) *Feeding of worms*.—The intervals between feeds are so adjusted that the worms are not starved unnecessarily. Uniform, thin and frequent feedings are given to assure fresh leaves at every feed and prevent wastage of leaves. In the "Chawki" stage more feeds are given than in the adult stages and the raiyats have realised that the greatest attention on their part is necessary in the earlier stages of rearing to ensure full growth of worms.

(3) *Spacing*.—Overcrowding of worms in trays is avoided and the idea of economising leaves by overcrowding of worms is gradually disappearing. The rearers have realised the advantages of giving adequate spacing in

as much as the growth of worms is more satisfactory and better crops are harvested.

- (4) *Cleaning*.—The use of paddy husk in changing beds of silkworms is found to be very beneficial in every respect as the cleaning process is easier and the loss of worms is prevented as the young worms do not get mixed up in the litter. The husk absorbs moisture and minimises bacterial activity.

- (5) *Mounting*.—The “Chandrikes” are made with closer spirals to prevent wastage of silk and formation of irregular shaped cocoons and care is taken to see that urination is prevented by properly adjusting the “Chandrikes” to allow the urine to drop down and not on the cocoons. The worms are not overcrowded on “Chandrikes” with the result the incidence of double cocoons is minimised. The diseased worms are usually picked out from “Chandrikes” which prevent the staining of good cocoons.

- (6) *Harvesting of cocoons* on the fourth day after mounting, i.e., after the worms have turned to pupae is being gradually adopted.

Humidity, temperature, and ventilation are also matters of importance. In all areas the Government staff gives instructions in these matters at the time of personal contact with the rearers. The production of cocoons per ounce is some indication of the skill of the rearer though it is impossible to eliminate other factors, e.g., provision of disease-free seed and the climatic condition of any particular year. The table below compares the yield at the present time with that in 1931-32:—

TABLE XII.—*Lbs. of cocoons per ounce of seed.*

	1931-32.	1937-38.
Kashmir	84	62
Jammu	86	87
Punjab	42-60	60
Bengal	48	28
		Nismo . . } 45
		Nistid . . }
Madras	60	Pure Mysore . 49
		Cross-breed . 69
Mysore	50	Pure Mysore . 50
		Cross-breed . 70

In 1931-32 14 to 20 lbs. were given for the Punjab but this appears to be the figure for dry cocoons and we have increased it three times for the purpose of comparison.

In Kashmir it is possible that the figures indicate the reaction of the rearers to the lower prices paid by the Government for cocoons. The low figure for Bengal is justified by that Government on the ground that the figure of 48 given in the 1933 Tariff Board Report was an ideal only attained in Government nurseries. There is no doubt that the very low figure now given compared with other multivoltine areas indicates that the industry in Bengal is not as efficient as it might be. The decrease in Madras was not a real one as the figure of 60 given against that province in 1931-32 was too high in view of the fact that Mysore then reported a figure of 50 lbs. per ounce.

31. One of the most important factors in the economy of the silk worm is the contents of the cocoon. The statement below illustrates the changes that have occurred in the weight of the cocoon and the length of filament and the quantity of raw silk in the cocoon in the last five years.

The cocoons.

TABLE XIII.

Race.	Year.	Number of cocoons per lb.	Length of filament in yards.	Rendita (No. of pounds of cocoons required for 1 lb. of silk).			
				Charkha Silk.			
				Filature.	1st quality.	2nd quality.	3rd quality.
Mysore—							
Pure Mysore	1931-32	600	430	18	..	13	..
	1937-38	550	460	..	15	13	12
Cross breed	1931-32	480	600	..	..	13	..
	1937-38	488	600	15.9	14.3	12.0	10.8
Madras—							
Pure Mysore	1931-32	500	300	18	..	14	..
	1937-38	575	325	17.3	15.3	13.0	12.0
Mysore cross breed.	1937-38	450	550	..	14.3	12.0	11.0
Kashmir—							
Bagdad White	1931-32	838	842	} Rendita. 1931-32 14 1937-38 No change	} ..	} ..	} ..
	1937-38	No change					
Chinese cross	1931-32	1327	813				
	1937-38	No change					
Chinese golden yellow	1931-32	1340	700				
	1937-38	No change					
Ceylon—							
Bengal—							
	1931-32	1182	820				
	1937-38	No change					
Nistari	1931-32	750	..	..	..	13.7	..
Chotopola	1937-38	700 to 800	266	..	18.37	14.6	Not given.
Nistid	"	700 to 800	190	..	..	..	..
Nismo	"	360 to 600	433	Not given.	..	..	..
	"	300 to 550	..				

Kashmir reports no change. It will be observed that its univoltine cocoons are superior to the multivoltines of Bengal, Mysore and Madras. There has been some improvement in the pure Mysore cocoons both in Madras and in Mysore, though it is obscured by the fact that the rendita in 1931-32 was stated as the average of that required for the three different qualities of silk. The Mysore crossbreed is markedly superior to the local breed both in the weight of the cocoons, the length of the filament and the rendita; we have indicated early in this Chapter the extent to which the production of the crossbreed is increasing. The cocoon of the Nistari and Chotopolu silkworm which are the varieties commonly reared in Bengal is inferior in respect of weight and length of filament to those of other multivoltines. An average rendita of 13.7 for the three grades of charkha silk was reported in 1931-32 as against 18.37 for first grade silk and 14.6 for second grade at the present day. These figures, if correct, indicate a considerable deterioration in the silkworm indigenous to Bengal. The new varieties, Nistid and Nismo, are superior and much depends on the rapidity with which they can be established in Bengal. The rendita forms the best test of the value of cocoons. The principal improvement during the quinquennium has been the introduction of the Mysore crossbreed which produces more silk than the indigenous cocoon. Bengal may expect to benefit from the introduction of the Burmese varieties Nistid and Nismo when the supply is sufficient for a larger number of rearers. The greater weight and length of filament, and the lower rendita of the univoltine cocoon compared with those of the multivoltine cocoons are noticeable.

32. The skill of the reeler is the main factor on which the quality of charkha-reeled silk depends. There has been some change in this respect during the last five years because we find that the percentage of silk waste has decreased by .07 but still there is much scope for improvement.

The Mysore domestic basin which it was hoped would enable the reeler in Mysore to improve the quality of his output at the time of the last Tariff Board Report did not prove popular with the reeler and attempts to introduce it have been abandoned. There is a general consensus of opinion that charkha silk must ultimately give place to the higher grade filature silk, if the Indian product is to hold its own against the improved articles from Japan. Statistics showing the number of filatures in India are given in Table VIII. In 1931-32 the number was 8. Of these a filature of 40 basins has been shifted from Bangalore to Kollegal in Madras and amalgamated with another filature of the same number of basins belonging to the same owner. A company aided by the Madras Government has been formed to operate the combined filature; its extension to 150 basins so as to form a more economic unit is being carried out. The other filature in Mysore which belonged to the Government has recently been transferred

to a company called the Mysore Silk Filatures, Limited, and the number of basins is to be increased to 200. There are at present three filatures in Kashmir, though a fourth one of 200 basins is being erected and is expected to start operations next season. In Jammu there are two filatures with a total number of 107 basins; another 85 basins may shortly be added. The only new filatures are the three experimental plants one in the Punjab and two in Bengal of 5, 4 and 2 basins respectively. If the expansion which we have shown to be under contemplation takes place, the total number of basins in filatures will increase to 1,209 from 1,105 in 1931-32. The rise in the number of basins contemplated is due to the higher level at which the price of raw silk stood in 1937. We are informed that if the price of raw silk again rises, there will be no difficulty in finding more capital for the construction of filatures.

33. We have indicated in the preceding paragraphs the action that is being taken by the various local Governments and States to assist and stimulate the Sericultural Industry. In addition, the Government of India has provided a sum of Rs. 1 lakh per annum for a period of 5 years commencing with the year 1934-35. This sum is earmarked mainly for schemes for the production of disease-free seed, but provides also for expenditure on research into silkworm diseases. Allotments from the grant are made by the Government of India on the advice of a body known as the Imperial Sericultural Committee. We shall discuss the functions which we consider this Committee should perform in a later Chapter.

The actual net sums being spent by authorities in India in giving assistance to sericulture and the approximate production of raw silk in the various areas are as follows:—

TABLE XIV.

	Grant.	Production.	Amount per lb. of raw silk.
	Rs.	Lbs.	Rs. A. P.
Government of India	1,00,000	1,580,000	0 1 0
Mysore "	2,00,000	800,000	0 4 0
Madras	30,000	115,000	0 4 2
Bengal	1,50,000	400,000	0 6 0
Punjab	20,000	5,000	4 0 0
Bombay	10,000	...	...
Central Provinces	5,000	...	...

The figures for Kashmir are included in the general budget for Sericulture, and it has not been found possible to isolate the cost. The high cost per pound of raw silk in the Punjab is due to the fact that the Sericultural Industry has just been revived in that Province; and it is expected that with the present Government staff a considerable increase in production will occur in the near future. The figures of Bengal are based on the estimated outturn

of raw silk in 1937-38. As the outturn of mulberry and consequently of raw silk was abnormally low the expenditure per pound is in excess of what it would be in a normal year. There is no sericulture in Bombay but the allotment of Rs. 10,000 is intended for a survey to ascertain whether the introduction of sericulture in any portion of the Province is a feasible proposition. In the Central Provinces a mulberry silkworm demonstration scheme has recently been put into operation at an expenditure of Rs. 5,000. It is stated that the results already obtained justify a further extension of the scheme.

(The position occupied by Japan as a silk producer is due to the encouragement given by the Japanese Government to the industry.) The suitability of the Japanese climate to the growth of mulberry, and the skill of Japanese labour must not be forgotten, but there is much force in the contention, State assistance to the silk industry appears to have begun in the year 1874, and the results are seen to-day at every stage in the process of manufacture—the yield of mulberry, the cent. per cent. use of inspected seed, the rendita of the cocoon which is now as low as 9, the substitution of filatures for hand-reeling, and the conditioning of the silk and its quality for export. Japanese silks are carefully graded in conditioning houses in the following qualities—Special AAA, AA and A, B, C, D, E, F and G. The best qualities are exported to America and grades higher than D do not come on to the Indian market. The Japanese budgetary grants have increased appreciably in recent years being 1,995,748 Yen in 1929, 7,150,650 Yen in 1933 and 13,538,657 Yen in 1936. The biggest increases have been under the heads Subsidies for improvement of the sericulture 4,966,136 Yen in 1936 and expenses for measures taken for prevention of various kinds of damage to the industry 4,347,982 Yen in 1936. At an exchange rate of Rs. 78 to 100 Yen the total expenditure for 1936 amounts to 1.06 crores of rupees. But the total production of Japan is about 700,000 bales of raw silk of 133 lbs. per bale or 93,100,000 lbs. so that the actual amount of indirect bounty derived from Government assistance is about Re. 1 to 9 lbs. of raw silk or less than 2 annas per pound of silk. It must, however, be remembered that so far as research is concerned 2 annas per pound of silk produced goes very much further towards producing results in a country with the big production that Japan has than it does in India. One fact that clearly emerges from the review of the present position of the industry is that it has enough vitality and is quick to respond to changed conditions.

CHAPTER IV.

The course of prices and imports.

Imports. 34. The imports of silk into India from
1933-34 to date are shown in the Table
below:—

Please see Introductory Note.
TABLE XV.—Imports of Raw Silk into India.

Year.	By land: through Burmese Frontier.	By Sea.								Total.		
		China including Hongkong.			Japan.			Other Countries.		Quantity.	Value.	Average value per lb.
		Quantity.	Value.	Average value per lb.	Quantity.	Value.	Average value per lb.	Quantity.	Value.			
	Lba. (000)	Lba. (000)	Rs. (000)	Rs.	Lba. (000)	Rs. (000)	Rs.	Lba. (000)	Rs. (000)	Lba. (000)	Rs. (000)	Rs.
1933-34 . . .	720	2,101	64,27	3.1	220	6,57	3.0	58	90	2,379	71,74	3.0
1934-35 . . .	616	1,299	35,52	2.7	897	21,47	2.4	21	39	2,217	57,38	2.6
1935-36 . . .	825	563	15,22	2.7	1,625	42,45	2.6	3	6	2,191	57,73	2.6
1936-37 . . .	1,113	900	28,03	3.1	1,074	36,28	3.4	0.3	11	1,974	64,42	3.3
1937-38 . . .	94*	1,018	34,06	3.3	1,405	57,24	4.1	18†	64‡	2,535	94,67	3.7
1938-39 (7 months, 1st April to 31st October 1938).	52*	836†	22,17†	2.7	82	3,44	4.2	153‡	387‡	1,123	31,00	2.8

* Since the separation of Burma from India imports by sea from Burma are given.

† Figures for 1938-39 do not include those for Hongkong.

‡ These figures exclude imports from Burma which during these years have been shown in column 2.

These imports by land into Burma consisting mainly of Chinese silk are not assessed to duty on entering India. The amount of revenue at stake is not negligible and we suggest that the question of assessing this silk to duty should be explored.

Changes in the average value of imports may be due either to the change in the price of imported raw silk or to a change in the proportions of the different qualities of silk imported. Since the year 1935-36 imports of raw silk have been divided into "coccons", "waste products including duppions", "hand reeled" and "other sorts". We give below tables containing detailed statistics of the imports from Japan and China during the last three years. It will be seen that the bulk of the imports falls under the head "other sorts", that is mainly filature silk. We conclude, therefore, that the average value of total imports during the period under review is a fair index of the relative values of the imports of raw silk during the different years.

Please see Introductory Note.

TABLE XVI.—*Different kinds of Silk imported into India.*

Year.	From China.						From Japan.					
	Hand reeled.		Other sorts.		Total.		Hand reeled.		Other sorts.		Total.	
	Quantity. lbs. (000)	Value. Rs. (000)	Quantity. lbs. (000)	Value. Rs. (000)	Quantity. lbs. (000)	Value. Rs. (000)	Quantity. lbs. (000)	Value. Rs. (000)	Quantity. lbs. (000)	Value. Rs. (000)	Quantity. lbs. (000)	Value. Rs. (000)
1934-35 . . .	Figures not available in this form.				1,102	33,32	Figures not available in this form.				897	21,47
1935-36 . . .	139	3,76	186	5,60	325	9,56	13	35	1,418	37,27	1,431	37,62
1936-37 . . .	40	1,05	652	22,34	692	23,39	..	..	975	33,99	975	33,99
1937-38 . . .	56	1,69	809	27,98	865	29,67	44	1,83	1,241	52,40	1,285	54,23
1938-39 (7 months, 1st April to 31st October 1938).	Details not yet available.				836	22,17	Details not yet available.				82	3,44

It will be seen from Table XV that the average value of Chinese raw silk imported into India fell to the very low figure of Rs. 2.7 a lb. in 1934-35 and 1935-36 while that of Japan was Rs. 2.4 per lb. in 1934-35 and Rs. 2.6 per lb. in 1935-36. When the trade depression developed in 1929, the Japanese Government took over 84,000 bales and the Raw Silk Syndicate 28,000 bales of 133 lbs. each for disposal at a future favourable time in order to avert a financial crisis. The Government requested the Banks to store these bales and agreed to indemnify them against losses to the extent of 30,000,000 Yen. The Japanese Government in 1932 contracted to sell to the Asahi Silk Company 107,830 bales of this stock at 455 Yen per bale, i.e., 50 Yen cheaper than the prevailing market prices and at a total loss of 90,420,000 Yen. This contract was, however, cancelled as the silk interests in Japan and America protested against the sales of the bonded silk in the usual markets; Government therefore had to buy back the entire remaining quantity of silk aggregating 98,310 bales. It was also decided at that time that the above silk would be released gradually in the course of five years in such a manner and at such prices as would not affect the usual markets. The Government decided to bear the final losses accruing from the above arrangement. This silk was therefore kept off the market until 1934. In 1934 they released 1,831 bales of this silk of which 1,338 bales were distributed free of charge for the purpose of making samples of new textiles in Japan. In May, 1934, Government negotiated the transfer of a further quantity to prominent Japanese companies for export to India. At that time the Indian market was almost entirely controlled by China and export from Japan was negligible. The export to India, therefore, of the Japanese Government silk at a lower price did no immediate damage to Japanese trade but enabled them to obtain a footing in the Indian market in the manner contemplated by the agreement between the Government and silk industry in Japan. Accordingly in 1935, 13,600 bales of bonded silk were exported to British India at the very low rate of 406 Yen per bale. It is instructive to compare this figure with the purchase price of 1,250 Yen per bale originally paid by the Government at a time when 100 Yen was the equivalent of Rs. 137. It will be seen from the Table below supplied to us by the Indian Trade Commissioner in Japan which gives the prices of exports from Japan to different countries that the average rate obtained per bale of silk exported from Japan to all countries in the world during the calendar year 1935 was 700 Yen.

TABLE XVII.—*Rates at which Japanese raw silk has been sold to India and other countries.*

Name of countries.	Years. (Yen per bale.)			
	1934.	1935.	1936.	1937.
India . . .	440	406	531	769
Great Britain .	622	754	816	906
France . . .	556	683	785	862

TABLE XVII—*contd.*

Name of countries.	Years.			
	(Yen per bale.)			
	1934.	1935.	1936.	1937.
Italy . . .	635	812	1,100	927
Switzerland . . .	592	694	837	866
U. S. A. . . .	502	704	780	858
Canada	548	583	806	932
Australia . . .	725	833	817	942
Other countries .	623	673	796	761

(This clearly indicates that large quantities of Japanese silk of superior quality were put on the Indian market during 1934-35 and 1935-36 at rates very much lower than the cost of production and at prices very much lower than those at which Japanese silks were exported to other markets.) The sale of this Japanese filature raw silk in the Indian markets at very low rates not only affected the prices of Indian silks but also restricted the imports of Chinese silk into India, so that in fact, for about three months, i.e., from April to end of July, 1936, Chinese silk was scarce in India. Imports from China decreased from 21.01 lakhs of pounds of an average value of Rs. 3.1 per lb. in 1933-34 to 5.63 lakhs of pounds valued at Rs. 2.7 per lb. in 1935-36. At the same time Japanese imports rose from 2.20 lakhs of pounds valued at Rs. 3 per lb. in 1933-34 to 16.25 lakhs of lbs. valued at Rs. 2.6 per lb. in 1935-36. Having captured the major portion of the Indian market the Japanese restricted their exports and in consequence the prices of Japanese silk in India rose during the latter part of the year 1936 and were maintained at the same level till about October, 1937. With the raising of the price China regained a portion of her trade and exported to India 9.0 lakhs of lbs. in 1936-37 and 10.2 lakhs of lbs. in 1937-38. Exports from Japan fell to 10.7 lakhs of lbs. in 1936-37 but recovered to 14.1 lakhs in the following year. There was also a rise in the Yokohama spot prices per bale of silk from 700 Yen in July 1936 to 920 Yen in November, 1936, and from January, 1937, to November, 1937, the prices in Yokohama ranged between these figures. Taking advantage of the rise in prices the sale price of the bonded silk in India was also enhanced. We are informed that the export of bonded silk from Japan did not entirely cease when she captured the Indian market but that smaller quantities are still being sent to India. The stock of that silk in the hands of the Japanese Government is now said to have been reduced to about 30,000 bales. We conclude that the Japanese Government is now endeavouring to realise its silk assets gradually in such a manner as to avoid injury to the trade interests of her private merchants. During the present year 1938-39 the position has again suddenly changed. Imports from China have risen to 8.4 lakhs of pounds for the first seven months of the year but the price has fallen to an average value of Rs. 2.7 per lb. thus equalling the low record of 1934-35 and 1935-36.

Japan, however, is now apparently unwilling to sell at this low figure, and has only exported 0.8 lakhs of pounds to India during the same period but has realised an average price of Rs. 4.2 per lb. The explanation has been put forward that China has been compelled to release her stocks at a sacrifice through fear of their falling into the hands of a victorious enemy, and that Japan has kept off the market with the expectation that prices will improve as soon as the Chinese stocks are exhausted. The only other explanation offered to us is that Japan has shipped her silk to China, and sent it to India as Chinese silk in order to secure a lower rate of duty. We do not believe that this explanation is correct. The bulk of Chinese silk is shipped from Canton which did not fall into the hands of the Japanese until the month of November. Moreover it is possible for experts to distinguish between Japanese and Chinese silk and we do not believe that a fraud of this nature if conducted on a large scale would remain undetected. (We are of opinion that the methods adopted by Japan to capture the Indian market in 1935 undoubtedly amounted to dumping.—We give below a Table relating to the years 1935, 1936 and 1937.)

TABLE XVIII.

Year.	Month.	Spot price in Yokohama per lb.	Prices-cum- duty at which Japanese silk should have sold in India.	Market price for Japanese silk in Bombay.		Cost of production per lb. of Japanese Silk.	
						In Japan.	Price-cum-duty at which it should have to sell in India.
1	2	3	4	5		6	7
		Rs. s. p.	Rs. s. p.	Rs. s. p.	Rs. s. p.	Rs. s. p.	Rs. s. p.
1935 . . .	January to March . . .	4 8 0	6 14 11	4 0 0		4 5 7	6 11 0
	April to June . . .	4 0 11	6 5 2	4 2 6 to 4 4 0			
	July to September . . .	4 5 0	6 10 3	4 2 0 to 5 0 0			
	October to December . . .	4 14 6	7 6 1	4 12 0 to 5 12 0			
1936 . . .	January to March . . .	4 9 6	6 15 2	4 14 0 to 5 0 0		4 7 1	6 12 10
	April to June . . .	4 0 3	6 4 3	4 14 0 to 5 1 0			
	July to September . . .	3 15 5	6 3 3	5 0 0 to 5 6 0			
	October to December . . .	4 7 6	6 13 4	5 11 0 to 6 15 0			
1937 . . .	January to March . . .	5 2 0	7 10 6	6 8 0 to 6 13 0		3 15 11	6 3 10
	April to June . . .	5 0 0	7 8 0	6 7 6 to 6 12 0			
	July to September . . .	4 15 6	7 7 4	6 7 0 to 6 14 6			
	October to November . . .	4 5 3	6 10 7	5 8 0 to 6 2 0			
	December . . .	3 14 11	6 2 8	5 8 9 to 5 10 0			

NOTE.—In Japan new season silk is put on the market in the month of July and August.

We observe that in this Table the figures in column 3 (spot prices in Yokohama) and column 6 (cost of production in Japan) are so far as India is concerned probably in excess of the actuals owing to the fact that ordinarily the higher grades of silk are not exported to India. If we make an allowance for this, the figures clearly support our contention that dumping occurred in 1935, but it seems to have ceased by the last quarter of 1936 and to be absent till about September, 1937. (There is another factor which has to be taken into account, that is the Japanese Raw Silk Price Stabilisation law. Under this law the Japanese Government annually fixes maxima and minima for the price of silk, and sells or buys in the open market when the price touches the maximum or minimum so fixed. It is stated on the authority of the Imperial Economic Committee that in March, 1938, a year since the inception of the raw silk price stabilisation scheme 6½ million pounds of raw silk had been purchased by the Japanese Government and that purchases were proceeding at the rate of about a quarter of a million pounds monthly. The price of raw silk in India fell again heavily at the beginning of 1938 and as we have shown in Table XV imports from Japan to India have during the year fallen to about 1/10th of what they were in the previous year. The most probable explanation of this is that the importer into India has refrained from making purchases, which would result in a loss to him, and the Japanese manufacturer instead of lowering his prices for the export trade has sold to the Japanese Government at the minimum price fixed for it. We are informed that the Japanese Government is still selling its "bonded" silk to India on a small scale. The great fall in the imports from Japan to India during the current year in spite of the decline in the price of silk as compared to 1937 can have only two explanations: either the stocks in India are still too heavy or that Japan is now concentrating on sending more and more twisted silk the quantity of which has risen considerably during the last two years; the present price of that commodity does not appear to cover the cost of production.

We have seen that the stocks of "bonded" silk have decreased from 112,000 bales to 30,000 bales in nine years from 1929 to 1938. The stocks of raw silk in the hands of the Government have increased by 6½ million pounds or nearly 50,000 bales in the first year of the operation of the Raw Silk Price Stabilisation Act, and are said to be still increasing at the rate of 2,000 bales a month. If the price of raw silk remains at its present level the Japanese Government may be forced by financial considerations to dispose of its accumulated stocks at a sacrifice, and there is an ever present danger that a portion of these stocks will be thrown once again on the Indian market at prices which are below the cost of production.

We have dealt at some length with the course of prices of foreign silk, because it is necessary to make it clear that both at the beginning and at the end of the quinquennium which has come under our review price conditions were abnormal. At the beginning the efforts to stabilise the price of silk resulted as it has so often been the case with other commodities in an undue prolongation of the period of low prices while at the end the out-

break of hostilities between the two most important producers has set in motion forces the effect of which it is difficult to estimate.

We have now dealt with the course of the price of imported silk during the last five years. We now proceed to examine its effect on the price of indigenous products, that is of Indian cocoons and raw silk. (We are indebted to the Government of Mysore for the very complete statistics which accompany their representation to the Tariff Board.) With the aid of these statistics we have prepared a graph (Appendix B to the report) illustrating the course of prices of Mysore cross-breed cocoons, pure Mysore cocoons, Mysore charkha silk first quality, Canton filature silk 20/22 denier, Japanese white filature silk first quality and the average price of imported silk. The graph shows that the price of indigenous cocoons and raw silk has moved with that of the imported articles. The rise in price of imported silk which occurred in 1937 was of longer duration than that of the indigenous article or of cocoons. The rearer of cocoons has fared better than the reeler in that the present price of cocoons exceeds that of April, 1934, whereas the contrary is the case for indigenous raw silk. The graph illustrates the manner in which the imports of Japanese raw silk have overtaken those of China in price.

35. International trade is affected to a considerable extent by fluctuations in exchange. There was a marked fall in the Exchange fluctuations. Japanese Yen in the years immediately preceding the imposition of protective duties and this was sufficiently recent to assist the capture of the Indian market from China in 1935 which we have already described. Since that year the Yen has remained steady. The Shanghai dollar varied from Rs. 109 to Rs. 99 per 100 dollars in 1934. It appreciated in the following year, reaching a maximum of Rs. 125 per 100 dollars, in June, 1935, falling again to Rs. 88 in December. It remained steady until May of this year, when it fell rapidly to Rs. 64 per 100 dollars and is now as low as Rs. 47 per 100 dollars. The Hongkong dollar fluctuated very widely during this period. It rose as high as Rs. 175 in 1935-36 and fell to Rs. 85 in 1937-38. These exchange variations have had considerable influence on the imports from both these countries as will be seen from the Table below:—

TABLE XIX.

Year.	Japanese exchange Rs. per 100 Yen.	Shanghai exchange Rs. per 100 taels.*	Hongkong exchange Rs. per 100 dollars.	Chinese imports. (000) lbs.	Japanese imports. (000 lbs.)
1929-30	130	152	124	2,101.5	37.6
1930-31	137	104	83	1,922.2	17.0
1931-32	153	107	83	1,529.9	33.8
1932-33	99	117	89	2,029.7	164.7
1933-34	81	95.78	103-120	2,101.3	220.1
1934-35	80	115.99	143-103	1,299.4	896.5
1935-36	79	125.87	175.95	563.6	1,625.3
1936-37	78	88.85	95.88	900.5	1,073.7
1937-38	78	86.83	88.83	1,018.7	1,405.4

* The tael was replaced by the Dollar from the year 1933-34.

The rapid fall in recent months is due to China's misfortunes in the war with Japan. It is difficult to assess the effect of the falling Chinese exchange on her exports to India, but her capacity to produce in the future must have been adversely affected by the occupation of her territory by the Japanese.

36. We have received a number of complaints that legitimate trade is suffering owing to the prevalence of smuggling. Evidence is of course difficult to obtain but we have been assured that silk is smuggled through Baluchistan, Kathiawar and Pondicherry. We understand that the Government of India have tightened their control in recent years in the interests of the Central Revenues, and that the practice is not now as prevalent as it used to be. We have no specific recommendations to make, and are confident that the vigilance of the Government will not be relaxed.

CHAPTER V.

The cost of production of cocoons.

37. The cost of production of raw silk has to be calculated on the cost of production of mulberry leaf, the cost of conversion of mulberry leaf into cocoons, that is the cost of rearing, and the cost of conversion of cocoons into raw silk that is the cost of reeling. In Kashmir, however, under the system of the State monopoly the State either owns or controls the mulberry trees and makes no charge for leaf or seed to the rearers. The charges paid for cocoons represent wages paid to the rearer for rearing silkworms; charges are also incurred for the State departmental mulberry operations, and finally the costs of reeling in the State filatures are shown separately. The figures showing the cost of raw silk are arranged in a somewhat different manner in Kashmir than elsewhere. Greater accuracy is obtainable in the case of Kashmir where the figures depend on actual disbursements by the State. (In other areas the figures depend partly on estimates of cultivation and labour costs, much of the labour being that of the cultivator or rearer or of the members of his household.)

Introductory.

38. In Kashmir the manufacture of raw silk is a Government monopoly. The seed is issued to rearers by Government and the cocoons, when ready, are purchased by Government at a price fixed by it. Mulberry trees belong either to Government or to the local cultivator known as the zamindar over whose land they are scattered. (Their destruction except with the permission of Government is prohibited.) Private persons are not allowed to distribute seed or to purchase cocoons. The cocoons are all reeled in Government filatures situated in Kashmir and Jammu. The proceeds are credited to the State. There is a slight difference in the procedure adopted in the two provinces of Kashmir and Jammu as regards the payment for cocoon rearing. In Kashmir payments are made for delivery in Srinagar, and rearers have to bear transport charges over a distance which may amount to as much as 60 miles and probably averages 30 miles. In Jammu owing to the greater difficulties in communications cocoons are collected at different centres, and payments to rearers are made at those centres.

Kashmir.

In order to explain the cost per lb. of cocoons shown by the Kashmir Government we give below for 6 years (ending October 15th) the statements prepared by the Kashmir Government for the two provinces.

TABLE XX.—Statement showing cost of production of cocoons per maund—Jammu.

Year.	Amount of cocoons produced in maunds.	Price paid to rearers.	Rearing requisites and temporary technical supervision.	Price of silkworm seed.	Expenditure incurred on mulberry plantation.	Rewards for good results shown.	Contingencies and house rent.	Half salary of gazetted staff.	Half establishment charges.
1	2	3	4	5	6	7	8	9	10
	Mds.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1932-33 . . .	9,052	1,59,061	3,323	12,850	815	1,175	416	4,805	13,825
1933-34 . . .	7,191	1,04,468	2,224	14,226	652	..	333	5,292	15,071
1934-35 . . .	5,473	68,531	536	13,062	776	..	464	5,585	16,006
1935-36 . . .	6,249	81,573	663	14,617	624	26	484	6,113	15,733
1936-37 . . .	7,032	93,506	709	15,948	483	96	448	6,685	13,335
1937-38] . . .	8,695	1,31,950	971	22,275	649	100	723	6,976	15,694

THE COST OF PRODUCTION OF COCOONS.

TABLE XX.—Statement showing cost of production of cocoons per maund—Jammu—contd.

Year.	Half Postage and telegram charges.	Fire insurance.	Customs duty.	Sorting and baling charges.	Travelling allowance.	Stationery and tents.	Depreciation charges.	Total.	Cost per maund of cocoons.
	11	12	13	14	15	16	17	18	19
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs. A. P.
1932-33 . . .	391	641	3,224	2,290	3,277	100	2,000	2,08,203	23 0 0
1933-34 . . .	415	900	4,000	3,908	3,276	100	2,360	1,63,125	22 0 0
1934-35 . . .	351	643	2,429	2,241	2,912	83	2,000	1,15,619	21 2 0
1935-36 . . .	368	887	3,759	1,723	3,342	136	2,000	1,32,048	21 2 0
1936-37 . . .	536	775	4,184	2,204	7,262	626	2,067	1,49,161	21 3 4†
1937-38 . . .	576	754	6,444	2,670	4,359	108	2,470	1,97,414*	22 11 3

* The total cost in 1937-38 includes two new items, viz., Refund (Rs. 754-0-0) and Pension Contributions (Rs. 624-0-0) which are not specified in the details given above.

† The extra payment made during the current year for the cocoon crop of 1936-37 at the rate of Rs. 1-14-0 per green maund has not been taken into consideration.

TABLE XXI.—Statement showing cost of production of cocoons per maund—Kashmir.

Year.	Amount of cocoons produced in maunds.	Salaries and establish- ment.	Price of cocoons.	Price of seed from Europe.	Repairs.	Contingencies including uniforms.	Fuel.	Rearing and local seed.	Postage and telegrams.
1	2	3	4	5	6	7	8	9	10
	Mds.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1932-33 . . .	31,913	64,272	5,52,340	26,712	..	14,614	1,491	24,997	157
1933-34 . . .	25,768	58,259	3,29,993	41,486	206	9,140	938	22,783	135
1934-35 . . .	31,577	38,408	3,98,125	54,279	500	1,000	1,547	17,730	100
1935-36 . . .	25,981	61,439	3,30,317	41,523	1,789	8,013	520	22,758	173
1936-37 . . .	29,947	61,147	4,91,021	49,253	193	12,222	804	26,978	150
1937-38 . . .	26,892	66,694	3,93,201	34,685	2,293	9,525	804	26,471	209

THE COST OF PRODUCTION OF COCOONS.

TABLE XXI.—Statement showing cost of production of cocoons per maund—Kashmir—contd.

Year.	Electric power charges.	Travelling allowance.	Fire insurance.	Stationery.	Depreciation.	Rewards.	Mulberry culture expenditure.	Pension contribution.	Total expenditure.	Cost per maund of cocoons.
	11	12	13	14	15	16	17	18	19	20
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs. A. P.
1932-33 . . .	171	5,879	912	..	14,417	..	..	..	7,05,962	22 1 11
1933-34 . . .	65	5,541	1,796	..	13,584	..	..	..	4,83,925	18 12 6
1934-35 . . .	949	1,530	1,776	210	13,009	..	38,053	..	5,67,216	17 15 4
1935-36 . . .	934	6,816	1,993	149	11,308	1,039	..	..	4,88,751	18 13 0
1936-37 . . .	751	1,642	1,912	433	9,865	..	..	578	6,56,959	21 15 0
1937-38 . . .	520	5,111	1,749	395	9,035	..	..	771	5,52,864*	20 9 1

NOTE.—The above figures do not include the charge on account of interest on capital or cost of leaf supplied from Government lands. With the exception of 1936-37 the figures do not include even the charge on account of Pension Contribution of the employees concerned. The charge on account of Depreciation of Buildings and Machinery, however, has been debited.

* The total expenditure in 1937-38 includes a new item, viz., Audit charges (Rs. 500-0-0) which is not specified in the details given above.

On the basis of these statements the cost per lb. of cocoons is given as follows:—

		Cost per lb.	
		Jammu.	Kashmir.
		As. P.	As. P.
1932-33		4 7	4 5
1933-34		4 6	3 9
1934-35		4 4	3 7
1935-36		4 4	3 9
1936-37		4 3	4 4
1937-38		4 5	4 0

In addition it is claimed that an extra sum of Rs. 1,12,000 in Kashmir and Rs. 13,000 in Jammu was sanctioned in 1937-38 for payment in the previous year to rearers who were dissatisfied with the existing scale of payments. This amounts to 10 pies per lb. in Kashmir and 5 pies per lb. in Jammu. A further claim is made for interest on capital and the cost of leaf supplied from Government lands. Though not shown separately it is clear that the amount of capital employed by the State in the rearing of cocoons must be very small compared with that employed on filatures, and we therefore consider that anything allowed for interest should be shown in the filature account and not in the rearing account. The claim on account of leaf supplied from Government trees amounts to As. 8 per lb. of silk or about 8 pies per lb. of cocoons. Obviously in view of the system in vogue in Kashmir the cost of mulberry leaves cannot be exactly determined. We observe, however, that the amount claimed is very much less than necessary elsewhere. For example, in Mysore it is stated that 800 lbs. are required to feed the worms from an ounce of pure Mysore seed costing Rs. 11-4 and the yield of cocoons is 50 lbs., that is to say, the cost of leaves is As. 3-7 per lb. of cocoons. We do not, therefore, consider that 8 pies per lb. of cocoons is too much to put down on this account. On the other side of the account we must place the fact that the State is engaged in extensive operations for the reproduction of mulberry trees. These operations are done with the same supervising staff as the other sericultural operations and no separate account of the cost is kept. The sole cost to the State is that of the young trees grown in the State nurseries and supplied free to zamindars, who transplant them and rear them. In Kashmir State there are about 12 lakhs of mulberry trees. As a mulberry tree may live 200 years or more the annual wastage is small probably less than 5,000 trees. During the last year 80,000 young trees were distributed and allowing for casualties there must have been a net gain of at least 50,000 trees. We are satisfied from our local inspection that the rate of increment shown by the above calculation has, if anything, been understated. From the above calculations it is clear that if the enhanced payments made in Kashmir are main-

tained, and if those in Jammu are increased to the same amount as in Kashmir the cost to the State of 1 lb. of cocoons is between 5 and 5½ annas.

In the above calculations we have allowed 8 pies as the cost of mulberry leaf required for the production of 1 lb. of cocoons, and we have pointed out that in other areas the cost is very much higher. It is clear that the rearer obtains a much larger remuneration for his labour than he does elsewhere in India. Moreover it follows from the fact that the Kashmir Government has recently had to increase its rates that the rates previously in force were not excessive. It must, however, be remembered that where univoltine worms are reared, the rearer only grows one crop a year so that his annual receipts are very much less than in a multivoltine area giving sometimes as many as seven crops. The average yield of cocoons in the two provinces of Kashmir from 1 ounce of seed is about 1 maund, so that the annual return to the rearer for his labour is only Rs. 12-8 at the reduced rate or Rs. 16-4 with the enhanced payments now sanctioned. We are satisfied from our conversations with rearers that they are aware of the rates paid and that they receive the amounts due to them.

The statements we have given above indicate that little progress has been made during the quinquennium towards the reduction in the cost of production. The overhead charges have remained fairly constant, and such reduction as has occurred is due to the lower rates paid to rearers; and with the enhanced rates now sanctioned total costs have again risen nearly to the level of 1931-32.

39. The actual cost incurred in the Government garden at Palampur for planting an acre of mulberry trees has been given by the Punjab Government as follows:—

	Rs. A.
1. Cost of 192 seedlings	12 0
2. Cost of preparing the land, clearing of bushes, etc., 3 days at 8 annas per day	1 8
3. Cost of digging 192 pits	20 0
4. Cost of manure	12 0
5. Labour for planting	8 0
6. Labour for watering and watching	24 0
Total	77 8

The annual recurring cost is Rs. 50. 192 trees 15 feet apart can be planted in one acre. With a yield per tree of 60 lbs. of leaf, the total yield will be 11,520 lbs. and the average cost 1-3 pies per lb. Mulberry leaf, however, is at present obtained from trees on Government lands at a nominal charge of As. 8 per ounce of seed reared, and this figure must be taken for the present day cost to the rearer of cocoons. The cost of rearing from 1 ounce of seed will then be as follows:—

TABLE XXII.

	Rs. A. P.	Rs. A. P.
1. Cost of seed (1 ounce) . . .	...	2 0 0*
2. Cost of labour—		
(i) Wages for the plucking and bringing leaf to the rearing house—22 maunds at 3 annas per maund	4 2 0	
(ii) One woman attendant for 30 days	7 8 0	
		11 10 0
3. Cost of food for worms—Permit for removal of leaf . . .	2..	0 8 0
4. Cost of appliances—		
(i) Cost of trays Rs. 2-4 which will last for 3 years	0 12 0	
(ii) Cost of machan material As. 12 which will last for 8 years	0 4 0	
(iii) Labour for making trays and machan (lasting 3 years)	0 5 3	
		1 5 3
Total	...	15 7 3

1 ounce of seed produces 60 lbs. of cocoons, so that the present cost per pound of cocoons is As. 4-1. The industry in the Punjab is at present on a small scale; if production increases so that the trees at present in existence do not supply sufficient leaf for all requirements an appreciable increase in the cost of production will occur.

40. (Where, as happens in the multivoltine areas, the mulberry has to be cultivated as a crop in order to provide leaf for the silk worm the cost of leaf is a very heavy item in the total expenditure; and it is necessary to know the consumption of leaf per pound of cocoons produced in order to ascertain the cost of rearing.) In 1933 the Tariff Board reported the consumption per lb. of cocoon produced to be 25 lbs. with twigs or 12½ lbs. without twigs in Bengal, 16½ lbs. in Madras, and 16 lbs. in Mysore. Bengal now reports that for the Nistari and Chotopolu worms which are the varieties commonly found 850 lbs. of leaves with twigs which is equal to 425 lbs. of leaves without twigs are required for 1 ounce of seed which produces 28 lbs. of cocoons. Just over 15 lbs. of leaves are therefore required to produce 1 lb. of cocoons. Mysore again repeats a figure of 16 for pure Mysore, and Madras a figure which is a little over fifteen. (We have accordingly in our statements of costs adopted 16 as the figure for the pure Mysore breed and 15 as an average figure for Bengal.)

* This figure will go down to Re. 1 or Rs. 1-5 if local seed is supplied.

41. The mulberry cultivated in Mysore is mainly the bush mulberry; it may be cultivated either in rain-fed gardens (dry Mysore: cost of area) or tank irrigated gardens, deep well mulberry. irrigated gardens and shallow well irrigated gardens (wet area). Tree mulberry is admittedly more economical in the long run, but it is not until the fourth year that the cost per lb. of leaves is less, and in consequence the cultivation of tree mulberry has not been adopted in practice except to a very limited extent. Steps are being taken to plant mulberry trees in waste lands such as road sides and canal banks. (The life of bush mulberry is given as 10 to 15 years, and of tree mulberry as 20 to 25 years. This is in striking contrast to Kashmir where mulberry trees are said to live as long as 200 years. Experiments have shown that the yield of bush mulberry from seedlings is greater than that from cuttings. But this method of plantation has not yet been popularised partly no doubt because at a time of low prices there is little new cultivation. Bush mulberry is the normal form of cultivating at the present day, and will continue to be so for a very long time; and out of a total area of 26,500 acres 18,200 consists of rain-fed gardens (dry area). We, therefore, base our estimate of the cost of production of mulberry leaves on bush mulberry cultivation in what is known as the dry area.

The tables below have been supplied by the Mysore Government showing the cost of cultivation of mulberry leaf in the various areas:—

TABLE XXIII.—*Recurring expenditure to maintain an acre of mulberry garden.*

I.—*Dry Garden—T. Narasipur area.*

	Rs. A.	Rs. A.
1. Land revenue	...	1 3
2. Ploughing and hoeing and harrowing—		
(i) Ploughing, twice a year, three ploughs each time at Re. 1 per plough (Bullocks, plough and men included)	6 0	
(ii) Harrowing and hoeing twice a month, i.e., 24 times a year at Re. 1 each time (bullocks, harrow, man included)	24 0	
		30 0
3. Manure and manuring—15 carts of cattle manure at Re. 1 per cart plus 4 annas a cartload for cart hire and manuring charges	...	18 12
(Manure costly as cattle food is not plentiful in the area and more often cattle have to be stall-fed.)		
4. Pruning—4 male coolies for one day and a half at As. 6 each per day, or 6 coolies for one day at As. 6 each and two female coolies at As. 2 each for one day	...	2 8
(This has to be done in the busy agricultural season when labour is rather costly. The pruned cuttings have to be bundled and removed. Once in three years deeper pruning has to be done to avoid the stocks being damaged by cattle at time of ploughing, etc.)		

TABLE XXIII—*contd.*

	Rs. A.	Rs. A.
5. Weeding—Twice—6 female coolies at a time at As. 2 a day	...	1 8
6. Planting failed pits and miscellaneous	...	2 8
Total	...	56 12

Yield of leaf—4,000 lbs. per year.

Cost of production of 1 lb. of leaf—2.7 pies.

(In dry gardens of Chennapatna and Kunigal areas, the pits are nearer, and as such ploughs cannot be used. Digging, etc., has to be given with human labour. As such the cost of maintenance of one acre of garden will be Rs. 84 per annum and the yield of leaf per acre would be about 6,000 lbs. per year.

As far as possible family labour and material are used to reduce cash payments.)

II.—*Tank Irrigated Garden.*

	Rs. A.	Rs. A.
1. Land revenue	...	6 0
2. Digging—6 times per year, each time 16 coolies at 4 annas each	...	24 0
3. Manure and manuring—		
(i) Manure—		
(a) 40 carts at Re. 1 per cart	40 0	
(b) Transport charges—1 cart at Re. 1 per day for 8 days	6 0	
(c) Loading and unloading—1 cooly for 8 days at As. 4 per day	1 8	
(d) Silt—cart hire at Re. 1 per day for 10 days	10 0	
For loading and unloading—1 cooly at As. 4 a day for 10 days	2 8	
		60 0
(ii) Manuring—6 coolies at As. 4 each	...	1 8
4. Pruning—12 coolies at As. 4 each	...	3 0
5. Weeding—Female coolies	...	2 0
6. Irrigation, i.e., as water flows in channels from the tank no cost for lifting water but labour only is required to lead the water properly in the garden	...	2 0
Total	...	98 8

Total yield of leaf—8,000 lbs.

Cost of production of 1 lb. of leaf—2.38 pies.

III.—*Deep Well Irrigated Garden.*

	Rs. A.	Rs. A.
1. Land revenue	...	4 0
2. Digging—3 times per year (ordinary digging) and once deep digging—		
20 coolies at As. 3 each for ordinary digging	11 4	
For deep digging at As. 5 to As. 6 a cooly	7 8	
		19 0
		6 2

TABLE XXIII—*contd.*

	Rs. A.	Rs. A.
3. Manure and manuring—		
(a) Manure—		
(i) 20 cartloads cattle manure at Rs. 1-8 per cart	30 0	
(ii) Cart hire, loading and unloading and application	5 12	
		35 12
(Manure is costly in the areas as there is intensive system of cultivation and as other commercial crops such as potatoes, onions, etc., are grown.)		
4. Pruning—Five times	...	7 8
5. Weeding—Female coolies	...	1 14
6. Planting failed pits and miscellaneous	...	6 0
7. Irrigation—		
One cooly for loading water at As. 3 a day for 2 days, i.e., 40 times	...	15 0
Two pairs of bullocks and two men at Rs. 1-8 for each irrigation, i.e., 40 times	...	60 0
(The wells are deep and water is lifted from a depth of 40 to 50 feet with the help of bullocks. Two pairs of bullocks are required and one acre is irrigated in two days and the garden has to be irrigated 40 times at least during the year.)		
Total	...	149 2
Yield of leaf—10,000 lbs.		
Cost of production of 1 lb. of leaf—2-80 pice.		

IV.—*Shallow Well Irrigated Garden.*

	Rs. A.	Rs. A.
1. Land revenue	...	8 0
2. Digging—6 times, 20 coolies each time at As. 3 each	...	18 12
3. Manure and manuring—		
*(a) (i) Manure 40 carts at As. 12 a cart	30 0	
(ii) Transportation charges at Re. 1 for 10 carts	4 0	
(iii) Silt—50 carts, carting charges at 5 carts per rupee	10 0	
*(b) Manuring—		
(f) Manuring—		
Rs. A.		
2 male coolies at As. 3 each	0 6	
10 female coolies at As. 2 each	1 4	
		1 10
(ii) Loading and applying silt, etc.—		
2 male coolies at As. 3 each	0 6	
12 female coolies at As. 2 each	1 8	
		1 14
		47 8

TABLE XXIII—*concl'd.*

	Rs. A.	Rs. A.
4. Pruning—25 male coolies at As. 8 each . . .	...	4 11
5. Weeding	...	...
6. Planting failed pits and miscellaneous . . .	...	5 0
7. Irrigation—		
Preparing furrows, 50 male coolies at As. 8 each . . .	...	9 6
40 times at 4 male coolies at As. 8 each time . . .	...	80 0
(The wells are shallow and picotas are used. Three men are required for each picota and one man for leading the water.)		
Total . . .	...	123 5

Total yield of leaf—10,000 lbs.

Cost of production of 1 lb. of leaf—2.36 pies.

* Manure is comparatively cheap and available in large quantities and near the gardens. Soil is sandy and as such silt also has to be supplied.

TABLE XXIV.—Maintenance costs of an acre of mulberry tops from the first year of planting to the seventh year.

Description.	1st year.	2nd year.	3rd year.	4th year.	5th year.	6th year.	7th year.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1. Three diggings and removing weeds around the trees.	5 10 0	5 10 0	5 10 0	5 10 0	5 10 0	6 12 0	6 12 0
2. Manure	7 8 0	7 8 0	7 8 0	10 0 0	10 0 0	10 0 0	10 0 0
3. Watering	18 12 0	18 12 0	18 12 0	—	—	—	—
4. Pruning	—	—	—	5 0 0	5 8 0	6 0 0	7 0 0
Total	31 14 0	31 14 0	31 14 0	20 10 0	21 2 0	22 12 0	23 12 0
Deduct.—Net realisation from the catch crop.	8 4 0	8 4 0	8 4 0	6 0 0	5 0 0	5 0 0	5 0 0
Net expenditure	23 10 0	23 10 0	23 10 0	14 10 0	16 2 0	17 12 0	18 12 0
Yield of leaf each year	No return of mulberry leaf during the first year of planting.	lbs. 400	lbs. 800	lbs. 1,500	lbs. 2,000	lbs. 2,500	lbs. 3,000
Cost of 1 lb. of leaf	—	11·3 pias	5·67 pias	1·67 pias	1·5 pias	1·36 pias	1·2 pias.

In addition to maintenance costs the initial or capital expenditure per acre is given as follows:—

	Rs. A.	
Rainfed gardens	78 4	10 years.
Tank irrigated gardens	104 14	15 "
Deep well irrigated gardens	146 6	15 "
Shallow well irrigated gardens	98 0	15 "
Tree mulberry	68 2	20-25 "

The cost of mulberry leaf now given differs from that obtained by the previous Tariff Board as the following Table shows:—

TABLE XXV.

	Yield per acre.	Cost of cultivation. Rs. A.	Cost per lb. of leaf. Pies.
Mysore rainfed gardens—			
1931-32	5,000	63 4	2.4
1937-38	4,000	56 12	2.7
Tank irrigated gardens—			
1931-32	7,000	86 0	2.4
1937-38	8,000	98 8	2.36
Deep well irrigated gardens—			
1931-32	10,000	142 8	2.7
1937-38	10,000	149 2	2.86
Shallow well irrigated gardens—			
1931-32	10,000	144 0	2.8
1937-38	10,000	123 5	2.30

Shallow well irrigated gardens now produce leaf more cheaply owing to the smaller amount of manure now said to be used. But the most important difference is in the cost per lb. of leaf in rainfed gardens, where the bulk of the production occurs. In the oral examination the representatives of the Mysore Government modified their statement and said that (if the rainfall is timely and normal) an average yield of 5,000 lbs. of leaf could be obtained. This works out to 2.2 pies per lb. of leaf. In reply to our questionnaire the Mysore Government stated that 6 to 8 ounces of seed are required for 1 acre of rainfed garden. Therefore to rear 1 ounce of seed will require 800 lbs. of leaves. If we take an average of 6 ounces of seed reared from an acre of land we get 5,600 lbs. of leaves and at a cost of cultivation of Rs. 56-12 per acre, the cost of leaf comes to 2 pies per lb. Further, as will be seen later on, a much lower figure of 1.4 pies per lb. is given by the Madras Government for the neighbouring taluq of Kollegal which is also a dry area. This figure, however, is for cultivation of a somewhat different nature, and less manure is used and the outturn of leaf is smaller being 3,450 lbs. per acre.

42. The races of silkworms prevalent in Mysore are the pure reared Mysore and a cross between it and a Japanese or Chinese univoltine or bivoltine. In the statement below we have adopted 2 pies per lb. as

the cost of mulberry leaf. The cost of rearing cocoons from one ounce of seed is as follows:—

TABLE XXVI.

	Pure Mysore.	Cross-breed.
	Rs. A. P.	Rs. A. P.
1. Cost of seed . . .	0 11 2	1 6 5
2. Cost of extra labour . . .	2 0 0	2 0 0
3. Cost of leaves . . .	8 5 4	10 1 0
4. Cost of appliances . . .	1 0 0	1 0 0
5. Other expenses . . .	0 6 0	0 6 0
Total . . .	12 6 6	14 13 5
		Cost per lb. As. P.
Yield of cocoons—		
50 lbs.		4 0
70 lbs.		3 5

(The higher yield of the cross-breed more than counter-balances the greater consumption of leaf which is 966 lbs. per ounce of seed against 800 for pure Mysore.) It must be pointed out that these figures contain no allowance for the cost of the rearers' own labour, and that consequently it is necessary to make an allowance in the shape of profit so that he may be induced to undertake the business of rearing cocoons.

(We readily concede that the method of costing which we have adopted is not a perfect one.) Much depends on the information collected by the State authorities from cultivators who do not keep accounts while it is difficult to assess the amount of profit necessary to make the rearing of cocoons a paying proposition. Fortunately the rise in prices in 1937 enables us to check the results. During that year the prices of silk rose and this rise was reflected in the price of cocoons in the earlier months of the year. The table below gives the maximum and minimum prices of Mysore and cross-breed cocoons in Channarayana in the first six months of 1937:—

TABLE XXVII.

	Cross-breed cocoons.		Mysore cocoons.	
	Maximum per lb. As. P.	Minimum per lb. As. P.	Maximum per lb. As. P.	Minimum per lb. As. P.
1937—				
15th January . . .	4 9	4 4	4 6	4 2
31st " . . .	5 8	5 0	4 6	4 3
15th February . . .	6 2	5 8	5 8	5 4
28th " . . .	6 0	5 10	5 8	5 4
15th March . . .	6 1	5 0	5 8	5 4
31st " . . .	5 10	5 8	5 4	5 2
15th April . . .	6 0	5 10	5 4	5 2
30th " . . .	6 2	5 0	5 4	5 2
15th May . . .	5 10	5 8	5 0	4 10
31st " . . .	5 0	4 8	4 6	4 3
15th June . . .	4 4	4 0	3 8	3 6
30th " . . .	4 2	4 0	3 8	...

The season for planting mulberry in a dry area is May and June or September and October. In the year 1937-38 the decline in the area under mulberry was arrested and the acreage under it rose from 25,132 acres to 26,500. From the evidence given before us it appears that 5,000 acres were newly planted, but that when the price of cocoons again dropped 3,500 acres again went out of cultivation. The price in Channarayana of Pure Mysore cocoons has since June, 1938, remained fairly steady at from As. 4 to As. 4-6 per lb., while from 1933 to the end of 1936 it varied from As. 3-6 to As. 4 except for the earlier portion of 1934 when it fell to As. 3. We may infer that when the price is over As. 5 per lb. the area under mulberry increases but when it is below As. 4-6 there is a tendency for it to go out of cultivation. A price between As. 4-6 to As. 5 per lb. should be sufficient to maintain production at its present level. It is clear, however, that with the higher prices for cross-bred cocoons and the lower cost of production much of the present inadequacy of price will disappear, when the Mysore Government is able to supply a much larger proportion of cross-breeds.

43. Sericulture in Madras is confined to the Kollegal taluk of the Coimbatore district an area bordering on and similar to the dry area in Mysore State. The initial and recurring costs of mulberry cultivation are given in the two tables below:—

TABLE XXVIII.—*Actual details of working expenditure in the Government Silk Farm at Thadaguni during 1937-38 for 9-32 acres of mulberry.*

	Rs. A. P.
1. Cost of 102 cartloads of manure including the cost of transport from the manure pits to the farm gardens	49 0 0
2. Manuring charges including digging	5 0 0
3. Weeding charges	4 4 0
4. Pruning charges	1 14 0
5. Bundling up of cuttings (10 women at As. 2)	1 4 0
6. Charges for 12 hoeings	65 4 0
Total	126 10 0

Hence the cost of cultivation in the farm for one acre of mulberry is Rs. 126 10/9-32	13 9 5
Land assessment	1 4 0
One instalment towards initial cost	3 0 0
Total	17 13 5

Or rounding Rs. 17-14-0.

TABLE XXIX.—Average recurring expenditure for villages bordering Mysore Province.

	Ra. a.
1. Cost of manure—12 cartloads at As. 8 a cartload	6 0
2. Carting charges	1 8
3. Spreading, levelling, etc.	0 8
4. Weeding	0 8
5. Pruning, bundling, etc.	0 8
6. Ploughing with 3 pairs of ploughs at As. 12 a plough	4 8
7. 10 hoeings at As. 12 each	7 8
	21 0
8. Land assessment	1 9
9. One instalment towards the initial cost	3 0
Total	25 9

The yield is given as 3,450 lbs. per acre, and the cost as Rs. 25-4 or 1-4 pies per lb. In the oral evidence the representative of the Madras Government has reduced this figure by Re. 1 as being the value of twigs and litter. It is noticeable that the yield and the cost of cultivation are both lower than in the neighbouring taluk of Mysore State.

The cost of producing cocoons from one ounce of seed is obtained from the table given below:—

TABLE XXX.

No.	Particulars.	Pure Mysore.	Cross-breed.
		Ra. A. P.	Ra. A. P.
1.	Cost of 600 disease-free layings	3 0 0	...
	Cost of 500 disease-free layings	...	5 0 0
2.	Cost of extra labour for 7 rearings at Rs. 1-12	12 4 0	...
	Cost of extra labour for 7 rearings at Rs. 1-10	...	11 6 0
3.	Cost of food for worms	21 12 0	21 12 0
4.	Cost of appliances	8 0 0	8 0 0
5.	Other expenditure	2 0 0	2 0 0
	Total	47 0 0	48 2 0
	Yield of cocoons lbs.	210	245
	Yield of cocoons for 1 ounce of seed lbs.	49	69
	Cost of producing cocoons from 1 ounce of seed	10 15 0	13 7 7

NOTE.—140 layings=1 ounce of seed.

Even including an allowance of Rs. 3 per acre for the 1st instalment of the initial expenditure, the cost per lb. of cocoons works out at As. 3-7 for Mysore worms and As. 3-2 for cross-breeds compared with As. 4 and As. 3-5 which we found for Mysore. The higher cost in Mysore is partly due to the higher consumption of mulberry leaf in Mysore which was given as 16 lbs. per lb. of cocoons as against 15 and partly to differences in wages of labour. To these costs have to be added amounts for the cost of the agriculturists' own labour. As in Mysore, mulberry cultivation has shown a rise from 5,705 acres in 1936-37 to 7,060 in 1937-38 as a result of the rise of prices in 1937, but no land has as yet gone out of cultivation as a result of the subsequent fall. The Madras Government states that the family of the agriculturist devotes on an average 16.2 days for rearing an ounce of seed as given below and that with a daily wage of As. 3 and 7 rearings for pure Mysore and 5 for cross-breeds the total cost will be Rs. 22 and Rs. 16 respectively. The average is Rs. 19.

TABLE XXXI.—*Number of hours during which the family of the mulberry cultivator is employed on rearing.*

1st moult age	.	.	.	.	.	18 hours.
2nd "	"	.	.	.	.	15½ "
3rd "	"	.	.	.	.	35 "
4th "	"	.	.	.	.	70 "
5th "	"	.	.	.	.	262 "
Total						390½ hours or 16.2 days.

The present production is 210 lbs. of cocoons per acre for pure Mysore and 245 for cross-breed. The average of the two is 225 lbs. The estimated cost of the rearer's own family labour will therefore be 1 anna 4 pies per lb. of cocoons, and the average cost will be increased to 4 annas 8 pies per lb. of cocoons. Therefore the Madras figures support the conclusion already reached that 4 annas 6 pies and 5 annas per lb. of Mysore cocoons is the range within which the cultivation of mulberry and the rearing of cocoons will remain at their present levels.

We have already dealt with the cost of seed and have pointed out that it is supplied to the rearer below the cost of production. Another item that is of importance in the costing statements is labour. It has been suggested that no allowance should be made for extra labour on the ground that the rearer does not ordinarily employ labour not belonging to his household. We now examine the truth of this contention. At our instance the representatives of Madras Government have prepared a statement which we give below which shows the moulting periods for pure Mysore worms and cross-breeds, the number of cocoons produced from the different rearings, and the amount of leaf available for them.

TABLE XXXII.—*Moulting periods at Kollegal.*

PURE MYZORE.			Summer.	Winter.
1st period	.	.	5 days	6 days
	.	.	1 day of moult	1 day
2nd period	.	.	3 days	4 days
	.	.	1 day of moult	1 day
3rd period	.	.	4 days	5 days
	.	.	1 day of moult	1 day
4th period	.	.	4 days	5 days
	.	.	1 day of moult	1 day
5th period	.	.	7 days	8 days
			<u>27 days</u>	<u>32 days</u>
CROSS-BREED.				
1st period	.	.	4 days	5 days
	.	.	1 day of moult	1 day
2nd period	.	.	3 days	4 days
	.	.	1 day of moult	1 day
3rd period	.	.	3 days	4 days
	.	.	1 day of moult	1 day
4th period	.	.	4 days	5 days
	.	.	1 day of moult	1 day
5th period	.	.	5 days	6 days
			<u>23 days</u>	<u>28 days</u>

No leaf is available for two months in the year after the bushes have been pruned. Of the remaining period 7 months should be taken as summer months and three months as winter months.

TABLE XXXIII.—*Production of Cocoons during different pluckings.*

	Lbs.
The 1st plucking of 1,000 lbs. of leaves at 14 lbs. per lb. of cocoons gives	71½
The 2nd plucking of 600 lbs. at 15 lbs. gives	40
The 3rd to 6th plucking at 16 lbs. gives	84½
The 7th plucking at 15 lbs. gives	33½
Or a total of 220 lbs. per acre.	

The leaf consumption varies greatly in the different ages of the worm: it is as follows:—

TABLE XXXIV.

	Lbs.
1st age	46
2nd „	112
3rd „	170
4th „	622
5th „	<u>2,500</u>
Total	<u>3,450</u>

From the 1st to 4th moult the quantity of leaves used is 950 lbs. whereas after the 4th moult as much as 2,500 lbs. is required.

There are seven pluckings in a year. The distribution of leaf is as follows:—

TABLE XXXV.

		Per cent.	Lbs.
1st Plucking	September and October	21	724.5
2nd "	November	18	621.0
3rd "	December	19	655.5
4th "	January-February	12.5	431.25
5th "	February-March	10	345.0
6th "	April-May	7	241.5
7th "	June-July	12.5	431.25
		100.0	3,450.0

It will be noticed from the above table that the number of days required for the fourth moult are 9 and it is during this period that nearly 90 per cent. of the leaves are being consumed. We give below the details:—

TABLE XXXVI.—*Details for the consumption of 2,500 lbs. of leaves during the 9 days after the fourth moult.*

	Lbs.
1st day	200
2nd "	250
3rd "	300
4th "	400
5th "	400
6th "	350
7th "	300
8th "	200
9th "	100
Total	2,500

The Japanese labourer picks 100 lbs. of leaves a day whilst the outturn of an Indian labourer is only 50 lbs. per day for the first three crops and 30 lbs. per day for the remaining four crops. It will be seen therefore that it is impossible for the rearer and his family to dispense with outside labour during the nine days of the 4th moult. We have accordingly admitted the charge for extra labour.

44. The table below gives the cost of mulberry cultivation in three different holdings according to figures supplied by the Bengal Government.

Bengal.

TABLE XXXVII.—*Abstract census of cultivation of leaf prepared on the basis of an acre of land.*

	Malda:	Murehidadad.	Birbhum.
1. Period of observation	November, 1936 to October, 1937.	1st April, 1937 to 31st March, 1938.	May, 1937 to March, 1938.
2. Area under observation in acres	28.28 Rs. A. P.	5.5 Rs. A. P.	4.9 Rs. A. P.
3. Cost of labour for cultivation per acre—			
(1) Family	1 12 10	10 0 6	7 4 7
(2) Hired	28 15 11	28 15 9	8 2 3
4. Cost of manuring per acre—			
(1) Price of own manure	5 4 1	18 9 0	1 15 10
(2) Price of purchased manure	4 7 11	2 14 6	2 0 8
Spreading cost per acre—			
(1) Family	0 7 8.5	1 11 6	0 4 3
(2) Hired	3 14 10	4 11 0	4 8 1.5
5. Rent per acre	8 8 4	8 12 6	7 15 1.5
6. Total cost of cultivation per acre	48 7 5.5	65 4 8	32 2 10
7. Less price of roots and sticks sold per acre	1 14 4.5	2 10 6	3 6 9
8. Net cost of cultivation per acre	46 9 1	62 9 9	28 12 1
9. Yield of leaves in lbs. without stem per acre	7,615 lbs.	9,198 lbs.	6,840 lbs.
10. Average cost of leaf per lb. without twigs	1.17 pies.	1.30 pies.	.80 pie.

It is claimed that the labour charges in the account have been calculated on the broken periods of the day during which the labour has been employed, and that in practice labour cannot be obtained by the hour at a rate proportional to that required for a whole working day.) In consequence an arbitrary increase of 50 per cent. all round has been taken and the average cost of production of mulberry leaves have been taken at 1.6 pies per lb. without twigs or .8 pie per lb. with twigs. We cannot accept this contention. 50 per cent. is purely an arbitrary figure, and there is no reason why such items as rent or cost of manure should be increased by 50 per cent. because labour is not employed for a full day. Moreover, we believe that if an agriculturist engages labour by the day and finds that there is not a full day's work for the labourer on one particular task, he will put him to work at other tasks. It must be remembered that mulberry cultivation is only part of the agricultural work that any individual agriculturist has to do or get

done, by reason of the fact that he also has other crops. This contention has not been put forward in other areas which we have visited. At our request the Bengal Government supplied a revised statement showing the actual cost per lb. of cocoons based on a census taken in the three districts of Malda, Murshidabad and Birbhum. In this statement no arbitrary enhancement on account of the cost of labour was included in the price of mulberry. This statement is reproduced below as Table XXXVIII. Having regard to this and to the amount of leaf obtained in Bengal (9,000 lbs. per acre) we believe that 1·6 pies per lb. will be an ample allowance for the cost of cultivation of mulberry leaf.

TABLE XXXVIII.—*Cost of production of a lb. of cocoons in Bengal.*

	Malda.	Murshidabad.	Birbhum.
	As. P.	As. P.	As. P.
1. Cost of seed	0 1·63	0 2·35	0 2·47.
2. Labour cost for rearing— feeding worms, litter cleaning, collecting and cutting leaves, picking up ripe worms, etc., cal- culated on actual hours employed—			
(i) Family	0 8·75	1 6·80	1 0·01
(ii) Hired	0 3·66	0 0·82	0 2·08
3. Quantity of leaf fed (without twigs)	13½ lbs.	18 lbs.	14½ lbs.
4. Price of leaf (own leaf calculated at census price and not at increased rate)	1 6·63	2 6·27	1 8·01
5. Disinfection labour cal- culated on actual hours employed—			
(i) Family	0 0·20	0 0·70	0 1·23
(ii) Hired	0 0·12	0 0·07	0 0·23
(iii) Disinfectant . .	0 0·21	...	0 2·74
6. Cost of appliances . . .	0 1·70	0 2·58	0 2·53
	2 10·96	4 7·59	3 7·29
7. Miscellaneous labour, e.g., repairs of house, plucking cocoons, drying and stor- ing cocoons and sell- ing expenses, etc., calculated on actual hours employed—			
(i) Family	0 0·35	0 1·53	0 1·45
(ii) Hired	0 0·35	0 0·34	0 0·83
Total	2 11·66	4 9·46	3 9·57

The Bengal Government at the same time produced a further statement claiming 5 annas 0.39 pie per lb. as the fair price of cocoons. We reproduce that statement below:—

TABLE XXXIX.

	As.	P.
1. Cost of seed—4 examined layings at 1 pie each		0 4
Average price of 1 kahan Nursery seed	Rs. A.	1 1
Cost of examination, papers, etc.		1 0
		<u>2 1</u>
(From one kahan of seed 400 examined layings are normally expected. Therefore price of 1 laying is about 1 pie.)		
2. Cost of labour—	As.	P.
Malda	1	1.40
Murshidabad	1	10.26
Birbhum	1	5.82
		<u>4 5.48</u>
Average for three districts	1	5.8
By adding 50 per cent.	0	8.9
		<u>2 2.70</u>
3. Cost of leaf at 16 lbs. (without twigs) per lb. of cocoons at 1.7 pies per lb. 16×1.7		2 3.20
4. Cost of appliances—actual census of three districts		0 2.28
5. Other expenses—Disinfectant 21 pie as observed at Malda is taken as the average		0 0.21
		<u>5 0.39</u>
Total		5 0.39

We observe that a fractional increase in the price of leaves has been made over that claimed in the original statement, namely, 1.7 pies per lb. without twigs as against 1.6 pies per lb. and an increase in the cost of seed of 2.15 pies per lb. for the supply of cellular seed without any corresponding increase in the production of cocoons. Making the necessary deductions on this account the result comes to 4 annas 8.5 pies per lb. In the account the enhanced labour charges claimed by the Bengal Government are included. A further deduction of 2.2 pies has to be made by the reduction from 16 to 15 of the lbs. of leaves required to produce one pound of cocoons. In view of the additions made by the Bengal witnesses we do not consider that any further addition need be made to the figure of 4 annas 6 pies now reached. Our conclusion that 4 annas 6 pies is a price which will give a reasonable profit to the rearer in Bengal is confirmed by the conversations which we held with persons engaged in rearing and reeling in Malda which is the chief centre of the industry in Bengal.

45. The mulberry silkworm is cultivated to a small extent in Assam but we have been unable to obtain any figures of costs.

Other areas.

46. It is of interest to compare costs in Japan. Very recent figures are not available but the question of costs is carefully studied in Japan and from time to time Japan: authoritative figures are published. As a result of studies by the Imperial Agricultural Society the following costs have been calculated for 10 kwamme of mulberry leaves (=82·672 lbs.):—

TABLE XL.

Year.	Son Rin.	Average rate of exchange. Rs. per 100 Yen.	Equivalent in Indian money per lb. Pies.
1932	85 2	108	2·6
1933	93 8	82	1·8
1934	81 1	79	1·5

For the same years the cost of production of cocoons per kwamme was estimated as follows:—

TABLE XLI.

Year.	Spring crops. Yen.	Summer and autumn crops. Yen.
1933	3·82	3·76
1934	3·56	3·74
1935	3·54	3·96

or in annas per lb. (at the exchange rates shown against each year):—

	Average exchange rate. Rs. per 100 Yen.	Spring crops.	Summer and autumn crops.
1933	82	6·1	5·97
1934	79	5·4	5·7
1935	78	5·3	5·98

(Recently there has been an increase in production costs owing partly to the war and for the current year 1938 the silk cocoon price Committee of Shizuoka prefecture consisting of leading sericulturists and silk reeler chosen by the prefectural officials has estimated the production costs of spring cocoons at 4·67 Yen per kwamme (=7·05 annas per lb.) an increase of ·58 Yen per kwamme (0·88 annas per lb.) on the previous year. In this calculation the exchange has been taken at 100 Yen=78 rupees. The Japanese silk worm is a bivoltine or univoltine and must be compared with the univoltines of Kashmir and the Punjab and not with the multivoltines of Southern India. The advantage to the Japanese reeler accrues from the superior silk contents of the Japanese cocoon, 11·68 lbs. of which are required for one lb. of raw filature silk as against 12 in Kashmir, 14 of Mysore cross-breeds and 16 for the pure Mysore breed.

CHAPTER VI.

The cost of production of Raw Silk.

47. The cost of production of raw silk is shown in the two statements below which have been supplied by the Kashmir Government:—
- Kashmir.**

TABLE XLII.—Statement showing the cost of production of raw silk per pound.

JAMMU.

Year.	Quantity of silk reeled.	Cocoons issued for reeling.	Reeling and baling charges.	Fuel.	Commission to silk agents.	Establishment charges.	Half salary.	Half postage and telegram charges.	Fire insurance.	Customs duty.	Stationery.
	Lbs.	Mds.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1932-33 . .	35,200	6,481	30,325	7,665	2,942	12,177	4,804	391	640	565	100
1933-34 . .	35,413	6,697	36,480	7,680	66	11,692	5,292	414	419	967	100
1934-35 . .	42,153	7,013	35,166	7,032	947	11,700	5,584	352	334	1,436	82
1935-36 . .	41,511	7,188	34,266	7,212	3,207	12,676	6,113	168	192	419	136
1936-37 . .	38,737	6,639	33,130	8,082	514	14,996	6,684	537	231	453	114
1937-38 . .	40,492	6,921	36,310	7,850	76	14,076	6,976	576	237	381	106

THE COST OF PRODUCTION OF RAW SILK.

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TABLE XLII.—Statement showing the cost of production of raw silk per pound—contd.

JAMMU—contd.

Year.	Depreciation charges on machinery and buildings.	Contingencies and house-rent and travelling allowance.	Total.	Deduct value of silk waste.	Net works cost of silk produced.	Net works cost of silk per pound.	Add value of cocoons consumed per pound of silk.	Add interest on capital.*	Add charges on account of mulberry leaf supplied from State lands.	Total cost of production of silk per pound without any profit.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.
1932-33 . .	2,000	1,403	72,012	14,086	57,926	1 10 4	4 6 2	0 15 4	0 8 0	7 7 10
1933-34 . .	2,360	245	67,724	14,922	52,802	1 7 10	4 2 6	0 13 8	0 8 0	7 0 0
1934-35 . .	2,000	415	65,748	19,023	46,725	1 1 8	3 10 1	0 10 11	0 8 0	5 14 8
1935-36 . .	2,000	326	66,915	19,946	46,969	1 2 0	3 10 0	0 6 11	0 8 0	5 10 11
1936-37 . .	2,087	291	67,099	25,032	42,067	1 1 10	3 9 3	0 9 3	0 8 0	5 12 4†
1937-38 . .	2,470	1,268	71,018‡	28,513	42,505	1 0 10	4 6 0	0 8 4	0 8 0	6 7 2

* Figures of Kashmir sericulture adopted.

† Add charge on account of extra payment at the rate of Rs. 1-14-0 per green maund made during the current year for cocoon crop delivered in 1936-37 which amounts roughly to annas 6 per lb. of raw silk. The actual cost without any profit therefore amounts to Rs. 6-2-4 per lb. for 1936-37.

If the same extra payment had been made at the same rate at which it was made in Kashmir province, i.e., Rs. 16-4-0 per green maund, the actual cost without profit would come to Rs. 6-8-4. Again, the question of restoring 12½ per cent. temporary cut in labour wage retrospectively with effect from 1936-37, as has been sanctioned in case of Kashmir is under correspondence. If the same is sanctioned for Jammu as well, the cost of silk in that case would amount to about Rs. 6-10-0.

‡ The total for 1937-38 (Rs. 71,018) includes two new items, viz., Refunds (Rs. 68) and Pension Contributions (Rs. 624) which are not specified in this statement.

TABLE XLIII.—*Statement showing the cost of production of raw silk per pound.*

KASHMIR.

Year.	Quantity of silk reeled.	Cocoons issued for reeling.	Salary and establish- ment.	Travelling allowance.	Postage and telegrams.	Reeling and baling.	Repairs.	Fire insurance.	Fuel.	Electric power charges.	Conti- gencies including uniforms.
	Lbs.	Mds.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1932-33 . .	213,021	34,181	60,762	88	608	2,60,060	6,562	8,210	45,894	7,537	4,627
1933-34 . .	218,555	33,581	72,392	700	700	2,02,172	5,593	8,744	37,900	7,351	5,660
1934-35 . .	187,407	29,037	62,643	40	632	1,68,290	3,359	5,510	31,830	6,665	2,433
1935-36 . .	224,215	32,787	75,117	..	518	1,05,203	5,226	3,152	32,800	6,188	3,892
1936-37 . .	165,909	25,229	75,598	4,926	450	1,87,897	9,215	3,067	26,777	6,346	3,175
1937-38 . .	169,370	25,309	64,175	1,481	420	1,72,074	4,587	3,499	29,237	1,041	4,441

THE COST OF PRODUCTION OF RAW SILK.

TABLE XLIII.—Statement showing the cost of production of raw silk per pound—contd.

KASHMIR—contd.

Year.	Depreciation.	Stationery.	Pension contribution.	Total expenditure.	Deduct value of by-products.	Net works cost of silk produced.	Net works cost of silk per pound.	Add—Value of cocoons consumed per pound.	Add—Interest on capital.	Add—Charges on account of mulberry leaf supplied from State lands.	Total cost of production per pound.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1932-33 . .	43,251	..	..	4,36,589	78,729	3,57,860	1 10 11	4 3 9	0 15 4	0 8 0	7 6 0
1933-34 . .	40,754	..	..	3,81,966	61,818	3,20,150	1 7 6	3 4 6	0 13 8	0 8 0	6 1 8
1934-35 . .	39,025	310	..	3,20,737	47,785	2,72,952	1 7 3	2 14 10	0 10 11	0 8 0	5 9 0
1935-36 . .	33,924	366	..	3,56,446	50,452	3,05,994	1 5 10	2 10 8	0 6 11	0 8 0	4 15 5
1936-37 . .	29,597	310	1,736	3,49,094	55,120	2,93,974	1 12 5	3 1 0	0 9 3	0 8 0	5 14 8
1937-38 . .	29,807	355	1,543	3,13,660*	71,622	2,42,038	1 6 10	3 3 5	0 8 4	0 8 0	5 10 7

* The total expenditure for 1937-38 (Rs. 3,13,660) includes a new item, viz., Audit charges (Rs. 1,000) which is not specified in this statement.

In these statements the cost of the supervising establishment has been divided between cocoon production and reeling in the filatures. Interest on capital has been calculated at 6 per cent. on the nett amount outstanding against the Department in the books of the Accountant General at the end of each year. This capital sum includes the cost of buildings and machinery *plus* Rs. 2 lakhs on account of State lands. It also includes the working capital. In Kashmir at the end of each year the cash at the credit of the Department is added to or deducted from the outstanding capital, so that all previous profits or losses are included in the working capital, and depreciation is deducted from it. The main cause of the variations in the capital account is the amount of silk in stock at the close of the financial year. (The method adopted is different to that of a commercial concern and the rate of interest expected is fairly reasonable for a time of depression). For Jammu accounts are not available in the same form and the figure of interest for Kashmir has been adopted. It will be noticed that the works cost of reeling is considerably lower in Jammu (Rs. 1-0-10 per lb. in 1937-38) than Kashmir (Rs. 1-6-10 per lb. in 1937-38) although operations in Kashmir are on a larger scale than in Jammu, mainly owing to the higher receipts on account of waste products in Jammu. Total costs in Kashmir are lower owing to the weight of cocoons required per lb. of silk being 12 lbs. as against 14 lbs. in Jammu. Tables showing the profits and losses incurred since 1930-31 are given below:—

TABLE XLIV.

Year.	Jammu.*		Kashmir.	
	Profit.	Loss.	Profit.	Loss.
	Rs.	Rs.	Rs.	Rs.
1930-31 . . .	...	73,714	...	2,55,277
1931-32 . . .	...	69,670	920	...
1932-33 . . .	...	69,447	...	6,42,698
1933-34 . . .	...	1,14,906	...	3,04,938
1934-35 . . .	...	34,433	...	95,661
1935-36 . . .	2,156	...	...	83,673
1936-37 . . .	26,508	...	1,05,032	...

(We have already shown that the cost of developing mulberry cultivation in the future is debited to the budget of the year in which the expenditure has occurred.) The raw silk industry is one on which the Governments of the areas in which it exists spend considerable sums. Owing to the existence of the State monopoly the sums spent on development and research are not separately debited to Government. But the Kashmir Government cannot claim that it should be relieved of those charges which are accepted by other Governments in the interests of their people. This must be borne in mind when considering the losses that are shown to

* Charges on account of interest on capital and price of leaf supplied free from Government lands not debited.

have been incurred by the State monopoly. In Mysore where the production of raw silk is about 3 times as great as in Kashmir it is stated that the State expenditure on the industry has amounted to 22 lakhs of rupees in the last 11 years or an average of Rs. 2 lakhs per year. In view of this we do not consider that the profit and loss statement of the Kashmir Government from 1934-35 when the protective duties on raw silk were imposed to 1936-37 discloses an unduly depressing state of affairs. It may be added that it is expected that a loss will be shown for 1937-38 when the accounts which are closed on the 15th October are finally made up.

48. Most of the raw silk reeled in Mysore is hand reeled. The main factors which affect the cost price of silk are the cost of cocoons, and the rendita (number of cocoons required for 1 lb. of silk). The rendita varies with the different qualities of silk as more impurities are retained in the inferior qualities. We give below a statement we have prepared for the cost of production of silk on a charkha which is an average assuming that the cocoons are partly cross-breed and partly pure Mysore. We have, therefore, taken 14, 12 and 11 as the average for the rendita for the three qualities of silk, whereas the actual rendita are approximately pure Mysore 15, 13 and 12 and cross-breeds 13, 11 and 10. The figures are based on those supplied by the Mysore Government, except that we have reduced the price of cocoons for third grade silk by 3 pies per lb., as somewhat inferior cocoons are utilised for that quality, and have decreased the price realised for waste from 5 annas per lb. to 4 annas per lb. owing to the reduction in price which has occurred since the Mysore evidence was prepared. We have also added three small items for interest on working capital, depreciation and profit calculated on the same basis as in 1933, and 3 annas for re-reeling in the case of 1st quality silk only. The manner in which the cost of re-reeling is calculated is explained in Chapter VII.

TABLE XLV.—*Cost of production of charkha silk.*

(Average production taken at 1½ lbs. per day per charkha.)

Quality	1st	2nd	3rd
Rendita	14	12	11
<i>Details—</i>			
	21 lbs.	18 lbs.	16½ lbs.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
1. Cost of cocoons at As. 4-6 per lb., 1st quality, at As. 4-6, 2nd quality and at As. 4-3, 3rd quality.	5 14 6 "	5 1 0	4 6 1-5
2. Cost of labour	0 10 0	0 10 0	0 8 0
3. Cost of fuel	0 4 0	0 4 0	0 4 0
4. Cost of water (including wage of waterman)	0 2 0	0 2 0	0 2 0
5. Selling expenses	0 2 3	0 2 3	0 2 3

TABLE XLV—*contd.*

	Rs. A. P.	Rs. A. P.	Rs. A. P.
6. Transport charges	0 3 0	0 2 9	0 2 6
7. Contingencies (transport charges of silk, cost of oil, thread, aksin making, steaming of cocoons, etc.)	0 1 6	0 1 6	0 1 6
8. Supervision and management	0 1 3	0 1 3	0 1 3
9. Cost of producing 1½ lbs. of silk	7 6 6	6 8 9	5 11 7-5
10. Cost of producing 1 lb. of silk	4 16 0	4 5 10	3 13 1
11. Deduct—Cost of ¼ lb. of waste at As. 4 per lb.	0 2 0	0 2 0	0 2 0
12. Net cost of producing 1 lb. of silk	4 13 0	4 3 10	3 11 1
13. Interest on working capital	0 2 5	0 2 2	0 2 0
14. Depreciation	0 0 3	0 0 3	0 0 3
15. Profit	0 2 0	0 2 0	0 2 0
16. Total cost of 1 lb. of silk	5 1 8	4 8 3	3 15 4
17. Re-reeling charges (1st quality only)	0 3 0	...	...
18. Fair selling price per lb.	5 4 8	4 8 3	3 15 4

In Chapter V we have found that 4 annas 6 pies and 5 annas per pound are the upper and lower limits between which the production of cocoons is retarded or stimulated. We, therefore, calculate the fair price of raw silk taking these limits into consideration.

For pure Mysore cocoons the cost of the cocoons in the daily quota of 1½ lbs. of silk as given by the Mysore Government will be as follows:—

TABLE XLVI.

(At 4 annas 6 pies per pound of cocoon.)

Quality	1st	2nd	3rd
Rendita	15	13	12
Cost of cocoons at 4 annas 6 pies, 1st quality, 4 annas 6 pies, 2nd quality and 4 annas 3 pies, third quality. {	22½ lbs.	19½ lbs.	18 lbs.
	Rs. 6 5 3	Rs. 5 7 9	Rs. 4 12 6

The other calculations will be the same as in Table XLV and the fair selling price will work out as follows:—

	Rs. A. P.
Fair selling price—	
1st quality	5 9 2
2nd "	4 12 9
3rd "	4 3 7

If we add 6 pies to the cost of cocoons, the fair selling price will be increased by 11 annas 3 pies, 9 annas 9 pies and 9 annas respectively for $1\frac{1}{2}$ lbs. of the three qualities of raw silk. The fair selling price of 1 pound of raw silk will then be—

	Rs.	A.	P.
1st quality	6	0	8
2nd „	5	3	3
3rd „	4	9	7

In the case of cross-breed cocoons the upper and lower limits should be based on selling prices per lb. of cocoons of 4 annas 6 pies and 4 annas for the 1st two qualities of silk and of 4 annas 3 pies and 3 annas 9 pies for the 3rd quality. We have taken rendita of 13, 11 and 10 for the three qualities. The Mysore Government figures are 13.5, 11.7 and 10.8, but as Madras has given 12, 10.4 and 9.6, we consider that we are justified in making a slight reduction in the Mysore figures. The other items in the calculation will remain the same and we obtain the upper and lower selling limits as follows:—

	1st quality.	2nd quality.	3rd quality.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
Upper limit .	5 0 2	4 3 9	3 11 1
Lower limit .	4 9 8	3 14 3	3 6 1

The cost of raw silk produced in the Government filature for the years 1932-33 to 1937-38 is also given below:—

TABLE XLVII.— *Cost of raw silk produced in Government Filature, Mysore.*

Head.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
(i) Cost of cocoons	6 12 2.5	5 6 10.0	5 0 8.9	5 7 8.3	5 3 8	5 6 7
(ii) Cost of labour	1 0 4.7	1 2 4.8	0 14 3.1	0 14 7.9	0 13 5.5	0 14 6.75
(iii) Cost of power, light and fuel	0 12 0.3	0 12 5.6	0 8 11.8	0 7 10.4	0 7 5.7	0 9 4.80
(iv) Cost of water and soap	0 1 4.1	0 1 4.6	0 1 2.5	0 1 1.4	0 0 10.8	0 0 9.60
(v) Cost of supervision and management—						
(a)	0 11 2.1	0 10 0.6	0 6 2.5	0 5 0.6	0 3 7.5	0 2 4
(b)	0 14 5	0 14 7	0 14 9	0 14 11	0 14 11	0 3 0
(Figures given under (b) relate to the pay of the Assistant Superintendent of Sericulture, Mechanic and Reeling Demonstrator, borne on the establishment of the Department of Sericulture but working in Filature.)						
(vi) Cost of repairs and maintenance.	0 0 10.4	0 0 2.4	0 0 6.1	0 2 1.2	0 0 8.9	0 1 10
(vii) Selling expenses	0 0 1.6	0 0 2.2	0 0 0.4	0 0 0.4	0 0 0.4	0 0 0.4
(viii) Other expenses	0 3 9.2	0 4 0.6	0 2 6.2	0 2 4.3	0 2 6.3	0 3 5.75
(ix) Depreciation charges	0 3 2.9	0 4 2.2	0 3 6.5	0 2 7.4	0 4 5.7	0 4 0.10
Total excluding (v) (b)	9 13 2	8 9 9	7 5 7	7 12 2	7 4 11	7 11 0
Deduct—Cost of waste	0 6 1	0 7 0	0 5 3	0 5 6	0 7 6	0 6 8
Net cost of silk	9 7 1	8 2 9	7 0 4	7 6 8	6 13 5	7 4 4
Net cost including (v) (b).	10 5 6	9 1 4	7 15 1	8 5 7	7 12 4	7 7 4

The filature is a small one having only 34 basins and some reduction of overhead charges is possible with a larger unit. A company has now been formed to take over the Government filature, and work as an economic unit. As stated in the prospectus, the Company, which is aided by Government, expects to produce raw silk at Rs. 5-10 per lb. with a cocoon price of 4-2 annas per lb. while on a basis of 5 annas per lb. the cost of raw silk will be Rs. 7-0-8 per lb. They estimate the fair selling price to be Rs. 7-8. (The high cost of silk in the Government filature is due partly to the high incidence of overhead charges in a concern which is below the economic size and partly to the fact that the cost of cocoons shown is considerably in excess of the market price. With a rendita of 16 and cocoons at 4 annas a pound the cost of cocoons in a pound of silk should be Rs. 4. There is no doubt that in a commercially managed concern the costs will be substantially less than in a filature owned by Government. At the same time we are not prepared to base our calculations on the figures given in a prospectus which may or may not be found to contain an accurate forecast of profits. We are not, therefore, in a position to draw any conclusion as to fair price on the basis of the small quantity of Mysore filature silk now being produced. We, however, append a statement which we have prepared showing the estimated cost of working a 200 basin filature. The cocoons are taken to be partly by the Mysore cross-breed variety and partly pure Mysore at an average cost of 4 annas 6 pies per lb.)

TABLE XLVIII.—*Estimate of the cost of working a 200 basin filature with 20/24 deniers.*

	Rs.	A.	P.
1. Total quantity of cocoons, rendita 14.5, production $1\frac{1}{2}$ lbs. per basin— $1\frac{1}{2} \times 200 \times 14.5 \times 300$ days = 1,160,000 lbs. at As. 4-6 per lb. Quantity of silk produced 80,000 lbs.	3,26,250	0	0
2. Transport charges at 4 pies per lb. for 1,160,000 lbs.	24,168	10	8
3. Stiffing charges at 2 pies per lb. for 1,160,000 lbs.	12,083	5	4
4. Cost of labour	45,000	0	0
5. Cost of supervision and management	23,712	0	0
6. Cost of power	20,000	0	0
7. Cost of light			
8. Cost of fuel			
9. Cost of water			
10. Cost of repairs, renewals, etc., at .24 per cent. on the value of machinery Rs. 63,000	1,576	0	0
11. Miscellaneous—3 pies per lb. of silk	1,250	0	0
12. Selling expenses at 6 pies per lb. of silk	2,500	0	0
Total	4,56,537	0	0
Deduct—Value of waste at .63 lbs. per lb. of silk ($63 \times 800 = 50,400$ lbs.) at As. 10 per lb.	81,500	0	0
Total works expenditure	4,25,037	0	0

TABLE XLVIII—*contd.*

	Rs.	Rs. A. P.
<i>Overhead charges—</i>		
(a) Depreciation—		
Buildings at 2½ per cent. on Rs. 80,000	2,000	
Plant and machinery at 5 per. cent on Rs. 63,000	3,150	
Tools and scientific appli- ances at 10 per cent. on Rs. 5,000	500	
Motor vans at 20 per cent. on Rs. 7,000	1,400	
		7,050 0 0
(b) Interest on working capital at 5 per cent. (for 3 months output of cocoons 290,000 lbs. and silk 20,000 lbs.) on Rs. 1,87,821-12		9,391 1 5
(c) Profit at 6 per cent. on capital expenditure of Rs. 1,60,000		9,600 0 0
Total Cost of Production		4,51,078 1 5

TABLE XLIX.—*Cost of producing 1 lb. of raw silk in a 200 basin filature.*

Rendita—lbs. of green cocoons to one pound of silk: 14·5.

	Rs. A. P.
Price of cocoons per lb.	0 4 6
Cost of cocoons (including transport at 4 pies and stiding at 2 pies per lb.)	4 8 6
Power, light, fuel and water	0 4 0
Labour	0 9 0
Supervision	0 4 9
Other charges	0 1 1
Total	5 11 4
Deduct—Value of waste	0 6 3·6
Net	5 5 0·4
Depreciation	0 1 5
Interest on working capital	0 1 10
Profit	0 1 11
Fair selling price per pound	5 10 2·4

(The new filatures now being erected are designed for 200 basins which was adopted as the most economic unit by the last Tariff Board.) We have accordingly taken the same figure for the present day. We have, however, made some alterations in the costs given in 1933. The capital expenditure is now based on actuals. We have reduced the rate of interest on working capital

and the fair return on the capital owing to the lower rate now prevalent. We have slightly increased the allowance for depreciation owing to the nature of the operations now performed and the type of building erected. The lower price of cocoons and improved rendita are responsible for the greatest reduction in costs. We have already explained the reasons for the figures we have adopted. The net result is the substantial reduction in the fair selling price of filature silk from Rs. 6-10-9 as given by the last Tariff Board to Rs. 5-10-8 per lb.

49. The cost of reeling the three qualities of silk on a charkha from pure Mysore cocoons as estimated by the Madras Government is given in the Table below:—

TABLE L.

No.	Particulars.	I Quality.	II Quality.	III Quality.
		Rs. A. P.	Rs. A. P.	Rs. A. P.
1.	Cost of cocoons—			
	23 lbs. at As. 4-6 a lb.	6 7 6	...	...
	24½ lbs. at As. 4-6 a lb.	...	6 13 8	...
	27 lbs. at As. 4 a lb.	...	...	6 12 0
2.	Cost of labour—			
	Reeler	0 6 0	0 5 0	0 5 0
	Turner	0 2 0	0 2 0	0 2 0
3.	Cost of water and soap	0 2 0	0 2 0	0 2 0
4.	Cost of fuel	0 3 0	0 3 0	0 3 0
5.	Cost of supervision and management	0 1 0	0 1 0	0 1 0
6.	Cost of repairs and maintenance	0 1 6	0 1 6	0 1 6
7.	Cartage of cocoons	0 3 0	0 3 0	0 3 3
8.	Selling expenses	0 1 0	0 1 0	0 1 6
9.	Other expenses	0 1 6	0 1 6	0 1 6
	Total	7 12 6	8 1 8	8 0 9
10.	Less cost of silk waste—			
	1 lb. at As. 5-3, ...	0 5 3	...	...
	½ lb. at As. 5-3	...	0 4 11	...
	¼ lb. at As. 5-3	...	...	0 3 11
11.	Therefore, total works cost for silk—			
	1½ lb.	7 7 3	...	...
	1½ lb.	...	7 12 9	...
	2½ lbs.	...	...	7 12 10
12.	Hence works cost for reeling one lb. of silk by charkha at present	4 15 6	4 2 6	3 7 6
13.	Rendita	15.9 lbs.	13.0 lbs.	12.0 lbs.
14.	Average cost of producing 1 lb. of silk	4 3 2		
15.	Rendita (Average)	13.4 lbs.		

If we adopt the same figures for the overhead charges and the price of silk waste as in Mysore, the following additions have to be made to these figures:—

TABLE LI.

	1st quality.	2nd quality.	3rd quality.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
Interest on working capital	0 2 5	0 2 2	0 2 0
Dopreciation	0 0 8	0 0 3	0 0 3
Profit	0 2 0	0 2 0	0 2 0
Reeling charges	0 3 0	...	...
Decrease in price of waste silk	0 1 3	0 1 2	0 0 11
Total	0 8 11	0 5 7	0 5 2
The fair selling price will then be	5 8 6	4 8 1	3 12 8

The slightly lower prices in Madras are due to the lower labour charges said to be prevalent there. A slightly higher rendita 15·3 as against 15·0, has been adopted and the premium between cocoons from 3rd grade to 2nd grade silk has been increased from 3 pies to 6 pies. The price of cocoons has been taken at 4 annas 6 pies per lb.; if it is increased to 5 annas per lb., the fair price of silk of the three qualities would be increased by As. 7·8, As. 7 and As. 6 respectively and we get the fair selling price as follows:—

	Rs. A. P.
1st quality	6 0 1
2nd „	4 15 1
3rd „	4 2 8

The proportion of cross-breed cocoons used in Madras is barely 5 per cent. and therefore we cannot take them into consideration. The reelers of charkha silk do not keep accounts and the costing statements are based on statements obtained from them and then analysed. The closeness of the agreement between the figures obtained independently in two neighbouring areas in Mysore and Madras is an indication of their accuracy.

A Company known as the Kollegal Silk Filatures, Limited, has recently taken over the filature at Kollegal by transferring basins from a filature in Bangalore and is contemplating further extensions. It gives the cost of one lb. of silk as Rs. 5·15·10·4 made up as follows:—

TABLE LII.

	Rs. A. P.
Cocoons	4 9 3·2
Reeling charges	1 14 4·9
Less value of waste	0 7 9·7
Total	5 15 10·4

The rendita works out to 17.3 for 3rd day cocoons, but if a fifth day cocoon be taken the figure will be 15.5 owing to the decrease in weight due to drying. No charge has been allowed for profit which we take as about 2 annas. The price paid for cocoons which are of the Mysore variety works out to 4 annas 3 pies per lb. At 4 annas 6 pies and 5 annas the extra cost per lb. of silk would be 4 annas 4 pies and 13 annas respectively. The fair selling price of a filature silk in Madras using pure Mysore cocoons therefore is as follows at present:—

	Rs. A. P.
Cocoons at As. 4-3	6 1 10
✓ Cocoons at As. 4-6	6 6 2
Cocoons at As. 5	6 14 10

The low cost of reeling compared to the filatures in Kashmir is due to the low rates of labour in Madras. The Company has been working for less than a year, and should be able to effect an appreciable saving in costs when the number of basins is increased from 76 to 150.—

50. In the Punjab the operations of rearing and reeling are performed by the same agency. The cost of reeling 1 lb. of silk

The Punjab, on a charkha, the Punjab domestic basin plant and the Government experimental filature are given below:—

TABLE LIII.—Statement showing the total works expenditure upon reeling and works cost of reeling one pound of raw silk by a charkha, a Punjab domestic basin plant and a filature for the year 1937-38.

(Rendita 12 lbs.)

Item of expenditure.	Charkha.		Punjab domestic basin plant.		Filature.	
	Works expenditure: cost of equipment.	Working cost.	Works expenditure: cost of equipment.	Working cost.	Works expenditure: cost of equipment.	Working cost.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1. Cost of cocoons 4 lbs.	5 0 0	3 0 0	20 0 0	3 0 0	600 0 0	3 0 0
2. Cost of labour	..	Labour if paid— Rs. 1-4-0 reeling, Rs. 0-8-0 turning.	..	1 1 6 reeling and turning.	..	0-12-0 reeling and turning by electricity.
3. Cost of power, light and fuel	..	0-4-0 fuel	..	0-4-0 fuel	..	0-3-0 fuel
4. Cost of water and soap	..	..	..	..	..	..
5. Cost of supervision and management.	..	..	..	..	..	0 1 6
6. Cost of repair and maintenance	..	Negligible on 1 lb. of silk.	..	Negligible on 1 lb. of silk.	..	0 0 9
7. Selling expenses	..	..	..	..	..	..
8. Other expenses	..	..	..	..	..	0 0 6
Total	..	4 14 0	..	4 5 6	..	4 1 9
Deduct—Value of waste	..	0 8 6 (25 per cent.)	..	0 8 9 (20 per cent.)	..	0 8 9 (20 per cent.)
Net works cost	..	4 5 6	..	3 14 9	..	3 11 0
Reeling charges (above cost of cocoons) per pound of silk.	..	1 5 6	..	0 14 9	..	0 11 0

The cost of cocoons is given as Rs. 3 for 4 lbs. of dry cocoons which is equal to 12 lbs. of green cocoons, that is, 4 annas per lb. of green cocoons. To the costs given in the table we have to add 1 anna 6 pies for selling expenses, 2 annas for profit and 2 annas 8 pies for interest and depreciation as we have done in Mysore. The total cost for the three different methods therefore works out to Rs. 4-11-8, Rs. 4-4-11 and Rs. 3-15-8 for the three different methods. If we take 4 annas 6 pies as a fair price for a lb. of cocoons there will be a further addition of 6 annas. The industry is at present on a very small scale, and only a short time has elapsed since it was resuscitated. We do not, therefore, feel justified in basing our proposals on the Punjab figures.

51. The Bengal Government has given us the following table showing the cost of reeling one pound of silk based on actual observation made:—

Bengal.

TABLE LIV.—Cost of reeling 1 lb. of raw silk on a charkha in Bengal.

	Malda.			Murshidabad.	Birbhum.	
	Tana.	Varma.	Ghora.		Khamru.	Filature.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Wages of reeler	0 6 6	0 4 6	0 5 0	0 3 0	0 4 3	0 3 6
Wages of turner	0 4 9	0 3 6	0 3 6	0 2 6	0 2 3	0 1 6
Rendita	18 35	14 2	9 5	15	12 5	18 4
Price of cocoons; annas per lb. .	0 4 1	0 4 1	0 4 1	0 4 8	0 5 2	0 2 8
Cocoons	4 12 4	3 12 10	2 5 5 0	4 0 11	4 3 1 6	3 6 2 5
Fuel and water	0 6 9	0 2 3 5	0 1 4	0 4 3 5	0 2 5	0 4 8 5
Labour	0 9 5	0 5 5 5	0 2 4	0 6 7	0 7 5 5	0 7 5 5
Supervision	Nil	Nil	Nil	Nil	Nil	Nil
Repairs	0 0 3 8	0 0 0 8	0 0 0 7	0 1 6 5	0 0 7	Not available.

Cocoons reeled are Nistari and Chhotopola.

THE COST OF PRODUCTION OF RAW SILK.

TABLE LIV.—Cost of reeling 1 lb. of raw silk on a chorkha in Bengal—contd.

	Malda.			Murahidabad.	Birbhum.	
	Tana.	Varna.	Ghora.		Khamra.	Filature.
	Rs. s. p.	Rs. s. p.	Rs. s. p.	Rs. s. p.	Rs. s. p.	Rs. s. p.
Miscellaneous	0 2 4	0 1 1	0 0 6·7	0 2 5	0 0 5·9	0 0 4·5
Total	5 16 1·8	4 5 8·8	3 9 9	5 5 9	4 14 1	4 2 9
Deduct—Value of waste	0 4 1·8	0 2 4·8	Nil	0 3 7	0 1 7	0 2 9
Net works cost	5 11 0	4 3 4	2 9 9	5 2 2	4 12 6	4 0 0
Reeling charges (above cost of cocoons) per pound of silk.	1 3 9·8	0 8 10·8	0 4 3·4	0 14 10	0 10 11·4	0 12 6·5
Cost of cocoons	80 per cent.	87 per cent.	90 per cent.	83 per cent.	86 per cent.	81 per cent.
Cost of reeling	20 per cent.	13 per cent.	10 per cent.	17 per cent.	14 per cent.	19 per cent.
Proportion of waste of total raw silk and waste.	50·8 per cent.	37·3 per cent.	0 per cent.	35·2 per cent.	26·2 per cent.	45·2 per cent.
No. of basins working	24			7	2	40
No. of reelers under observation	5			3	2	

Cocoons reeled are Nistari and Chhotopola.

The number of basins working in Murshidabad and on Khamru in Birbhum are insufficient to give reliable data while in Murshidabad the very low price of cocoons is explained as being due to sudden cessation in the demand. We will therefore confine our attention to the three qualities of silk in Malda which is the biggest silk producing centre in Bengal. The Bengal figures have to be increased by 1 anna 6 pies per pound as against 2 annas 3 pies for 1½ lbs. on the Table for Mysore, and also by items amounting to As. 4-8, As. 4-5 and As. 3-3 per lb. for the three classes of silk respectively on account of interest, depreciation and profit; in addition 3 annas per pound should be allowed for re-reeling tana silk. The price of cocoons is taken as 4 annas 1 pie per lb. and at this price with the additions indicated above, the fair selling price will be Rs. 6-4-2 for Tana, Rs. 4-9-3 for Varna and Rs. 2-14-6 for Ghora. We have found 4 annas 6 pies to be the fair price in Bengal, and at this price there will be an addition of 7 annas 8 pies, 5 annas 11 pies and 4 annas respectively to the three qualities of silk. Therefore the fair price per lb. of Bengal silk works out to—

	Rs. A. P.
Tana	6 11 10
Varna	4 15 2
Ghora	3 2 6

The improved varieties Nistid and Nismo have not come into sufficient use to enable silk obtained from them to be costed. There are two power driven filatures of six basins in all in Bengal which have been constructed by Government for experimental purposes. The other so-called filatures are hand driven charkhas working in one establishment.

52. The information which we have received from the Indian Trade Commissioner in Japan shows that during 1938 the cost of manufacture of 100 kin (=133 lbs.) of raw silk is as follows:—

TABLE LV.

	Yen.	Costs in Rs. per lb. of silk (100 yen = Rs. 78).
		Rs. A. P.
Cost of cocoons	566.40	3 5 2
Cost of reeling	180	1 0 14
Total	746.40	4 6 1

The figures are based on statistics collected for a large number of different establishments. Japanese silk is almost entirely filature reeled.

53 (The fair selling price of silk forms the basis of our proposal for protection. We therefore tabulate below for convenience of reference the results that we have obtained in this respect:—

TABLE LVI.—*Summary of the fair selling price of raw silk.*

Kind of silk.	Fair selling price.	Remarks.
	Rs. A. P.	
Kashmir filature	5 14 8	Works cost of all qualities combined.
Jammu filature	0 2 4	Works cost of all qualities combined.
<i>Mysore charkha—</i>		
Pure Mysore cocoons at As. 4-6 per lb.—		
1st quality	5 0 2	
2nd „	4 12 9	
3rd „	4 8 7	
At 5 annas per lb.—		
1st quality	6 0 8	
2nd „	5 8 3	
3rd „	4 9 7	
Crossbreed cocoons—		
At As. 4-6 per lb.—		
1st quality	5 0 2	
2nd „	4 8 9	
3rd „	3 11 1	
At As. 4 per lb.—		
1st quality	4 9 8	
2nd „	3 14 3	
3rd „	3 0 1	
<i>Mysore Silk Filatures, Limited—</i>		
Cocoons at As. 5 per lb.	7 8 0	Estimate given by the Company.
Our estimate for a 200 basin filature: cocoons at As. 4-6 per lb.	5 10 2	
Our estimate for charkha silk—		
1st quality	5 4 8	This estimate represents an average.
2nd „	4 8 3	
3rd „	3 15 2	The price of cocoons has been taken at As. 4-6 per lb. and rendita as intermediate between that of cross-breeds and pure Mysore.

TABLE LVI—*contd.*

Kind of silk.	Fair selling price. Rs. A. P.	Remarks.
<i>Madras Charkha—</i>		
Pure Mysore cocoons at As. 4-6 per lb.—		
1st quality	5 8 5	
2nd „	4 8 1	
3rd „	3 12 8	
At As. 5 per lb.—		
1st quality	6 0 1	
2nd „	4 15 1	
3rd „	4 2 8	
<i>Madras Filatures—</i>		
Kollegal Filatures, Ltd., cost: Pure		
Mysore cocoons—		
At As. 4-3 per lb.	6 1 10	
At As. 4-6 per lb.	6 6 2	
At As. 5 per lb.	6 14 10	
<i>Bengal Charkha—</i>		
At Malda: indigenous cocoons at		
As. 4-1 per lb.—		
Tana variety	6 4 2	
Varna „	4 9 3	
Ghora „	2 14 6	
Cocoons at As. 4-6 per lb.—		
Tana variety	6 11 10	
Varna „	4 15 2	
Ghora „	3 2 6	

CHAPTER VII.

Subsequent Processes—Boiling off—Re-reeling— Throwing.

54. The next process after raw silk has left the reeler or filature is that of weaving. This in some cases is done in the raw

(kora). (But for the production of better quality cloth other processes of throwing, i.e., doubling and twisting, and degumming are necessary. The first process consists of winding the hanks on to bobbins in mills or on to small swifts for handloom weaving. The occurrence of numerous breaks in winding causes much delay and for this reason weavers prefer re-reeled silk in which broken ends, if any, have been knotted together and impurities such as wastes, slugs, etc., adhering to the thread have been eliminated. (Throwing may either precede or succeed degumming.) For the latter process the raw silk is immersed in a mixture of soap and hot water. All raw silk, whether imported or indigenous, has to be degummed. The process is a simple one costing about 3 annas per pound. It is performed either in throwing mills or by the handloom weaver. Its importance from the point of view of costing is due to the fact that there is a considerable loss of weight due to the removal of the gum. The last Tariff Board reported that they had received complaints that this loss was greater in the case of indigenous silk than in that of imported silk, namely, 25 per cent. for Indian as against 22 per cent. for imported silk. In degumming ordinary Sunlight soap, washing soda or lye made out of plantain stem ashes are commonly used by weavers. The most suitable soap for this purpose is a neutral one and one millowner in Bengal imports Olive soap from Marseilles for use in his mill. We understand that the crude methods of the weavers result in a greater percentage of loss and do some damage to the lustre of the filament. At our request some experiments were carried out to ascertain the loss in degumming at the Bengal Government Conditioning House in Calcutta. Marseilles olive soap was used for the purpose; we are informed that it is better than the ordinary soaps usually employed as it causes a smaller loss of weight, but is equally effective in removing impurities; the losses are, therefore, somewhat more in practice than those given in the Table below:—

TABLE LVII.—*Boiling off tests carried out in Bengal Government
Conditioning House.*

Description.	Percentage of loss.	Remarks.
<i>Yellow Silk.</i>		
Malda Nistari—Reeled for Mr. Hanuman Das	18.2	Tested with 30 per cent. Marseilles olive oil soap in two baths—one hour each, on the weight of the silks.

TABLE LVII—*contd.*

Yellow Silk—contd.

Description.	Percentage of loss.	Remarks.
Japan Okada & Co.—Received from the Indian Trade Commissioner, New York . . .	18.4	
Buzon Seishisho, Japanese	20.0	
Nistid, Steam Basin, Murshidabad	22.6	
No. 1 Cross Chinese, Jammu	24.0	

White Silk.

Nistid white from Mr. Hanuman Das—Reeled at Malda	21.3	Tested with Marseilles olive oil soap 18 per cent. and soda 3 per cent. on the weight of silks for 1½ hours.
Japan Cherry—Received from the Indian Trade Commissioner, New York	18.0	
Neel Bagdad white, Jammu	21.0	
Neel Chinese white, Jammu	17.0	
No. 1 Chinese, Jammu	18.3	
Mysore silk filature	21.6	
Mysore Mambali, No. 1 Charkha	24.2	

We also repeat the Table giving the results obtained by the last Tariff Board from experiments carried out at Mysore.

TABLE LVIII.—*Statements showing the results of Degumming Tests carried out in Government Silk Weaving Factory, Mysore, February and March, 1933.*

No.	Name of silk.	Percentage of loss.
<i>Indian.</i>		
1.	Mysore Filature Silk (pure Mysore)	20.9
2.	Mysore Filature Silk (Hybrid)	18.4
3.	Mysore Domestic Basin Silk (Private)	20.0
4.	Mysore Country Charkha Silk	23.2
5.	Kashmir Silk (Yellow)	23.7
6.	Bengal Co-operative Union (Yellow)	19.4
<i>Foreign.</i>		
7.	Canton Steam Filature	21.0
8.	Kubin (Yellow)	22.8
9.	Fanchow (Shanghai White)	18.6
10.	Minchow	18.8
11.	Lai Miyang	20.2
12.	Duppion Silk (White)	11.7

The losses from yellow silks are a little more than white silk. We base our calculations of the fair average price of filature silk on the cost of production in the Mysore and Madras filatures. We therefore take the degumming losses in these areas into considera-

tion. In the experiments now made the degumming loss at the Mysore Silk Filature was found to be 21.6; in 1933 it was found to be 20.9 for Mysore filature silk using pure Mysore cocoon and 18.4 using the cross-breed cocoon. For Japanese Silk, Cherry brand which is a good quality silk, which is exported to America the loss is 18 per cent. It is clear that with the greater use of cross-breeds the loss in degumming will decrease, and that the difference in value between imported and indigenous silk on this account will not be very large. Mysore charkha silk shows a high percentage of loss: 24.2 in the experiments now made as against 23.2 in those of 1933. The principal competitor with first class charkha silk is Canton steam filature which in 1933 showed a loss of 21.0 per cent. We have not obtained the results of degumming first class charkha silk made from cross-breeds but, as in the case of filature silk it will be less. (The last Tariff Board when calculating the amount of protection required made no allowance for the loss in degumming. We consider that this is the correct course to adopt. The process of degumming consists of removing impurities in the silk, and we are of opinion that if the protection thus recommended is granted the process of manufacture of raw silk should be improved so as to prevent an excessive percentage of impurity remaining in the raw silk produced.)

55. In Japan filature silk is reeled a second time off a small reel to a larger one. This process is necessary in order to obtain hanks of the dimensions demanded by the American market. It also serves the purpose of removing some of the excess moisture which is found in the silk by reason of the Japanese climate and gives an opportunity for the removal of impurities still found in the silk at that stage and the joining of breakages, if any. (A similar process is not considered necessary in Indian filatures as the impurities are removed by an examination of the silk before it is made up into hanks. (Note: the process required for second and third quality charkha silk in which the impurities are allowed to remain). The process of re-reeling causes a loss in weight according to the evidence of the Mysore Government of $1\frac{1}{2}$ tolas per lb. or 33 per cent., as against $2\frac{1}{2}$ tolas per lb. or 61 per cent. found by the last Tariff Board. The actual process of re-reeling apart from the loss of weight cost about 3 annas a pound. The Madras Government has evolved a machine worked by a pedal in which it is claimed that the cost is reduced to 2 annas. Bengal has also introduced a pedal machine for re-reeling but reliable figures of cost are not yet available. The operation is usually performed by the females of the weaver family but one reeler in Bengal informed us that his cost of re-reeling on a machine including the loss in weight was 6 annas a pound, and that he made an extra charge of 8 annas a pound for the operation. The last Tariff Board made an allowance of 3 annas a pound against the cost of re-reeling against an estimated cost of 8 annas, because it was considered that after re-reeling Indian silk lost most of the disadvantages due to its poor winding quality and greater liability to breakage than imported silk and owing to its superior lustre

and durability would fetch a higher price. (Owing to the smaller percentage of loss in weight now taken we consider that it will be sufficient if an amount of 3 annas a pound is added to the fair price of Indian silk for the cost of re-reeling. We observe that this figure has been accepted by a conference of Directors of Industries of the Provinces and States interested in sericulture.

56. The process of converting raw silk into yarn is that of doubling and twisting. The silk thread of finer deniers is much

Boiling and twisting. too slender to be used in its natural state for weaving, and a varying number of threads have to be combined and twisted together so as to form silk yarn. There are two kinds of yarn tram, which is used for the weft and is less twisted than organzine used for the warp. The operation of throwing may be performed on a throwing plant forming part of a silk weaving factory, by a separate throwing mill, or by the handloom weavers and their families.)

The imports of silk yarn consist mainly of organzine from Japan. This competes directly with Indian silk because the Indian weaver will use it if the price is less than the price of raw silk plus the cost of twisting in India. The last Tariff Board found Rs. 2 to be the cost of twisting filature silk in a mill and Rs. 1-6 for charkha silk twisted by hand in the case of organzine. The Mysore Government now gives figures of Rs. 1-8 and Rs. 1-12 while Madras claims Rs. 1-5 and Re. 1 to As. 12. Bengal gives Rs. 1-1 for hand twisted silk only. We consider that Rs. 1-8 may be taken as the fair cost of twisting and winding filature silk organzine and Re. 1 for the cost of charkha silk twisted by hand while the cost of boiling off may be taken as 3 annas. Taking a uniform wastage of 25 per cent. in boiling off, the raw silk required will be 1 lb. and 5½ ozs. for a pound of thrown silk. On the basis of the fair price for filature and charkha silk, which we calculate in Chapter XIII, the fair price for twisted silk will be as follows:—

TABLE LIX.

	Filature.	Charkha first grade.
	Rs. A. P.	Rs. A. P.
Fair selling price of 1 lb. of silk .	5 10 8	5 4 10
Price of 5½ ozs. of silk . .	1 15 2	1 13 2
Twisting and winding . .	1 8 0	1 0 0
Boiling off	0 3 0	0 3 0
Total .	9 4 10	8 5 0

57. The imports of silk yarn have been shown separately to those of yarn made from silk waste and Imports of silk yarn. noils since 1934-35. The table below shows the quantities and values:—

TABLE LX.

Year.	Quantity (thousands of lbs.).	Value (lakhs of rupees).	Value per lb.
			Rs. A. P.
1934-35 . . .	129.2	4.96	3 13 6
1935-36 . . .	113.5	4.83	4 4 10
1936-37 . . .	176.5	7.05	3 15 11
1937-38 . . .	278.1	13.72	4 15 0
1938-39 (7 months) .	143.3	7.08	4 15 2

All but an infinitesimal amount of this comes from Japan. The total was small as compared with that of the imports of raw silk till 1936-37. But there has been an appreciable increase in the last few years particularly in 1937-38. Imports of raw silk during the same period were as follows:—

Please see Introductory Note.
TABLE LXI.—Imports of raw silk into India.

Year.	China (exclusive of Hongkong).		Japan.		Other countries.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Lbs. (000).	Rs. (Lakhs).	Lbs. (000).	Rs. (Lakhs).	Lbs. (000).	Rs. (Lakhs).	Lbs. (000).	Rs. (Lakhs).
1934-35	1,191.9	33.23	901.3	21.55	128.6	2.59	2,221.7	57.46
1935-36	490.7	13.81	1,625.3	42.45	75.4	1.47	2,191.4	57.73
1936-37	815.6	26.38	1,073.8	36.28	85.1	1.75	1,974.5	64.41
1937-38	928.7	31.09	1,405.4	57.24	201.1	6.34	2,535.2	94.67
1938-39 (seven months April to October, 1938).	836.0	22.17	82.1	3.44	204.7	5.39	1,122.8	31.00

It will be seen from the Table that the *ex-duty* price of a pound of raw silk in 1937-38 was Rs. 3-11 and that of twisted silk was Rs. 4-15. The additional specific duty on yarn spun from silk waste was imposed in May, 1936. The present market price of silk yarn is a rupee to a rupee and one anna over that of raw silk and the difference was considerable earlier in the year, whereas the cost of throwing and twisting in India is Rs. 1-11 per lb. We are also informed that recently Japan has commenced to export to India warps, that is yarn ready to be put immediately on the loom. Twisted silk yarn known as katha from China is sold at the low price of Rs. 4-10 per lb.; it competes with the single twisted charkha yarn. (The reelers inform us that they can produce this yarn but not at the same price. The figures justify the conclusion that the present scale of tariffs is somewhat more favourable to silk yarn than it is to raw silk.)

58. The silk produced from the Kashmir and Jammu filatures is generally superior and their Lotus and Neel brands have a recognised reputation. We give below a statement showing quality tests carried out in Mysore at our request of samples of Indian and imported silks:—

TABLE LXII.—Comparative Silk Tests done in Mysore Silk Filatures, Limited, Mysore, based on International Standards—September, 1938.

Kind of silk.	Name of Filature and place.	Deniers.	Rate per lb.		Winding for half an hour.	Uniformity or denier.	Average deniers.	Nerve.	
			Rs.	a. p.	No. of breaks.				
Foreign silk	1. China (Canton Filature silk)	28/32	4	4	0	3	43, 36, 34, 44	39.25	Fair.
	2. Ditto	20/22	4	6	0	3	22, 20, 26, 25	23.25	Fair.
	3. Japan (Filature white)	20/22	5	12	0	7	22.5, 23, 22.75, 22.5	22.40	Fair.
	4. Ditto	13/16	6	0	0	Nil	18, 17, 22, 17	18.5	Fair.
	5. Japan (Yellow)	20/22	5	10	0	Nil	23.5, 22.5, 26, 25	24.25	Good.
Indian silk	6. Kashmir (Yellow)	28/32	5	10	0	1	40, 30, 29, 34.75	33.4	Good.
	7. Ditto	24/28	5	10	0	Nil	28.25, 27.75, 29, 26.75	27.9	Good.
	8. Mysore Silk Filature, Limited	16/18	..	..	..	3	18, 20, 19, 20	19.25	Very good.
	9. Ditto	28/30	..	..	..	3	30, 31, 29, 32.5	30.6	Very good.
	10. Kollegal, III quality	..	..	..	..	6	81, 54, 27, 60	55.5	Poor.
	11. Kollegal foot-reeled silk	..	..	..	..	1	33, 35, 38, 39	36.25	Fair.
	12. First quality (Singanallur)	..	..	..	..	6	17.75, 15, 16, 13	15.4	Fair.
	13. Charkha silk (Chickballapur)	..	..	..	..	Hank too big, not possible for winding tests.	20, 15.75, 18	17.9	Fair.

N.B.—Prices given for silks from No. 1 to No. 7 are Bombay prices per pound.

TABLE LXII.—Comparative Silk Tests done in Mysore Silk Filatures, Limited, Mysore, based on International Standards—September, 1938—contd.

Kind of silk.	Elasticity, percentage of elongation before breaking.					Tenacity, No. of grammes of weight supported.					Lustre.	Cleanliness.
Foreign silk	15	14.2	17.8	16.4	Average 15.8	124	105	134	158	128.5	Poor	Not completely free from floss.
	13	14	17	14	Average 14.5	58	58	64	67	61.75	Fair	Ditto.
	20.2	10.8	13	17.8	Average 15.4	57	48	54	61	55.0	Dull	As far as possible free from floss.
	14.8	9.6	15	7.8	Average 11.8	74	65	70	64	68.25	Fair	Ditto.
	18.6	20	15	16.8	Average 17.1	74	76	71	65	71.5	Dull	Ditto.
Indian silk	14	20.8	14.6	17.8	Average 16.8	129	134	104	111	119.5	Dull	Not completely free from floss.
	7	20	15.2	8	Average 12.5	70	60	71	95	74	Dull	Good.
	17.4	18	16.4	19.2	Average 17.7	60	72	80	60	68	Very good	99 % clean silk. Certain percentage of floss could be seen here and there.
	21.8	19	18.6	15	Average 18.6	134	107	130	128	124.7	Very good	Ditto.
	Too coarse for serimeter tests										Dirty	Very bad.
	13	10.2	7	..	Average 10.1	44	57	44	..	48.3	Good	Good. Contains less floss.
	13	13	17.8	8.5	Average 13.07	55	55	45	41	49	Good	Good. Ditto.
	12	9.8	12	..	Average 11.2	80	51	57	...	62.6	Good	Good. Ditto.

N.B.—Prices given for silks from No. 1 to No. 7 are Bombay prices per pound.

SUBSEQUENT PROCESSES—BOILING OFF—RE-REELING—THROWING. 97

It will be seen that with the exception of one example of III quality silk (all the Indian silks are superior to imported silks in lustre, and the Indian filature silks have greater tenacity and strength) (Indian silks compare unfavourably with Chinese and Japanese in uniformity of denier, while Japanese are noticeably free from floss.) One Japanese sample shows a high percentage of breakages, and the Kashmir filature samples give good results at the winding test but on the whole the advantage in winding quality is with the imported article. The general results of the tests are that while imported silks are on the whole superior there is not a marked difference between them and those produced in Indian filatures.

CHAPTER VIII.

Silk Waste.

59. (Silk waste is the principal by-product of raw silk and the price at which it is sold has an important bearing on the prosperity of the industry.) It is the raw material of spun silk. (It comprises all the silk in the cocoons which cannot be reeled or thrown. Some of it consists of the floss or outer covering of the cocoon which is formed by the silk filaments with which the silk worm prepares a kind of hammock to support itself and the cocoon that it is spinning. It is also obtained from pierced cocoons that is cocoons from which the moth has emerged before reeling either because it is required for its eggs or because it has come to maturity before the cocoon is stifled. Cocoons which have been damaged and cannot, therefore, be reeled, also contribute to the supply. Finally there are the loose ends and the various inequalities in the raw silk which are discarded in one or other of the processes of manufacture.) Of the various kinds of silk waste reeling waste forms the bulk. (The quantity of the silk waste obtained from cocoons of any given species varies inversely with the quality of the silk produced. It is greatest in the case of filature silk, while the output from the inferior qualities of charkha silk is the smallest.) No silk waste is obtained from the reeling of "Ghora" or third quality silk in Bengal. The quantity also varies with the different races of cocoons being smaller in the case of univoltines than multivoltines which yield a larger amount of floss. The figures for the percentage of waste per lb. of silk produced given to us are:—

TABLE LXIII.

<i>Filature silk.</i>										Per cent.
✓ Kashmir	.	.	.	.	.	.	.	.	.	80
Jammu	.	.	.	.	.	.	.	.	.	45
Mysore	.	.	.	.	.	.	.	.	.	70
Madras	.	.	.	.	.	.	.	.	.	60.05
<i>Charkha silk.</i>										
Mysore—										
I class	.	.	.	.	.	.	.	.	.	65
II & III classes	.	.	.	.	.	.	.	.	.	45-60
Madras—										
I class	.	.	.	.	.	.	.	.	.	67
II "	.	.	.	.	.	.	.	.	.	50
III "	.	.	.	.	.	.	.	.	.	38
Bengal—										
Tana	.	.	.	.	.	.	.	.	.	75-103
Varna	.	.	.	.	.	.	.	.	.	59
Ghora	.	.	.	.	.	.	.	.	.	Nil.

We have adopted these percentages in calculating the cost of reeling.

60. The prices of silk waste vary considerably according to the quality. As much as Rs. 1-3 per lb. was obtained in 1937 for the best quality Kashmir silk waste known as Sarnakh. The average prices obtained are given below. The Kashmir waste is from the filature whereas at the other places it is charkha waste.

TABLE LXIV.

		Average price per lb.	
		As. p.	
Kashmir—			
1932-33			
1933-34			9 8
1934-35			8 4
1935-36			7 9
1936-37			7 4
1937-38			9 7
Mysore—			
1932-33			2 11
1933-34			1 9
1934-35			1 1
1935-36			2 6
1936-37			3 7
1937-38			5 4
Madras—			
1933-34			1 2
1934-35			1 7
1935-36			2 5
1936-37			3 10
1937-38			5 6
Bengal—			
1933-34			2 3
1934-35			2 3
1935-36			2 3
1936-37			2 0
1937-38			4 0

(The higher average price fetched for filature silk waste is noticeable.) The price of charkha waste shows a distinct tendency to improve. (Since the establishment of the Spun Silk mill at Chennapatna in Mysore the price of silk waste has risen.) We give below the prices at which the different varieties of silk waste are being purchased for the mill.

TABLE LXV.

	Per lb.
	As. r.
(1) Filature silk waste	10 9 ✓
(2) Charkha silk waste	6 11 ✓
(3) Throwsters' waste	7 2 ✓
(4) Domestic Basin waste	10 5 ✓
(5) Pierced cocoons—Mysore	14 0 ✓
(6) Pierced cocoons—Foreign	11 0 ✓
(7) Double conditioned cocoons	8 0 ✓
(8) Pierced double cocoons	14 0 ✓

61. During the recent years the bulk of silk waste has been exported from India to Europe: the quantities and values are given in the Table below:—

Exports,

TABLE LXVI.

Year.	Quantity. Lbs.	Value. Rs.	Value per lb. Annas.
1932-33	73,796	20,911	4.5
1933-34	429,090	1,87,054	7.0
1934-35	663,197	1,74,480	4.2
1935-36	913,034	2,95,004	5.2
1936-37	604,011	2,70,163	7.1
1937-38	403,282	2,20,345	9.1

These figures include silk waste derived from tasar, muga and eri cocoons to the extent given below:—

TABLE LXVII.

Year.	Quantity. Lbs.	Value. Rs.
1932-33	42,000	11,516
1933-34	62,257	10,048
1934-35	297,438	57,404
1935-36	381,058	97,777
1936-37	294,747	95,824
1937-38	155,144	68,624

The average price obtained for silk waste in Kashmir in 1937-38 was 9 annas 7 pies, and 10 annas 9 pies is the price reported by the Mysore Spun Silk Mills for the current year. As, however, there has been recently a fall in the price of silk waste we have taken 10 annas as the price for the purpose of costing filature silk. Charkha silk waste would fetch if in a clean condition 6 to 8 annas a pound delivered at the Mysore Spun Silk Mills, but there is a loss of about 12½ per cent. in cleaning the waste obtained from the reelers; the price of uncleaned waste usually varies between 4 and 5 annas, but as much as 5 annas 6 pies was realised in Madras in

1937-38. Owing to the recent fall in the price we have not felt justified in adopting a higher figure than 4 annas a pound. The last Tariff Board observed that the establishment of spun silk mills in India to utilise the raw material available in the country should prove a paying proposition. The only mill to be erected, however, is the one mentioned above. For that purpose a Company has been formed under the auspices of the Mysore Government with an issued capital of Rs. 8½ lakhs. This mill has 3,000 spindles and an annual production capacity of 80,000 lbs. of spun silk and 60,000 lbs. of noils against 1,584,000 and 475,000 lbs. respectively imported into India in 1937-38; it will be able, therefore, to supply some at least of the home demand. The Company commenced to train the necessary staff in January, 1938, and it is too early therefore to forecast the success of its operations, but at present prices and with efficient management its prospects are hopeful.

62. The imports into India of silk yarns made from silk waste and noils have been separately recorded in the trade returns since 1934-35 and are as follows:—

TABLE LXVIII.*

	Thousand lbs.	Lakhs of rupees.
1934-35	3,163.8	73.19
1935-36	3,514.9	79.08
1936-37	2,268.2	53.63
1937-38	2,059.2	47.46

About three-fourths of this amount appears to be yarn made from silk waste as 1,584.3 thousand lbs. valued at Rs. 42.62 lakhs of that commodity were imported in 1937-38, the balance for that year consisting of silk yarn made from noils. The major portion of the imports come from Japan and China who between them provided 86 per cent. of the total for 1936-37. The count that is usually imported is 210/2. There is a very large variety of spun silk that comes from Japan. The average prices of spun silk yarn are given below:—

TABLE LXIX.

	Rs. A. P.	Rs. A. P.
1934-35	3 15 8 to	4 5 2
1935-36	4 1 8 „	4 6 8
1936-37	4 0 8 „	4 10 4
1937-38	4 1 10 „	5 0 11

India produces to-day about 15 lakhs of pounds of raw silk and 10 lakhs of pounds of waste. It imports 16 lakhs of pounds of spun silk in addition to spun silk cloth. Ten lakhs of pounds of waste would yield 3 lakhs of pounds of spun silk. The maximum production of spun silk mill at Bangalore is only 80,000 lbs. a year, so that there is still scope for the development of the industry in this country.

* Please see Introductory Note.

(Very little silk waste is exported from India to China and Japan.) There is no reason to suppose that India's raw material is being returned to her after undergoing a process of manufacture. The very heavy fall in imports since 1935-36 is probably due to competition from staple fibre, which we describe in Chapter X dealing with the handloom industry. Spun silk is chiefly used for the manufacture of " sarees " and to a lesser extent for coatings. It can also be used for shirtings, tapestry, coverings for high class furniture, sewing thread, embroidery and indeed for most of the purposes for which raw silk not of the highest quality is required. Noil yarn is used for coating and for knitting. Its present market price is As. 15 to Rs. 1-2 per lb. according to quality. Noil yarn pays only the *ad valorem* rate of import duty at 25 per cent. and is exempt from the additional specific duty of 14 annas per lb. We have been told that it can be used with advantage in making ropes and strings for military purposes. As it is now being produced in India by the spun Silk Mills in Bangalore, its use for military purposes should be encouraged, as any increased demand for an article made from silk waste will increase the price obtained for it and effect a corresponding reduction in the cost of production of raw silk in this country.

CHAPTER IX.

Non-mulberry Silks.

53. We have dealt hitherto with mulberry silk produced by a domesticated silkworm. There are other kinds of silk produced in India by worms which are either wild or only partly domesticated and feed on trees and plants other than mulberry. As these worms do not feed on a cultivated plant such as the bush mulberry, it is impossible to obtain statistics of production on an acreage basis, and we have experienced great difficulty in ascertaining the extent of the industry. The most important of these silk worms in the tasar worm. It is found in the Central Provinces, Orissa, Bihar and also in the neighbouring portion of the Mirzapore district of the United Provinces. It feeds on a variety of jungle trees the commonest being *asan* and *sal*. In 1933 the production of tasar silk was given as 401,000 lbs. of which 240,000 was reported by Bihar and Orissa and 160,000 by the Central Provinces. On the present occasion Bihar reports 480,000 lbs. But we are unable to obtain figures for Orissa or the Central Provinces. The cost of cultivation is small. In Bihar it is reported that the rearers, who are members of aboriginal tribes, pay a royalty of Re. 1 per family to Government for the right to use the trees in the jungle. They tie the female moths to bits of straw in the trees and thus localise the worms. In due course they collect the cocoons which they sell to merchants. The cocoons are much heavier than those of the mulberry silk worm and 36 large cocoons or 70 small ones weigh one lb. One family may earn from Rs. 2 to Rs. 5 per month in this manner, and their only cash expenditure is the royalty of Re. 1 mentioned above. It is reported that many rearers, who gave up rearing, have again taken to it, so that the industry appears to be in fairly satisfactory position at the present day. Tasar silk has not the same lustre as mulberry silk but can be used for the same purposes. Tasar suiting is suitable for hot weather clothing and competes with spun silk to which it is similar in appearance. The Bihar Government gives the cost of producing 1 lb. of tasar silk from cocoons of medium size as Rs. 5-8. Next in importance of the non-mulberry silk worms is the muga which is found in Assam. A production of 100,000 lbs. of muga silk was reported from Assam in 1933 but we have been unable to obtain a reliable estimate on this occasion. The food of the muga worm is a species of laurel known as *san* or *salu* which grows in scattered clumps in the neighbourhood of the rearers' houses. The worms after hatching are placed on the trees from which the cocoons are subsequently collected. The silk is reeled and spun by the rearers and their families. The silk obtained is largely used for embroidery and borders but may itself be woven into cloth. No statistics of the cost of production are available, but the price of the cloth is about two-thirds of that of mulberry silk. The eri worm feeds on the leaves of the castor plant of which isolated specimens are found growing wild in or on the borders of many fields in Assam. Eri rearing is also carried out in the Bogra district of Bengal. Castor

is grown in small patches and rearing of cocoons and spinning form a home industry giving employment to old women. It is possible that the eri worm could be reared with success in other parts of India where castor can be grown, and experiments have been made in Madras and the question of the development of the ericultural industry is under consideration in the Punjab and Bombay. We give below a table showing the cost of production in Madras and the possibility of the profitable extension of the industry in that area:—

TABLE LXX.

	Lbs.	
1. Quantity of leaves that can be gathered if the leaves are removed from the beginning .	Lbs. 8,150	or about 75 maunds of 82½ lbs.
2. Quantity of leaves available if they are picked after the seeds are formed and fairly matured	Lbs. 4,500	
3. Leaf available for 3 months only in a year.		
4. At best three rearings can be had in a year.		
5. Quantity of leaves available for one rearing .	Lbs. 1,500	
6. Each rearing takes about 20 days.		
7. Ten pounds of leaves are required to produce 1 lb. of green cocoons.		
8. Quantity of cocoons produced	Lbs. 150	
9. Seven pounds of green cocoons : : 1 lb. of dry pierced cocoons (variable factor).		
10. Quantity of pierced cocoons at seven: one rendita : : 21½ lbs. Number of dry pierced cocoons in 1 lb. : : 1,500.		
11. Approximate number of eggs in an ounce .	Nos. 17,000	
12. Quantity allowed for non-hatching, etc. .	Nos. 1,000	
13. Number of worms that can be had from one ounce of eggs	Nos. 16,000	
14. Quantity of eggs required for one rearing—2 ozs.: 21½ lbs. of pierced cocoons are produced in one rearing.		
15. Quantity of pierced cocoons that can be had from one ounce of egg	Lbs. 10½	
Rs. A. P.		
<i>Non-recurring expenditure—</i>		
Rearing trays—80 at As. 4 each	20	0 0
Spinning baskets—60 at As. 2 each	7	8 0
Bamboo racks—six at Rs. 1-4 each	7	8 0
Ant cellars	1	0 0
Total	36	0 0

TABLE LXX—contd.

	Rs. A. P.
<i>Recurring expenditure for conducting three rearings a year—</i>	
Cost of six ounces of eggs at As. 12 per oz.	
at 2 oza. of eggs per rearing	4 8 0
Extra labour required for picking leaves 48 units (girls) at As. 1-6 per unit	4 8 0
Waste paper for spinning	1 0 0
Depreciation on rearing appliances at 20 per cent. per year	7 3 4
Kerosene oil	1 0 0
Sundries	0 12 8
Total	19 0 0
	Lbs.
Output of green cocoons for 3 rearings from 4,600 lbs. of leaves	450
Dry pierced cocoons :: (rendita one : seven)	64
	Rs. A. P.
Sale price of 64 lbs. of pierced cocoons at As. 8 per lb.	32 0 0
Cost of production as per details given above	19 0 0
Net additional profit on each acre by rearing	13 0 0

An experiment was also made to introduce the eri worm in Hyderabad some years ago, but it was not successful. The authorities are thinking of giving it another trial.

We had an opportunity of inspecting eri silk at the depôt of the Bengal Home Industries Association, Calcutta. They have an attractive appearance, and are suitable for curtains, dresses for outdoor wear and similar purposes. The yarn is coarse resembling wool rather than silk. The production of eri silk was reported to be 50,000 lbs. in 1933. Very little attention has been devoted to ericulture, but from such investigation as we have been able to make we consider that the possibilities of its development are very promising. The matter should be further explored.

CHAPTER X.

The Handloom Weaving Industry.

64. (The handloom industry still remains the main consumer of the raw silk produced in India.) There has, however, been an appreciable increase in the number of silk mills since the report of the last Tariff Board. In the statement of large industrial establishments in India in 1937, compiled

The handloom industry the main consumer of Indian raw silk.

by the Department of Commercial Intelligence and Statistics, we find enumerated as many as 105 silk mills employing an average number of 4,729 workers.) But according to our information the bulk of them use artificial silk yarn as their raw material. Some of them are using mixtures but few, if any, are working solely on pure silk goods. In the previous report the Board mentioned that there were three small mills in existence in India—one in Calcutta, one in Bombay and one in Mysore. The present position is that out of these three, one has changed over to cotton goods and another to artificial silk goods. (The Mysore factory belongs to the State Government and is still manufacturing silk goods from the raw silk produced in the State.) It is working as a demonstration factory and not on a commercial basis. The increase in the duty on artificial silk goods to 4 annas per square yard with effect from the 1st April, 1933, gave an impetus to the artificial silk weaving industry and mills began to increase rapidly in number. The further increase to 5 annas per square yard in April 1937 added to their prosperity and the artificial silk goods weaving industry now appears to be established on a firm basis. This is further confirmed by the imports of artificial silk yarn which rose from 79.63 lakhs of pounds in 1932-33 to 315.89 lakhs of pounds in 1937-38, an increase of 297 per cent. Artificial silk yarn is very cheap being sold in India for 12 to 13 annas a pound after a duty of 3 annas a pound has been paid. The most popular denier now in use is 150. When new cloth made from it is equal or superior in lustre to real silk to which it is similar in appearance. Indians even of the lower classes are accustomed to wearing silk at marriages and other ceremonial occasions, and consequently artificial silk in spite of its lack of durability has found a ready market in India because it serves as a substitute for real silk. (We are informed that the purchaser is sometimes ignorant of the fact that he is not buying real silk.) We noticed during our inspections that there was a tendency for imported raw silk to displace indigenous silk in silk weaving mills by reason of its comparative cheapness so that any increase in the production of silk goods in India has not been accompanied by a corresponding rise in the consumption of Indian raw silk.)

65. The silk weaver is found in every part of India. In some areas, particularly those in which the silkworm is reared, there is a tendency to use Indian raw silk to a large extent. In doing so he is doubtless influenced by his close association with those engaged in the sericultural industry.) In such places he has a natural preference for indigenous silk, and we have received complaints that in spite of his preference he is sometimes compelled

Distribution of the weaving industry.

to use the imported article owing to pressure brought upon him by the middleman who finances him and who is generally also the dealer in imported yarns. In other areas the silk weaver makes free use of artificial silk yarns as well as silk, his choice being influenced by the demand of the moment.

66. In its previous report the Tariff Board endeavoured to present statistics showing the extent of the handloom industry in India.

Difficulty of statistics. On this occasion we have received information from almost all British Indian provinces and most of the Indian States in reply to our questionnaire. But the information is in many cases incomplete or out of date. For example, the Government of Madras, in which province there is a larger handloom weaving population than in any other province in India, observes that the figure for the total number of handlooms given in 1933 as 193,474 was found by a census taken in 1934-35 to be much under-estimated and give a figure of 314,959 for that year which, they suggest, may be taken for the present day. The Hyderabad State in spite of its important handloom industry repeat the 1930-31 figure of 97,605 looms but add that they have started a resurvey this year. Further, (the number of looms at present employed entirely on silk weaving has declined and to-day it forms a very small proportion of the total; it is in consequence exceedingly difficult to obtain statistics relating to silk weaving separately from those relating to other forms of weaving.) In Surat alone we were told that the production has declined from a crore of rupees worth of cloth to 20 lakhs. (We are unable therefore to show the progress of the handloom industry in recent years. We are informed that the number of pure silk weavers has either declined or remained stationary during the last five years. There has, however, been a marked increase in the number of weavers who produce material from artificial silk or staple fibre.

67. Although the number of weavers producing only silk goods appears to have declined, the total amount of raw silk available for

Production of handloom silk goods.

consumption in India, most of which, as we have already pointed out, finds its way to the handloom, has remained stationary. In

the table below we give a comparison between the years 1931-32 and 1937-38.

TABLE LXXI*.—Quantity of raw silk imported and produced in India.

	(In lakhs of pounds).		Percentage of variation.
	1931-32.	1937-38.	
<i>Imported—</i>			
Raw silk	19.23	25.35	+32
Silk yarn	17.10	23.37	+37
Art silk yarn	79.63	315.89	297
Spun silk	†	1,684.30	
Staple fibre	†	2,681.94	
<i>Produced in India—</i>			
Raw silk	20.65	15.80	-24
Total	136.61	4,646.65	

* Please see Introductory Note.

† Not separately recorded.

It will be seen that there has been a large increase in the imports of raw silk since 1931-32 and a corresponding decline in the production of Indian silk.

68. Staple fibre has recently been introduced into India; it is a fibre made from artificial silk but with a lustre resembling that of silk. The price of staple fibre yarn varies from Rs. 1-1 to Rs. 1-6 per pound according to quality and count. Generally speaking the weaver uses 60/2 and 80/2 and in some cases even 40/2 is used. (It is reported to be stronger than artificial silk, and competes with that article and with the finer qualities of cotton and spun silk.) It is reported from Surat, an important weaving centre in the Bombay Presidency, that 60,000 lbs. were used in 1936-37 and that the consumption had now risen to 40,000 lbs. monthly. We are informed that since the increase of duty on spun silk in 1936, staple fibre has taken its place and at present it is being used in very large quantities because the cloth made from it is in appearance very similar to spun silk cloth. The Punjab Government report that staple fibre has practically ousted spun silk from all the markets of the Province except two. But they express the opinion that owing to its poor lasting qualities its popularity is not likely to be longlived; it does not appear to be of much consequence in Madras and is unknown in Bengal. We are informed by the Hyderabad Silk Mills that staple fibre cloth is whitish in appearance whereas spun silk cloth is creamy. (The former therefore is unlikely to replace the latter permanently.) We may conclude that staple fibre yarn is a new yarn which has found favour with weavers in some parts of India, but has not yet been in use for a sufficiently long time for its future as a raw material of the weaving industry to be accurately determined. It is of importance from the point of view of the sericultural industry in that it is an imported article competing with eri and spun silk. It is liable to a 25 per cent. *ad valorem* import duty under the miscellaneous item No. 87—all other articles not otherwise specified—of the Import Tariff Schedule. The cum duty price of staple fibre in Bombay varies from As. 14-9 to Rs. 1-5-9 per lb., but the most popular brand is Paramount 80/2 priced at Rs. 1-5-9. Eri silk is sold at Rs. 1-8 to Rs. 3 per lb. according to quality. We have not been supplied with figures that would enable us to calculate a fair selling price for eri silk in the same way as we have calculated that for raw silk. But we suggest that in view of the large increase of the imports of staple fibre during the last 2 years and the disparity between the duty levied on it and that of 25 per cent. *plus* 14 annas per lb. levied on spun silk a small increase in the duty is desirable. (We therefore suggest that a duty of 25 per cent. or 8 annas per lb. whichever is higher should be imposed.)

69. Although, as we have pointed out, complete statistics are not available, the figures that we have been able to present are confirmed by the results of our own observations. There can be little doubt that during the last few years the tendency in the silk

Use of cheaper substitutes.

handloom weaving industry has been to utilise cheaper substitutes in the place of silk, and at the same time where real silk is being used the indigenous article is giving place to the imported one. (One of the reasons given to us is that there is very little production of white silk in India.) Weavers prefer this silk to yellow because it takes dye well and the loss in degumming is less. The technical improvements made in the quality of artificial silk yarn and its use as a mixture in combination with other materials as in the case of the Nitto and Niyon yarns imported from Japan have contributed to this result. We also found during our visit to Hyderabad that imported tasar yarn was being used. It is imported from England and Japan and fetches a price of Rs. 2-15 per lb. for 2/95s. The weaver has a natural preference for the indigenous products of India, but has difficulty in obtaining a market for all the cloth woven from Indian yarn. Although, therefore, silk substitutes do not compete directly with raw silk, the effect of their indirect competition should not be overlooked.

70. The organisation of the silk weaving industry does not differ materially from that described in paragraph 121 of the Tariff Board report of 1933.

Organisation of the industry. The dealer supplies yarn to the weaver and receives back the woven fabrics which he then gets finished up. In this case the weaver is paid wages fixed by a previous agreement. Under another system the weaver obtains the yarn on credit from the dealer to whom he pays interest. If he cannot effect a sale himself he returns the cloth to the dealer who sells it on his behalf charging a small commission also. (A number of weavers have now ceased to be independent and swollen the ranks of the wage earners in order to obtain continuous work and be relieved of the responsibility for the sale of their goods.) In some cases they are supplied with raw materials, and do not receive their wages until the cloth is ready. The wages depend upon the kind of material used and the selling price of the finished article. In Surat we were told that owing to the increased use of staple fibre costing Rs. 1-6 per lb. as against Rs. 5 to Rs. 5-4 for spun silk yarn, the employers were able to reduce the total wages in spite of the fact that the weaver had to work for the same number of days.

71. We find some difficulty in comparing the cost of handloom woven silk goods at the present day with that obtaining before the grant of protection to the raw silk industry because of the appreciable changes that have occurred in the nature of the articles produced. We have, however, been able to obtain a few instances in which a comparison can be made. We give below a table showing the variations in cost, material and weavers' wages.

TABLE LXXII.—Cost of production of various kinds of handwoven goods.

Class of cloth (typical).	Year.	Dimensions.	Material.	Cost.						Sale price.	Production per day.	Weaver's earnings per day.
				Raw material.	Winding and twisting.	Dyeing.	Weaving.	Other charges.	Total.			
		In. Yds.		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Yds.	Rs. a. p.
Madras— Plain sarree . . .	1931-32	45 9		9 8 0	1 4 0	2 8 0	6 0 0	..	19 4 0	21 0 0	1½	1 1 10
	1937-38	45 8	Mysore silk . . .	8 2 0	1 0 0	0 12 0	3 12 0	..	13 10 0	14 0 0	1½	0 8 0
Punjab— Sarree . . .	1931-32	45 5	Spun silk warp and weft 11 to 15 oz. per sarree.	2 0 0	0 4 0	0 4 0	1 0 0	0 8 0	4 0 0	4 to 5 per sarree.	2 to 5 on hand-loom.	0 6 5 to 1 3 2
	1937-38	45 5	Warp 140-2 spun silk. Weft 210-2 spun silk.	2 2 0	..	0 1 0	0 12 0	0 5 0	3 4 0	3 8 0	Not given	0 12 0 per piece.
Surat— Silk Lungi . . .	1931-32	45 3	Imported silk Yarn ¼ lb.	3 0 0	..	..	1 0 0	..	4 0 0	4 8 0	3	1 0 0
	1937-38	45 3		2 4 0	0 6 0	0 2 0	0 6 0	0 8 0	3 10 0	3 12 0 to 4 0 0	..	0 4 0
Mysore— Plain sarree . . .	1931-32	45 9	Mysore country silk 2½ lbs. raw silk.	13 1 0	1 10 0	2 6 0	8 0 0	2 2 0	27 3 0	30 10 0	1	0 8 6
	1937-38	44 9	Mysore country (superior) 2½ lbs. raw silk.	11 2 0	1 0 0	1 0 0	5 0 0	1 10 0	19 12 0	21 0 0	1	0 5 4
Kashmir— Plain woven sarree.	1931-32	45 7	Spun silk . . .	4 8 0	0 2 6	0 8 0	1 1 6	0 5 0	6 9 0	7 0 9	8	1 4 0
	1937-38	45 8	Kashmir silk and spun silk in the ratio 50 : 50.	..	..	..	..	..	..	6 0 0	6	0 8 6

(The same difficulty occurs in comparing the cost to-day of articles made in India and imported ones, because they are seldom the same in design or quality.) But we have been supplied with a statement which we give below from the Director of Industries, Bombay, showing the percentage of difference between the retail price of Indian and Japanese manufactures. (It shows that the competition is not confined to raw silk but also extends to manufactured fabrics.) The greater cheapness of the Japanese article is noticeable, the difference in price being in some instances as much as forty per cent. ✓

TABLE LXXIII.—*Retail prices of Japanese and Indian goods competing in the Indian market.*

Serial No.	Description of cloth.	Whether manufactured in India or in Japan.	Width of cloth in inches.	Length of cloth per piece in yds.	Weight per piece of cloth in tolas.	Wholesale price per piece of cloth.	Retail price per yd. of silk cloth.	Retail price per sq. yd. of silk cloth.	Difference in price per sq. yd. between Indian and Japanese silk cloth.	Which quality is cheaper.	Percentage of cheapness of Japanese over Indian silk fabrics.
1	Silk Georgette	India . Japan .	50 50	25 25	79 54	Rs. a. p. 24 8 0 24 0 0	Rs. a. p. 1 2 0 1 1 6	Rs. a. p. 0 12 11½ 0 12 7	Rs. a. p. 0 0 0 0 4½	.. Japanese	.. 3
2	Silk Paj	India . Japan .	29 47	20 25	82 70	15 0 0 24 0 0	0 13 0 1 1 6	1 0 0 0 13 5	.. 0 2 7	.. Japanese	.. 16-25
3	Art silk satin	India . (Real silk and cotton) Japan . (Art silk and staple fibre)	36 36	9 9	100 100	18 0 0 13 8 0	2 4 0 1 9 0	2 4 0 1 9 0	.. 0 11 0	.. Japanese	.. 30
4	Art silk and cotton mixed satin.	India . Japan .	26 30	9 25	55 125½	2 13 0 6 4 0	0 6 6 0 4 6	0 9 0 0 5 5	.. 0 3 7	.. Japanese	.. 40
5	Art silk taffeta	India . Japan .	27 43	25 25	118 170	8 8 0 9 6 0	0 6 0 0 6 6	0 8 0 0 5 5	.. 0 2 7	.. Japanese	.. 31
6	Real silk satin	India . Japan .	26 29	12 9	65 51	27 0 0 14 0 0	2 8 0 2 0 0	3 7 5 2 9 0	.. 0 14 5	.. Japanese	.. 26
7	Silk coating	India . Japan .	27 29	30 50	270 338	35 8 0 56 0 0	1 6 0 1 2 0	1 13 0 1 6 4	.. 0 6 8	.. Japanese	.. 23
8	Silk shirting	India . Japan .	28 30	50 50	205 190	43 12 0 35 0 0	1 0 0 0 12 0	1 4 7 0 14 0	.. 0 6 7	.. Japanese	.. 33

(It is generally agreed that Indian silks compare favourably with the imported article in lustre, tenacity and elasticity but are inferior in evenness and winding qualities, that is to say, breakages are more frequent, the threads are uneven and there is a greater loss in degumming.) The most popular deniers are 20/22 and 13/15 because the consumer prefers finer materials. Canton silk is not popular with mills because it cannot be twisted to the extent required, and its denier is not uniform or true to specification. Its cheapness makes an appeal to handloom weavers. Japanese silk is clean and even and well graded. Indian yellow silk suffers from the disadvantage that it retains some of its original colour after degumming. From the comparison made in the following table it appears that material made from indigenous silk is more expensive than that from imported silk. The preference of the weaver for imported silk is easily understood.

TABLE LXXIV.—*Cost of a high quality Murshidabad Sari 46" x 5½ yards with plain border.*

	With Bengal silk.		With Japanese silk.	
	Rs. a. p.		Rs. a. p.	
1. Cost of raw material—price prevailing in November 1938, per lb.	6	8 0	6	0 0
2. Winding and Twisting—				
(a) Winding	7	6		
(b) Twisting	8	0		
	0	13 6	0	13 6
3. Bleaching	0	2 0	0	2 0
4. Warping and beaming	0	4 3	0	4 3
5. Sizing	0	2 0	0	2 0
6. Dyeing border	0	8 0	0	8 0
7. Other charges (Reed)	0	1 3	0	1 3
Ditto (Heald thread)	0	0 4	0	0 4
8. Weaving (labour)	2	12 0	2	12 0
Total	11	3 4	10	11 4

72. We shall now examine the classes of silk goods manufactured in India and those imported from abroad. The following statements show the quantity and value of Silk goods. imported goods made of pure silk, of silk mixed with other materials and of artificial silk. These tables show the increasing degree of competition both in volume and price which the Indian weaver has to meet in India.

Please see Introductory Note.

TABLE LXXV.—Imports of Silk Piecegoods into India.

(Quantity in thousands of yards and value in lakhs of rupees.)

From	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	
	Yds.	Yds.	Yds.	Yds.	Yds.	Rs.	Rs.	Rs.	Rs.	Rs.	
United Kingdom . .	48.2	86.7	11.3	22.3	19.2	68	55	24	62	39	
Ceylon	20.7	204.7	197.3	22.0	15.7	34	81	72	99	97	
Straits Settlements . .	25.7	85.3	216.5	67.4	264.3	34	48	1.13	21	83	
Hongkong	909.7	628.2	1,447.3	1,934.2	582.8	3.41	2.43	3.02	4.67	1.90	
Japan	34,269.1	27,786.5	21,717.8	16,171.6	18,718.4	147.39	100.89	71.83	62.88	73.12	
China	5,746.2	4,462.1	3,808.0	3,260.2	3,005.5	28.65	18.73	12.89	12.01	11.78	
Other countries . .	103.8	76.2	49.8	85.1	265.5	1.35	1.31	.54	.74	1.85	
Total	Yards.	41,123.4	33,339.7	27,430.0	21,562.8	22,871.4	1,82.16	1,25.20	90.37	81.22	89.92
	Lbs.	..	2,627.9	2,146.2	1,742.0	1,806.3	..	..	..	..	..

Please see Introductory Note.
TABLE LXXVI.—Imports of goods of silk mixed with other materials.
 (Quantity in thousands of yards and value in lakhs of rupees.)

From	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	Yds.	Yds.	Yds.	Yds.	Yds.	Rs.	Rs.	Rs.	Rs.	Rs.
United Kingdom	132.1	213.0	99.1	111.0	24.9	1.82	2.48	1.31	1.46	.39
Ceylon	1.2	68.5	253.4	135.6	..	.01	.32	1.03	.46	..
Germany	242.8	397.1	209.7	238.9	223.0	3.06	3.88	2.28	2.52	2.87
Japan	8,048.5	11,744.1	7,817.2	5,086.6	6,006.4	40.73	60.44	34.94	24.18	28.90
China	1,293.3	820.7	252.6	583.4	593.8	6.95	4.74	1.38	3.39	3.53
Other countries	135.5	127.9	170.3	76.6	183.5	2.42	2.07	2.27	1.69	2.21
Total	Yards	9,853.4	13,371.3	8,802.3	6,232.1	7,031.6	54.99	73.93	43.21	33.70
	Lbs.	..	1,785.1	1,117.5	800.7	942.7	..	..	..	..

Please see Introductory Note.
TABLE LXXVII.—Imports of piecegoods entirely made of artificial silk.
 (Quantity in thousands of yards and value in lakhs of rupees.)

	1932-33.		1933-34.		1934-35.		1935-36.		1936-37.		1937-38.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Yds. (000)	R(lakhs.)	Yds. (000)	R(lakhs.)	Yds. (000)	R(lakhs.)	Yds. (000)	R(lakhs.)	Yds. (000)	R(lakhs.)	Yds. (000)	R(lakhs.)
United Kingdom	429.88	2.54	431.32	2.61	464.65	2.91	348.73	2.45	492.32	3.72	799.55	5.72
Ceylon	23.14	0.07	10.27	.04	14.74	0.06	122.07	.28	26.70	0.09	17.39	0.06
Straits Settlements . . .	51.42	0.18	40.26	.18	48.19	0.18	99.67	.23	104.18	0.18	52.16	0.13
Kenya	48.09	0.15	20.49	.11	28.93	0.09	..	..	7.58	0.02	..	..
Germany	4.80	0.07	40.27	.35	9.98	0.08	23.42	.30	79.91	0.63	80.67	0.85
Belgium	..	..	1.61	.03	1.05	.01	1.54	.03	4.03	0.05	1.72	0.04
France	116.68	1.09	72.02	.67	43.25	.42	17.40	.17	18.84	0.35	28.79	0.36
Switzerland	3.12	0.04	15.55	.14	13.93	.18	.47	.01	8.25	.04	0.62	0.01
Italy	128.02	0.68	80.61	.63	146.89	.95	62.82	.38	11.29	.09	23.35	0.20
Iraq	231.38	0.52	2.28	.01	21.54	.09	25.26	.06	11.00	.03	0.98	..
Iran	..	..	..	..	110.38	.17	..	..	..	..	..	..
China	23.86	0.11	13.40	.08	6.94	.03	3.17	.01	1.00	..	24.74	0.08
Japan	111,703.46	2,46.12	39,631.28	1,03.04	66,643.49	1,77.82	73,731.67	1,84.33	101,446.06	3,32.76	83,455.08	2,09.68
Other Countries	55.43	0.40	33.27	0.18	49.63	0.20	49.53	.23	107.51	0.28	210.70	1.00
Total	112,819.28	2,52.97	40,397.63	1,08.23	67,600.64	1,83.19	74,491.05	1,88.46	102,318.67	2,38.26	89,694.94	2,18.13

(The tables show that there is a progressive decline in the imports of silk piecegoods since 1933-34 both from China and Japan but those from Hongkong have more than doubled from 909.7 thousand yards in 1933-34 to 1,934.2 thousand yards in 1936-37 only to fall again to 582.8 thousand yards in the following year.)

Mixtures also record a decline but not to the same extent. The imports from the United Kingdom, however, have fallen from 132.1 thousand yards in 1933-34 to 24.9 thousand yards in 1937-38. Imports from China have also fallen from 1,293.3 thousand yards in 1933-34 to 593.8 thousand yards in 1937-38.

Artificial piecegoods present a different picture. The imports from United Kingdom have increased from 429.88 thousand yards in 1933-34 to 798.55 thousand yards in 1937-38. Japan's imports have fallen but not to any appreciable extent and in fact stand at a higher level than in 1934-35 and 1935-36. Imports from other countries, e.g., France, Italy and Iraq are now on a very small scale.

We have also received statements from the Provincial and Indian States Governments showing typical classes of cloth manufactured in India. There has been very little change in this respect as compared to 1931-32 except that there has been a tendency to reduce costs by the manufacture of light-weight materials: for instance, the length of the sari has been reduced by a yard as also have Daryais and Dupettas. Shirtings and suitings are now to a large extent made of mixtures. Expensive cloth has given way to cheaper varieties. (Japan is the most serious competitor.) The Vice Consul for China informed the Board that the bulk of the silk piecegoods which are coming into India from China consist of special qualities and types which are not manufactured in India such as gauze, paj, ponjee, ojuria, dhupchow, khaskhasia and chikun. (He stated that silk satin is the only silk fabric which is competing directly with the Indian article, and suggested that the Board should consider differential treatment for Japanese and Chinese silk goods.) As a matter of fact the Customs Tariff Schedule prescribes different duties for imports from these two countries. While the Chinese piecegoods of the following descriptions, ghatpote, plain and flower, and gauze, plain and flower, are liable to duty at 50 per cent. *ad valorem* plus Re. 1 per lb. under the notification of the Government of India, Finance Department (Central Revenues), No. 33, dated the 22nd June, 1935, similar piecegoods from all other countries including Japan pay the usual rate of 50 per cent. *ad valorem* plus Rs. 2 per pound. The differential duty is justified by the fact that Chinese cloth weighs more than Japanese.

We shall next examine the conditions under which silk cloth is manufactured in power looms. We give below a Table showing the costs of manufacture of saris from Kashmir and imported raw silk and spun silk. It will be seen that the cost differs very much as compared to the cost of manufacturing a sari out of Indian silk. This Table further confirms the views placed before us as to why

the weavers have gone in for the manufacture of cloth from cheaper fibres.) Most of the mills in India manufacture artificial silk goods such as Taffetas, Georgettes, Crepes Saris either plain or with designs. Very few mills now manufacture real silk goods because of the competition of artificial silk goods and mixtures.

TABLE LXXVIII.—Cost of manufacture of saris in power looms.

	45" x 6½ yards, weight 26 tolas in finished condition.		45" x 5 yards, weight of sari 17½ tolas in finished condition.	45" x 5½ yards weight of sari 40 tolas.
	With extra quality Kashmir silk 20-22 denier.	With Japanese silk.	With spun and raw silk both Japanese.	With artificial silk (Japanese).
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Material . . .	6 8 0	5 2 0	Spun silk : 1 11 0 13 tolas. Raw silk : 0 14 0 5½ tolas.	1 2 0 including wastage.
Labour for all processes.	1 8 0	1 8 0	1 2 0	1 4 0
Cost . . .	8 0 0	6 10 0	3 11 0	2 6 0
Sale price . . .	9 0 0	8 0 0	5 0 0	3 0 0 to 3 8 0

73. During the course of our enquiry we have visited a number of silk handloom weaving centres and we believe that (the handloom weaving industry should be able to hold its own in India provided the weavers confine themselves to the types and designs of cloths which cannot ordinarily be made in mills.)

Future of the handloom weaving industry. The hereditary skill of the weavers, if directed into proper channels, is undoubtedly a national asset. One great need is the standardisation of the products of the silk handloom in the Japanese method in order to secure a certain market for the silk fabrics. The need for greater Government assistance particularly in the spheres of finance and marketing was frequently impressed on us. A deputation of Surat handloom weavers informed us that the greatest needs of the industry at the present moment were (a common Dyeing and Finishing House and an expert designer). We ourselves have observed the attractiveness of special designs in Aurangabad where Himru and Maslru silk cloth and Paithan borders have a wide reputation and are now receiving assistance from orders received from the Government of His Exalted Highness the Nizam of Hyderabad. Similarly the silk products of Multan known as Mubadi Lungi, Daryai, Susi and Tasila owing to their specialised designs command a higher price than the more common types and are said to be

immune from the effects of foreign competition. (We believe that the real interest of the silk weavers lies in concentrating on specialised high quality goods, rather than in abandoning silk in favour of cheaper substitutes and producing articles that will compete with difficulty with the mass made products of the mills.) We give below Tables showing the prices of certain standard qualities produced in a mill and on a handloom and the percentage of profit derived by the weavers on goods similar to those manufactured in mills.

TABLE LXXIX.—*Description and prices of various handloom and mill products.*

No.	Description.	Width.	Rate per yard.	Remarks.
<i>Handloom products.</i>				
1	Tussar	27"	4 annas.	
2	Doria Silk and Jari	44"	8 annas 8 pias.	i.e., for 27" 5 annas 4 pias per yard.
3	Shiozie Square	27"	3 annas.	
4	Shiozie Dobby	27"	4 "	
5	Shiozie shirting	27"	3 "	
6	Silk and Art silk Mix. Sq. Doria.	44"	4 "	i.e., for 27" 2 annas 5½ pias per yard.
7	Shiozie Doria	27"	3 "	
8	Sateen	27"	3 "	
9	Shiozie Plain	27"	3 "	
10	Sari	--	--	5 yards, Rs. 2 per piece.
<i>Letter. Mill products.</i>				
A	Shirting	25"	5 annas 3 pias.	
B	Shiozie	27"	4 " 6 "	
C	Cabe	27"	5 "	
D	Sateen	27"	4 "	
E	Bosque	27"	4 " 6 pias.	

TABLE LXXX.—Cost of various articles manufactured on handlooms showing profit percentage in various cases.

Particulars.	Cost of Raw Material.	Weaving charges.	Winding, Warping, Drafting, etc., charges.	Rent, Insurance, Power, etc., charges.	Washing and Dyeing charges.	Total cost.	Sale price.	Percentage of profit.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
1. Kashmir Silk Plain Sarees, 45" width and 10 yards in length.	5 10 0	1 9 0	1 2 0	0 5 0	0 10 0	9 4 0	9 6 0	1½%
	(1 lb. 2 oz.) 33 5 0							
2. Kashmir Silk Tabby 45"×55 yards.	(6 lbs. 9 oz.) 185 0 0	8 10 0	4 5 0	0 13 0	3 7 0	50 8 0	51 9 0	2%
3. Spun white, 54"×44 yards	(37 lbs.) 76 5 0	11 0 0	5 8 0	4 8 0	9 0 0	215 0 0	222 0 0	3½%
4. Spun khaki, 54"	(18 lbs. 8 oz.) 44 6 0	5 13 0	2 7 0	1 1 0	2 6 0	88 0 0	90 0 0	About 3%
5. Daryayi, 25"×70 yards . .	(8 lbs. 14 oz.) 80 0 0	13 5 0	2 3 0	2 3 0	3 0 0	85 1 0	86 9 0	2.5%
6. Suiting silk	(16 lbs.) 5 0 0	5 0 0	2 8 0	1 2 0	4 6 0	93 0 0	95 8 0	3%
7. Kashmir silk handkerchiefs .	(1 lb.) 10 0 0	2 5 0	1 2 6	0 4 6	1 2 0	9 14 0	10 0 0	1½%
8. Kashmir silk Turban, 27"×28 yards.	(2 lbs.)	2 10 0	1 5 0	0 7 0	1 2 0	16 2 0	17 0 0	5½%

NOTE.—This statement has been given by Messrs. Sarwanand Raina & Sons, Srinagar. This firm has 110 handlooms and are the largest handloom weavers. The profits shown are the minimum and the maximum profits do not exceed 7½% and are realised only in a fair case.

It has even been suggested to us that the mills should be prohibited from manufacturing cloth of particular deniers in order to reserve them for handlooms. But we doubt if such a provision would work satisfactorily in practice. In view of the widespread demand that exists to-day for the development of cottage industries, we have no doubt that the various Governments concerned will do everything that lies in their power to assist and develop the handloom industry. In particular it has been suggested to us that the Central Government should provide subsidies to the local Governments for the development of the silk handloom industry similar to those given for the Cotton industry. We suggest, however, that in view of the special importance of research to the raw silk industry it would be better for the Central Government to give as much assistance as it can in the form of grants in aid of research. We make recommendations in regard to this in Chapter XIV.

CHAPTER XI.

Marketing of Indian Silk.

- ✓ 74. (There has been little change in the last five years in the organisation of the marketing of Indian silk.) We have already described in Chapter III the extent to which the outturn of filature silk is being increased. Such progress as has been made is towards increasing the capacity of existing filatures; it is of recent date, and many of the new basins are still under construction. (Owing to the uniform nature and extent of the product, the difficulties encountered in marketing filature silk are much less acute than those of charkha silk.) (Charkha silk is produced in small units spread over a considerable area. It is predominantly a cottage industry, and its marketing problems are similar to those of other cottage industries.) The handloom weaver or the owner of a weaving establishment is the consumer of practically the entire output of charkha silk. (It is inevitable, therefore, that in its journey from the producer to the consumer charkha silk should pass through the hands of one or more middlemen, who frequently finance the producer or the consumer or both.) The marketing of imported silk is similar to that of other imported goods. The importers, who may be Indian firms with branch offices in Japan, distribute it either direct or through middlemen to all parts of the country. From facts that have come to our notice while on tour it is clear that the progress which Japan has made during the period of protection in the Indian market has been assisted materially by the organisation of the distributing agency.

75. The principal use which is found for silk in India is in the manufacture of dress materials of which sari cloth is the most important. Other articles made are head-

Nature of the demand for Indian silk. wear, shirtings and suitings, and it is also in demand for borders for cotton saris. Silk

- ✓ thread is required for embroidery which is often sewn on to other materials. Owing to its strength and lightness silk is required for war purposes, particularly the manufacture of parachutes and for powder bags for big guns, as well as for such special objects, as the manufacture of electric insulators, though these articles are not at present manufactured in India. ✓ Silk worm gut is utilised for surgical sutures. The gut of the Indian silk worm is said to be deficient in length. But interesting experiments at present are in progress in Madras and if cross-breed worms are utilised there is no reason to suppose that surgical gut cannot be manufactured in India. (Indian silk is frequently used in mixtures with artificial silk or imported silk.) ✓ In pure silk mixtures imported or Indian filature silk owing to its greater strength is often used for the warp, while the superior lustre of Indian silk makes it suitable for the weft.

In 1933 the Tariff Board was able to show the course of consumption of silk in India over a period of years by adding total production *minus* exports to total imports less re-exports. We give below a similar table for 1937-38. We are unable to give it for the last five years owing to the absence of figures of production from Bengal.

Please see Introductory Note.

TABLE LXXXI.—Consumption of mulberry reeled silk in India.

	Indian production. (Lakhs of lbs.)	Exports.		Net consumption of Indian production. (Lakhs of lbs.)	Foreign imports. (Lakhs of lbs.)			Re-exports. (Lakhs of lbs.)			Net consumption of foreign imports. (Lakhs of lbs.)	Total consumption. (Lakhs of lbs.)	Percentage of consumption met from Indian production.
		By land. (Lakhs of lbs.)	By sea. (Lakhs of lbs.)		By land.	By sea.	Total.	By land.	By sea.	Total.			
1931-32 . . .	20.70	..	.05	20.65	3.94	15.63	19.57	..	.34	.34	19.23	39.88	51.78
1937-38 . . .	15.6	..	.14	15.46	(a)	23.33	23.33	..	.15	.15	23.18	38.64	40.00

(a) Owing to the separation of Burma from India there are now no imports into India over the Burmese land frontier.

It will be seen that the (consumption in India has remained stationary since 1931-32) The decrease in the proportion of Indian silk consumed from 51.78 to 40 per cent. is noticeable. In 1933 the Tariff Board drew attention to the absence of sorting and grading of raw silk, which constituted the more serious defect in Indian silk from the marketing point of view. The Kashmir filatures manufacture standard brands of silk of uniform quality, known as Lotus, Iris, Tulip and Saffron from Kashmir and Neel No. 1 and No. 2 from Jammu, and the filature silks of Mysore and Madras are not handicapped in this respect in the same way as charkha silk. For the latter little or no progress has been made during the last five years. Although three qualities of charkha silk are recognised, there is no guarantee of uniformity of quality even among silks which fall into a particular category, and the price paid varies appreciably within each grade. It is hardly necessary to point out that the reeler financed as frequently is by the middleman, who purchases his silk, is not in a position to obtain the price which the quality of his goods would justify. (There is thus a definite premium on turning out lower quality goods which can be produced with greater rapidity.)

76. A step in the right direction has been taken in Bengal by the establishment of a conditioning house in Calcutta. It has only been in operation for a few months, and at present is only working on a small scale. Conditioning Houses. It is hoped that in the course of time the certificates of quality which it gives will result in the silk, to which they relate, finding a readier market. Buying and selling on conditioned weight will further protect both buyer and seller against loss due to fluctuations in the weight of the silk caused by varying amount of moisture in the atmosphere. The Conditioning House also performs a very useful function by pointing out to the reeler the defects in the silk which he has sent for testing, and suggesting methods by which improvements can be effected.

(We have little doubt that the absence of a Condition certificate was one of the reasons which led to the loss of the Indian export trade) Japan has paid much attention to this aspect of marketing, and the certificates of the Government Conditioning Houses are accepted by the trade as a guarantee of quality. We have seen similar certificates issued by the Chinese Government and importers for their own protection also obtain certificates issued by firms of good commercial standing. The quality of silk depends on a number of factors such as the skill of the reeler and the quality of the cocoon from which it is reeled. These may vary from year to year and even sometimes from day to day. While therefore the well known Kashmir brands maintain a fairly uniform standard, the purchaser has not that exact knowledge of the nature of the goods that he is purchasing that would be given by a Conditioning House Certificate.

77. The markets for Indian silk are scattered all over India. They are generally more important, when they are in the raw silk

area. Such markets are Srinagar in Kashmir, Bangalore in Mysore and Malda and Murshidabad in Bengal. There are, however, other places which owing to their

The chief Indian geographical situation or for other reasons have developed into distributing centres for other products as well as silk goods, and again places where the local weavers have acquired a specialised skill in particular varieties of silk goods. In the former category the most important centres are Amritsar, Ludhiana and Lahore in the Punjab, Delhi, Bombay, Madras, Calcutta and Nagpur, while in the latter Surat in Bombay, Benares and Mirzapur in the United Provinces, and Aurangabad and Hyderabad in Hyderabad State are worthy of special mention.

There are a number of centres in Madras where possibly aided by the association of silk with religious and ceremonial use very considerable quantities of silk are sold. Of these the most important is Conjeevaram. Proximity to the place of origin has considerable influence on the kind of silk sold. Kashmir silk is most commonly used in the Punjab, but scarcely penetrates to Calcutta. Bengal silk, if not consumed locally finds its most profitable market in Bihar and the neighbouring portions of Madras and the United Provinces and Mysore silk is predominant in Southern India. The bulk of the silk and artificial silk imports enter India at the port of Bombay, and we find that the effects of foreign competition are more keenly felt in the Bombay Presidency.

78. We have seen that the exports of raw silk from India ceased before the last Tariff Board reported. The exports shown in the trade returns consist almost entirely of high grade silk waste from the Kashmir and Jammu filatures. It is interesting to note, however, that in spite of the practical cessation of the exports of raw silk some silk cloth is still exported. Benares claims that its products go to the United States of America and to England, and Bombay that it supplies Germany, Goa, Burma and Africa in addition to those two countries; and Madras exports to Burma and Ceylon.

79. In Mysore the bulk of the trade passes through Bangalore where there are a number of 'kotis' which specialise in trade in raw silk. The reeler deposits his silk with the owner of the 'koti', and obtains a cash advance up to 75 per cent. of its value paying interest at from 8 to 10 per cent. He also pays a commission of half an anna a pound to the owner of the 'koti' who also charges the same amount to the purchaser. Sometimes, however, the purchaser if he desires to obtain a large consignment does not deal direct with owner of the 'koti', but a broker paying him a commission varying from 1 to 2 annas per lb. In Kollegal the reeler sells direct to the local merchants of that place, and they resell to the consumer. No commission is paid, but the merchant obtains his profit from the difference between the price at which he buys and sells. Some Kollegal silk, however, passes through the Bangalore market in the same manner as Mysore silk.

Marketing organisations in the different areas: Mysore and Kollegal.

80. The Bengal Government has supplied us with very little information regarding the marketing of their silk. The principal agent is the *mahajan* who finances the reelers, receives from them the silk and exports it to consuming centres. A fuller description is given in paragraph 140 of the 1933 Report.

81. Up to the year 1935 Kashmir silk was sold through agents but since that year a system of tenders has been introduced. The tenderer specifies the quantity he is prepared to take and the price that he is prepared to pay, and he may receive part or the whole of the amount for which he has tendered. The tenderer is responsible for marketing the silk he has purchased, but the State avoids where possible accepting tenders from different persons operating in the same area in order to prevent unnecessary competition that might result in depressing the price. The price is for delivery *ex-factory*, and the State is not directly concerned with the cost of transport. Owing to the long lead by road from the Srinagar factory to the nearest railway station, the Kashmir silk is somewhat unfavourably placed as regards transport charges. But it is stated that so far as their principal markets which are in Northern India are concerned, Kashmir silk is not handicapped in the matter of freight in comparison with the imported article. We are also informed that the cost of marketing Indian silk, commission, freight and insurance which was found by the last Tariff Board to be from three to three and a half annas from the place of manufacture to the principal distant market was not very different to that which the imports of foreign silk had to pay from port to market though as is to be expected there are exceptions in particular instances.

82. (So far as charkha silk is concerned the defects are those which commonly arise in any industry in which a producer on a small scale has to dispose of his goods in a market which may be situated at some distance.) (The middleman particularly if he has to finance the producer is in too strong a position and obtains an undue share of the profits.) In Chapter VI we have allowed 2 annas per lb. as a reasonable profit for the producer of raw silk and in comparison with that the rates of commission charged in Mysore seem excessive. At the same time it is not easy to suggest a remedy. That of co-operation has not proved successful. Two Co-operative Societies were mentioned in the last Tariff Board report at Malda and Mysore as not being in a flourishing condition. The Society at Malda is still in existence; its only connection, however, with the members whom it originally financed is the collection of old debts most of which cannot be recovered in full. It makes a somewhat precarious living by buying and selling silk fabrics on a non-co-operative basis.

83. The most important factors in the marketing of Indian silks are the prices and qualities of the imported raw silks that

✓ compete with them.Customs classification
of imported silk.

The following Table shows the classification for Customs purposes of raw silk and yarns together with the tariff value and the duties at present imposed :—

TABLE LXXXII.—Statement showing the rates of Customs duty levied on silk raw, art silk and manufactures thereof together with the tariff valuations fixed for the years 1938 and 1939.

Item No. in the Tariff Schedule.	Name of article.	Rate of duty.
46	Silk raw (excluding silk waste and nolls) and silk cocoons.	25 per cent. <i>ad valorem</i> plus 14 annas per lb.
	Tariff values—	
	1938. 1939.	
	Per lb. Per lb.	
	Chinese—	
	Rs. a. p. Rs. a. p.	
	Waste products . 1 10 0 1 8 0	
	Dupplon all kinds . 2 2 0 2 2 0	
	Hand reeled (ex- cluding re-reeled) 2 8 0 2 4 0	
	All other sorts . 3 7 0 3 0 0	
	Japanese filatures (and hand-reeled and hand re- reeled, but ex- cluding dupplon all kinds).*	4 12 0 3 14 0
46 (1)	Silk waste and nolls	25 per cent. <i>ad valorem</i> .
47	Silk yarn including thrown silk warps and yarn spun from silk waste or nolls, but excluding sewing thread.†	25 per cent. <i>ad valorem</i> plus 14 annas per lb.
47 (1)	Silk sewing thread	25 per cent. <i>ad valorem</i> .
47 (2)	Artificial silk yarn and thread	25 per cent. <i>ad valorem</i> or 3 annas per lb., whichever is higher.

* The bracketted addition made for 1939.

† Under Government of India, Finance Department (Central Revenue), Notification No. 33, dated the 22nd June, 1935, as amended subsequently, noll yarn is exempt from payment of the additional specific duty of 14 annas per lb.

TABLE LXXXII—*contd.*

Item No. in the Tariff Schedule.	Name of article.	Rate of duty.
48	Fabrics, not otherwise specified, containing more than 90 per cent. of silk, including such fabrics embroidered with artificial silk—	
	(a) Pongee	50 per cent. <i>ad valorem</i> plus Rs. 1-0-0 per lb.
	(b) Fuji, Bosoki and corded (excluding white cord).	50 per cent. <i>ad valorem</i> plus Rs. 1-8-0 per lb.
	(c) Other sorts*	50 per cent. <i>ad valorem</i> plus Rs. 2-0-0 per lb.
48 (1)	Fabrics, not otherwise specified, containing more than 90 per cent. of artificial silk—	
	(a) Of British manufacture	30 per cent. <i>ad valorem</i> or 2½ annas per square yard, whichever is higher.
	(b) Not of British manufacture†	50 per cent. <i>ad valorem</i> or 4 annas per square yard, whichever is higher.
48 (4)	Fabrics, not otherwise specified, containing more than 10 per cent. and not more than 90 per cent. silk—	
	(a) containing more than 50 per cent. of silk or artificial silk or of both.	50 per cent. <i>ad valorem</i> plus Rs. 2-0-0 per lb.
	(b) containing not more than 50 per cent. of silk or artificial silk or of both—	
	(i) containing more than 10 per cent. artificial silk.	50 per cent. <i>ad valorem</i> or Rs. 1/8 per lb., whichever is higher.
	(ii) containing no artificial silk or not more than 10 per cent. artificial silk.	50 per cent. <i>ad valorem</i> .

* Under Government of India, Finance Department (Central Revenue), Notification No. 33, dated the 22nd June, 1935, (1) Chinese silk piecegoods, the following namely, Ghat-pote, plain and flower, and Gauze, plain and flower, are liable to duty at 50 per cent. *ad valorem* plus Rs. 1 per lb. and (2) Paj, all sorts, are exempt from so much of the duty as is in excess of 75 per cent. *ad valorem*.

† Under Government of India, Commerce Department, Notification No. 341-T(5)/37, dated the 1st April 1937, the articles assessable under this sub-item are liable to duty at 50 per cent. *ad valorem* or 5 annas per square yard, whichever is higher.

TABLE LXXXII—concl'd.

Item No. in the Tariff Schedule.	Name of article.	Rate of duty.
48 (5)	Fabrics, not otherwise specified, containing not more than 10 per cent. silk but more than 10 per cent. and not more than 90 per cent. artificial silk— (a) containing 60 per cent. or more cotton— (i) of British manufacture (ii) not of British manufacture* (b) containing no cotton or containing less than 50 per cent. cotton— (i) of British manufacture (ii) not of British manufacture†	30 per cent. <i>ad valorem</i> or 2 annas per square yard, whichever is higher. 50 per cent. <i>ad valorem</i> or 3½ annas per square yard, whichever is higher. 30 per cent. <i>ad valorem</i> or 2½ annas per square yard, whichever is higher. 50 per cent. <i>ad valorem</i> or 4 annas per square yard, whichever is higher. Preferential Standard rate. rate for U.K.
48 (6)	Fabrics, not otherwise specified, containing not more than 10 per cent. silk or 10 per cent. artificial silk, but containing more than 10 per cent. but not more than 90 per cent. wool.	35 per cent. <i>ad valorem</i> . 25 per cent. <i>ad valorem</i> .
48 (7)	Fabrics, not otherwise specified, containing not more than 10 per cent. silk or 10 per cent. artificial silk or 10 per cent. wool, but containing more than 50 per cent. cotton and not more than 90 per cent. cotton— (a) of British manufacture (b) not of British manufacture	25 per cent. <i>ad valorem</i> . 50 per cent. <i>ad valorem</i> .
48 (8)	Fabrics, not otherwise specified, containing not more than 10 per cent. silk or 10 per cent. artificial silk or 10 per cent. wool or 50 per cent. cotton.	25 per cent. <i>ad valorem</i> .

*Under Government of India, Commerce Department, Notification No. 341-T(5)/37, dated the 1st April 1937, the articles assessable under this sub-item are liable to duty at 50 per cent. *ad valorem* or 4 annas per square yard, whichever is higher.

†Under Government of India, Commerce Department, Notification No. 341-T(5)/37, dated the 1st April 1937, the articles assessable under this sub-item are liable to duty at 50 per cent. *ad valorem* or 5 annas per square yard, whichever is higher.

It is necessary in the interests of the administration of the Customs Department that the number of categories into which raw silk is divided should not be too numerous. We have made numerous enquiries, and have been informed that the present classification is suitable, and convenient to the trade. It is not, therefore, necessary for us to enumerate the various kinds of silk and silk yarn that are imported. We recommend that the present Customs classification of imported silk and silk yarn should remain unaltered. We have made similar enquiries regarding imported fabrics made of silk and/or silk substitutes, and we find that no change in the Customs classification is necessary for them.

CHAPTER XII.

The case for Protection.

84. In the year 1922 the Indian Fiscal Commission recommended to the Government of India that a policy of "Protection with discrimination" should be adopted, and in doing so it enunciated three criteria which the Tariff Board must satisfy itself are fulfilled before recommending protection for any particular industry. We shall, therefore, now examine (to what extent the Indian raw silk industry complies with these conditions.)

85. The first criterion postulates that the industry must possess natural advantages. The climate of Kashmir and the Punjab is admirably suited to the growth of the mulberry tree, which is the natural food of the silk worm, and these trees are found in large numbers throughout these territories. Both areas experience a cold winter, Kashmir is cool in summer while in the Punjab it is very hot, but both areas are suited to the needs of the univoltine silk worm which hibernates in winter, and can be reared in the Punjab before the excessive heat of the summer sets in. (It was pointed out in the Tariff Board report of 1933 that the mulberry silk worm is reared mainly in a belt between the 20th and 42nd degree of latitude in the Northern Hemisphere. The areas in Mysore and Madras where the industry is found lie to the south of this belt, but owing to the altitude of the country the climatic conditions are similar to those obtaining in areas situated more to the north. In both these areas conditions of temperature and humidity are suitable. Bengal lies within the belt; its humidity is somewhat excessive, but its silkworm industry was at one time very flourishing, and its silks were exported to many foreign countries. There can be no doubt that its climate satisfies the test of suitability. In addition to climatic advantages agricultural labour in India is cheap, and is not fully occupied throughout the whole of the year. It can devote itself without difficulty and without detriment to the other crops produced to the rearing of cocoons and the reeling of raw silk. Again, the inhabitants of those areas in which the mulberry silk worm is now found have acquired a hereditary skill, which enables them to perform efficiently the operations necessary to the successful production of raw silk. Lastly, the silk weavers scattered throughout the country provide a market situated within easy access of the industry so as readily to absorb its output. We have no doubt that the first condition is fulfilled.)

86. The second condition laid down is that without the help of protection the industry is not likely to develop at all or not so rapidly as is desirable. We have already shown that during the period that has elapsed since protection was granted, the industry has passed through a difficult

time. During the earlier portion of the period the price of raw silk fell to a very low level owing to the successful effort of the Japanese Government to capture the Indian market, and though prices revived in 1937, they have again fallen to a low level as a result of large imports of Chinese silk at uneconomic prices. In Bengal the industry has seriously deteriorated, while in Mysore and Madras the net result has on the whole been unfavourable. It is possible that in Kashmir the State Government would have been willing to bear the loss occasioned by low prices, but in the other areas the loss falls on the small agriculturist who has little or no financial backing. There can be no doubt that without the grant of protection in 1933 the industry would have been in a far worse condition than it is to-day, and that it would have been unable to survive for any appreciable length of time. We hold that the second condition is satisfied.

87. The third condition is that the industry must eventually be able to face world competition without protection. It must always be a matter of difficulty to prophesy what the future of any particular industry will be. But we have seen that the Indian silk at one time competed successfully in the world markets and that one of the causes, which led to the loss of its export market, was the advent of Pebrine disease for which a remedy has now been discovered. The low price of raw silk is the principal factor that has led to the deterioration of the industry. For this there are two remedies, an increase in the world price and a decrease in the cost of production. The former must depend on world factors over which India has no control, but, as we have already pointed out, new varieties of silk worm have been discovered which will effect an appreciable reduction of costs in Mysore, Madras and Bengal. Indeed in the former area the new cross-breed variety has already acquired a wide popularity. Reduction as a result of improved varieties of mulberry will take longer to materialise but considerable advances in research have already been made and in due course the results will become apparent. There is thus every reason to anticipate that the Indian silk industry will be able ultimately to hold its own without protection.

88. There can be no doubt that the output of silk in India is capable of very great expansion under favourable conditions. The total Indian production was estimated at 2,060,000 lbs. as recently as 1931-32 and between 1855 and 1913 the annual exports of Indian silk never fell below one million, and were frequently in excess of two million lbs. We found in Chapter XI that the average annual consumption of silk in India is about 40 lakhs of lbs. We give below a table showing the future production of raw silk in different provinces and States as estimated by the Directors of Industries if adequate protection is granted to the industry.

TABLE LXXXIII.

	Lbs.
Mysore	10,00,000 ✓
Bengal	12,00,000 ✓
Madras	5,00,000 ✓
Kashmir	5,00,000
Other provinces	2,00,000 ✓
Total	<u>40,00,000</u> ✓

Further evidence is not required to show that the industry in India || ✓
could supply the whole demand of the home market.

89. Mysore, Bengal, Kashmir and Madras are the principal raw || ✓
silk producing areas. A comparatively small portion of India will

The extent of the industry. receive the immediate benefit of the grant of protection. This, however, has not been used as an argument against the grant of protection to other industries, and cannot be used legitimately against the raw silk industry, for there are very few industries that are not localised in particular centres. In 1933 the Tariff Board examined the question whether protection should be extended to an industry mainly located in Indian States. Kashmir has a Customs barrier between it and the adjoining parts of British India; and it is undoubtedly anomalous that silk from Bengal, Mysore and Madras should be liable to duty on entering Kashmir, whereas Kashmir silk can and does compete on equal terms with the silk of those areas in their home markets. The point, perhaps, is not of great practical importance as we do not believe that these silks would find a ready market in Kashmir if no duty was levied on it on entry into the State. But we consider that, if any province or State considers that it is aggrieved by the anomaly, it should apply to the Government of India with a view to its being removed. Mysore is not in the same position as there is no customs barrier between it and British India.

The Tariff Board in 1933 examined the question of protection for Indian States. We agree with its finding that the right of States to get their industries protected by suitable adjustments in the Indian Customs Schedule was expressly conceded by the Fiscal Commission. We cannot do better than reproduce the passage from the Fiscal Commission's report, which they quoted:—

"It is, however, conceivable that in certain cases the main interest of an industry may be centred in an Indian State. We were informed, for instance, that the Mysore State had a predominant interest in the sandalwood oil industry, and it seems probable that the production of raw silk is a matter of more importance to the States of Mysore and Kashmir than to any other parts of India. In such cases the industry concerned should have exactly the same opportunities for representing its case before the Tariff Board as industries in British India, and we are sure that these representations would receive from

the Tariff Board the same careful attention as the representations made by industries located in British India."

It is true that owing to the deterioration of the industry in Bengal British Indian silk forms a smaller proportion of the total Indian supply than it did in 1933, but we do not consider that our conclusions are vitiated on this account.

90. Raw silk is the raw material of the silk weaving industry. The Indian Fiscal Commission laid down that raw materials should ordinarily be admitted into India free of duty. This principle is followed in most countries in which protection in one form or another has been adopted and we are not aware of any instance in which a protective duty has been imposed on imports of raw silk. On the other hand, the effect of an import duty on raw material can be neutralised by the imposition of a countervailing duty on the finished article so far as the home market is concerned; and at the present day, as is apparent from the table below, the export of silk goods from India is negligible.

TABLE LXXXIV.—Exports of silk manufactures including piecegoods from India (values in thousands of rupees).

Country to which exported.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39 (seven months April to October 1938.)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
United Kingdom	13	10	5	14	18	Not available.
Ceylon	20	128	147	218	2,16	
Burma	...	...	...	...	51	
Straits Settlements	...	13	3	8	35	
United States of America	5	14	14	11	16	
Other countries	44	28	32	32	31	
Total	82	1,99	2,01	2,83	3,62	84

(We have given our opinion, in a subsequent chapter that the measure of protection required by artificial silk goods should be determined by the needs of the cotton textile industry and not by those of the raw silk industry.) The countervailing duties necessitated by the imposition of a protective duty on raw silk, therefore, will be confined to silk yarn, and silk piecegoods, statistics of which are given in Tables LX, LXVIII, LXXV and LXXVI. In view of the importance to India of the raw silk industry, we do not consider that the duties, which we recommend should be imposed on these articles, place an unreasonable burden on the consumer. We, therefore, consider that in the case of raw silk an exception should

be made to the principle that an import duty should not be levied on raw materials. ✓

91. The handloom weavers, and silk weaving mills are the immediate consumers of raw silk. We have already given an opinion that the burden of import duties on their raw material can be passed on to the ultimate consumers, that is that section of the general public which purchases silk fabrics or articles made from them. The poorer classes may make occasional purchases of silk goods for ceremonial purposes, but the vast majority of the users of silk goods belong to classes on which the extra cost of silk goods does not place too heavy a burden. The price of silk goods is much lower than it was in 1929, when the slump began, and in spite of the addition of protective duties the purchaser is much better off than he used to be. (Further, we cannot contemplate with equanimity the imposition of a burden on the consumer, and its subsequent removal before the object for which it has been imposed is attained.) ✓

92. We have shown in Chapter IV that unfair competition from Japanese imported silk occurred during 1935, that the present low prices are due to abnormal conditions in China, and that there is at any time a possibility of unfair competition by reason of the existence of frozen stocks of silk in the hands of the Japanese Government. (Protective duties cannot entirely eliminate the effect of unfair competition, but they undoubtedly mitigate its effects.) ✓

93. (We have seen that the Indian raw silk industry satisfies the three main conditions for the grant of protection laid down by the Fiscal Commission; that the objection to it on the ground that raw silk is a raw material is not insuperable. We, therefore, recommend that the protection granted to the industry in 1933 should be extended for a further period. In the next Chapter we examine the measure of protection necessary and the period for which it is required. In doing so we have kept in mind the further recommendation of the Fiscal Commission that the inevitable burden on the consumer should be as light as is consistent with the due-development of the industry.) ✓

CHAPTER XIII.

The measure of Protection.

94. The fair selling price for any commodity is the price which it should command in the open market so as to give a reasonable return to the producers on their capital and labour. We have recorded our findings in Chapters V and VI regarding the fair selling price of cocoons and raw silk. It will be seen that there is a considerable range within which the prices vary depending *inter alia* on the locality of manufacture and the race of the silk worms. There are State monopolies in Kashmir and Jammu, and the contribution, which we consider that the State should make towards research and the development of the industry, is included in the cost of the manufacture of silk as shown in the accounts. With a suitable reduction on this account the figures do not differ greatly from those of our estimate for a 200 basin filature. We shall accordingly take the latter as the basis for the fair selling price of filature silk. It will be observed that for charkha silk the fair selling price in Bengal is appreciably higher than in Mysore or Madras. The reason undoubtedly is that Bengal has not kept pace with those areas in the provision of disease-free seed or in popularising improved races. As we have already remarked, we must take into consideration the burden thrown on the consumer by a protective tariff, and we do not consider we should be justified in adopting a higher fair selling price because Bengal has been slow to adopt new methods. We therefore base our estimate of the fair selling price of charkha silk on the figures of Mysore and Madras.

95. In our estimate of the fair selling price of filature silk in Mysore the cost of cocoons has been taken as 4 annas 6 pies per lb. We have found in Chapter V that at this price the rearing of Mysore cross-breed cocoons is profitable, while 4 annas 6 pies and 5 annas per pound are the upper and lower limits beyond which the rearing of pure Mysore cocoons is encouraged or discouraged. Four annas 6 pies per lb. will, therefore, be a reasonable average price to take. So also we have taken an intermediate *rendita* of 14.5 as against 14 for cross-breeds and 16 for pure Mysore. The Madras Government has provided an estimate of 4½ pies per lb. as the cost of re-reeling filature silk on a machine costing Rs. 4,000 which they recommend and we have allowed an addition of 5½ pies on this account including 1 pie on account of interest on the capital in order to improve the winding and evenness of Indian silk. It should be noticed that the figure of Rs. 5-10-8 which we adopt is appreciably lower than that of the Mysore Silk Filatures Ltd. which is Rs. 7-8-0 per lb., and Kollegal Filatures Limited, with pure Mysore cocoons at 5 annas a lb. which is Rs. 6-14-10. We have explained in Chapter VI, that the latter figures are capable of reduction. It must be conceded, therefore, that the estimate adopted by us is not unduly inflated.

96. We have already given our reasons for leaving the Bengal figures out of account. We observe, however, that the fair selling price of Ghora silk which is Rs. 3-2-6 with cocoons at 4 annas 6 pies per lb. is lower than that of the third quality silk in Mysore and Madras. The reason is that ghora silk is an inferior silk from which no waste is obtained. It is, therefore, of lower quality than third grade Mysore silk. Using pure Mysore cocoons at 5 annas a lb. Rs. 6-0-1 in Madras and Rs. 6-0-8 in Mysore is the fair selling price while at 4 annas 6 pies a lb. it is Rs. 5-8-5 and Rs. 5-9-2 respectively. The fair selling price of the three qualities of charkha silk is calculated as follows:—

TABLE LXXXV.—Upper limit: Pure Mysore cocoons at 5 annas per lb.

	1st quality.	2nd quality.	3rd quality.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
Mysore . .	6 0 8	5 3 3	4 9 7
Madras . .	6 0 1	4 15 1	4 2 8
Average . .	<u>6 0 5</u>	<u>5 1 2</u>	<u>4 6 2</u>

Lower limit: Pure Mysore cocoons at 4 annas 6 pies.

	1st quality.	2nd quality.	3rd quality.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
Mysore . .	5 9 2	4 12 9	4 3 7
Madras . .	5 8 5	4 8 1	3 12 8
Average . .	<u>5 8 10</u>	<u>4 10 5</u>	<u>4 0 2</u>

Taking a figure intermediate between the upper and lower limits we get—

1st quality.	2nd quality.	3rd quality.
Rs. A. P.	Rs. A. P.	Rs. A. P.
5 12 8	4 13 10	4 3 2

For cross-breed cocoons in Mysore we take 4 annas 6 pies as the cost of cocoons for the upper limit and 4 annas as the cost of cocoons at the ultimate lower limit. We then get—

TABLE LXXXVI.

	1st quality.	2nd quality.	3rd quality.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
Upper limit . .	5 0 2	4 3 9	3 11 1
Lower limit . .	4 9 8	3 14 3	3 6 1
Average . .	<u>4 12 11</u>	<u>4 0 6</u>	<u>3 8 7</u>

In order to get a fair average price as between cross-breeds and pure Mysore we must make some assumption as to the extent to which these two varieties respectively are reared. In view of the progress made in the production of cross-breed seed, we consider that it is equitable to take the proportion of half and half as being one that can be attained within a reasonable time. We, therefore, can calculate the fair selling price of charkha silk as follows:—

TABLE LXXXVII.

	1st quality.	2nd quality.	3rd quality.
	Rs. A. P.	Rs. A. P.	Rs. A. P.
Pure Mysore	5 12 8	4 13 10	4 3 2
Cross-breed	4 12 11	4 0 6	3 8 7
Average fair selling price	5 4 10	4 7 2	3 13 11

It will be noticed that these prices correspond very closely with those obtained by us in Table XLV given in Chapter VI. In that table we assumed rendita and prices for cocoons intermediate between those prevailing for the cross-breed and pure Mysore races of silk worms. The fair selling prices so found were as follows:—

1st quality.	2nd quality.	3rd quality.
Rs. A. P.	Rs. A. P.	Rs. A. P.
5 4 8	4 8 3	3 15 4

As we have stated in Chapter IV, Chinese silk is selling at low rates owing to export being stimulated by the fall in exchange and the effects of the Sino-Japanese war, while Japan is holding off the market possibly owing to the present low prices prevailing in India.

97. In 1933 the Tariff Board found that Indian filature silk competed with Chinese and Japanese filature silk but owing to the extent to which Japanese silk has invaded this market it is now necessary to compare Indian filature silk with Japanese filature silk. First quality charkha silk now competes with Canton filature silk and re-reeled silks, that is, with the silks given in the Tariff Schedule as Chinese other sorts. 2nd and 3rd quality charkha silks compete with duppions and with Chinese silk known as native or hand reel. Chinese waste products do not compete directly with Indian silk, and imports of them are negligible.

98. The course of prices has been described in Chapter IV; from the graph which we have reproduced there it is clear that the present level of the price curve is that at which it has stood during a considerable portion of the period under review. Prices have been fairly stable during the present Calendar year. We

Prices of competing
imported silks.

therefore consider that in calculating the basic price level of imported silk we should neglect the high prices of 1937 and also the low prices of the preceding years. The average rate for the year of Japanese filature silk calculated from the table supplied by the Mysore Government is Rs. 5-8 per pound. The average price given in the statement of average prices for August published by the Collector of Customs, Bombay is Rs. 5-10. But as pointed out in page 126 of the 1933 Report this includes $\frac{1}{2}$ per cent. brokerage and commission which is not included in the price statements submitted from other ports. We have also received and taken into consideration quotations from persons and bodies connected with the trade including the Japanese Chamber of Commerce, Bombay. We therefore consider that Rs. 5-8 should be taken as the basic price cum duty of Japanese filature silk. As the Tariff Valuation is Rs. 4-12 the equivalent price *ex-duty* is Rs. 3-7 per pound. The average price of Canton filature for the current year is Rs. 4-4 per pound but individual quotations which we have received for re-reeled silks suggest a somewhat higher figure and we think that it will be reasonable to take the cum duty price as Rs. 4-8 per lb. At a tariff valuation of Rs. 3-7 this gives an *ex-duty* price of Rs. 2-12-3. The c.i.f. prices per lb. of hand reeled silk at the present day vary from Rs. 1-11-6 to Rs. 2-1-9 according to quality while duppions are quoted at Rs. 1-7 and Rs. 1-8. The Bombay Customs price Schedule gives the market price of duppions as Rs. 3-10 per lb. and of hand reel as Rs. 3-12. The tariff values are Rs. 2-2 and Rs. 2-8 respectively, giving *ex-duty* price of Rs. 2-3-6 and Rs. 2-4. These prices are in excess of the actual c.i.f. prices as market prices are always higher, sometimes by as much as 15 annas, than the tariff value cum duty prices. We, therefore, consider that Rs. 2' per lb. will be a suitable figure to take.

The following Table compares the *ex-duty* price of imported silks with the fair selling price of Indian silks with which they compete. The last column shows the amount of duty required.

TABLE LXXXVIII.

Kind of Indian silk.	Fair selling price.	Competing imported silks.	<i>Ex-duty</i> price.	Duty required.
	Rs. A. P.		Rs. A. P.	Rs. A. P.
Filature	5 10 8	Japanese filature	3 7 0	2 3 8
1st quality Charkha	5 4 10	Chinese other sorts	2 12 3	2 8 7
2nd quality Charkha	4 7 2	Chinese Native or hand reeled and duppions	2 0 0	2 2 7
3rd quality Charkha	3 18 11			
Average of 2nd and 3rd quality Charkha	4 2 7			

On these figures we recommend that the duty imposed on imported raw silks should be Rs. 2-4 per lb. We are aware that we are recommending a lower rate of duty than that required for charkha

silk which at present forms the bulk of production in India. But in our opinion the future of the industry is bound up with filature silk and a reduction of 2 annas per lb. in duty will not seriously injure the charkha silk but, on the other hand, will encourage the production of filature silk.

99. We further recommend that, in order to guard against the risk that silk producing countries may attempt to nullify these protective measures by sending silk to India in the form of cocoons, the same rate of duty be applied also to cocoons.

Cocoons.

100. At present Chinese silk known as waste products is subject to the same duty as other raw silks, viz., 25 per cent. *ad valorem* plus 14 annas per lb. These silks do not compete directly with Indian silks, but as the imports are negligible we consider that it is not necessary to differentiate between them and other imported silks. A duty of Rs. 2-4-0 per lb. may therefore be imposed.

Chinese waste products silk.

101. We have considered whether the duties we have proposed should be in the form of specific duties or should be partly *ad valorem* and partly specific as at present. The form of the duties. *Ad valorem* duties increase when prices are high and decrease when they are low: in consequence they give less protection than was intended at the time when it is most required and more than is needed when it is not. Silk is a commodity the price of which is subject to considerable variations and an *ad valorem* duty may therefore be appreciably different to a specific duty calculated at a particular price level. Specific duties have the further advantage that the yield from them can be estimated with greater accuracy than that from *ad valorem* duties. We therefore recommend that the duties that we propose should be specific duties.

102. In view of the fact that raw silk is the raw material of the weaving industry, we have considered whether it would not be preferable that the assistance to the industry should be given in the form of

Bounties.

bounties. Direct bounties would have to be given at some stage in the industry, i.e., either to the rearer of the cocoon or to the reeler of raw silk. There would have to be a check on the quality and quantity of the goods produced. We believe that in the case of cottage industries such as silk rearing and reeling the administrative difficulties are insuperable. (Indirect bounties by such means as the provision of seed at concession rates can be and are being given.) But the scope for these bounties is limited and the total assistance that can be given in this way is much less than that required by the industry. Finally, if bounties are to be given money for them would have to be found. We believe that very great difficulty would be experienced in securing the necessary finance.

CHAPTER XIV.

Supplementary Proposals.

103. (We have explained in the previous chapter that raw silk is the raw material of the silk weaving industry and that it is necessary in the interests of that industry

Silk goods. to impose on silk yarn and fabrics duties to counterbalance the duty on raw silk.) In order to do this we have to determine the difference of the duty at present levied and the duty that will be levied if our proposals are accepted on the raw silk contained in any particular class of silk fabric. The duty at present levied on raw silk is 25 per cent. *ad valorem* plus 14 annas per lb. The *ad valorem* duty is calculated on tariff values, which are changed every year. Over 80 per cent. of the silk piecegoods that come into India are from Japan. In order, therefore, to obtain a tariff value for the raw silk contained in silk fabrics imported into India we must take into consideration mainly the tariff values of Japanese raw silk. The tariff value of Japanese filature silk was Rs. 4-12 for 1938 and has been reduced to Rs. 3-14 for 1939. The average tariff value for the last three years is Rs. 3-14-8. We have therefore taken Re. 1 as being the equivalent to the nearest anna of the 25 per cent. *ad valorem* element in the duty on raw silk; with the specific duty of 14 annas, the present duty on raw silk is equivalent to a total specific duty of Rs. 1-14 per lb. As we have now proposed a specific duty of Rs. 2-4 per lb., the effect of our proposal so far as the raw silk contained in imported silk fabrics is concerned is to increase the duty on the raw material by 6 annas. We have been informed by a silk goods manufacturer that 4 lbs. of raw silk is required to make 2½ lbs. of silk georgette, and from the evidence we have received relating to other kinds of silk fabrics it appears that 3 lbs. of silk material can be made from 4 lbs. of raw silk. The amount of raw silk in 1 lb. of silk fabric is, therefore, about 1¼ pounds, and we therefore propose that the duty on silk fabrics should be increased by 8 annas a pound to counterbalance the increase of 6 annas a pound in the duty on raw silk.

104. A representation has been received from an English firm which exports silk nets into India asking that the duty on silk net should be removed from the category of
Silk net. protective duties in order that it may be eligible for a preferential duty.

At present under the terms of the Ottawa Agreement articles which are liable to protective duties cannot be given preference, and it seems likely that this principle will be embodied in any other agreement that may take the place of the Ottawa Agreement. The grounds put forward are that silk net is not manufactured in India, and therefore the Home industry does not require protection against the imports of that article. Silk net is used for making bridal veils, confirmation veils and ladies dresses. We have ascertained by enquiry from importers and Collectors of Customs that

✓ the imports are on a very small scale. They are classified under items 48 (c) of the Tariff Schedule. There are doubtless other manufactures of silk imported into India, which are not made in the country. The process of manufacture of silk net is not a complicated one, and given sufficient demand and an adequate price it would doubtless pay to make it in India. We do not think there is sufficient justification for singling out silk net for special treatment and consider that it should be subject to the same duties as other silk manufactures.

105. We have already seen that artificial silk yarns and woven goods have secured a firm hold on the Indian market, and that

Artificial silk.

owing to their cheapness there is a tendency for them to replace silk. We give below a

✓ Table showing the imports of artificial silk yarn, classified by countries since 1932-33.

Please see Introductory Note.
TABLE LXXXIX.—Imports of artificial silk yarn into India.

From	1932-33.		1933-34.		1934-35.		1935-36.		1936-37.		1937-38.		1938-39 (7 months April to October).	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	lbs. (000)	Rs. (lakhs)	lbs. (000)	Rs. (lakhs)	lbs. (000)	Rs. (lakhs)	lbs. (000)	Rs. (lakhs)	lbs. (000)	Rs. (lakhs)	lbs. (000)	Rs. (lakhs)	lbs. (000)	Rs. (lakhs)
United Kingdom.	1,656	14.35	1,589	12.90	862	6.93	522	3.33	242	1.59	497	3.77	97	54
Germany .	406	3.35	501	4.13	41	.41	37	.21	16	.22	1	.02	Not available.	
Netherlands .	847	7.14	214	1.97	30	.28	166	1.29	208	.78	14	.18	Do.	
Italy . .	5,600	47.81	4,287	37.57	6,477	46.25	3,954	23.80	1,040	11.89	2,766	18.94	4,768	25.69
Japan . .	1,799	13.76	2,542	20.02	8,897	61.65	9,057	53.06	16,130	84.38	28,238	1,81.93	2,191	14.72
Other countries	685	6.16	676	5.40	308	2.16	275	1.85	93	.53	73	.61	10	.16
Total .	11,002	92.57	9,809	81.99	16,615	1,17.63	14,911	83.63	17,629	90.39	31,589	2,05.35	7,072	41.11

SUPPLEMENTARY PROPOSALS.

The total imports have increased from 11,002 thousand pounds in 1932-33 to 31,589 thousand pounds in 1937-38 and those from Japan from 1,799 thousand pounds to 28,238 thousand pounds. To-day Japan almost monopolises the market. The imports of artificial silk piecegoods do not follow the same course. Japan has monopolised the trade from the start, but there has been a fall from 112,819 thousand yards in 1932-33 to 89,695 thousand yards in 1937-38.

Please see Introductory Note.

TABLE XC.—Imports of piecegoods entirely made of artificial silk.

From	1932-33.		1933-34.		1934-35.		1935-36.		1936-37.		1937-38.		1938-39 (7 months April to October).	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Yds. (000)	Rs. (lakhs)	Yds. (000)	Rs. (lakhs)	Yds. (000)	Rs. (lakhs)	Yds. (000)	Rs. (lakhs)	Yds. (000)	Rs. (lakhs)	Yds. (000)	Rs. (lakhs)	Yds. (000)	Rs. (lakhs)
United Kingdom (including Channel Islands).	430	3.54	432	2.81	465	2.91	349	2.45	493	3.72	799	5.72	424	3.19
Straits Settlements.	51	.17	40	.19	48	.18	100	.23	104	.18	52	.13	Not available.	
Germany .	5	.08	40	.35	10	.08	28	.30	60	.65	81	.85	Do.	
France . .	117	1.09	72	.68	42	.41	17	.17	19	.35	29	.36	Do.	
Italy (including Fiume).	128	.68	81	.83	147	.96	63	.37	11	.09	23	.20	Do.	
Japan . .	111,703	246.12	39,631	103.05	66,643	177.83	73,732	184.33	101,446	232.76	88,455	209.68	12,875	88.46
Other countries	285	1.30	102	.54	246	.82	202	.63	166	.51	256	1.19	1,021	2.96
Total .	112,819	252.08	40,398	108.25	67,601	183.19	74,491	188.48	102,319	238.26	89,695	218.13	14,320	44.61

SUPPLEMENTARY PROPOSALS.

106. The Cotton Textile Tariff Board of 1933 made no recommendation for the imposition of a protective duty on artificial silk yarn but the Board enquiring into the

Art silk yarn.

Sericultural industry at that time proposed Re. 1 per pound. At present there is a revenue duty of 3 annas a lb. or 25 per cent. *ad valorem* whichever is higher. For artificial silk fabrics the Cotton Textile Tariff Board recommended Re. 1-8 per lb. or the revenue *ad valorem* duty whichever is higher, while the Sericultural Tariff Board recommended 83 per cent. *ad valorem*. The present duty is 50 per cent. *ad valorem* or 5 annas per square yard whichever is higher on goods not of British manufacture and 30 per cent. *ad valorem* or 2½ annas per square yard whichever is higher on goods of British manufacture. The duty per square yard on fabrics of non-British manufacture was raised from 4 annas to 5 annas per square yard on the 1st April 1937. From the two tables which we have given above it is evident that the effect of the protective duties on the fabrics has been to encourage the importation of yarn and discourage that of piecegoods. The increase from 4 to 5 annas per square yard has materially increased that protection, and in our tours we have noticed that mills weaving artificial silk yarn have increased materially in prosperity since 1937. The position thus is that in 1933 the Sericultural Tariff Board recommended protective duties on artificial silk yarn because of its competition with raw silk, while the Cotton Textile Tariff Board proposed that the revenue duty only should be imposed on it as being a raw material. The view of the Cotton Tariff Board prevailed and the duty to-day is a revenue duty. The competition of art silk yarn with raw silk is only indirect, though it is responsible for an appreciable turnover from raw silk to art silk in the handloom weaving industry. But owing to the greater cheapness of art silk, and the tendency on the part of the public to prefer cheapness to quality, we consider that if raw silk is to be protected against art silk, a very high protective duty would be required. We consider that the duties on artificial silk yarn should remain at their present level.

107. Staple fibre yarn is stronger than art silk yarn, and competes more directly with the cheaper kinds of silk yarn. We have

Staple fibre.

given in Chapter X a full description of this yarn and our reasons for proposing that the duty on it should be raised from 25 per cent. *ad valorem* to 25 per cent. *ad valorem* or eight annas a lb. whichever is higher.

108. At the present time the duty on artificial silk fabrics of 5 annas per square yard appears to be sufficient for the indigenous manufacturing industry and the number of artificial silk mills is on the increase. The raising of the duty would not be likely to assist the sericultural industry appreciably because the consequent decrease in imports of artificial silk fabrics would be counterbalanced by a further increase in the imports of artificial silk yarn and the price of artificial silk fabrics would ultimately be determined by internal

Art silk piecegoods.

competition. Owing to the smaller range of price levels the competition between art silk fabrics and the finer kinds of cotton fabrics is much more direct than that between art silk fabrics and real silk fabrics and the volume of cotton fabrics manufactured in India is very much greater than that of silk fabrics. We consider therefore that the duties imposed on artificial silk fabrics should not be greater than required in the interests of the Cotton Textile industry.

100. Fabrics made from mixtures of silk and other goods are classified as follows in the Tariff Schedule, and duties are levied at present at the rates shown in Table LXXXII.

Fabrics containing
silk mixtures.

We have already held that an increase of 6 annas per lb. in the duty on raw silk is equivalent to one of 8 annas per lb. on silk fabrics and that no increase is necessary in the duty on artificial silk yarn and goods. The increase in woven goods containing less than 10 per cent. of silk should not amount to more than 0·8 annas per lb. : we consider that this small difference may be disregarded. Fabrics containing more than 10 per cent. silk are divided into two classes according to whether they contain more or less than 50 per cent. of silk or artificial silk under item 48 (4) (a) and (b) of the Tariff Schedule. For the former we consider that an average silk content of 75 per cent. should be assumed and an addition should be made of 6 annas per lb. to the specific duty. Fabrics coming under this item which contain less than 50 per cent. silk or artificial silk but more than 10 per cent. artificial silk are at present subject to an *ad valorem* duty of 50 per cent. or Rs. 1·8 per lb. whichever is higher. If we take an average figure of 30 per cent. for the silk contents, it increases the duty by 2½ annas per lb. But we do not know the exact percentage of the mixture and therefore we suggest that 4 annas should be taken and that the duty should be raised to 60 per cent. or Rs. 1·12 per lb. whichever is higher. We have proposed 60 per cent., as on the assumption that 50 per cent. is roughly equivalent to Rs. 1·8, 60 per cent. will be the nearest round number equivalent to Rs. 1·12. For the same reason the *ad valorem* duty on articles coming under item 48 (4) (b) (ii) should be raised from 50 per cent. to 60 per cent. Owing to the difficulty in distinguishing between silk and artificial silk in these mixtures it is necessary to assume that when a fabric contains more or less than fifty per cent. of silk and artificial silk that these contents are silk and not artificial silk. If an average figure of 30 per cent. silk content is taken an addition of 2½ annas per lb. would be required. But, as it is not desirable to have too big a difference in the duties on fabrics containing just over and just under 50 per cent. of silk, we suggest that an addition of 4 annas a pound be made to the present duty.

110. Silk sewing thread is at present subject to a duty of 25 per cent. *ad valorem*. We have had no evidence to indicate that

Silk sewing thread. any change is necessary. The duty should not be altered.

111. We have already pointed out in Chapter XI that silk yarn competes directly with raw silk, and that the recent increase in imports shows that the present scale of

Silk yarn other than
yarn made from noils or
waste.

duties is encouraging the import of this commodity. This can only result in nullifying the protection granted, and also in causing loss to the revenues of the Government of India. This yarn is at present subject to the same import duty as raw silk, that is 25 per cent. *ad valorem* plus 14 annas a lb. The present price of silk yarn of the organzine variety is Rs. 5 per lb. *ex-duty*. This is equivalent to Rs. 7-2 per lb. with duty. To this we add 3 annas for landing charges making a total of Rs. 7-5 per lb. Our fair selling price for filature silk has been found to be Rs. 5-10-8 per lb., but 1 lb. 5½ ounces of raw silk is required to make 1 lb. of twisted yarn. No charge is required for boiling off, as that operation is performed after importation into India. The price of 1 lb. of twisted silk (organzine) in India should be as follows:—

	Rs.	A.	P.
Fair selling price of 1 lb. 5½ ounces of raw silk	7	9	10
Cost of throwing	1	8	0
Total	9	1	10

An extra duty of Rs. 1-12-10 per lb. is, therefore, required and we recommend that this be imposed. At the present price of Rs. 5 per lb. *ex-duty* the existing duty of 25 per cent. *ad valorem* plus 14 annas per lb. amounts to Rs. 2-2 per lb. A specific duty of Rs. 3-14-10 or Rs. 3-14 per lb. will now be required. We recognise that this is a very considerable increase, but it is partly due to the fact that the present duties on raw silk and twisted silk are not equivalent as 1 lb. of twisted silk is made from 1 lb. 5½ ounces of raw silk.

112. The cost of production per lb. of spun silk is given by the Mysore Spun Silk Factory as follows:—

	Rs.	A.	P.
Cost of raw materials	1	15	5
Textile soap and stores	0	5	1
Fuel and power	0	5	0
Labour	0	10	6
Depreciation	0	7	11
Management expenses	0	6	7
Interest on working capital	0	1	2
Selling expenses	0	1	2
Total	4	4	10

The issued capital is Rs. 8½ lakhs and the output is 78,750 lbs. and 50,000 lbs. of noils. If we allow interest at 6 per cent., it may be assumed that 5 per cent. will be earned by the spun silk manufacture and 1 per cent. by that of noils. An additional charge of 8 annas 8 pies will, therefore, have to be shown against the cost of manufacture of spun silk bringing the total cost to Rs. 4-13-6. At the present day the price cum duty at Bombay is Rs. 5 per lb., of which Rs. 1-11-2 is the duty. The difference between the ex-duty price per lb. of the imported article which is Rs. 3-4-10 and the cost price at the factory of Rs. 4-13-2 is Rs. 1-8-4. We observe, however, that the imposition of a duty on spun silk will not directly affect the prices of mulberry silk in India. But the establishment of spun silk mills in India, which is encouraged by the imposition of duties on spun silk causes a rise in the price of silk waste, and indirectly assists the raw silk industry. An increase in the selling price of spun silk is also advantageous to the Tasar Silk Industry whose products compete with spun silk. In the circumstances we do not recommend any alterations in the existing duties.

Yarn made from noils is an inferior article which does not compete with raw silk and we consider the present revenue duties should remain unaltered.

113. We have already referred in Chapter III to the work which is being done by the Imperial Sericultural Committee. At present the Committee meets once a year after the Industries Conference has sat in order to recommend to the Government of India the allocation of the annual grant of 1 lakh of rupees which it allots for the improvement of the sericultural industry. We have discussed the functions of the Imperial Sericultural Committee at a Conference of Directors of Industries interested in sericulture. We are in agreement with the Conference that the activities of the Sericultural Committee at present are much too narrow in scope. As we have pointed out more than once, research has an important bearing on the future of the sericultural industry. Research work is carried out at present by departments of the Sericultural States and Provinces. The need of co-ordinating the different research activities cannot be stressed too strongly. We, therefore, have no hesitation in endorsing the following recommendations made by the Conference:—

- (1) That the composition of the Imperial Sericultural Committee should be revised so that it should include sericultural experts of various Provinces and States;
- (2) That the functions of the Committee should be widened and that it should hold its annual meetings independently of the Industries Conference;
- (3) That it should include within its purview—

- (i) An annual review of the sericultural work done in Provinces and States;

- (ii) The future programme of development work;
- (iii) The co-ordination of research and other activities of Provinces and States;
- (iv) The publication of the results of research work; and
- (v) The allocation of grants to Provinces and States.

The Conference also recorded its opinion that the present grant of Rs. 1 lakh annually was inadequate and suggested that it should be raised to Rs. 3 lakhs. It also proposed that grants should be made from the Central fund to the handloom industry. We are in general agreement with the proposals made by the Conference and in particular consider that the grant in aid to the sericultural industry should be increased to the extent suggested. We realise that the provision of extra funds is by no means an easy matter, and we suggest that in view of the importance of research the Central Government should concentrate on rendering assistance to the sericultural industry proper; the financing of improvements to the silk handloom industry may well be left to the Provinces and States concerned.

114. The table below shows the net imports of raw silk, cocoons and silk waste in the countries of the Empire in which these are of any importance:—

TABLE XCII.—*The Empire as an importer of raw silk, cocoons and waste.*

(In thousands of lbs.)

	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.
<i>Raw Silk.</i>								
Net imports—								
United Kingdom . . .	1,325	1,800	2,321	2,793	3,516	4,113	4,275	4,865
India (a)	2,444	1,720	3,640	3,154	2,773	3,079	2,487	2,839
Canada (b)	1,823	2,260	2,806	2,416	2,647	3,276	2,146	2,446
Australia	297	411	533	539	661	556	777	1,063
Total	5,889	6,237	9,300	8,902	9,597	11,023	9,665	11,065
<i>Cocoons and Waste.</i>								
Net imports—								
United Kingdom . . .	2,623	1,513	2,368	2,726	3,634	2,159	2,522	2,580
Net exports—								
India	726	535	200	423	454	883	500	171
Cyprus	27	66	15	10	16	23	14	28
Total	753	601	224	433	470	906	604	199
Import balance	1,870	912	2,144	2,293	3,164	1,203	1,918	2,881

(a) Includes imports over land frontiers.

(b) Cocoons and raw silk imported for consumption.

Canada's supplies are taken from re-exports from the United States; exports from Empire countries are on a very small scale.

The next Table shows imports into the United Kingdom separately of raw silk and of cocoons and waste:—

TABLE XCIII.—*Foreign trade of the United Kingdom in raw silk, cocoons and wastes.*

(In thousand of lbs.)

	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.
<i>Raw Silk.</i>								
Imports from—								
Japan	665	1,216	1,900	2,224	3,013	3,540	3,652	4,057
China	277	320	210	282	247	285	415	534
Italy	227	208	217	181	224	162	30	111
France	75	40	21	10	32	60	37	27
Switzerland	20	20	20	33	38	20	21	30
Other countries . . .	77	64	84	90	79	58	122	126
Total	1,341	1,875	2,352	2,820	3,633	4,134	4,286	4,894
Re-exports	16	9	31	27	117	21	11	29
Retained	1,325	1,866	2,321	2,793	3,516	4,113	4,275	4,865
<i>Cocoons, Nolls and Wastes.</i>								
Imports from—								
China	1,245	435	1,109	1,421	2,308	1,269	1,470	1,547
France	100	178	102	440	237	327	389	341
India	92	50	43	100	59	147	135	80
Italy	863	748	754	584	634	121	..	44
Other countries . . .	240	127	187	174	733	358	535	602
Total	2,636	1,538	2,372	2,728	3,071	2,222	2,538	2,620
Re-exports	13	25	4	2	337	63	16	40
Retained	2,623	1,513	2,368	2,726	3,634	2,169	2,522	2,580

(India is the only Empire country in which raw silk is manufactured.) But the export trade is no longer appreciable and as our report shows, it requires the assistance of a protective tariff to meet foreign competition in the Home market. The only exports of importance are those of silk waste which comes mainly from the Kashmir and Jammu filatures. The importance to India of preference for raw silk in the United Kingdom or in other Empire countries is not very great at the present day. At the same time it must be remembered that raw silk is a raw material of importance having definite uses in times of war. We therefore consider that everything possible should be done to stimulate exports from the sole Empire source of supply to all countries of the Empire and that the existing preference should be retained, and if found inadequate should be increased.)

115. We have investigated the work done by the Provincial and Indian States Governments on research, technical education and Sericultural Research. schemes of development of the industry and are satisfied with the results attained. We have already emphasised the great importance of this work to the industry. The various Governments are alive to the needs of the industry and in recent years the sums provided in their budgets have shown an appreciable increase. We have therefore no special recommendations to make.

116. We have been hampered in our enquiry by the absence of reliable statistics. Our estimate of the extent of the production of

Statistics. raw silk in India is not as accurate as we should have liked it to be. The figures from Kashmir and Jammu are reliable because there is a State monopoly and no silk is produced except in the Government filatures. In Mysore and Madras the acreage of bush mulberry forms the basis of the production statistics, and we believe that the results obtained are fairly accurate. A more accurate estimate will be available when the whole of the seed supply is controlled by Government agency. On the other hand, the information from Bengal was meagre. No annual statistics are available and in consequence we were unable to ascertain with accuracy the extent of the deterioration of the silk industry. From the minor silk producing areas accurate information was available in the Punjab where the seed is supplied by Government, but in other provinces only the roughest estimates could be made. Information regarding the less important non-mulberry silk worms was extremely meagre. It is perhaps unnecessary to point out that the information which we have in some cases been unable to obtain is required by the Governments concerned. To give one instance it must be difficult to organise on a sound basis the distribution of controlled seed with the ultimate object of producing the whole amount required, if it is not known what the amount is. We observe also that if our proposals are accepted the raw silk industry will remain under the aegis of protection. If any Government desires that period to be extended, the onus of making out a case will lie upon it.

✓ It will have difficulty in discharging that onus in the absence of reliable statistical information. We recommend that the Governments concerned should examine the statistics maintained by them and make arrangements for improving them where necessary.

✓ 117. We have pointed out in Chapter IV that the methods adopted by Japan to capture the Indian silk market in 1935

Safeguarding against dumping. amounted to dumping, and we observed that the existence of large and increasing stocks in the hands of the Japanese Government

owing to the operation of the Raw Silk Stabilisation Law increased the probability of dumping in the future.) We are not in a position to make definite proposals to meet a future contingency but we consider that a close watch should be kept on imports and prices of raw silk so that, if necessary, action may be taken under the provisions of Section 4 of the Indian Tariff Act, 1934. We also consider that the point should be borne in mind so that if negotiations for trade agreements take place with Japan, efforts may be made to secure from that Government an undertaking that the stocks of silk in its hands will not be sold in the Indian market at an uneconomic price.

✓ 118. As we have pointed out in Chapter III, the research into mulberry cultivation requires a considerable time for its

The period of protection.

results to materialise. On the other hand, considerable progress has been made during the last five years with the distribution of

97/ disease-free seed and the evolution of new races of silkworms and further progress in these matters is likely to be rapid. Moreover at the present time the price level is abnormal, and it is impossible to forecast with accuracy the trend of prices in the near future. We, therefore, consider that the period of protection now granted should not be unduly long. We suggest that 5 years, which is the same as that of the first period should be again adopted.

119. Under any system of protection if it functions in the manner intended it is inevitable that the protective duties must

The effect on Government revenues.

operate so as to decrease the volume of imports of the commodities on which those duties are imposed. It does not, however,

✓ follow that the revenues derived from the Customs duties will necessarily decrease; for it is possible that the enhanced rate of duty will compensate for the smaller volume of imports. Loss of revenue is more likely to occur if the increase in duty is so large that imports are thereby excluded. The duties which we have proposed have been calculated to enable the producers of raw silk in India to obtain a fair selling price in the home market; and the enhancement of duty has been kept as low as possible so far as is consistent with this object. The actual increases are small, except in the case of silk yarn. We have shown that the present duty on silk yarn is low compared with that on raw silk, and that in consequence there is a tendency for raw silk to be converted into silk yarn prior to import and to enter India in that form thus defeating the object for which protection was granted. If

our proposals are accepted, the imports of silk yarn will undoubtedly decrease. The increase in the price of raw silk as the result of our proposal will stimulate production in India, but the process of production which we have described fully in our report is such that the increase is bound to be gradual, and there will at most be a gradual decline in imports. We do not believe that India will be able to do without imported raw silk for considerable time. There is every reason, therefore, to anticipate that our proposals while allowing the indigenous producer to obtain a fair price for his silk will not result in a large and immediate loss to the revenues of the Central Government. The duties on silk fabrics which we propose have been calculated so as to equate the increase in price with the increase in duty on raw silk. The increase in price is not so large as to discourage consumption; and the price to-day is very much less than it was ten years ago. The effect of these duties should be a gain rather than a loss in revenue.

CHAPTER XV.

The proposed changes in the Tariff Schedule.

✓ Various items in the Tariff Schedule relating to raw silk and its derivatives together with the changes proposed by us are tabulated below:—

Item No. in the Import Tariff Schedule.	Name of articles.	Present duty.	Proposed duty.
46	Silk, raw (excluding silk waste and noils) and silk cocoons.	25 per cent. <i>ad valorem</i> plus 14 annas per lb.	Rs. 2-4-0 per lb.
46(1)	Silk waste and noils . . .	25 per cent. <i>ad valorem</i> .	No change.
47	Silk yarn including thrown silk warps and yarn spun from silk waste or noils, but excluding sewing thread.	25 per cent. <i>ad valorem</i> plus 14 annas per lb. except noil yarn which is 25 per cent. <i>ad valorem</i> .	Rs. 3-14-0 per lb. except noil yarn which is 25 per cent. <i>ad valorem</i> and yarn spun from silk waste which is 25 per cent. <i>ad valorem</i> plus 14 annas per lb.
47(1)	Silk sewing thread . . .	25 per cent. <i>ad valorem</i> .	No change.
47(2)	Artificial silk yarn and thread.	25 per cent. <i>ad valorem</i> or 3 annas per lb. whichever is higher.	No change.
48	Fabrics, not otherwise specified, containing more than 90 per cent. of silk including such fabrics embroidered with artificial silk—		
	(a) Pongee . . .	50 per cent. <i>ad valorem</i> plus Rs. 1 per lb.	50 per cent. <i>ad valorem</i> plus Rs. 1-8-0 per lb.
	(b) Fujil, Bosaki and corded (excluding white cord).	50 per cent. <i>ad valorem</i> plus Rs. 1-8-0 per lb.	50 per cent. <i>ad valorem</i> plus Rs. 2 per lb.
	(c) Other sorts . . .	50 per cent. <i>ad valorem</i> plus Rs. 2 per lb.	50 per cent. <i>ad valorem</i> plus Rs. 2-8-0 per lb.

Item No. in the Import Tariff Schedule.	Name of articles.	Present duty.	Proposed duty.
48(1)	Fabrics, not otherwise specified, containing more than 90 per cent. of artificial silk—		
	(a) of British manufacture.	30 per cent. <i>ad valorem</i> or 2½ annas per square yard whichever is higher.	No change.
	(b) not of British manufacture.	50 per cent. <i>ad valorem</i> or 5 annas per square yard whichever is higher.	No change.
48(4)	Fabrics, not otherwise specified, containing more than 10 per cent. and not more than 90 per cent. silk—		
	(a) containing more than 50 per cent. of silk or artificial silk or of both.	50 per cent. <i>ad valorem</i> plus Rs. 2 per lb.	50 per cent. <i>ad valorem</i> plus Rs. 2-6-0 per lb.
	(b) containing not more than 50 per cent. of silk or artificial silk or of both—		
	(i) containing more than 10 per cent. artificial silk.	50 per cent. <i>ad valorem</i> or Rs. 1-8-0 per lb. whichever is higher.	50 per cent. <i>ad valorem</i> or Rs. 1-12-0 per lb. whichever is higher.
	(ii) containing no artificial silk or not more than 10 per cent. artificial silk.	50 per cent. <i>ad valorem</i> .	50 per cent. <i>ad valorem</i> .
87	All other articles not otherwise specified, including articles imported by post.	25 per cent. <i>ad valorem</i> .	Staple fibre 25 per cent. <i>ad valorem</i> or 8 annas a lb. whichever is higher.

CHAPTER XVI.

Summary of recommendations.

Chapter IV—

The question should be considered of levying duty on Chinese silk which enters India *via* the Burmese land frontier and then by sea from Burma (paragraph 34).

Chapter IX—

The question of extending the cultivation of the eri silk worm should be further investigated (paragraph 63).

Chapter X—

The duty on staple fibre yarn should be raised from 25 per cent. *ad valorem* to 25 per cent. or 8 annas per lb. whichever is greater (paragraph 68).

Chapter XI—

No change is necessary in the Customs classification of imports of silk and silk yarn (paragraph 83).

Chapter XIII—

The duty on imported raw silk should be increased to Rs. 2-4 per lb. (paragraph 98).

The duty on imported cocoons should be increased to Rs. 2-4 per lb. (paragraph 99).

The duty on Chinese waste products silk should be increased to Rs. 2-4 per lb. (paragraph 100).

The duties proposed should be specific and not *ad valorem* (paragraph 101).

The assistance required by the raw silk industry cannot be given in the form of direct or indirect bounties (paragraph 102).

Chapter XIV—

The duties on silk fabrics should be increased by 8 annas a pound (paragraph 103).

The duty on silk net should be the same as that on other silk fabrics (paragraph 104).

The duty on artificial silk yarn should not be altered (paragraph 106).

The duty on artificial silk piecegoods should be regulated by the needs of the cotton textile industry (paragraph 108).

The duty on silk mixtures containing more than 10 per cent. of silk and more than 50 per cent. of silk or artificial silk should be increased by 6 annas per pound (paragraph 109).

The duty on silk mixtures containing more than 10 per cent. of silk and less than 50 per cent. of silk and artificial silk should be increased by 10 per cent. *ad valorem* or 4 annas if containing more than 10 per cent. artificial silk and by 10 per cent. if containing less than 10 per cent. artificial silk (paragraph 109).

The duty on silk sewing thread should remain unaltered (paragraph 110).

A specific duty of Rs. 3-14 per lb. should be imposed on silk yarn (paragraph 111).

The duty on spun silk yarn should remain unaltered (paragraph 112).

The duty on yarn made from noils should remain unaltered (paragraph 112).

The composition of the Imperial Sericultural Committee should be changed, and the Government of India grant increased to Rs. 3 lakhs. No separate grant need be made for the silk handloom industry (paragraph 113).

The existing Imperial preference for Indian silk should be maintained and if possible extended (paragraph 114).

Local Governments and States should examine the statistics of silk production maintained by them and effect improvements where possible (paragraph 116).

A watch should be kept on the prices of imported raw silk in order to prevent dumping if it occurs (paragraph 117).

The period of protection should be five years (paragraph 118).

FAZAL I. RAHINTOOLA,

President.

N. J. ROUGHTON,

Member-Secretary.

CALCUTTA,

The 23rd December, 1938.

APPENDIX A.

Programme of visits made and evidence recorded by the Tariff Board.

7th May, 1938 . . .	Assembled at Bombay.
9th May, 1938 . . .	Informal evidence of the Silk Merchants' Association, Bombay.
8th June, 1938 . . .	Informal discussion at Poona with Mr. Govinda Rao, Superintendent of Sericulture, Mysore, and Mr. K. Shams-ud-Din Khan, Secretary, Mysore Silk Association.
17th June, 1938 . . .	Informal evidence of Mr. Advani, Director of Industries, Bombay.
21st June, 1938 . . .	(1) Informal evidence of the Collector of Customs, Bombay. (2) Informal evidence of Vice-Consul for China. (3) Inspected a number of silk mills and visited markets where business in silk yarn is done.
23rd June, 1938 . . .	Informal talk with Mr. Naganath, Textile Expert of Hyderabad State.
25th June, 1938 . . .	Informal evidence of Mr. T. C. Wazir, Director of Sericulture, Jammu Province.
27th June, 1938 . . .	Ditto ditto.
29th June, 1938 . . .	(1) Inspected Sidlaghatta Government Grainage and other Sericultural centres. (2) Informal evidence of Mr. F. L. Silva of Kollegal Silk Filatures, Limited. (3) Informal evidence of Mr. N. G. Naik of Mysore Silk Filatures Co., Ltd., and Sree Rama Silk Throwing Factory. (4) Informal evidence of Proprietors of Silk Throwing Factories in Bangalore and Silk merchants.
30th June, 1938 . . .	(1) Informal discussion with owners of handlooms and power looms at Bangalore. (2) Informal evidence of the President and Secretary of the Mysore Silk Association. (3) Informal evidence of the President and the Secretary of the Mysore Chamber of Commerce. (4) Informal evidence of Mr. Jeevanlal Chinnai of Messrs. Nagindas Foolchand Chinnai of Bombay. (5) Informal evidence of Mr. P. Subbarama Chetty of Sree Rama Weaving Shed. (6) Informal evidence of the President and Secretary of Weavers' Co-operative Society, Bangalore. (7) Informal evidence of Mr. Rangappa, owner of handlooms.

APPENDIX A—*contd.*

1st July, 1938 . . .	Visited—
	(1) Anjaneya Weaving Factory.
	(2) Sreenivasa Weaving Factory.
	(3) Handloom Weaving Establishments of Messrs. Rangadhamaiya and Rangappa.
	(4) Weavers' Co-operative Society.
	(5) Deviah Setty's Silk Throwing Factory.
	(6) Banasankari Weaving Factory.
	(7) Sri Rama Weaving Shed.
	(8) Sri Rama Silk Throwing Factory.
9th July, 1938 . . .	Informal evidence of Vice-Consul for Japan and representative of Bombay Japanese Chamber of Commerce.
11th July, 1938 . . .	(1) Received deputation of Surat Weaving Association.
	(2) Visited several handloom weaving centres and had a talk with a large number of merchants and wage earners in Surat.
✓ 26th July, 1938 . . .	(Received a deputation of handloom weavers in Poona led by Mr. D. R. Gadgil.) Visited Handloom centres in Poona.
7th August, 1938 . . .	Visited Kollegal.
8th August, 1938 . . .	Examined the representatives of Mysore Silk Association.
9th August, 1938 . . .	Examined the representatives of Kollegal Silk Filatures, Ltd.
10th August, 1938 . . .	(1) Examined the representatives of Mysore Silk Filatures, Ltd.
	(2) Examined the representatives of Weavers Co-operative Society, Handloom Weavers and Owners of Handlooms.
11th August, 1938 . . .	(1) Examined the representative of Mysore Chamber of Commerce.
	(2) Examined the representatives of Mysore Sericulturists and Aided Grainages.
	(3) Examined the representatives of Throwing Factories and Weaving Sheds.
12th August, 1938 . . .	Examined the representative of Mysore Spun Silk, Limited.
13th August, 1938 . . .	Examined the representatives of the Mysore Government.
15th August, 1938 . . .	Ditto ditto.
16th August, 1938 . . .	Ditto ditto.
18th August, 1938 . . .	Examined the representatives of the Government of Madras.
19th August, 1938 . . .	Ditto ditto.
22nd August, 1938 . . .	Visited Handloom Weaving centres at Hyderabad.
23rd August, 1938 . . .	Examined the representatives of H. E. H. the Nizam's Government.
24th August, 1938 . . .	Visited Handloom Weaving centres at Aurangabad.

APPENDIX A—contd.

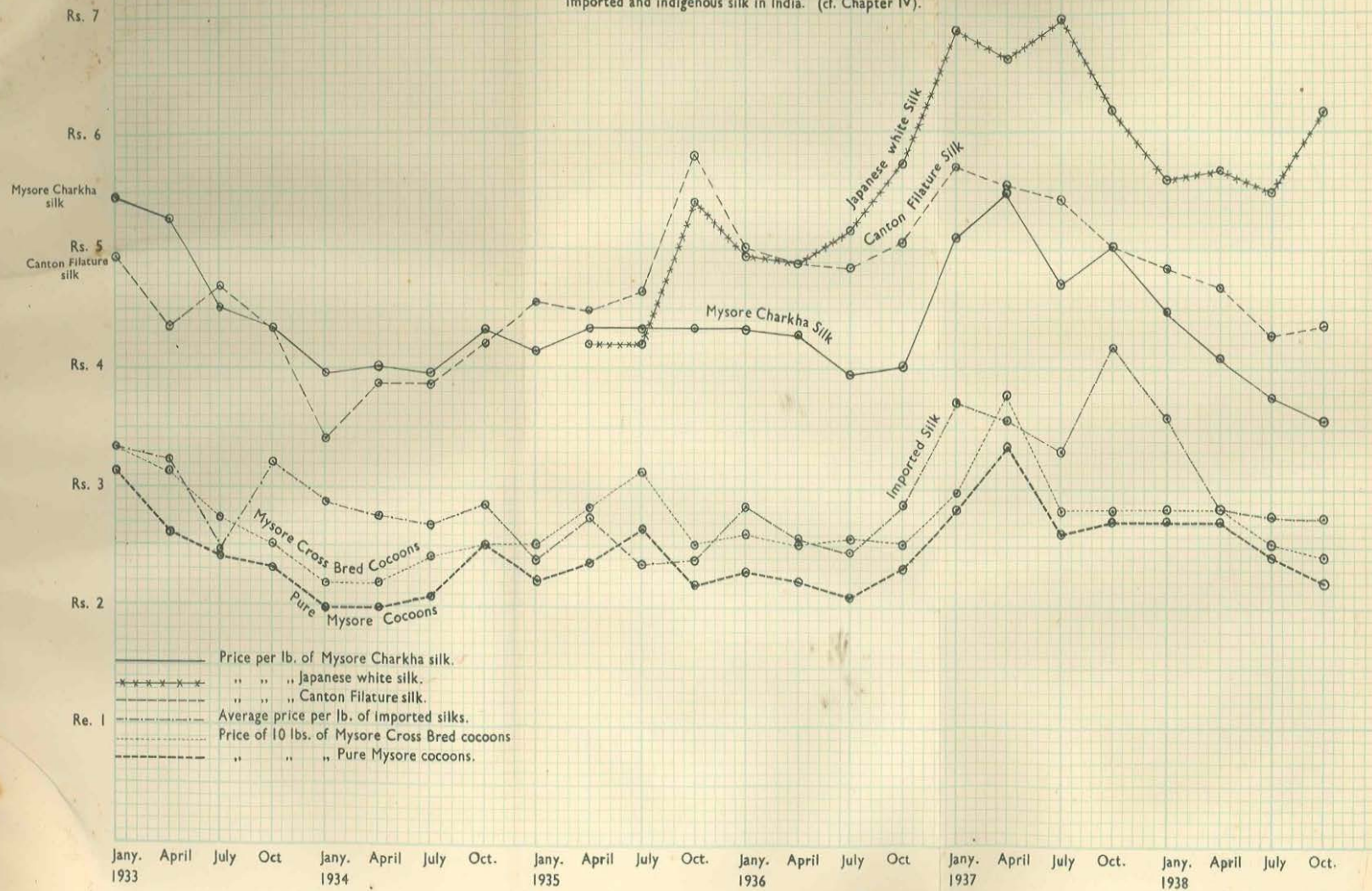
- 20th August, 1938 . . (1) Examined the representatives of the Government of Bombay.
(2) Examined the representatives of Surat people.
- 30th August, 1938 . . (1) Examined the representatives of the Bombay-Japanese Chamber of Commerce.
(2) Examined the representatives of the Artificial Silk Goods Merchants' Association, Bombay.
- 31st August, 1938 . . (1) Examined the Vice-Consul for China.
(2) Examined the representatives of the Bombay Yarn and Silk Merchants' Association.
- 1st September, 1938 . . Examined the Collector of Customs, Bombay.
- 7th September, 1938 . . Examined the representatives of the Kashmir Government at Simla.
- 8th September, 1938 . . Ditto ditto.
- 9th September, 1938 . . Ditto ditto.
- 10th September, 1938 . . (1) Ditto ditto.
(2) Examined certain non-official gentlemen from the Punjab.
- 12th September, 1938 . . (1) Examined the representatives of the Punjab Government.
(2) Examined in camera the Secretary of the Principal Supply Officers' Committee.
- 14th September, 1938 . . Examined Mr. Y. N. Sukthankar, I.C.S., Deputy Secretary, Commerce Department, Mr. Gilmore, Director, Industrial Research Bureau, and Mr. F. Ware, C.I.E., Animal Husbandry Expert, at Simla as representing the Imperial Sericultural Committee.
- 16th September, 1938 . . Examined the Chief Commissioner of Railways.
- 22nd September, 1938 . . (1) Examined the Collector of Customs, Bombay.
(2) Visited the Sasson and Alliance Silk Mills, Ltd., Bombay.
- 26th September, 1938 . . (1) Informal discussion with Mr. Jivanlal O. Chinnai.
(2) Met representative of Messrs. Kantilal & Co., Manufacturers of Fancy Sarees.
- 29th September, 1938 . . (1) Examined representatives of Bombay Silk Mills.
(2) Examined the representative of the Handkerchief Manufacturers' Association, Delhi, and the representative of Importers of Handkerchiefs.
- 11th October, 1938 . . Visited Government Conditioning House, Calcutta.
- 12th October, 1938 . . (1) Visited the Ariff Silk Mills, Calcutta.
(2) Informal discussion with Miss Cleghorn and her sister.
(3) Informal discussion with Mr. G. H. Ariff.
- 17th October, 1938 . . Examined the representatives of the Government of Bengal.

APPENDIX A—*concl'd.*

21st October, 1938	. .	Examined the representatives of the Bengal National Chamber of Commerce.
25th October, 1938	. .	Visited the Silk Filature at Jammu and met rearers and visited rearing houses.
26th October, 1938	. .	Visited the Hibernation House at Batote and met rearers at Bonhal.
28th October, 1938	. .	Visited Silk Filatures at Srinagar. Visited mulberry nursery and model rearing houses. Met handloom weavers and embroidery workers.
29th October, 1938	. .	Inspected seed production house and examined local and imported seed.
31st October, 1938	. .	(1) Examined the Director of Industries, Jammu and Kashmir, Srinagar. (2) Examined the Directors of Sericulture, Jammu and Kashmir. (3) Examined Chief Secretary to His Highness' Government, Jammu and Kashmir.
4th November, 1938	. .	Interviewed handloom weavers at Lahore.
9th November, 1938	. .	Visited in Calcutta— (1) Biological Laboratory. (2) Protozoological Laboratory, University College of Science. (3) Agri-biochemical Laboratory.
10th November, 1938	. .	(1) Visited Mulberry Experiment Station, Dum Dum. (2) Visited the Depôt of the Bengal Home Industries Association.
14th November, 1938	. .	Examined the representatives of the Government of Bengal.
16th November, 1938	. .	Held Conference of the representatives of Local Governments and Indian States in Calcutta.
17th November, 1938	. .	Ditto ditto.
18th November, 1938	. .	Examined the Director of Industries, Bihar, at Calcutta.
19th November, 1938	. .	Examined the Director of Industries, Assam, at Calcutta.
20th November, 1938	. .	Informal examination at Malda of— Rearers— (1) Mol. Kamtal Biswas, (2) Mol. Atabar Biswas, Reelers— (3) Mol. Imerat Pramanick, (4) Mol. Haji Ammu, and Weavers— (5) Bahu Surendra Nath Sarkar.
21st November, 1938	. .	(1) Examined the representatives of Bengal Co-operative Silk Union. (2) Examined the representative of Silk Merchants at Malda.
23rd November, 1938	. .	Examined Haji Muniruddin Ahmed of Jangipura in Murshidabad District.
26th November, 1938	. .	Examined the representatives of the Government of Bengal.

Appendix B

Graph showing the course of prices of cocoons and imported and indigenous silk in India. (cf. Chapter IV).



MINORITY REPORT

OF

MR. N. N. ANKLESARIA, C.I.E., BAR-AT-LAW

PRELIMINARY.

My colleagues consider that the best way to develop the sericulture industry of India is to raise the price of silk by enhancing the protective duties on foreign silks. I, on the contrary, have come to be

Occasion for the minority report.

of opinion that the best way to bring about the desired object, in view of the reduced purchasing power of the consumer and the severe competition of silk substitutes, is to lower the price of silk in India by lowering the existing duties. My colleagues have come to the finding, from the data available to us, that during the quinquennium under review the sericulture industry has declined. I, however, find that during the quinquennium, in spite of the world depression which has had its depressing effect on all industries in general and on the sericulture industry, producing a luxury article, in particular, the Indian industry has shown a vitality which compares very favourably with that of the sericulture industry of any other country in the world with the possible and explicable exception of Japan. My colleagues believe that our relevant conclusions should be based on an all-India basis while I have come to be of opinion that conclusions based on an all-India basis relating to costs of production and remunerative or fair selling prices of such a "practically costless" joint product of a household and sideline industry of agriculture as the silk cocoon in particular and to the sericulture industry of India, carried on as it is in the different areas under different and varying geographical, economic and social conditions, in general, would be both futile as well as misleading. Again, feeling convinced that the competition of comparable foreign silks with Indian silks is far from being the main cause of the Indian industry's present difficulties which it has in common with the sericulture industry of all countries in the world including Japan due to the advent of the silk substitutes and the reduced purchasing power of the consumer, I think that any increase in the import duties will by increasing substitution do little good to the industry and will do positive harm to the weaver. My colleagues, however, think otherwise and propose an increase and not a decrease in the duties. Further, I have come to be of opinion that what the industry requires is not tariff protection but a larger market both at home and abroad which can only be secured by a better organisation of the industry such as would lower the costs of production and at the same time improve the quality of the product and that in the present circumstances of the industry, tariff protection is neither necessary nor practicable and is both inexpedient and undesirable in the interests of the industry itself as well as in the interests of the weaver. As unfortunately for myself, on all these points and on many others, I differ from my colleagues, I have thought fit, with regret and reluctance, to submit the following minority report begging leave to point out that if I have erred in my main conclusions, I have erred in very good company—company of our

Fiscal Commission, company of competent economists and above all company of the great statesmen who have been guiding the destinies of the sericulture industry of France, Italy and almost all successful sericultural countries of the world.

2. Our terms of reference interpreted in the light of the Legislative Assembly Resolution of the 16th February, 1923, and

Terms of reference. the debates thereon require us (1) to examine and report whether the protection granted

to the sericulture industry in 1934 should be continued, modified or withdrawn in accordance with the fiscal policy of our country; and (2) to have due regard in making our recommendations, to—

✓ (a) the financial needs of the country;

✓ (b) the effect thereof on the handloom weaving industry; and

✓ (c) the principle accepted by the Government and the Legislature that the financial burden resulting from our proposals should fall upon the people in proportion to their capacity to bear it.

3. I emphasise this last requirement (2) (c) of our terms of reference because though it appears to be explicit in the resolution adopted by the Assembly, I believe there is a growing

Effect of tariff protection on consumer.

tendency in some quarters to ignore or make little of the highly and disproportionately regressive character of our existing taxational system and the indisputably increasing burden which the successive schemes of protection have been imposing on the poor and middle class people of our country, as well as on the agricultural and export industries of India. Tariff revisions in all countries, not excepting India, have always been marked by the efforts of parties interested, both in the Legislature and outside it, to demonstrate the benefits which tariffs are expected to confer on the industries concerned and the country in general. The other side of the picture, however, is tending increasingly either to be ignored or obscured. No doubt there is often some small voice raised in the Legislature for that "vague and shadowy form" known as the consumer for whom all parties proclaim their utmost goodwill and solicitude but just who that consumer is, whether he will bear the burden of a particular duty or how much and in what manner his interest will be affected are questions commonly passed over or answered by general impressions; and there has been surprisingly little effort to present in detail and with authority of studied facts the cost of duties to the country" (Making the Tariff by Page, page 127).

4. Our terms of reference relate to sericulture in general and do not pointedly refer to the silk industry as a whole. I think,

Effect of tariff protection on handloom weaving industry.

however, that in the study of the production of a commodity it is impossible to ignore the effect of it on the extent of its consumption.

✓ If raw silk has no market for it, it is plain that there will be no production of raw silk at all. The almost only consumer of Indian silk is the handloom weaver in India and our terms of reference

pointedly require us "to consider in particular how our recommendations will affect the handloom weaving industry". I also believe that in helping the handloom weaving industry by making its raw material cheaper than it is at present we would not only be protecting a great national asset but would be also adopting the most efficient method of protecting and developing the sericultural industry of our country as taught by the experience of almost all sericultural countries of the world.

5. Apart from the inexpediency of attempting to develop the sericulture industry of India by tariff protection, I have tried

Tariff protection impracticable and inexpedient.

to show in this report (the absolute innocuousness of tariff protection with regard to the industry which it is intended to protect in the present conditions under which the sericulture industry in India is carried on). Again, we should realise that in attempting to estimate the effect of the scheme of tariff protection of 1934 and of the one which my colleagues propose on the sericulture industry of India, we cannot possibly ignore the fact that the (present world conditions of rapidly fluctuating prices, wages and exchanges, and the totalitarian export policy of the competing countries, together with the different economic conditions obtaining within the different sericultural areas of India, greatly complicate the problem and make all findings on the present and future costs of production and the fair selling prices in India and in the competing countries little better than mere conjectures.) All the difficulties in this connection which faced the last Tariff Board in the enquiry of 1933 confront us to-day and are by no means diminished by attempts of parties interested in the continuance of tariff protection to minimise the progress made during the quinquennium and the unwillingness of interested parties and especially of the Japanese trading community in India to supply the necessary information.

6. Our enquiries have led us to the unanimous conclusion that

Industry to be developed in national interests.

the sericulture industry of India is an industry of high wealth producing potentiality and that the great natural advantages which it has in India should not be allowed, in the national interest, to run to waste.

7. I consider that our duty in the present enquiry is not confined to finding out how far the abnormal conditions under which the

sericulture industry was said to be subjected to the unequal foreign competition in 1932-33 prevail to-day and to recommend a scheme

of safeguarding the industry from attacks by such foreign competition with the aid of depreciated currencies or subsidised exports. In the present enquiry we are concerned with a larger question whether substantive protection as distinguished from safeguarding should be extended to the sericulture industry of India if it be found desirable for its progress and development in accordance with the fiscal policy of our country. I, therefore, propose to examine the question whether and to what extent the difficulties under

which the industry is said to be labouring do in fact at present exist and if they do, whether tariff protection is the right remedy to overcome them. A detailed description of the industry cannot be expected in this report, more especially as the last Tariff Board Report on sericulture contains very valuable and laboriously collected information which I have, whenever required, verified by my own personal enquiries and found correct except in a few instances.

8. I. Our terms of reference construed in the light of the Assembly Resolution of the 16th February, 1923, and the debates

Summary. thereon require us, among other things, to have due regard to the principle that the financial burden resulting from our proposals shall fall upon the people in proportion to their capacity to bear it. Tariff protection to the sericulture industry will harm the interests of the handloom weaving industry and is impracticable and inexpedient but the industry requires to be developed in the national interest.

II. Sericulture industry has three branches, viz., (1) production of the silk cocoon, (2) reeling the silk thread from the cocoon, and (3) throwing the thread into the silk yarn. The silk cocoon is a joint product of a sideline industry of agriculture and can be classed to varying extent with products which are practically costless. While cocoon production in order to be successful must remain a cottage industry, the reeling of cocoon admits of large scale production.

III. Indian silks differ as regards their merits and defects from foreign silks. Spun silk is produced from silk waste resulting from the reeling of the cocoon and other processes of silk and silk yarn production and competes with real silk. There are other competitors of real silk besides spun silk and they are made by chemical processes and on account of their low price compete greatly with real silk.

IV. With reference to the sericulture industry, India is divided into several sericultural areas, (each with such varying climatic, economic and social conditions that no general conclusions which would apply to all areas can be arrived at) Sericulture industry in India has shown during the quinquennium a vitality which compares very favourably with the sericultural industry of any country of the world. Neither decreased mulberry area nor the fact of large imports of foreign silks would show any decline of the industry. The depressed prices of silk are due to the reduced purchasing power of the consumer and the competition of silk substitutes.

V. The condition of the silk handloom weaver has greatly deteriorated. From the artist that he was he has come to be a mere wage earner and this is due to the high prices of the raw product of his industry in comparison with the prices of silk substitutes, by working on which the weaver gets a price for his labour but not for his art and has to compete with the silk weaving factory and mill.

VI. The last Tariff Board found that the industry was in no need of substantive tariff protection but required to be safeguarded against unfair foreign competition. The Government of India agreed with the finding of the Tariff Board and the Legislature endorsed it. The last Tariff Board also found that without state aid sericulture cannot be developed.

VII. The present claim for substantive tariff protection is based on the same grounds on which the last Tariff Board had recommended protection on the safeguarding basis. The following considerations must be borne in mind in judging the expediency of tariff protection with regard to the sericulture industry of India, viz.:—

- (1) tariff protection with regard to rate and duration cannot be fixed for each individual area and therefore its benefit to the different areas would be unequal;
- (2) both demand and supply of Indian silk are inelastic and the advent of the silk substitutes which compete both with Indian and foreign silks has rendered low prices for silk, both Indian and foreign, imperative. Foreign silks have to regulate their prices so as to bring them to the competitive level of the prices of silk substitutes and if the Indian silk cannot do the same, the industry cannot survive much less develop.

French and Italian industries are not able to bring their prices to the competitive level of the prices of silk substitutes and the result is that sericulture is declining in both France and Italy; and the main reason why it flourishes in Japan is that the Japanese producer is able to satisfy himself with prices which are at a competitive level with the prices of silk substitutes.

- (3) The bulk of the Indian hand-reeled silk does not compete with the superior classes of the imported silks and the only Indian silk which has to compete with the foreign silks, as at present imported, is the Kashmir silk. Kashmir on account of her fiscal policy is as foreign vis-a-vis the non-Kashmir areas of India, as Japan or China and cannot claim tariff protection by British Indian duties so long as she continues her present fiscal policy and her state monopoly.
- (4) Tariff protection can give only a trifling benefit to the silk producers of India which will not make him adopt efficient methods of production so essential for the success of the industry. Nor can tariff protection be claimed by an industry to enable it to do things which it is in its own interest to do.
- (5) Existing tariff protection is already much greater than the findings of the last Tariff Board would justify.
- (6) Present Chinese dumping can only be sporadic and as against the Japanese dumping tariffs short of

prohibitive can effect nothing. Against the totalitarian export policy of the Japanese Government "a new technique requires to be learnt and adopted".

- ✓ (7) Low silk prices are imperative in the interest of the sericulture industry itself, the handloom weaver and the revenue which during the last year shows a catastrophic fall in the returns from the silk and the compensatory duties.

✓ VIII. The intensity of the foreign competition is greatly exaggerated as will appear if the nature and extent of the foreign competition are closely examined. Competition of silk substitutes is ignored or under-rated and so is the competition of Kashmir silks. (The competition of free-land imports and smuggled goods appears to have been much greater than is generally realised and the fact of the absence of an efficient commercial organisation which can make Indian silk available in the market is lost sight of and so is the unsuitability of Indian silks for uses which foreign silks alone can satisfy.)

✓ IX. Of the Fiscal Commission's three conditions, the second and third conditions are neither applicable to nor satisfied by the industry and as in 1933, so to-day the industry needs no substantive tariff protection.

X. The industry requires to be developed in the national interest and for its development, above everything, (it requires extended home and export markets and these cannot be available to the industry without the industry lowering its costs of production and so its selling prices and at the same time producing silks suitable for the outside markets.

XI. For such development the methods of other sericulture countries which have not resorted to tariff protection must be followed and tariff protection to which these countries have not resorted must be eschewed. Study of the methods adopted by the other countries shows that state aid varying in nature and amount with the varying needs of the different sericulture areas of India is essential.

✓ XII. Lefroy's report should be the basis of all inquiries for the development of the sericulture industry of India.

XIII. My recommendations are as follows:—

- ✓ (1) The Local Governments of each sericulture area should give state aid according to the varying needs of the area concerned on the basis indicated by me.
- (2) An annual central grant of Rs. 5 lacs should be distributed in the proportion and on the conditions indicated by me.
- (3) The present protection on silk goods imports should be reimposed for a period of five years.
- (4) If the duty on raw silk is to be continued for revenue purposes it must be as low as possible so that the price differential between silk prices and prices of silk

substitutes may be as small as possible and the consumer's choice between silk and silk substitutes may not be unduly deflected from silk to silk substitutes. ✓

- (5) Legislation should be undertaken to prevent silk substitute goods and foreign silk goods being passed off as real Indian silk goods by manufacturers and dealers.

XIV. The difficulties created by the advent of silk substitutes are only temporary and Indian sericulture has a promising future.

My thanks are due to our Assistant Secretary, Mr. Mohd.

Acknowledgments. Nasrullah Khan, B.A., who kindly undertook to check my figures, construct tables, make headings for the paragraphs and go through the drafts for correcting slips of pen unavoidable in the circumstances in which this Minority Report has been drafted.

CHAPTER I.

The Silk Industry and its different branches.

9. As is evident from the fairly detailed description of the sericulture industry given in the last Tariff Board Report and as we have ourselves found in our personal enquiry, sericulture industry is essentially a household sideline industry of agriculture. The silk industry and its different branches. It has three stages or branches, almost independent the one from other, and forming separate economic entities. The first branch consists of silk worm rearing and mulberry cultivation which provides food for the worm and the product of this branch is the silk cocoon formed by the worm. The second branch is concerned with the unwinding or reeling of silk filament to form the silk thread and in the third stage the silk thread is "thrown" into silk yarn ready for the weaver's loom. As silk is generally sold in the form of thread, some writers would not consider "the throwing" of the thread into yarn as a branch of the sericulture industry proper. Where mulberry leaf which is the food of the silk worm is not obtainable free, the agriculturist sets apart a small part of his holding for mulberry cultivation and along with the cultivation of staple crops like juvari, ragi, wheat, etc., which constitute the main source of his livelihood, he devotes his spare time labour and that of the members of his family to cultivating mulberry and rearing silk worms. Mulberry is cultivated in two forms, bush and tree. The bush mulberry plot which needs little or no irrigation, once planted lasts for a period of from 15 to 20 years after which it may require renewal. Where mulberry grows in the tree form, it grows wild as in Kashmir and the Punjab and the trees are said to live for more than 200 years.

10. The rearing of silk worms is mostly entrusted to the women folk and the children of the family. In some stages of the life cycle of the silk worm during a period of 6 to 7 days, tiresome work and watching and meticulous attention of the rearers are required—a species of occupation which can have hardly an appeal for the rich agriculturist of America or the viticulturist of France or the agriculturists of other countries in which the standard of life is, comparatively speaking, high and industrialisation necessitates employment of the leisure hours in more pleasant occupation than rearing silk worms would permit. In France, even in spite of substantial bounties from the Government, the sericulture industry fails to attract the required labour which finds greater remuneration and less irksome work in viticulture. In Italy the wives of the Lombard agriculturists who once contributed mainly to the success of sericulture, "by engaging in the business as the wives of American farmers in their domestic

work" are now finding more remunerative or more pleasant employment for their activities than sericulture with the consequence that Italian sericulture is declining. Even in Japan deflection from sericulture to other industries is becoming noticeable and it has been prophesied with some confidence by Mr. Douty that Japan with her growing industrialisation and new found industries can hardly be expected to retain in sericulture labour and land which can be employed with more remunerative return in other lines and that it is to China and we may add India with her unlimited expanses of land and inexhaustible supplies of cheap labour that we must look for the future supply of raw silk sufficient to accommodate the future requirements of the world. The cash outgoings of the agriculturist silk worm rearer are almost next to nothing and are confined, generally speaking, to his small outlay on buying the seed or the eggs of the worm which even, in the case of the non-mulberry silk worm rearing in Assam, is obtained by the agriculturist free. The rude implements for silk worm rearing, the Muchans and the Chandrikes are made, in many cases, by himself from twigs and branches gathered from the fields and jungles free. The main items of capital and labour which are employed in worm rearing have no marketable value outside the industry. The mulberry leaf which the sericulturist either gets free or produces as a sideline of his main agricultural activities has almost no use except for feeding the worms reared and the spare time labour of his family would go unutilised if not employed in worm rearing.

Cocoon rearing is an essentially household and cottage industry and is not susceptible to large scale production. Whenever and wherever any attempt has been made to produce cocoons on a large scale, the attempt has signally failed as the disastrous experience of the Lister Company in our own country to produce cocoons on a large scale in their rearing houses at Gurdaspur and Dehra Dun amply bears out and the practice in France, the most successful sericultural country of the last century, testifies. The best policy for the sericulturist has been almost universally acknowledged to be in France "petite magnanerie grande filature" (small rearing house and big filature). Such has been also the practice in Italy, Japan and China. That circumstance of the cocoon production being a cottage industry carried on a small scale by the spare time labour of the agriculturist's family indeed in the words of the Bengal Government "forms the solid foundation for the industry". "The peasantry, especially where the holdings are small, needs subsidiary occupations. Silk worm rearing where possible is the best of occupations suitable for such peasantries. It gives occupation to all members of the family and as the work is carried on in between other work and partly in spare unoccupied hours, the cocoon producers can afford to sell cocoons at rates which would be impossible if all labour involved were paid for". This view of the Bengal Government is corroborated by the Assam Director of Industries who also said "cost of cultivation of mulberry is negligible to an agriculturist who does this along with other things. In spite of my best efforts,

I could not give any figure (for cost of cultivation). Sericulture in Assam is a subsidiary occupation of the agriculturist. As such the cost of rearing (i.e., production of cocoons) cannot be worked out having regard to the fact that it is a part of domestic affairs managed by the combined efforts of men, women and grown up children of the family. Similar is the case in respect of reeling and spinning. The expenditure for production of leaf, rearing and reeling that is incurred by Government farms cannot form a standard or criterion as it exceeds several times the value of raw silk reeled". The Bengal Government representatives, however, presumably realising that their statement "that the cocoon producer can afford to sell cocoons at rates which would be impossible if all labour involved were paid for" would involve the inference that the cocoon producer can afford to sell his product at any price which he can get irrespective of any labour and capital he has put in in his work, proceed to state: "The remuneration, however, in cocoon raising is small and only a small difference in price makes this remuneration attractive or unattractive". This, however, by a legitimate *reductio ad absurdum* can be shown to amount to saying that because a man at some time had been getting one rupee for doing a thing which costs him practically nothing or very little, he would refuse to be satisfied with four annas for doing the same thing another time, *ceteris paribus* of course. If the sericulturist of India is of the mind ascribed to him by the Bengal Government representative, then I venture to say that there is no hope for him (the Indian sericulturist) in his competition with his rivals of Japan and China who taking correct stock of the changed and rapidly changing economic conditions due to the advent of the silk substitutes and the reduced purchasing power of the consumer continue to find the present prices which they have been getting as "attractive" as before. (Happily, however, for the Indian sericulture industry, such is not the case.) For, from 1916 to our present day, the prices of cocoons have varied by more than 300 per cent. without any substantial variation in the production of cocoons in India. In 1916 the price of cocoons in Mysore is said to have been As. 8-6 per lb., it rose in 1920 to As. 14-9 and continued to decline without break till our own times when it has come to be less than four annas and still during this whole long period the cocoon producer has been continuing to produce cocoons without any substantial variation in the quantity. In Bengal the price of cocoons which was As. 12-6 per lb. in 1923-24, continuously declined till it came to be As. 4-9 in 1931-32 and in our own day the Bengal Government representative has stated before us that the Bengal cocoon producer will find As. 5 per lb. quite an attractive price which will make him take to cocoon production enthusiastically. The fact of the matter is that cocoon being a joint product of agriculture and of a sideline of the agriculturist's main occupation from which he derives his livelihood, its cost of production depends on factors which are, as stated by the Assam Director of Industries, incalculable by any strictly economic criteria. In fact the cocoon producer's product can be classed with those products of American farmers which Professor

Melvin T. Copeland describes as "practically costless" as will appear from the following quotation:—

"While these same conditions (lack of transport and inter-communication facilities, etc.) help to explain the very extensive household manufactures that arose, additional factors enter into the situation of this group. The chief among these arose from the fact that most of these products were turned out in what was spare time of the varied occupations of the producers. (Since agriculture with its marked seasonal variations in the need of labour was the main pursuit of nine-tenths or more of the population, the situation was particularly favourable for these sideline activities in manufacturing.) Moreover, the energetic, thrifty puritanical spirit has a religious abhorrence of waste time. Thus labour devoted to these sideline occupations of farming or house-keeping could be looked upon not only as practically costless, but as blessed by a religious sanction as well" (*vide* "Explorations in Economics", page 498).

11. While the first branch of the sericulture industry does not admit of large scale production and must remain, if it is to be successful, a cottage industry, the second branch, namely, the reeling of the silk cocoon is susceptible to large scale production which is the main factor of the success of Japan, Kashmir and other countries where silk is produced by reeling cocoons on filature machinery instead of on the primitive charkha as is largely the case in India.

12. The bulk of the Indian silk as at present produced by hand reeling differs in quality from the bulk of the imported silks. As regards brilliancy and its suitability for manufacturing certain kinds of articles such as silk hats, plush velvet, etc., the Indian silk is without a rival. On the other hand, the foreign silks at present imported into India are superior to Indian hand-reeled silk in winding qualities and percentage of loss in degumming. ("That the import of foreign silks into Bengal is materially affecting the indigenous industry is an opinion with which I entirely differ. The purposes for which the two kinds of silk are employed are different" (*vide* Monograph on the silk fabrics of Bengal, page 66). Silk reeling by hand on the charkha or other primitive appliances requires great care and minute attention by the reeler and when these are lacking the silk produced is of a very inferior quality, full of defects and impurities and totally unfit for high class fabrics and it is largely on the presence or the absence of these defects that various classifications of silk are made on which useful comparisons can be based. The defects due to silk being reeled on charkha by hand, as it is reeled at present in India, are so radical and numerous that as one silk manufacturer has stated before us: the bulk of it has no use outside India and not in India even for high class fabrics. Indian silk is said to have greater elasticity but the inefficient way in which it is generally reeled on the

charkha or the Bengal ghai diminishes the elastic uniformity of the fabric made out of it, the elasticity being stressed at places much over and below the normal. The result is a permanent set in some places so that the finished fabric gets out of shape being formed of yarns some of which are elastic and others not to an equal and uniform extent. Another defect is due to the fact that the charkha or ghai reeler does not (as on the primitive machine it is not possible for him to do) give the thread a proper and sufficient twist or "croisure" which is necessary to consolidate and round off the thread, squeeze out the superfluous moisture and gum and remove other impurities. The certificates of excellence for their silks obtained from Europe by the Mysore Government and other Indian producers being in respect of small quantities of sample silks reeled with special care on the charkha, while they may prove the capabilities of the Indian charkha silks would in no way confirm the claim that the bulk of the Indian charkha silk as at present produced by the prevalent inefficient methods and machines can stand comparison with the superior kinds of foreign silks which at present constitute the main imports into India. Indeed it is the unevenness and other defects due to careless and inefficient reeling which are mainly responsible for driving out the Indian hand-reeled charkha silk from its former European markets and at present to some extent from the home market also. The Bengal Chamber of Commerce has forwarded to us the opinion of one of their members to the effect that the present charkha silk of Bengal cannot possibly have any outside market on account of its defects. This opinion was sought to be controverted by some of the Bengal witnesses but we have received confirmation of it from various independent quarters.

13. Not all the silk filament which is in the silk cocoon can be reeled off so as to produce a thread which would undergo

Silk waste and silk substitutes. successfully the severe processes of silk weaving. Along with such filament which can be reeled into thread suitable for weaving, there exist matted and tangled filaments which are found outside and inside every silk cocoon which cannot be reeled and these form what is called the silk waste. Besides these matted and tangled filaments, there are silk cocoons which have been pierced by the silk moth or have been damaged for one reason or other which cannot be reeled and have got to be spun like cotton to produce spun silk, the earliest rival of reeled, raw or real silk. The operations of re-reeling the silk thread and of "throwing" it into yarn and also the spinning operation itself produce waste material which also can be spun for producing weaving material. The spun silk resembles real silk greatly and fabrics made out of it are fairly durable (though not as durable as those made of silk) and look exactly like real silk fabrics to all eyes save the expert's as many an Indian lady who attracted by its price which is less than half that of the real silk finds to her cost. Besides spun silk there are other silk substitutes made by chemical processes from wood pulp and other similar materials which look very much like silk

and cost less than one-sixth of the price of real silk. In fact these different silk substitutes have been able to replace real silk to such an enormous extent under our present marketing methods that they form the greatest danger to the sericulture industry of India as to that of the whole world. Before 1834 there was no market for silk waste. It was only after 1857 that Europe having understood the uses of silk waste that Indian silk waste began to be exported to Europe and the price thus obtained for it formed the main source of profit of the Indian reeler working on the charkha bringing to him about a fifth of the price of raw silk.

✓ 14. In an enquiry into the sericulture industry of India, India cannot be treated as a whole. Geographically, economically and

Conditions in different sericulture areas vary greatly.

socially, the different sericulture areas are sharply marked out as distinct from one another and if what is dissimilar is treated as similar, the conclusions arrived at are bound to be erroneous. In one area mulberry grows wild as tree; in another area it has to be cultivated as bush. In one area the worm is univoltine producing only one crop annually and giving occupation to the agriculturist for a few weeks only each year. In another area multivoltine races are reared giving from 5 to 7 crops annually and providing employment for the greater part of the year. In one area cocoon is the joint product of ragi; in another area it is the joint product of jute. In one area the rearer is little better than a day labourer having a low standard of life; in another area he is a substantial farmer having a comparatively high standard of life. In one area the cocoon has silk contents and length of filament double those of the cocoon in another area. The quality of the Bengal cocoon and his primitive ghai precludes a Bengal reeler doing more than two threads at a time. With the better cocoon of Kashmir and with the improved machinery provided by the State, the Kashmir reeler does three, four, five or even six threads. With the pedal charkha in one area one person can do the reeling which would require two persons on the ordinary hand charkha for winding and turning the wheel in another area. Let alone the variations in the conditions of distant areas like Mysore and Kashmir, even in two contiguous areas conditions prevail which make what is applicable to one area inapplicable to the other. Indeed, even in the same area conditions vary from district to district and even from village to village. Thus in Mysore in one village, Sidlaghatta, the rearer got in July, 1933, As. 4-8 for a pound of cocoon; in the same month in the village of Chennapatna the rearer could not realise more than As. 3-10, in both cases the rearers working on identical seed. The Bengal Deputy Director of Sericulture told us that he had kept twenty rearers in a village under his observation with a view to obtain comparable data for us and he found that while some were "making profit", others were "working at a loss". If it is a question of framing a tariff scheme for say the cotton textile industry of India, the comparable data which can be evaluated within reasonable time and with reasonable labour may be available

but with regard to the sericulture industry of India the comparable data is both unavailable as well as, in my opinion, incapable of evaluation with any degree of reasonable approximation such as a scheme of tariff protection requires to be based upon.

15. (The case for the decline of the industry is based in the first instance, on the decreasing area of mulberry cultivation.) At the

Has the industry declined? last enquiry the Mysore Government stated that mulberry plots which were not required on account of the decline of the industry

were allowed to remain unutilised as waste land. The absurdity of that contention was pointed out to them and at the present enquiry they admit that mulberry plots have been utilised for other crops. It is plain that if other crops pay better than mulberry, mulberry will be replaced by them. Now this would not necessarily show that mulberry cultivation has become less paying during the present quinquennium than in the previous one. It would rather show that mulberry cultivation and silk worm rearing has become less paying than before relatively to cultivation of other crops. Thus the table given at page 7 of the Bengal Government publication "The inadequacy of protection, etc." as well as Lefroy's Report and the Eastern Bengal Gazetteer (1909) show that while in the district of Malda in Bengal, the cultivation of mulberry and the production of cocoons had nearly doubled during the twenty-five years preceding 1909, in the district of Bogra in Bengal, mulberry cultivation and cocoon production had declined during the same period almost to the point of extinction. And the explanation given is that while in Bogra the soil being fit for jute cultivation, jute cultivation pays better than mulberry cultivation the reverse is the case in the district of Malda where the soil is not fit for jute cultivation.

16. More than one instance can be cited from the records of the present enquiry to show that (here is no such strict and infallible

Decreased mulberry area no indication of decline.

correlation between mulberry cultivation and cocoon production as to furnish a test for the decline or progress of the sericulture industry in India.) And surely the fact of

mulberry cultivation having become in a particular village less paying in comparison with other crops can hardly be a justification for a claim to tariff protection for mulberry cultivation. As a matter of fact in Mysore with the reduction of mulberry cultivation there has been actually an increase in the quantity of silk produced. With mulberry cultivation of 32,870 acres in 1933-34 the quantity of silk produced was 7.88 lakhs of pounds while with 6,370 less acres of mulberry in 1937-38 the quantity of silk produced was 7,000 pounds more. (The Mysore Government explain this fact of smaller mulberry cultivation followed by greater silk production by saying that it was due to improved methods of silk production.) This explanation, however, tends to disprove their contention that the industry in Mysore has declined, for it tends to prove that the Mysore Government, to their credit, have improved their methods of production so as to decrease their costs of production to a very

✓ appreciable extent and that, I take it, would be a sign of progress and not of deterioration.) In Japan where it cannot be contended that sericulture industry has declined, mulberry cultivation has been continually decreasing during the last 10 years being 1,564,100 acres in 1929 and 1,402,680 acres in 1937. Again, the figures for mulberry cultivation given by the different sericulture areas have been shown to be far from reliable. Thus at the last enquiry the Bengal Government stated a certain figure for mulberry cultivation which was said to be arrived at by "a house to house census". At the present enquiry the same Government stated that the figures given by their predecessors in spite of their having been the result of a "house to house census" were highly exaggerated. In Kashmir we were told that a census of mulberry trees was taken some 10 years ago. The figures, however, found in the recent census disclosed that the previous figures could not have been correct. ✓ The figures of this recent census even are considered by the present Kashmir Director of Sericulture as incorrect and he is conducting a third census. It is in my opinion abundantly clear that the conclusion of Mr. Mukerji that "no reliance can be placed on the figures furnished by the different districts as to the acreage under mulberry in Bengal" applies as much to Bengal to-day as to any other sericulture area in India. Apart therefore from the unreliability of mulberry census figures, there appears to me to be no such strict correlation between mulberry cultivation and silk production as has been alleged. In Mysore in 1929-30 the area under mulberry was 43,624 acres and silk production 880,000 lbs. ✓ while in 1937-38 the acreage was 26,500 with silk production of 795,000 lbs. In 1931-32 the acreage was 36,511 and production of silk 740,000 lbs. That is with 10,000 less acreage there was 55,000 lbs. more of production in 1937-38. In 1935-36, with 2,000 acres more acreage there was 53,000 lbs. less production than in 1937-38. (The fact of the matter is that there are two systems of cultivation—extensive and intensive.) Under the former, with less manure and less labour you require more land and under the latter with more manure and more labour you require less land ✓ for the same quantity of crops produced.

17. Then it is said that whatever may be the case about mulberry cultivation, the figures for (the total silk production of India, taken as a whole, show a decided declining.) This argument illustrates the danger of basing conclusions on an all-

Decreased silk production. India basis and applying them to the different sericulture areas producing under different climatic, economic and social conditions. For, if we eliminate the Bengal production (and Bengal has been all along the "lame duck" of the sericulture industry in India, for reasons quite peculiar to itself) from the total Indian production, what do we find? We actually find that in other areas than Bengal, silk production on the whole instead of having declined has, on the contrary, actually increased during the quinquennium under review. As my colleagues say "Excluding Bengal, the industry is certainly not worse off at the present day than it was when protection was granted". Now I

ask: Is there any other industry in the world producing a luxury article of which the same may be affirmed? Is there sericulture industry of any of the countries who were till recently in the front rank as producers of silk of which this can be affirmed in recent times? The Imperial Economic Committee's publication "Industrial Fibres" for 1937 gives some statistics. Italy produced 117½ million pounds of silk cocoons in 1929, its production fell to 38½ million pounds in 1935, i.e., just by about 300 per cent. France shows even a worse plight. She produced 5.6 million pounds of silk cocoons in 1929. Her production fell to 1.4 million pounds in 1935. No reliable statistics are available regarding China but those that are available show that the Chinese sericulture industry has been continually declining compared with its condition in the previous years. And even the Japanese industry at the present time appears to be in distress as the heroic methods adopted by the Japanese Government to save it abundantly prove. I have referred to the statistics of cocoon production instead of silk production because Italy, France and Japan even have had to resort to importation of cocoons from foreign countries instead of producing cocoons themselves. The League of Nations Statistical Year Book for 1937-38 shows that during the quinquennium 1932-37, the production of raw silk in India which is given as 26 metric tons in 1932 rose to 122 metric tons in 1935 and was as high as 108 metric tons in 1936. It is plain that from these figures if we had been enquiring in 1936 or even 1937 we would not have found ourselves able to speak of "the decline" of the raw silk industry of India. To serve any useful purpose, "decline" should be considered in a relative sense and in relation not to a period of one or two years but to a period of fairly extensive duration. The memories of the post war boom prices die hard and while they lead the Indian cocoon producer to put a much higher value on his spare time labour than the advent of the rayon and the reduced purchasing power of the consumer would justify, they lead the advocate of tariff protection to exaggerate the effect on the industry of the prevailing economic conditions.

18. (Foreign imports are alleged to provide another indication of the decline of the industry) India has always been an importing country like any other country excepting Foreign imports no indication of decline. China as regards silk. In the palmiest days of the Indian sericulture industry, India was importing. It is admitted by all witnesses that shortly before 1926 the Indian industry was not in difficulties and was actually holding its own against Japan, Italy and France even in the home markets of the latter. Table VII in the last Tariff Board's Report shows the imports of foreign silks into India and the exports by India to foreign countries from 1850-51 and the figures show remarkable constancy. (During the last half century the foreign imports into India rose in some years to more than three million pounds but nobody whose opinion could be considered well-founded thought fit to contend that the Indian industry was declining.) The fact indeed was constantly deplored that the Indian

industry was not adopting the improved methods of its rivals and persisting in its ancient and primitive methods. The vitality of the industry, however, was such and the natural advantages which the country afforded were so great that in spite of its inefficient methods it continued to contend successfully with its rivals in export markets and the Industrial Commission which enquired into the question in 1916-18 came to the conclusion that "the sea-borne trade statistics yield no evidence of any serious decline in the silk industry" of India and that "the growing prosperity of the country enables it readily to absorb large quantities of silk and the diminished exports are probably due to the better prices obtained in India". During the past decade the imports of foreign silks have never exceeded and have been in several years much less than the foreign imports in the palmiest days of the Indian industry. Population in India having increased since the Indian Industrial Commission reported in 1918 and home production having remained stationary, one would expect that the increased demand due to increased population would have required a much larger increase in the foreign imports of silk. Such is, however, not the case. I think, therefore, that there being no increase in the foreign silk imports during the quinquennium, foreign imports form no indication of the decline of the Indian industry.)

19. The enormous increase in the imports of silk substitutes, however, in my opinion, does indicate that they have been replacing both the Indian as well as the imported silks and the complaint of the Indian industry would be more justifiable if it is directed against the silk substitutes than against foreign silks. The law of substitution has begun to operate against all silks including the Indian silks and the only way to counteract its effects is to bring the prices of Indian silks to a competitive level of those of the silk substitutes, failing which whether the foreign silks imports are checked by protective duties or not, sericulture industry of India like the sericulture industry of any other country cannot hope to increase its production to any very great extent. Indeed, in my opinion, the higher the prices of Indian silks are made by higher duties against foreign silks, the more intensive will be the operation of the law of substitution. In fact, during the quinquennium the Indian industry, considering the severe competition to which it has been subjected by the silk substitutes and the effect of reduced purchasing power of the consumer, has shown a vitality to which the silk industry of few countries can compare. Indeed had it not been for this vitality of the Indian industry, it would have, like the indigo industry of India in the latter's competition with the German synthetic dye, small claim to aid and encouragement at the expense of the tax-payer and the consumer. I, therefore, do not think that the lurid colours in which "the decline" of the industry has been described by almost all witnesses who are interested in the continuance of the existing tariff protection, with

the single exception of the Director of Industries of Kashmir do in any way represent the reality. It is no doubt that on account of the lowered prices due to the advent of rayon and the reduced purchasing power of the consumer and increased costs of production due to the loss of the market for silk waste on which the prosperity of the industry depends, the industry has ceased to be so very profitable as in the past. That circumstance, however, does not show that the industry has declined in the sense such as the pessimists would imply.

20. While there is no indication that the sericulture industry of India is in any way worse off than that of any country in the

Condition of the silk handloom weaver has greatly deteriorated.

world, the weaver artist of India who used to produce in the past artistic silk fabrics which sold "at four times their weight in gold" in foreign markets (*vide* Birdwood's Industrial Arts of India, page 276) is fast disappearing and where-ever he survives to-day is eking out a miserable subsistence by working as a mere wage earner in the numerous handloom factories and power-loom mills who under the present tariff protection and the marketing organisation have admittedly been thriving on enormous profits. "Some four years ago", frankly stated to me a Surat silk factory owner, "we were getting hundred per cent. profit". What are you getting now? I asked. He hesitatingly replied; "About 15 per cent.; the increased duties on spun silk are killing our industry". I asked him to give evidence before us. He promised but did not come before the Board. In Bombay, we examined an owner of a silk weaving mill and he confirmed the Surat factory owner as regards the hundred per cent. profits the silk weaving establishments were making till very recently. When we were in Kashmir, I enquired of a high official about the hundred per cent. profits of the silk weaving factory owner. "The explanation is easy", he said. "Even a small capitalist can buy a stock of rayon, get it worked by the handloom weaver and can have a rapid sale of his saris which have a ready sale now. If he gets a profit of even a few annas on the sari which costs him about Rs. 6, the rapid turn over of this small capital of Rs. 6 every week, would give him enormous profits at the end of the year." It may be asked why does not the weaver take to rayon instead of to the real silk which he finds too dear. As a matter of fact he does turn increasingly to rayon from real silk but in this line he comes directly in competition with the factory and the mill and against these, for obvious reasons, he cannot possibly contend successfully. The manufacture of real silk fabrics is confined mostly to the weaving of high quality and artistic specialities in which the factory or the mill which must produce on a reasonably large scale has no chance against the handloom weaver. The consumption of high quality silk specialities being confined to the rich and the very rich, the demand for them is naturally limited and if a larger demand for them is to be created, their price must be made considerably lower than it is to-day and this cannot be done if the price of the weaver's raw product is made higher than it

✓ is by increased import duties on raw silk) The effect of the existing high duties on raw silk has been that the weaver is compelled to resort increasingly to silk substitutes by working on which he can get a return for his labour but not for his art. The consequence is that the far famed artist of India is vanishing and his place is being taken by a miserable wage earner whose grinding poverty and utter dependence on the Mahajan and other middlemen is driving out from him the artistic skill which has been his precious heritage but which has no value for his client and consequently no use to himself.

✓ 21. Our predecessors of the last Tariff Board enquired into the condition of the silk handloom weaving industry of India and they have stated their opinion that between 1928-29 and 1932-33 the consumption of real silk on handlooms had declined by only about 5 per cent. If this were a fact, there would be little ground for anxiety for the handloom weaving industry. I, however, have reason to doubt this opinion of our predecessors from the data they themselves have given. In the first place, the data which they rely upon they themselves admit are unreliable and deficient. Secondly, they show that during the relevant period the quantity of silk produced in India, and therefore consumed by the handloom industry, it being almost the only consumer, fell by 10 per cent. and the imports of raw silk fell by 20 per cent. This would surely show that the decline in consumption of silk by the handloom weaving industry must have been much larger than about 5 per cent. The figures given by our predecessors in their Table LVII at page 107, however, show that the consumption of silk in Bombay by Indian handlooms fell from 31 per cent. in 1928-29 to 17 per cent. in 1932-33. The table is also interesting in that it shows that while the total consumption of silks both Indian and foreign by handloom weavers fell continuously, the consumption of silk substitutes rose from 2 per cent. in 1928-29 to 41 per cent. in 1932-33, and this growing replacement of real silk by the silk substitutes, in my opinion, provides the real problem of the silk industry of India as of the whole world to-day. Whether the consumption of real silk by the handloom weavers declined during the period 1928-29 to 1932-33 by 5 per cent. or by more, in our present enquiry, we have found that in every centre we have visited the silk handloom weaver's condition is extremely depressed. At the last Tariff Board's enquiry, the Director of Industries of Bombay who had special opportunities and facilities to study the question in answer to the contention that the compensatory duties on foreign silk fabrics would safeguard the interest of the weaver stated as follows:—

✓ "Now my point is that owing to depression and other causes already the actual sale, that is quantity sale of handloom weaver's cloth has gone down and, I think, the wages also have gone down. The decrease in wages is largely due to the fact that the handloom weavers are unable to get rid of their production. Now if the prices are going to be raised all round further, then it is natural that this quantity sale will be further reduced and a further

reduction in sale will mean a further decrease in the wages of handloom weavers so that I don't think that merely by raising the duty on imported cloth, the Board is going to help the handloom weavers to any great extent. *Per contra* if you do not put the duty on imported cloth at all, you will certainly harm the handloom industry very much more than is the case at the present time. By the mere fact that you are going to put a duty on imported cloth, I do not think you have solved the problem or met the difficulty of the handloom weaver..... It (the demand for silk articles) has been falling. The general trade depression has by itself already affected the demand. Now if any measures are taken which tend to increase the prices still further substantially, I hold that demand will further fall. The demand has fallen and there is no doubt about that. My weaving assistants have informed me from time to time and I myself have observed that the handloom weavers have complained everywhere that they are unable to sell their goods with the result there is less work for them all round and naturally that means less wages".

22. What the Director of Industries, Bombay, stated in 1933, our enquiry in 1938 has confirmed. The benefits of the compensatory tariffs have not gone to the weaver but have been intercepted by the factory and mill owners. At Poona we visited quarters inhabited by silk handloom weavers. We found their houses ancient, dilapidated, substantial buildings frequently having more than one storey, indicating great prosperity in by-gone days. We found that while in some of the houses there were six set up looms, two only were working and the rest idle covered with dust. In other houses we were shown heaps of looms stocked in the upper storeys as lumber. In answer to our enquiries, the weavers stated that there was no demand for the real Indian silk saris (which cost nearly three times more than the saris woven out of the foreign silks and silk substitutes) save among the Rajas and the big zamindars of the neighbouring Indian States and that those among the weavers who had given up weaving had turned masons or even day labourers. At Paithan in the Hyderabad State the ancient capital of Sahlivan, once enjoying world wide fame in the days of the Roman Empire for its silk fabrics, I found the conditions to be similar, though at this place, through the enlightened interest which the Princess of Berar has been taking in reviving the silk handloom industry, the ancient silk weaver's art is being resuscitated. When I read in Birdwood's Industrial Arts of India that silk fabrics made in India sold for four times their weight in gold, I thought the statement an unconscious exaggeration of an enthusiastic admirer of the ancient Indian art. We have, however, been told that the saris that are at present being woven for the Princess of Berar, will each cost rupees one thousand. Gujrat was once famous for the silk weavers' art. As recently as 1908 "from one end of India to the other, Gujrati silk weavers may be found, speaking a dialect of Gujrati or using Gujrati names for most of their appliances and for the textiles they produce" (Imperial Gazetteer, Volume II, page 209). Ahmedabad, Baroda,

Broach and Surat were the weaving centres where the famous kinkhabas and other silk fabrics were woven. To-day, as we were told at Surat, the Gujrat artists have become common wage earners or even day labourers and the weaving establishments of Surat have to import their designers from Benares and other North Indian places. In Malda also the same deterioration in the position of the silk handloom weaver is visible. In Madras, as Lefroy said in 1916 "the weavers are as a rule slaves, badly paid, in the hands of wealthy weaving masters. The skilled craftsmen are regarded as "coolies" as no better than the least skilled field labourers". The case of the Bengal weaver is no better. The Bengal weavers as a class are very poor and are almost entirely in the hands of the Mahajans or money-lenders who make advances to them for the support of their families and the purchase of silk which they cannot purchase themselves with their own money even at the prevailing low prices. Frequently the Mahajans who are also the commission agents of the importer of foreign silks supply the thread and the weavers get nothing but their wages. It is obvious that under such conditions the weaver's art cannot flourish and if the weaver continues production, he does so not as an artist but as a mere wage earner. (The main causes of this deplorable decline of the silk weaver's art in India are the advent of the silk substitutes (by working on which the weaver can get recompense for his labour but not for his art) and the heavy import duties on silk which make the weaver's raw material too dear for him to enable him to find a market for his product.)

23. It may be contended that as from 1873 to our own days prices of real silk have been continually falling, the silk weaver

Effect of lower silk prices. has no cause of complaint regarding the price of his raw material. The reply is that the prices of real silk, though they

have fallen greatly, have not fallen enough (as it is imperative that they should do if sericulture industry is to survive and develop) to the level demanded by the prevailing prices of silk substitutes. I will give one instance to make my meaning clear.

When about 1926, the imports of foreign silk into Mysore were normal, both in quantity and price, there were about 6,000 silk handlooms working. However, when in 1932, cheaper silks from China came to be imported into Mysore, the number of silk looms increased appreciably and the Mysore Director of Industries explained the position as follows:—

"It seems obvious that this increase is almost entirely due to the large quantity of unprecedentedly cheap foreign silk now available to the weaver which enables him to place on the market silk cloth at prices within the reach of even the poorer classes of customers. Whereas a saree of the pattern known as "Arlepet" used to sell formerly at prices ranging from Rs. 60 to Rs. 80 a very similar article made of imported silk now sells at anything between Rs. 30 and Rs. 40. This fall in prices creates a demand for Arlepet sarees from people

whose means did not permit them to buy the article at the former price. Since there has been no increase in the total number of looms, it is evident that the increase in the number of silk looms has been secured by the conversion of cotton looms to silk.

The same tendency to resort to real silk weaving in preference to cotton weaving on the part of the handloom weavers was emphasised by the Madras witnesses if and when real silk prices can be made lower than they would be under high protective duties. If the view I take is correct that under the prevailing high prices of silk the Indian weaver and his ancient art are perishing, it is plain that the Indian sericulturist instead of being benefited by the raising of his prices by high tariffs would be on the contrary harmed by losing his only existing market which is provided by the Indian handloom weaver alone.)

CHAPTER II.

The last Tariff Board Report.

24. It has been stated before us by almost all witnesses that the sericulture industry of India taken as a whole had hardly anything to complain about till some ten years ago. Before 1929 silks from Kashmir were competing successfully even in European markets against all countries including Japan. Mysore was finding a ready market at home or in other parts of India for all the silks she could produce and if Bengal had lost her European markets on account of her primitive reeling methods, she found a ready sale among her own weavers and those of the other parts of India. As it has been already stated, India has all along been an importing country as regards raw silk but the foreign imports in no way incommoded the home producers. In fact right from the times of which we have records to our own day the imports of foreign silk into India have been remarkably stationary and even during the short period from 1929 to 1933 during which the difficulties of the Indian industry are said to have arisen on account of the so-called "portentous" growth of imports, the figure of imports was never so high as the figures, for instance, of 1895-96, 1912-13 and other years before the last decade except for the year 1932-33. During the Great War and the post war boom period, the silk producer both in India as well as abroad became accustomed to high prices of silk though happily for herself, in India at least, taken as a whole, the high prices of silk did not lead to any very increased production of silk. Such, however, was not the case with China and Japan. Attracted by the high prices of silk which the Americans enriched by their prosperity during and after the war could afford to give, these countries over-produced and that too just at the time when the Wall Street crash of 1929 occurred in America. The result was an enormous accumulation of unsold stocks both in China and Japan. China was the earlier and more hard hit as the superior Japanese silks were able to drive the Chinese silks out of the American market. China, therefore, turned her attention to India which had at the time no protective tariff to hinder foreign imports of silk. Though the Chinese costs of production, as found by a Mysore official who made his enquiry in China on the spot in 1930, were greater than the Indian costs of production at the time, the depreciated Chinese currency and the export subsidies which the Chinese Government had begun at the time to grant to her silk exporters in order to clear the accumulated stocks enabled, as alleged by the claimants for tariff protection, the Chinese exporter of silk to lower his prices and obtain a market in India. The bulk of the silks sent out to India was of inferior varieties hardly comparable with the superior quality Indian silks like those of Kashmir. In spite of the fact that the prices prevalent in India for the bulk of Indian silks compared to their costs of production though not comparable to the boom prices of the war and post war periods could not be called unremunerative more especially if we compare them with the prices prevalent in almost all other industries than

sericulture, a clamour arose from all the sericulture areas for protective tariffs against foreign silk imports which during the first seven months of the year 1932-33 had come to a disproportionately large figure as compared with the figures for 1930-31 and 1931-32 both of which figures were substantially lower than the figures of the previous three years' imports. The Government of India, perhaps actuated by the recommendation of the Departmental Committee on the Textiles Trades appointed by the British Board of Trade in 1916 to the effect that "sericulture should be developed in India under efficient direction" in the interests of the Empire, found itself in a responsive mood and yielding to the popular clamour directed a Tariff Board enquiry on the ground that "it has been represented to the Government of India that notwithstanding the existing high revenue duty on imported raw silk, the recent increase in the imports of that commodity from foreign countries constitutes a grave menace to the existence of the indigenous sericultural industry".

25. The Tariff Board presided over by our present President made the enquiry in 1933 and came to the following findings which I give in its own words so far as possible adding my own comments wherever necessary:—

(1) "World demand for silk since 1930 showed a catastrophic fall and consumption has not yet responded to the stimulus of the phenomenal fall in prices. The year 1931 did not record any improvement in demand and silk prices fell proportionately more than those of cotton and wool. They were at the end of the year half of what they were at the beginning of 1930 and one-tenth of the record prices obtained in 1920. Artificial silk, in spite of its well known defects of quality suited people's straitened purses better."

The position both as regards the world demand and the world prices to-day is almost similar but the competition of artificial silks and other silk substitutes has grown much keener.

(2) "Kashmir silk deprived of its accustomed European market is trying to find a larger outlet in India at uneconomic prices."

The position has continued to be the same in the present times. It is admitted by the Kashmir Government that they are paying their cocoon producers an uneconomic price and it is contended by them that they are selling their silks in India at prices lower than their costs of production. They allege that this is due to Japanese competition. I, however, think as I hope to show later on that the effect of the Japanese competition is much exaggerated. Kashmir filature silk has not at present any Indian competitor to face, Mysore filature production being negligible. And as the hand-reeled charkha silk is at present the bulk of the Indian production, Kashmir has no internal competition to face. Her competition appears to me solely with the foreign filature silks. In spite of her unrivalled natural advantages and highly integrated and developed organisation and the high tariffs which must put her rivals at a serious disadvantage if Kashmir is not able to face

foreign competition, the reason is to be found in her state monopoly system of production which can have no chance against private enterprise. British Indian protective tariffs can hardly be claimed by her to enable her to perpetuate this her very serious disadvantage, more especially so long as she continues her present fiscal policy forbidding silks of other Indian areas to enter her territories except after payment of tariffs as high as the British Indian tariffs. None of the non-Kashmir witnesses even when pointedly asked would claim protection against Kashmir though Kashmir under her state monopoly and her present fiscal policy supported by the British Indian tariffs on foreign imports would be a more deadly rival than any foreign country can be. Kashmir under her present highly integrated organisation and free mulberry can outsell other silk areas in India and monopolise the whole Indian market.

(3) "The sericulture industry is a unique industry differing from other industries in this sense that in its modern form it cannot stand without Government organisation and assistance."

We are unanimously of opinion that this conclusion of our predecessors for the reasons stated by them is absolutely indisputable. No amount of tariff protection can lead to development of the sericulture industry without state aid of the kind and to the extent which other sericultural countries have given and are giving to their respective sericultural industries. Such an industry, however, as I shall show does not come within the purview of our present fiscal policy which is concerned with tariff protection alone.

(4) "The methods of cultivation vary in different parts of the country as does the yield of leaf and the cost of cultivation. The statements which we have received from the different parts of this country are not strictly exact. They are at best approximations. The figures furnished by the different witnesses imply either a grave under-estimate of price or an equally grave over-estimate of cost."

The evidence before us in the present enquiry can lead one to no other conclusion. The figures supplied to us by the different provinces and states are based on no authentic data and the reason given was that the agriculturist keeps no accounts, the costs of Government demonstration farms admittedly being almost three times the costs of private individuals and therefore supplying no material for useful calculations. In the absence of such material, it is plain that our conclusions with regard to a basic price for mulberry leaf can hardly be better than mere conjecture.

(5) "There is considerable variation in the prices at which disease-free seed can be bought by rearers."

Different kinds of seed involve different possibilities of success or failure of the breeds hatched from them and the quantity of the cocoons produced. Races of worms and the methods of hatching them vary from one area to another. In these circumstances even if the product could possibly be assigned a value which would even approximately give a basic figure applicable to each individual area, the figure can only be a conjecture.

(6) "The prices of cocoons have fallen since 1926 by just under fifty per cent."

Our predecessors have arrived at this conclusion from no data worth mentioning. They themselves say that the agriculturists keep no accounts and that there are no regular cocoon markets. They had received figures for cocoon prices in the years before 1932-33 from two areas Bengal and Mysore only. They state that they are frankly unable to accept the Bengal prices. They base their above conclusion about prices of cocoons for the whole of India on figures supplied by the Mysore Silk Association which are confined to the Mysore area alone. From this data our predecessors constructed a table of index numbers for cocoon prices from 1914 to 1932 and arrived at a conclusion applicable to the whole of India as above. This may appear quite engagingly elaborate but I submit not useful to base a tariff scheme upon applicable to the whole of India in which conditions vary so vastly with each individual sericultural area. How very unreliable and misleading such calculations can be is shown by the attempt of our predecessors to establish a correlation between Mysore cocoon prices and Bengal silk prices. They say at page 75: The price of cocoons (in Mysore) in 1916 was 8½ annas a pound and that of silk was Rs. 7-2. However, at page 25 the table XII (which refers to Bengal silk prices alone) gives the price of silk per factory seer in 1916 as Rs. 17-6-3 that is Rs. 8-11-1½ per pound. Again they say the price of raw silk in 1914 was Rs. 7-14 a pound. Table XII, however, would show that the price of raw silk in 1914 was Rs. 16-12-3 per factory seer, that is Rs. 8-6-1½ per pound. And from these conflicting figures of silk prices, they assuming that a correlation exists between Bengal silk prices and Mysore cocoon prices calculate the figure of As. 9-3½ as the price of cocoons per pound in 1914 and this figure of As. 9-3½ per lb. arrived at on such insufficient and faulty data they take as the normal index number for cocoon prices all over India.

As a matter of fact it has been stated before us by witnesses that all over India, the cocoon producer has got to accept any price which the cocoon buyer chooses to offer according to the latter's estimate of the silk prices current and future there being no regular cocoon markets anywhere and some rudimentary ones only recently started in Mysore. The Kashmir Government representatives have stated before us that the prices for cocoon which they offer and the cocoon producers accept are quite "unremunerative" and that even to obtain these quite unremunerative prices for their cocoons the cocoon producer "clamours" to be allowed to produce more cocoons.

(7) "Indian silk all over India including Kashmir lacks the quality of cognisability which is an essential requisite of economic dealings in the world's great markets. This grave defect in Indian silk makes a large export trade almost impossible. Even within India it makes the operation of marketing a trial of wits between the merchant and the producer and the dealer and the consumer, in which generally the battle goes to the nimble witted and the

✓ victory to the strong." Classification of Bengal and Mysore charkha silk according to grades and prices is so uncertain and arbitrary " that buyers in despair turn to the foreign commodity."

✓ The position is almost the same now and in these circumstances how can, I ask, the effect of the competition of foreign silks with ✓ Indian silks which the buyer is unable to compare even with their ✓ foreign rivals can possibly be evaluated? Kashmir, however, has been maintaining uniform standards for a number of years past but its marketing system precludes any very great benefit accruing to the State from the sale of its silks in the Indian market and in the absence of an authoritative conditioning house certificate for her silks which are said to be as good as those produced in the foreign countries Kashmir's inability to compete with her rivals in the European and the American markets continues. In Surat we were told that whenever any offer was made by the weavers for buying Kashmir silk to the State authorities, either there was no reply from them or if there was any reply, the would-be buyers were referred to some particular dealer in Bombay or elsewhere. The conditioning house at Howrah has been too recent to be availed of to any appreciable extent.

✓ (8) " A more permanent menace to the Indian raw silk industry (than the state aided Chinese imports) is the increasing competition of artificial silk yarn and goods. In this India does not stand alone but shares the misfortune with the rest of the world. In Lyons, London and New York as we have described in Chapter II artificial silk is being put to many uses for which formerly only natural silk was used."

✓ Our predecessors content themselves with only stating the fact of this permanent menace but they do not try to estimate its effect of depressing the prices of real silk in India both indigenous and imported probably because they consider the competition only "indirect."

✓ (9) " Our problem is not the protection of an infant industry but the saving of an old established industry from extinction threatened by dumping or other devices to which various nations have resorted in an increasing measure in the present depression. The only thing which requires careful investigation in assessing the claim of the industry for protection is whether it has a reasonable prospect of adopting the latest technical methods and receiving the Government assistance which have so enormously improved the competitive power of the Japanese and European industry."

✓ I and my colleagues have not been able to come to a definite conclusion as regards the existence of active "dumping" at present by the Japanese importers, there being no "price cutting" by the Japanese apparent at present.

✓ We have evidence to show that the Chinese in their present distress are prepared to sell their silks "at any price they can get". With the rest of our predecessors' above finding, I and my colleagues entirely agree. Whether, however, an industry has

a "reasonable prospect of adopting the latest technical methods" depends almost entirely on itself and I think that the general tax payer cannot be legitimately expected to bear the burden of inducing the industry to do what it is in its own interests to do. The state aid, however, such as the other successful sericultural countries have been giving to develop their sericulture industry is an absolute sine quo non for the success and development of the silk industry. I emphasise the words italicised for the reason that among the measures of state aid which the different sericultural countries have adopted, so far as our information goes, tariff protection is not adopted by a single non-totalitarian state.

(10) "The dangers which have threatened the industry are:—

1. the loss of its export market; ✓
2. a shrinkage in the world demand for silk and silk waste; ✓
3. a corresponding fall in the Indian demand for silk; ✓
4. a tendency even in this restricted field to replace Indian raw silk by cheaper substitutes; ✓
5. the reduction in the price of Chinese silks; ✓
6. the loss of the market for silk waste; and ✓
7. the depression of the silk weaving industry by the continued dumping of cheap manufactured goods." ✓

On most of these findings of our predecessors so far as the conditions in 1933 are concerned, there can possibly be no two opinions. So far, however, as the present conditions are concerned, far from there being a mere tendency to replace raw silks by silk substitutes, the actual and growing replacement of raw silk by silk substitutes is a definite fact not only in India but all over the world. All the seven causes given by our predecessors to account for the difficulties of the Indian industry in 1933 operate at present in varying degrees. (It is, however, obvious that tariff protection by raising the prices for our silks will not regain for us our lost export markets for silk and silk waste nor would it increase the world demand.) Higher prices of silk, far from removing the effect of causes (3), (4) and (7), will tend, on the contrary, to accentuate it. As regards cause (5), the reduced prices of foreign silk, as I hope to show later on, tariff protection short of prohibitive duties will be innocuous.

(11) "The industry's chief need is reorganisation which can only be successful if undertaken with Government assistance. Apart from the unfair competition resulting from the depreciation of exchanges and grant of bounties, the industry even now is nearly able to hold its own."

In paragraph 187, our predecessors make the position still clearer. They say "In so far as the decline of the industry is due to contraction of the market for silks, consequent upon the fall in purchasing power caused by the economic situation all over the world, we regard the decline as permanent and expect the industry to meet it by an adjustment of the costs of production, as in fact it has done. It is only in so far as the present crisis in the industry

has been caused by such special matters as the bounty given by the Chinese Government to encourage the export of raw silk and the exceptional increase of cheap imports encouraged by the fall in the value of the Chinese and Japanese currencies that we consider that the industry is entitled to claim the temporary shelter of a protective tariff".

Our predecessors, in view of this finding, arrived at the conclusion that what the industry required was not so much substantive protection as safeguarding and they calculated the amount of safeguarding required on account of the "unfair" advantage which the Chinese exporter derived over the Indian producer, due to depreciated Chinese currency and the export bounties granted by the Chinese Government, thus "We are informed that the bounty given to exports of Chinese silks amounts to 100 taels per bale of 132.3 pounds or at the present rate of exchange approximately Re. 1 per pound. Between January 1929 and December 1932, the fall in the Chinese and Japanese exchanges was between 33 and 35 per cent. which is equivalent to Rs. 1.8 in the case of a silk which is now worth Rs. 3. It would thus appear that a duty of Rs. 2.6 a pound is no more than sufficient to balance the effects of the bounty and the depreciation of currency".

Though our predecessors speak of the industry being nearly able to hold its own and evaluate "the unfair advantage of the Chinese exporter at only Rs. 2 in paragraph 168 of the report, from what they said in paragraph 187, it is abundantly clear that they had come to be of opinion that the industry was in no need of substantive protection under normal conditions of competition.

26. The Government of India, after considering our predecessor's report for nearly a year, also came to the conclusion that under normal conditions, the industry required no substantive protection but that under the abnormal conditions due to the depreciated Chinese currency and the Chinese export bounties the industry required safeguarding and accordingly they based their scheme of tariff protection purely on a safeguarding basis (*vide* the Commerce Member's speech in the Assembly on the 13th March, 1934). Now since 1934, appreciable progress has been made by the industry in adjusting its costs of production in every sericultural area except perhaps Bengal. Attempts were made before us by interested parties to minimise the progress made, evidently in the hope of getting a continuance of the tariff protection. Happily, however, for the industry the facts are otherwise. I say, happily, because if it had been proved to our satisfaction that the burden which the general consumer had shouldered had been wasted and that in spite of the opportunity afforded it by the tariff protection and other state aid, the industry had done little to help itself, we would have had seriously to consider in the interests of the general consumer whether the industry has those natural advantages which alone can qualify it for state aid in any form whatever (*cf.* Fiscal Commission's Report, paragraph 118). It has been, however, contended before us that the state aid granted to the industry either in the form of tariff protection or direct

subvention for research, etc., has been so very inadequate that nothing material could be attempted towards carrying out the improvements recommended by the last Tariff Board more especially as the competition from foreign silks has grown more intensive than in 1934. All witnesses without exception pin their faith on high tariffs as the sovereign remedy for the difficulties of the industry and demand increased tariff protection for long periods ranging from 10 to 20 years. Mindful of the harm that tariffs on the raw product of the handloom weaver would inflict on the handloom weaving industry, they propose equally high compensatory tariffs on foreign silk fabrics. Feeling also pressed by the intensive competition of silk substitutes to which all the witnesses without exception testify, they further propose high tariffs on silk substitutes and articles made out of them and as for that "shadowy figure" the poor and middle class consumer of these articles, all the witnesses with the utmost insouciance dismiss him with the remark that he must simply bear his burden, for the burden on the consumer is implicit in all schemes of tariff protection. Similar grounds have been put forward as at the last inquiry in support of the present claim for tariff protection to the sericulture industry and I shall now proceed to examine them.

CHAPTER III.

The claim for tariff protection.

27. At the outset it is well to bear in mind that while the needs of the different sericultural areas for assistance are varying and different, tariff protection can only be fixed for the whole of India and the consequence of this absolutely unavoidable incident of tariff protection is that the tariffs fixed for the whole of India while they may give help to areas that may not need it at all or more help than they need, they may give less help than is necessary or even no help at all to areas that need it most. Costs of production which fix the "remunerative" or fair selling prices on which protective duties must be based greatly differ not only from area to area, but from village to village in the same area and even from producer to producer in the same village in a side line industry of agriculture like the sericulture industry. Complaint regarding the inadequacy of tariff protection may conceivably be justified in the case of one area and wholly unfounded in the case of another area. A poor rearer in Kashmir with his low standard of life may be perfectly satisfied with two annas and a half for his own and his womenfolk's spare time labour while a well-to-do Punjabi rearer would consider the same price for his own and his family's spare time labour too low to induce him to continue production and may well complain about the inadequacy of the tariff protection.

28. Secondly, it is often forgotten what tariffs can and what tariffs cannot do for the protection and development of an indigenous industry like sericulture under the prevailing conditions in India. Silk being a luxury article, the demand for it is confined to the rich and the very rich and these being few in India, the demand for silk in India is extremely limited compared with the demand for it in America and Europe. While the demand for it is limited, the supply of it is by no means elastic. While high prices of silk may ordinarily lower the demand for it considerably in a given year, low prices would not make the poor producer abandon his mulberry plot in which he has invested a small part of his capital in the hope that it will give him service for some fifteen to twenty years nor is there any circumstance which would induce him, whether the prevailing price for his product is high or low, to allow his own and his family's spare time labour to go unutilised. Indeed, the demands of his creditor and the revenue collector would compel him to go on producing whether the return he gets for his spare time labour is high or low. High prices made possible by protective tariffs for his product, therefore, if they restrict as they are bound to restrict in the prevailing economic conditions in India, the demand for the sericulturist's product would do him more harm than low prices. Indeed, the reduced purchasing power of the consumer and the advent of the silk substitutes have made it imperative for the sericulturist to lower the price of his product or to disappear from the stage altogether as he is tending to do in France and if he is kept to his work in Italy and Japan, it

is by the totalitarian methods of the state which we cannot possibly copy in India. It would no doubt be small comfort to the Indian sericulturist to be told in answer to his appeal for higher prices that if he wants to survive he must by putting a lesser value on his spare time labour than he is willing to do to-day, lower his price. However, in his own best interest, the truth must be stated that no sericulture industry which is not able to bring its prices down to the level demanded by the reduced purchasing power of the consumer and in reasonably competitive relation to the prevailing prices of silk substitutes can possibly survive unless bolstered up by methods which are impossible for us in India.

29. (Again, the primary object of tariffs is to check foreign imports.) Now the foreign imports can be checked only if certain conditions prevail. If, for instance, the foreign imports satisfy a want of the home consumer which the indigenous product cannot satisfy to an approximately similar degree for an approximately similar price in equal and normal conditions of competition, it would be neither easy nor justifiable to check foreign imports by high protective tariffs. Tariffs were as low as only five per cent. *ad valorem* in 1876 and in previous years and still our foreign imports were 1,461,069 lbs. and our home production very nearly the same as to-day while protective duties to-day are as high as about 83 per cent. and still our imports show higher figures than in 1876, our home production remaining nearly the same as in 1876. Indeed from the earliest times of which we have record to our own day the import figures have been remarkably constant and stationary. So also are the figures for the home production. The most probable inference from this fact that appears to me is that both foreign as well as the home silks had their own individual and separate uses for the Indian consumer, the uses of one being not the same as those of the other. It is plain that if both classes have their own individual uses, they would find a simultaneous market provided of course the prices were approximately the same in relation to their uses. The growing prosperity and population of India may no doubt create an increased demand for Indian silk but if the growing demand could be met by silk substitutes, neither the quantity of the Indian nor that of the foreign imports would increase. This has exactly been the case during the quinquennium under review. Tariffs have neither increased the prices of silk so as to benefit the Indian producer nor have they checked imports of raw silk into India. Tariffs in fact have been absolutely innocuous. It is possible, however, by raising tariffs to a prohibitive figure to check imports of foreign silks for which the Indian consumer has particular uses which the Indian product cannot satisfy. But in that case compensatory prohibitive duties will also have to be imposed on silk substitutes consumed largely by the middle class and poor consumer and that would hardly be justifiable. Again when an indigenous product forms a very large part of the home consumption in comparison with the foreign product, tariffs will also be innocuous for prices of the product will not be fixed by the importation prices but by internal competition. The

bulk of the Indian silk consumed in India is hand-reeled charkha silk and the imports to-day of the hand-reeled foreign silks or inferior qualities of foreign silks comparable with the home product are negligible. By far the largest producer of the superior quality of filature silks in India is the Kashmir Government which, therefore, alone is in a position to moderate the intensity of the competition of the foreign filature silks such as are now imported into India. Kashmir, however, produces only one-twentieth of the Indian consumption while the foreign imports constitute one-half of the total home consumption. Kashmir has no internal competitor and if the foreigner is kept out of the Indian market by high protective tariffs, the benefit in the present state of organisation of the industry in all the non-Kashmir areas of India will accrue to Kashmir alone. There should be of course nothing to object against this prospect if Kashmir were as Indian as any of the other sericultural areas of India. Kashmir, however, though politically and geographically Indian, is as regards her present fiscal policy as much foreign as Japan or China *vis-à-vis* the non-Kashmir areas of India. One of the essential requirements for the Indian sericulture industry is the establishment of filatures. Outside Kashmir there are only two filatures in India. Kashmir manufacture of silk is wholly filature manufacture. Kashmir's industry is the best organised and the most developed industry in India. Secured, therefore, behind the British Indian tariffs against the non-Indian competition and behind her own tariff barriers which are as high as the British Indian tariffs against all Indian competition, Kashmir is in a position "to dump" her silk in the Indian market as she undoubtedly did dump in 1932-33. Those who see in tariff protection alone the best means of developing the Indian industry must, therefore, consider this aspect of the question also.

30. A third consideration which must be borne in mind with regard to tariff protection is the effect it is likely to have on the handloom weaver who would be 'hit very hard' by high duties on his raw material and on the poor and middle class consumer of silk substitute goods who would be hit equally hard by the wide range of compensatory duties on real silk fabrics and silk substitutes both raw and manufactured which would be necessitated by duties on raw silk. Justice as well as the recommendations of our Fiscal Commission do not allow tariff protection in a case like the present. Nor has any sericultural country resorted to it for developing its sericulture industry.

31. The fourth and the most important consideration is, as I have already stated, the imperative necessity, due to the advent of the silk substitutes, of lowering the existing prices of raw or real silk, if the sericulture industry is at all to exist much less develop and tariff protection will assuredly not tend to lower silk prices as indeed it is not meant to do.

32. Fifthly it may be asked what exactly do the applicants for tariff protection expect to get from it and what prevents them from

getting it without tariff protection. Questions were put to some witnesses to elucidate this point and the answer was that if higher prices were obtained, great improvements would be effected in the rearing and reeling methods, better provision for seed would be made, better mulberry would be planted and filatures would be constructed. Now all these improvements are essentially in the interests of the producers and it has never been considered the function or object of tariff protection to induce producers in an industry to do what is to their interest to do. Protection is meant to protect an industry against foreign attack. It is never meant to protect the industry against itself. Protection does generally tend to keep alive inefficient producers but it is never meant to do so. If the rearer does not brush his eggs, the sole implement required for which is a feather, if he does not take care in regularly feeding his worms, does not do proper spacing, does not clean the chandrike, does not use more care in mounting and does not harvest his cocoons on the fourth day after the mounting, why should inducement be provided at public expense to induce him to use the care and attention in doing all these things which are required solely in his own interest? The reeler does not require to add even a feather to his existing appliances to enable him to put more care and attention in his work for reeling better quality of silk. Again the extra amount to the rearer and the reeler which tariff protection can give even if it is allowed to permeate to the primary producers by the Sowkar and the Mahajan would be comparatively too small to induce them to put more care and attention in their work as they have constantly failed to do in the past even when they had been receiving far greater remuneration. Till not very remote times, silk in India was selling at from Rs. 18 to Rs. 14 per lb. as against Rs. 6 to-day and the remuneration which the primary producer was receiving was correspondingly greater than to-day. Under the scheme proposed by my colleagues, the increase in the remuneration which the primary producer in the different areas will receive is both unequal as well as trifling as will appear from the following:—

Fair selling price determined by my colleagues for—

	Per lb.
	Rs. A. P.
Filature silk	5 10 8
1st quality charkha	5 4 10

Effect of this price on the silk producer's remuneration is likely to be as follows:—

Kashmir.—The cost of production given by the Kashmir Government is Rs. 5-10-7 per lb. as against the fair selling price of Rs. 5-10-8 per lb. determined by my colleagues for filature silk. The difference is of 1 pie per lb. to the benefit of the silk producer in Kashmir from the proposed tariff on silk.

Jammu.—The cost of production in Jammu is given at Rs. 6-7-2 per lb. The fair selling price fixed by my colleagues falls short of this cost by As. 12-6 and to this extent the producer will be worse off in Jammu by the proposed tariff.

Mysore.—The Mysore Government originally gave Rs. 5-10-6 per lb. as the cost of production of first quality charkha silk, using Mysore cocoons and taking the cost of cocoons at 4 annas 9 pies per lb. and the value of waste at 5 annas per lb. In the course of oral evidence, the representatives of the Mysore Government changed the figures and gave Rs. 5-0-5 as the fair selling price of 1st quality charkha silk, taking cocoon prices at 4 annas 6 pies per lb. This, they admitted, was to their satisfaction. Compared with that figure the fair selling price of Rs. 5-4-10 determined by my colleagues gives the Mysore charkha silk producer a benefit of As. 4-5 per lb. of silk, though on their original claim the Mysore producer would be working at a loss of As. 5-8 per lb.

Madras.—The cost of production of 1st quality charkha silk as estimated by the Government of Madras is given at Rs. 4-15-6 per lb. Compared with the fair selling price determined by my colleagues, the Madras charkha producer will be better off by As. 5-4 per lb. by the measure of protection recommended by my colleagues.

Bengal.—The Bengal Government have estimated the cost of production of Tana silk which is first class charkha silk at Rs. 5-11 per lb. The Bengal producer will, therefore, be worse off by As. 6-2 per lb. if the fair selling price determined by my colleagues is accepted.

Punjab.—The Punjab Government have estimated the cost of production of 1 pound of silk on a charkha at Rs. 4-5-6. The Punjab charkha producer would, therefore, be better off by As. 15-4 per lb. if the fair selling price of Rs. 5-4-10 is accepted.

The cost of cocoons in the fair selling price of silk determined by the majority of the Board is 4 annas 6 pies per pound both in

Cocoons. the case of filature and charkha silks. The effect of this price on the rearer's remuneration in different centres is indicated below:—

Kashmir.—The cost of production given by the Kashmir Government themselves is 4 annas per lb. but in addition it is stated that extra sums were sanctioned for payment to the rearers who were dissatisfied with the existing scale of payments though along with this statement they also stated that even at this unremunerative price the rearers were clamouring for more seed to work upon. This addition claimed amounts to 10 pies per lb. in Kashmir. A further claim is made for interest on capital and the cost of leaf supplied from Government lands. This comes to 8 pies per lb. of cocoons. If these additions are made, the cost to the State of 1 pound of cocoons

is between 5 and 5½ annas. The price of annas 4 pies 6 per pound of cocoons taken by my colleagues for determining the fair selling price of raw silk leaves the State worse off to the extent of 6 pies to one anna per pound of cocoons.

Jammu.—The cost of production of cocoons as given by the Kashmir Government for Jammu is 4 annas 5 pies per lb. The above remarks apply equally in the case of Jammu.

Mysore.—The cost of production of cocoons was originally given by the Mysore Government at 4 annas 11 pies per pound as being satisfactory to the rearers. In the course of oral evidence the representatives of the Mysore Government agreed to the cost of cocoons being taken at 4 annas and 6 pies per lb. for the purpose of determining the remunerative or fair selling price of raw silk. The figure adopted by the majority of the Board, therefore, just meets the demand of the Mysore rearer. On the other hand, it would give considerable advantage to the rearers in the State if the prevailing rates of reeling cocoons in different areas of Mysore since June 1938 are taken into account. The average of the period comes to 4 annas per lb. giving a benefit of 6 pies to the rearer. It appears that my colleagues do not take an average over the whole Mysore area but confine their attention to Channapatna district only though the other districts of Kampanahalli and Sidlaghatta, etc., give different figures from Channapatna both as regards maximum and minimum prices all throughout the quinquennium.

Madras.—The cost of cocoons taken by the Madras Government for estimating the cost of production of raw silk is the same as adopted by my colleagues in determining the fair selling price of raw silk, viz., 4 annas 6 pies per pound. That was also said to be the prevailing market price of cocoons in Madras up to the time of our enquiry. The Madras Government have given the cost of producing 49 lbs. of pure Mysore breed cocoons from an ounce of seed as Rs. 10-15-6 which works out to 3 annas 7 pies per pound. The Madras rearer would therefore get the benefit to the extent of 11 pies per pound of cocoons.

Bengal.—The cost of production of cocoons estimated by the Bengal Government is different for different areas, namely, annas 2 pies 11.7 per lb. in Malda, 4 annas 9.46 pies per lb. in Murshidabad and 3 annas 9.57 pies per lb. in Birbhum. These costs were based on actual census taken in the three silk producing districts. The Bengal Government at the same time has claimed 5 annas 0.39 pie per lb. as the fair selling price of cocoons. My colleagues' figure of 4 annas 6 pies per lb. of cocoons would leave the Bengal rearer worse off to the extent of about 6 pies per lb. if the Bengal figure of fair selling price of cocoons is taken into consideration.

Punjab.—The cost of production of cocoons in the Punjab is estimated by my colleagues at 4 annas 1 pie per lb. My colleagues' figure of 4 annas 6 pies give the Punjab rearer a

benefit of 5 pies per lb. According to the replies of the local Government the rearer in the Punjab incurs no actual expenditure beyond Rs. 2-8 for producing 60 lbs. of cocoons representing the cost of seed and mulberry leaves, the rest being the cost of family labour.

33. Lastly when complaint is made that the Government of India and the Indian Legislature by not accepting the proposals of

Existing tariff protection greater than that recommended by the Tariff Board.

the last Tariff Board and lowering the duties proposed by the Board rendered the tariff protection absolutely inadequate, it is forgotten that the duties proposed by the

Government of India and granted by the Legislature were actually higher than those justified by the findings of the Tariff Board. As said above, Re. 1 was allowed by the Tariff Board in respect of the export bounties said to be given by the Chinese Government on the Chinese silks imported into India at the time. As a matter of fact the Chinese export bounties were not granted in respect of those silks, namely, Canton filatures which formed the bulk of the foreign imports into India at the time and actually had ceased on any Chinese exports long before 1934 as appears clearly from the statement of the Chinese Consul and the telegram the Board had received in reply to their enquiry from the Commercial Counsellor, Shanghai (printed at pages 617, 618 of Volume I of the evidence before the Board) and the evidence of the Chinese Consul at the present enquiry. Re. 1, therefore, allowed by the last Tariff Board in respect of the supposed unfair advantage of the Chinese exporter appears to have been wrongly allowed and if that Re. 1 is deducted from the duties proposed by the Board, the tariff protection proposed by the Board would be Rs. 2-6 *minus* Re. 1, that is only Rs. 1-6. The Government of India, however, had proposed and the Legislature had granted Rs. 1-10. Again, as I shall presently show the effect of the depreciated Chinese currency in stimulating Chinese imports into India appears to have been over-estimated by the last Tariff Board. In fact after the tael was abolished and the dollar stabilised before 1934, that is the year in which protection was granted, the Chinese importer of raw silk into India must be enjoying an extremely limited "unfair advantage" on the score of depreciated Chinese currency (*vide* evidence of the Chinese Consul at the present enquiry).

Grounds on which tariff protection claimed at the present enquiry.

34. The grounds given in support of the claim for tariff protection are:—

- ✓(1) Depreciated currencies of the exporting countries; and
- ✓(2) Subsidised exports from the exporting countries (*vide* Bengal Government's pamphlet "The inadequacy of protection to the silk industry" and Mysore Government's memorandum submitted to the present Tariff Board.)

These two causes, it is alleged, have enabled the rivals of the Indian producer to lower their prices with which the Indian pro-

ducer is unable to compete. (It is noteworthy that no applicant for tariff protection has alleged either the want of natural advantage or the Indian producer's own inefficiency as a cause for the depressed prices of his product. Such allegations, however, could not possibly be made in view of the fact that the last Tariff Board, after an elaborate enquiry had found that the industry had already been able "to adjust its costs of production" to the prevailing economic conditions and that it was only against the low prices of Chinese silks due to the depreciated Chinese currency and subsidised Chinese imports that the industry required safeguarding (*vide* paragraph 187 of the last Tariff Board Report).

35. As regards the depreciated currencies of the exporting countries which description can refer to China and Japan alone, Depreciated currencies. Japan has stabilised her currency and at least since 1934 after which year it became a serious competitor in the Indian market, her currency has been almost stable. No complaint on the score of depreciated Japanese currency would, therefore, be justified. As regards the depreciation of the Chinese currency, its effect on the imports from China appears, as mentioned above, to be very problematical. Chinese currency has been depreciating since 1929 and the statement of the Chinese Consul before the last Tariff Board may be apposite in connection with the effect of the depreciation on Chinese imports into India:—

"Throwing a glance at the import figures one can easily see that there has been no sudden or unprecedented increase in the import of silk from China. The highest figures in recent years are 23,56,000 lbs., 21,31,000 lbs. and 21,75,000 lbs. in 1927-28, 1928-29 and 1929-30 respectively but they have several times been nearly equalled or exceeded in the former years. Moreover, the figures 19,40,000 lbs. of 1930-31 and 1931-32 show a marked decrease in imports. In recent years the quantity of import has been ranging from 13,00,000 lbs. to 23,00,000 lbs. sometimes more, sometimes less and it was more or less the same in former years. Even the fall in the value of tael in 1930 did not result in increased import as might have been expected but on the contrary was followed by a marked decrease".

During the quinquennium under review, the effect, if any, of the depreciated Chinese currency being far from that alleged by the applicants for tariff protection has been in the reverse direction as will appear from the following table:—

Imports of raw silk from China into India.

		Quantity.	Value.
		Lbs.	Rs.
1933-34		1,798,705	55,88,051
1934-35		1,191,955	33,31,806
1935-36		490,893	13,80,904
1936-37		815,580	26,38,418
1937-38		928,738	31,08,940

How then is the fall in the prices of the Chinese imports to be accounted for? Let the Chinese Consul again explain. He says:—

"After a careful consideration of facts and figures I have been able to ascertain that the root cause of the decline in the sericultural industry of India lies in the increased import of artificial silk from foreign countries. Before artificial silk piecegoods had gained a firm footing in the Indian market, the prices of China silk always remained stable, at the same time the sericultural industry of this country was steadily prospering. The introduction of artificial silk in the market and its sale at exceedingly low prices led to a considerable decrease in the demand for real silk and consequently to a fall in the prices of Chinese and Indian silk. The general public being little appreciative of the substantial advantages of real silk piecegoods preferred artificial silk piecegoods mainly because it is sold at a much lower price. This principal cause combined with other subsidiary causes such as political unrest, world-wide economic depression, etc., has led to the decline in the sericultural industry of India. The ill effects of the introduction of artificial silk were not only restricted to this country. In my own country the industry suffered a good deal, in fact much more than it suffered in this country. Referring to the magazine of Shanghai Chamber of Commerce, Volume XII, No. 4, dated the 30th April, 1932, I find that in 1931 the quantity of raw silk produced in China was only three-fifths the quantity produced in 1919. Countless worm feeders gave up their plantations of mulberry trees in favour of others. More than half of the number of filatures and silk piecegoods factories closed down and still continue closed in Shanghai and Canton."

36. As regards state subsidised exports, no such state subsidised exports from China are alleged during the quinquennium under Chinese competition. review. During the last two years, however, as stated above, Chinese imports have increased though they are much smaller than the quantities imported in the beginning of the quinquennium. These silks, according to the best information we have been able to collect, are being sold below "the cost of production" such as were ascertained by the Mysore Government official and the Sericultural Expert of the Government of Madras who made their investigations on the spot in China and Japan in 1930 and 1933 respectively. "The costs of production" as ascertained by these two witnesses also tally with those given in the "Silk Journal and Rayon world of 1938". These, however, are "costs of production" of a "joint product of a side-line industry of agriculture by the spare time labour of the agriculturist" and are reduceable to a very substantial extent if competition with the prices of a substitute necessitates such reduction. The fact that Chinese silks are being sold at present below their "costs of production" would only show that

the Chinese cocoon producer, under the present economic conditions, has resigned himself to accept a lesser remuneration for his spare time labour than he was getting before.

37. The fact of Japan also selling during the quinquennium save recently her silks below her costs of production is, in my opinion,

Totalitarian methods
of Japanese competi-
tion.

far from being improbable. The circumstances attending the Japanese dumping are, however, very different from those attending the Chinese. While the dumping

from China is in all probability due to her present distress, the dumping from Japan appears to me to be the result of a well-planned export policy of a totalitarian state which has come to regard all economic reasoning such as appeals to many of us as mere empty theories which may have had their uses in the past but have no relation with the economic conditions prevailing in the present. The export policy which Japan has adopted in recent times with regard to her silk exports has been described by my colleagues, and I have little to add to their description except that against such a policy of a totalitarian state, tariffs short of prohibitive tariffs will have no effect. In fact the competition from the Japanese imports with which the Indian silk producer has to contend is not so much competition from the individual Japanese silk producer as from the whole Japanese state who unlike an individual producer is not guided by costs of production and fair selling prices of its products. Against such competition as explained in the following quotation from "The Capital" of 17th November, 1938, page 698, "a new technique" has to be learnt and adopted:—

"One might go further and say that if it is necessary while preparing against war, to take every possible step to promote peace, it is hardly less urgent to promote economic prosperity without which in the long run, peace cannot survive. Germany certainly is not neglecting the economic "front" and totalitarian methods in that sphere are hardly less important than in respect of diplomatic methods and aggressive armaments. Consequently, not the least important speech in yesterday's debate was that of the President of the Board of Trade in which he emphasised that an old-fashioned economy such as Britain's has to find a way to live with the totalitarian economy of the Dictator States. His proposal was that we should try to come to a sensible arrangement with these countries for the allocation of markets on the basis of the markets in which each could sell the best. "I do not believe", he said, "that you can compete with these countries unless to some extent you learn a new technique. We have prospered in world markets for many generations on a system of free competition but it is a very different thing when a single firm in this country has to face the competition of a whole country abroad and behind that the power of a whole state" Government, Mr. Stanley announced, are prepared to give whatever assistance it can to British industries to put

themselves in a position to fight if a fight becomes necessary " Furthermore, the present central control of foreign trade (in Germany) with the possibility of establishing export prices irrespective of cost, shifting the burden on the community, offers a powerful weapon of dumping ".

In the case of the Japanese competition in silk in the Indian market, there is no mere "possibility of establishing export prices". Export prices for Japanese silks have already been established (*vide* Table XVII in the Majority Report) and the question that now faces us is what can and must our Government do to help the Indian silk producer. The dumping from China being due to China's present distress cannot possibly last long and at the worst can only be sporadic not at all likely to continue after her present stocks are exhausted, for the Chinese individual producer cannot possibly afford to reproduce his stocks at the prices he has got to be content with at present. The Japanese menace appears to me far more permanent. For Japan has monopolised the rayon or silk substitutes market of India and the rayon industry in Japan being also under the complete control of the Japanese Government, the Japanese Government is in a position to sell its silks in the Indian market at prices in complete relation to the prices of rayon, recouping its losses in its silk sales in India by the gains on its rayon sales in India and silk sales in other countries than India where economic circumstances either allow or compel the consumer to pay better prices than the Indian consumer can afford to pay.

38. It is true that our Legislature has entrusted the Executive with very wide discretionary powers to take action to meet the

"New techniques" required to meet Japanese competition.	Japanese menace under Section 4 and Section 8 of the Indian Tariff Act, 1934. But the only possible action which our Government can take under these sections is
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✓ to increase the duties on the Japanese imports. But increase in the duties can only be reasonable with due regard for the different interests concerned. Ordinary and reasonable duties, however, will not meet the case. For, suppose the existing duties are raised by 25 per cent. as demanded by the Indian producers, all that the Japanese Government has to do, as it is perfectly in a position to do and as it has been in fact doing during the quinquennium, is to lower its prices in proportion to the increased Indian duties, the losses entailing such a procedure being a matter of little concern to it under its present totalitarian policy. Again, as I have made clear above and as I hope to make still clearer, the only means in view of the competition from rayon and the reduced purchasing power of the consumer, of protecting and developing the silk industry of India is not to increase but to decrease the prices of Indian silks and high tariffs, if they are to serve their purpose, must increase prices. (If high tariffs are not possible for meeting the Japanese competition, the only other means left is to eliminate Japanese competition by prohibitive tariffs) But this also will

not answer the purpose. For by eliminating the competition of Japanese silks you will not eliminate the competition of the Japanese rayon and even if you can do that, there are other countries besides Japan which manufacture rayon and can export it to India and the import of rayon cannot, without manifest injustice to the poor and middle class Indian consumer and detriment to the revenues, be prohibited. The intensity of the Japanese competition as at present existing in the silk market of India, however, in my opinion is unduly exaggerated and there are other factors more powerful than the present Japanese competition in silk which tend to depress silk prices in India as will appear if the nature and extent of the foreign competition with regard to the Indian silks is more closely examined than is done by the various applicants for tariff protection.

CHAPTER IV.

Nature and extent of Competition.

39. It appears from the publication of the Imperial Economic Committee on "Industrial Fibres" for 1937 that the decline of

Present low prices of silk are due to competition of rayon and reduced purchasing power of the consumer.

the silk industry of the world has been due to the natural effect of depression on a luxury trade and the decreased demand for silk on account of the advent and competition of rayon: and I think that it will not be an unreasonable assumption that what has been happening to the world at large has been happening to India. From 11,002,000 lbs. in 1932-33 the imports of rayon yarn into India rose to 31,589,000 lbs. in 1937-38, while imports of artificial silk piecegoods also show very large increase with a steady tendency recently to decline, presumably on account of the rapid multiplication of artificial silk mills in India during the quinquennium. While the imports of silk substitutes show such enormous increase, the production and consumption of real silk in India remains substantially stationary. Fabrics made out of silk substitutes, though of course not in any degree comparable as regards durability to those made of silk, look very much like the genuine article. They make good appearance, give fair service for a short time, and what is the most important consideration for the poor and middle class consumer of India, they sell at a very low price compared to real silk. Again, fashions for saris and frocks change with startling rapidity to the bewilderment of the middle class husband and father, and if articles of fashion having all the appearance of the silk article which can be used for a short time and then conveniently discarded are available at a low price, there is hardly anything to be wondered at in the enormous quantities of artificial silk goods at present consumed in India; and if that be so, it is impossible to ignore the intensity of the competition to which artificial silk substitutes must be subjecting real silk.

40. It is, however, said that artificial silk and other silk substitutes compete only indirectly with real silk, but whether they

Direct and indirect competition.

compete directly or indirectly with real silk the fact remains that to the extent they displace the consumption of real silk they are bound to reduce its consumption and thereby depress its price. It is further said that the various silk substitutes are so very different from real silk, one from the other, that though their respective uses and utilities might be the same to a certain extent, they cannot possibly be said to compete in any real sense of the word. An ox cart and a motor truck, it is said, to a certain extent have the same uses and provide the same utilities, but commonsense would refuse to admit that an ox cart and a motor truck compete with each other in any real sense of the word. Commercial com-

petition, however, with which we are concerned does not mean competition in use only; it means competition in price also. Article "A" may give the same use as article "B", but it will not necessarily on that account be preferred by a buyer. After satisfying himself that in his estimation "A" would give the same service or nearly the same as "B", the buyer would, as a reasonable man, enquire about the respective prices of the two articles. If the price of "A" is in his mind disproportionately higher than that of "B" even allowing for the superiority of "A" as regards the uses to which he expects or wants to put either of the articles, then he is more likely than not to prefer "B", unless of course commercial considerations are affected by non-commercial considerations such as in the Bengal partition days made the Bengal consumer prefer the inferior Bombay cloth to the superior British manufacture. In the previous illustration, though the respective uses of the ox cart and the motor truck may to a certain extent be similar, the price of the motor truck is so very disproportionately higher than that of the ox cart, considering the use which the buyer may have for them, that his choice can hardly be in doubt. (There is no doubt that in their uses the ox cart and the motor truck do compete but the comparative prices of the two articles preclude their competition in commerce, the effectiveness of the competition between any two commodities being dependent on their utility to the buyer as well as their respective prices.) Simply put, the question of competition between two commodities, whether you call it direct or indirect, is a question not of kind but of degree, the degree depending on their respective utility to the buyer as well as on their respective prices. If the price of the one is not disproportionately higher than that of the other, the uses of both being similar in kind if not in degree, there is bound to be, in my opinion, competition between the two in the commercial sense of the word. What would be "disproportionately higher price" would obviously depend on the value of money which the individual buyer has, that is on his purchasing power, together with his individual estimate of the use to him of the article he wishes to buy. On account of his reduced purchasing power the poor and the middle class consumer in India appears undoubtedly to consider that silk substitutes fabrics are "good for their price" and that real silk fabrics are "not so good for their price". Even in a rich country like the United States of America imitation Panama hats made of tissue paper, though by no means so durable as the genuine article, are preferred by the purchaser on account of their comparatively low price to the real Panama hats and constitute a very substantial portion of the American consumption, restricting the consumption of the latter and considerably reducing their price. (Every single witness from every area in which silk substitutes are being imported in any appreciable quantity has testified before us to the direct or indirect competition of silk substitutes with real silk and its depressing effect on the silk prices, and the enormously increasing imports of silk substitutes in the form of yarn as well as piecegoods corroborate the witnesses.) When to the low price, appreciable

durability and comparatively high quality of spun silk we add its perfect capacity to masquerade as the genuine article even to the practised eye of a middle class Indian lady, let alone the ignorant peasant woman, and the greater facilities available to the manufacturer and the dealer to pass off the seemingly genuine article for the genuine, there can be but little doubt about "the severest competition" (the words are of Sir Joseph Bhore) to which silk substitutes must be subjecting real silk. Out of the numerous substitutes of silk, to take only spun silk the earliest competitor of Indian silk, we find that it is a very useful and beautiful thread from which many most artistic and durable fabrics are made at a cost which is about half of that of real silk. Staple fibre and other kinds of artificial silks ranging in price from 9 annas to one Rupee provide to a certain extent the same utility as real silk at less than 1/6th of the price of the latter.

41. Most of the silk mills in India and a large number of weavers in Bombay, Punjab and Hyderabad have turned over from

real silk to silk substitutes. The importers of Japanese silks into India are mostly Indians. If it be a fact that the Indian producer cannot afford to sell at the price at which

he has been selling, the price being lower than what is considered to be his fair selling price, then it would be gross stupidity for the Japanese importer to keep his price disproportionately lower than the Indian fair selling price when he can safely afford to sell at a price slightly lower than the Indian fair selling price. My colleagues have after laborious calculations of costings come to the conclusion that the fair selling price for the Indian producer would be Rs. 5-10-8 per lb. for the superior flature silk and Rs. 5-4-10 per lb. for first quality charkha silk which are the only qualities which can compare with the foreign superior classes of silks. These being the fair selling prices for the Indian producer, it would be absolutely unbusinesslike for the importer to sell his silk at less than Rs. 5-9-2 for the superior quality and Rs. 5-3-10 for the inferior quality of imported silks. But what do we find has actually been happening. Throughout the years 1933 and 1934 the importers' prices have never been higher than Rs. 4-14-11 per lb. and during the major portion of the period not higher than Rs. 3-15-4, the lowest price being Rs. 3-5-4. This would show that some other factor than the fair selling price of Indian silk must be influencing the importers' estimate of the prices at which he can conveniently sell his silk at the greatest advantage possible to him. It may be that the importer, perhaps having keener personal interest and better facilities for obtaining more reliable information than that on which my colleagues have relied, consider the fair selling price for the Indian producer much lower than that estimated by my colleagues which, it may be noted, is certainly much lower than the figure confidently maintained with the help of the seemingly unimpeachable aid of minute and detailed statistics by all the Indian producers claiming tariff protection with the single exception of the Punjab Government. Of the two limits,

upper and lower, of silk prices, the upper would be regulated by the prices of the silk substitutes and the lower by the purchasing power of the real silk consumer. (If real silk prices rise above a certain figure prices of silk substitutes would pull them down.) (If the real silk prices fall below a certain level the effective purchasing power of the real silk consumer would pull them up.) This relation in prices of silk, silk substitute prices and the purchasing power of the Indian consumer is shown by the trade statistics as will appear from the following table:—

Competition of silk substitutes.

	Quantity. Kilos (000).		Value. Gold francs per Kilos.	
	Raw silk.	Art. silk.	Raw silk.	Art. silk.
1923 . . .	40,143	49,900	86.04	...
1924 . . .	43,069	68,350	68.82	17.83
1925 . . .	47,741	86,000	70.93	14.35
1926 . . .	50,693	101,420	73.91	11.6
1927 . . .	52,837	140,250	52.35	10.5
1928 . . .	58,035	174,390	60.36	7.8
1929 . . .	61,498	208,480	48.17	7.5
1930 . . .	60,670	199,630	30.44	7.2
1931 . . .	58,090	224,180	21.88	6.9
1932 . . .	50,500	232,490	10.50	4.7
1933 . . .	40,000	300,000	13.85	5.04
1934 . . .	38,000	350,000	10.55	5.16

The close correspondence in the rapidity of the fall in prices of both the commodities would suggest that it is due to something other than natural causes. In fact the prices of silk substitutes imported into India are "controlled prices" fixed by the Japanese Rayon Merchants' Association in accordance with the fluctuations in the prices of real silk, among other factors.

If silk prices be represented by the Figure 1 for the previous quinquennium during the quinquennium under review it has fallen to half. But along with the fall in the silk prices there has been a corresponding fall in the silk substitute prices represented by more than 30 per cent. of the pre-quinquennium average. (Why prices of silk substitutes have fallen by 30 per cent. only while prices of real silks have fallen by 50 per cent. is explicable by the influence on the prices of the purchasing power of the Indian consumer at the relevant time, together with the increased costs of the raw materials required for rayon manufacture in Japan who has been able during recent years to monopolise the Indian market for rayon.)

I have, therefore, no hesitation in coming to the conclusion that as in the whole world so in India the consumption of silk

substitutes has depressed the price of Indian silk to a much greater extent than the competition of foreign silks which have also equally with Indian silk to compete with silk substitutes.)

42. Another factor which affects the competition of duty paid foreign silks with Indian hand-reeled silks is to be found in the quantities of Kashmir filature silks which

Competition from
Kashmir silk.

Kashmir produces under a system of State monopoly, and imports into the rest of India duty free, Kashmir charging the full British Indian duties on all non-Kashmir silk imports. At the last enquiry the Tariff Board found that "Kashmir silk deprived of its accustomed European markets is trying to find a larger outlet in India at uneconomic prices". What the Tariff Board stated in 1933 is equally correct to-day. Kashmir sends out to the rest of India about 2 lakhs of pounds of her silks which amounts to one-tenth of the total foreign imports into India. In June last the Kashmir State sold about 50,000 lbs. of Kashmir filature silk to a British Indian trader of Bombay at Rs. 5 per lb. and the latter who appeared as a witness before us stated that he could sell the same silk in India shortly after his purchase at Rs. 6-12 per lb. For the last many years the Kashmir State is admittedly making losses, that is, it is admittedly selling for the last many years at prices below his cost of production. If the China producer sells in India below her cost of production, we call it dumping. If the Japanese Government sells below the cost of production, we again call it dumping and unfair competition by a whole country against individual Indian producers by "totalitarian" methods. I need go no further for these facts speak for themselves as regards the depressing effect the Kashmir silk produced by a state monopoly and imported into India duty free must be considered to be having along with the foreign silks on the silk prices in India.

43. A third factor which must be taken into account in estimating the competition of foreign imported silk with Indian silk is

Competition from
free land imports and
smuggled goods.

the growing duty free imports of foreign silk through Burma and other places. The sericulture industry of Burma is in its infancy and the quantities produced are almost negligible. Still we find that Chinese silks coming to Calcutta alone *via* Burma during the current years up till 17th December last amounted to 1,850 bales of 133 lbs. each. According to the information I have been able to gather, considerable quantities of China silks are imported at the Burmese frontier towns of Bhamo and Lashio from the province of Yunnan duty free destined for India. (When we add to the competition of silk substitutes the effect of these appreciable free land imports of foreign silks the smuggled imports through Kathiawar, the Baluchistan frontier and the French settlements, we are forced to the conclusion that the effectiveness of duty paid imports of foreign silks into India in their competition with the Indian silks must be appreciably affected.)

44. Another factor which must be taken account of in judging the effect of foreign imported silks on the prices of silks in India

Effect of non-existence of commercial organisation and defects of Indian silks. is the present marketing system in India with regard to the Indian raw silk. In India there is no attempt worth mentioning to correlate demand with supply. The

instance of the Kashmir Government being forced to sell its silk in last July at Rs. 5 to the Bombay trader who could sell it almost immediately to his clients at Rs. 6-12, I have already given. While we were in Aurangabad, witnesses stated to us that they preferred the Bengal Jangipur silk to any other and that

Unavailability and irregularity of supplies of Indian silks. though they were prepared to pay higher prices for the Jangipur product than the price at which the foreign producer sold, there was no supply forthcoming from

Jangipur in answer to their demand. Similar statements were made to us in Bengal with regard to the non-availability of Kashmir and Mysore silks. "It is a curious feature of the Indian industry" wrote Lefroy in 1916 "that so much raw silk is imported and used in India, much of which could be produced in the country, and there is at present no means whereby any one can find out what raw silk is available in India or where to get it. In actual cost (China silks) are dearer than Kashmir silk but Kashmir silk is unknown and there is no means of making it known". "If you go to Murshidabad or Bhagalpur or Amritsar or Ahmedabad or a number of other weaving centres, you will find certain classes of fabrics being produced and probably a good many weavers idle. If you go to Bombay, Calcutta, Lahore, Allahabad, Delhi and other places, you find silk being sold that was made in Japan or China that could just as well have been made in Murshidabad, Bhagalpur or Amritsar (Lefroy is speaking of the inferior quality, Japanese and Chinese silks which were imported in 1916) and when you ask the seller why he does not get his cloth in India or the weaver why he does not sell his cloth in Delhi, both say they know nothing about it." This was written by Lefroy in 1916 but I have found it as true to-day as when it was written. If there is no Indian silk or Indian silk cloth available in a particular market, how can the question arise at all of competition between the foreign products and the indigenous ones, the latter being not in the market. When a weaver has specialised in manufacturing a particular kind of cloth out of a particular kind of silk he would like to maintain constancy of the supplies of his cloth but in this direction he is unable to rely for the constant and regular supplies of his raw material from the Indian producer of silk. If there are floods in Bengal or if there is epidemic of pebrine in Bengal or if jute pays better than cocoon production in Bengal, his supplies of the Bengal raw material become scanty and irregular. He has, therefore, got to turn to quarters from where supplies of his raw material can come in constant and regular quantities. Again defective reeling and the quantity of moisture in a silk, in absence of a conditioning house certificate, can only be found out on the

machine and no weaver can be expected to buy a silk for the second time if he has found that in his first purchase he has bought along with genuine silk mere gum and water and has actually paid for the latter the price of the genuine silk. Compare the trade methods of Indian silk producer with those of the foreign importer. The latter offers the guarantee of a conditioning house certificate and studies the requirements of the consumer in each of the numerous markets in regard to quality, finish and packing through numerous commission agents who supply him with accurate information with regard to the state of demand and the exact quality of the article in demand. Indeed, at Malda in Bengal, several weavers stated to us that though they much preferred to work on the indigenous silk, the commission agents of the foreign importers from whom the weavers were in the habit of taking cash advances compelled them to use foreign silks instead of the indigenous materials. "A high import duty on raw silk", says Lefroy "would hit the weaver in India very hard; he would turn to Indian raw silk: if he can now use Indian raw silk, he can be persuaded to do so by commercial organisation better than a high duty and if Indian raw silk cannot be produced so cheaply as Chinese, it seems a pity not to let the Indian weaver benefit by the cheap silk offered by China". Indian silk is actually being produced as cheaply if not cheaper than the Chinese silk but the *commercial organisation* of which Lefroy speaks is lacking to the Indian producer.

45. While the effectiveness of competition of silk substitutes with Indian silks has been under-rated, the intensity of competition of foreign silks appears to have been exaggerated. Japan appears to have long realised this fact and in India the non-recognition of it in interested quarters appears to me to be the main cause of the clamour for enhanced duties on foreign silk imports and the complaint about the total inadequacy of the tariff protection granted to the sericulture industry of India by the Textile Protection Act of 1934. The Japanese importer has come to confine himself recently mainly to imports of silk substitutes in preference to real silk, for though he of late has been finding it increasingly inconvenient to import even silk piecegoods he appears to have been finding imports of real silk even still more inconvenient and uneconomic as appears from the fact that the monthly average of Japanese imports of silk which was 135,000 lbs. in 1935-36 fell to the monthly average of 12,000 lbs. in 1938-39, the lowest during the quinquennium. In order to ascertain the real nature and extent of the competition of foreign imports with the domestic products we must ascertain whether the competing products are the same, or substantially the same, both as regards their uses as well as their respective prices. The classes of foreign silks which compete with Indian silks are numerous as will be seen from the Table at page 127 of the last Tariff Board Report, varying in qualities and prices, and it is important to find with reasonable certainty what are the real classes

of silks which are competing in any reasonably effective manner with Indian silks.

46. Silks can be described according to (1) the uses to which they are put, (2) the machine on which they are capable of being worked, and (3) the comparative production costs of the fabric which is manufactured out of them. While the handloom weaver by long-standing hereditary deftness of finger is able to overcome the defects of Indian silk, no machinery has yet been devised that can work at a profit on Indian charkha silk as it is at present produced. If the silk is to be used on the handloom it would be of a different quality from the silk which is to be used in the delicate and expensive machinery of Europe and America. If the silk is to be used in the manufacture of black silk hats it is very different from the silk which is to be used in Indian saris. Again, hand-reeled or Charkha silk while it is said to possess some unique virtues which are particularly valuable in certain branches of silk manufacture by handloom, is useless if it is to be worked on power machinery. Lastly a silk which may be, under given circumstances, used on both handloom as well as power machinery may on account of its quality entail widely different costs of production of the fabric, and it is according to the uses to which various kinds of silk are to be put and the nature of the machinery on which they are to be worked that determine their different classes for commercial purposes. China alone produces several kinds of silk too numerous to mention, from the lowest classes of hand-reeled silks which are fit only for the handloom to the highest class of filature silks which are worked on the delicate power machinery of Europe and America. (Doran, in his book "Raw Silk" mentions more than 150 classes of Chinese silks and 30 classes of Japanese silks varying in prices from 150 taels per bale to 250 taels and from 1,000 Yen to 150 Yen, respectively, each class varying in its suitability for the manufacture of different fabrics or with the machinery on which it is worked or with the cost of production of the fabric which it entails on account of its different defects or excellences. The bulk of the Indian silk at present produced contains so many defects that it is absolutely unfit for being worked on European and American power machinery. It is uneven and irregular in size and breaks too frequently to be economic when put on the rapidly revolving power machinery. (As will appear from what is stated in Chapter XVII of Rowley's "Economics of Silk Industry" the bulk of Indian silk is so very different from silks produced in China and Japan and the European countries that there can be no reasonable comparison between it and the latter. In fact it would be hardly an exaggeration to say that so far as their respective uses are concerned, the Indian charkha silk which is the bulk of the Indian production is, generally speaking, appreciably different from its foreign rivals, the superior qualities of China and Japanese silks. Had it not been so, both Indian as well as the comparable foreign silks would

not have found a market in India with remarkable constancy during the whole quinquennium under review at their appropriate prices. Further, the following statements would show that foreign silks and Indian silks have their own separate uses and separate markets:

Almost throughout the year 1933, the best Mysore silk sold in the Mysore markets at rates nearly Re. 1 to Rs. 1-6 per lb. higher than Canton and Japan (white and yellow) silks (*Vide* Annexures B and C of the Mysore Memorandum). Again, throughout 1934 while the Mysore rates fluctuated between Rs. 4-14 and Rs. 4-5, the foreign silks sold at between Rs. 3-6-5 and Rs. 4-6.

In 1935 the Mysore rates were between Rs. 5 and Rs. 4-8 while foreign silks sold at Rs. 4 and Rs. 5-12 for white and Rs. 3-14 and Rs. 5-10 for yellow.

In 1936 Mysore silk sold at between Rs. 6 and Rs. 3-9 and foreign silks sold at between Rs. 6-15 and Rs. 4-15 for white and between Rs. 4-13 and Rs. 6-3 for yellow.

In 1937 Mysore silk sold at between Rs. 6-6 and Rs. 5-10 while foreign silks sold at between Rs. 6-14 and Rs. 5-8 for white and at between Rs. 6-13 and Rs. 5-8 for yellow. These figures tend to show that before the period of protection, Mysore silk was selling at a price nearly 25 per cent. higher than the price of the best foreign silk and was actually finding a market. If it had not found a market at that high price, stocks would have accumulated and a lower price compared to the foreign silk price would have resulted in the next succeeding year. But such is not the case, for throughout the first quarter of 1934 after which protection was granted, Mysore silk continued to sell at a higher price than foreign silk. As both silks found a market, there is indication that both had their uses, that is, their qualities were different. In fact as the Mysore Government explain while the handloom weavers use the better reeled foreign silk for warp, they prefer the Mysore silk for weft as they find the latter more durable, possessing better lustre and having a better feel and tenacity than the foreign material. In 1937 better quality Japanese silk destined for America came to India and its quality being better, it fetched better prices than Mysore silk. In 1938, however, lower quality Chinese silk replaced the Japanese superior silk and comparative prices both of the foreign silks as well as of Mysore silk fell. A more detailed study of the Mysore Memorandum figures considered in the light of other factors such as the continued low purchasing power of the Indian consumer, the indirect competition of silk substitutes competing both with imported silk as well as Indian silks would confirm the conclusion that in the Mysore area it is not so much the protective duties as internal competition of the Mysore producers among themselves that has been regulating silk prices in Mysore and if that be so, it is legitimate to infer that what has happened in the past will happen *ceteris paribus* in future and that protective duties instead of raising prices of silk in Mysore will have, comparatively, speaking, no appreciable effect on silk

prices in Mysore how much so ever the duties may be raised short of being prohibitive. A higher limit both for Mysore and foreign silks will continue to be fixed by the prices of the silk substitutes and the lower limit will be fixed by internal competition between the indigenous Mysore producers. Import duties, in fine, will remain innocuous on silk prices. "*Ceteris paribus*", however, in the present abnormal times which no one can say when will become normal is a very large assumption and it would be safer to say that while it is more likely than not that the burden of the duties on the consumer will continue, the benefit of the duties to the indigenous producer is doubtful.

47. The customs classifications, in my opinion, give little information which can enable us to try and work out a useful

No useful comparison possible between Indian charkha and imported silks. comparison between Indian Charkha silk and its foreign rivals in the Indian market. The report on cotton yarn made by the United States Tariff Commission clearly

established that though the Customs figures of cotton yarn imports into the United States of America indicated growing competition in the American market between foreign and domestic spinners the investigation by the Tariff Commission disclosed that nearly all the imported yarn had some special quality or finish which was not shown in the Customs statistics and which explained why it was purchased abroad instead of from domestic manufacturers and that the kind of imported yarn that directly competed with that of American manufacturers was practically negligible. The Commission further found that the prosperity of the lace and lace curtain industries was dependent on the access to foreign supplies to which the home supplies were supplementary. Unless, therefore, foreign silks said to be competing with Indian silk are similar to it, restriction on their imports will not affect the price of Indian silk and will do positive harm to the handloom weaving industry.

48. The Indian domestic silks are mostly the inferior charkha silks of Bengal and Mysore which form more than 75 per cent.

Evidence regarding absence of competition between Indian charkha and imported silks. of the total Indian production. Before 1934 the foreign silks largely imported were the inferior classes of hand-reeled Chinese silks which but for the reduced prices necessitated

by the competition of rayon and the loss of the American market could not have competed with the Indian charkha silks which constituted the largest Indian production and consumption. Indeed, one of the largest importers of Chinese and Japanese silks in India stated before the Tariff Board in 1932 that both the filature as well as hand-reeled silks of India were at the time so very superior to the inferior kinds of imported silks that there could possibly be no "conflict" between the two classes. During the quinquennium, however, the "conflict" between the two classes is confined to the superior Chinese and Japanese classes and the inferior hand-reeled silks of India. The last Tariff Board, on page 130 of its report, mentions in the classification given in Table LXVII five kinds of foreign silks which compete with

comparable classes of Indian silks. In 1933 the bulk of the foreign imports consisted of the Tariff Board's classes (IV) and (III) which are classed in the Indian Customs Tariff Schedule as "Chinese Waste Products", "Chinese Dupion, all kinds", "Chinese hand-reeled (excluding re-reeled)" and "Japanese Filatures." The Japanese Chamber of Commerce who gave their evidence before us at Bombay as well as the Japanese Chamber of Commerce of Calcutta stated that the silks manufactured by Japan are classified into 10 classes (Special AAA, AA, A, B, C, D, E, F, G & H) and that before 1934 or 1935 no Japanese silks of classes above their class E were imported into India, the superior classes being destined for the American market. The bulk of the Japanese and Chinese silks imported during the quinquennium under review consisted of superior classes of Chinese filature silk and superior Japanese filatures which correspond to classes I and II of the Tariff Board classification and "All other sorts" and "Japanese filatures" in the Indian Custom Tariff Schedule. The total Indian consumption of silk (both Charkha and the imported varieties) being more than the quantity of the Charkha silk consumed in India, it would appear that the quantities of superior silks imported in response to a demand which cannot be satisfied by the Indian product can hardly be affected by import duties however high they may be short of being prohibitive. That this is exactly the case is shown by the replies of the weavers from the Punjab, Bombay and other places. It is there stated that the Indian silk is not used by the Indian weaver because it is not produced in the forms and qualities suitable to him. The same Indian importer who has been spoken of above in answer to our questionnaire has stated to us at the present inquiry as follows:—

✓ "This country (India) produces almost entirely silks of the yellow variety whilst a greater demand is for the white varieties." Therefore, no comparison can be drawn between the white foreign varieties and the local yellow varieties. Even if compared with the foreign yellow variety, the local silk falls ✓ short in quality because of its lack of proper re-reeling, gradation, etc. The quality could be improved if proper Government help is forthcoming as Mysore is trying at present." "The present trend is definitely for a preference ✓ for filature silks. The hand spun (reeled) silk is being replaced by artificial silk yarn and staple fibre owing to the price ✓ factor." The factories using silk and spun silk (the latter it may be noted has been recently made dearer than before by the recent increase in the import duty on spun silk) are just ✓ able to manage owing to protective tariffs on cloth. However, they could do much better if the duty on imported silk was reduced. They prefer foreign silk because they are unable to obtain any good white variety of Indian silk and even the ✓ yellow variety is always higher in price than its foreign equivalents. Unless the price of Indian raw silk comes down or the duty on imported raw silk (cloth) is raised further by any chance, than (*sic*) the Indian manufacturers will not be

able to do anything against the foreign cloth". All this means that there is hardly any competition even between the superior Indian filature silk such as Kashmir and the superior foreign silk, as the former is yellow and the latter white and that the bulk of the Indian silk which is the inferior charkha variety competes with silk substitutes like the staple fibre, etc., rather than with the foreign superior quality silks."

The evidence of the Bombay Yarn and Silk Merchants' Association is also to the similar effect. They say as follows:—

"The Indian silk is always dearer because of small production. . . . There cannot be any comparison in quality between Indian silk and imported silk because they *materially differ* in many respects. Kashmir and Bengal produce 99 per cent. yellow, Mysore produces 100 per cent. greenish white, Japan produces 70 per cent. white and 30 per cent. yellow, and China produces 50 per cent. white and 50 per cent. yellow. Again no comparison can be made by sight. Again there is no scientific basis for production and distribution for silk in India and hence no comparison can be made as regards price also. . . . My Committee think that defects in Indian silks as in any other industry can be remedied by extending proper Government help and encouragement. Race of silk worm reared in India and the colours of silk produced are very different from those of imported silk while maximum demand for consumption in India is for the white type. . . . My Committee is in entire agreement with the views (that at present there is a definite preference for filature silk because hand-reeled silk costs more due to wastage and labour and that hand-reeled silk is also being replaced by artificial silk yarn and staple fibre). The substitution (of Indian silk by artificial silks) is entirely due to the price factor and heavy duties on raw silk. . . . Staple fibre will look up slowly (will sell more) on account of higher prices of silk. . . . The statements made before the last Tariff Board regarding the preference extended by the weavers to the imported silk were correct and still hold good. There is no improvement whatsoever and no efforts have been made hitherto to remedy these defects (The statements referred to at the last enquiry were to the effect that the weavers prefer to use imported silk because (1) there was lack of enterprise and method in the marketing of Indian silk in the principal silk producing centres in India and no serious effort was made to advertise the merits and varieties of Indian silks and the variations in the unit of weight between one silk producing centre and another and between the silk producing and weaving centres proved a most serious handicap to Indian silk, (2) Indian silk was more difficult to wind than foreign silk and the loss in degumming in the case of the Indian silks was greater, (3) while by using Indian silks, the weaver had to undergo the expense of re-reeling and twisting, by using imported spun silk he saved the trouble

and expense of both these operations and losses from degumming) My Committee think that the protection extended to Indian raw silk is more than sufficient under the prevailing circumstances My Committee suggest that any further increase in duty will result in considerably encouraging smuggling as has been proved beyond doubts with regard to other commodities and will result in killing the handloom industry with disastrous effects. My Committee understand that for the last three years Kashmir and Mysore varieties are being sold on a remunerative basis and hence there is no room at present for any further increase of duty."

These are no doubt the views of people interested in showing that the area of competition between the Indian silks and the imported duty paid silks is comparatively small. But, I think, they are amply borne out by what I have already stated.

49. In this connection it may be apposite to note the opinion about the requirements of the silk weaver of Mr. Bosshard in his statement in the Second International Technical Raw Silk Conference. Mr. Bosshard stated "Every raw silk defect has the corresponding effect in causing our merchandise to be imperfect and saleable only at large discounts. This is the most serious result but not far behind is the increased manufacturing costs which deflect unduly on us. The conditions thus created are of vital importance in these days of intensive competition between various textile fibres and particularly so in the competition which has been growing between real silk and the synthetic fibre rayon (Commercially perfect fabrics cannot be produced without prevention or elimination of raw silk defects). This is a very costly operation in American mills where labour costs are heavy and high speed production methods prevail". Whatever may be the present qualities of foreign silks the bulk of the Indian silk has many defects from which its foreign competitor is immune and which makes it absolutely unsuitable for the delicate and expensive weaving machinery of Europe and America and that is the reason why India has lost her export markets in which she, till recently, competed successfully with her foreign rivals whose silks at the time were also of the same quality as hers. While her foreign competitors by improved methods have been improving their products, India has been lagging behind and persisting in her old and inefficient methods from the East India Company days. A member of the Bengal Chamber of Commerce has sent us his decided opinion that the Bengal silk as at present produced "would find no market anywhere else and the cloth made from it in Bengal is too inferior for anything". There is no inherent irremovable defect in the Indian silks. Whatever the defects are, and they are legion, they are capable of being remedied if the primary producers, the rearer and the reeler, pay more care and attention to their work and adopt the efficient methods of their foreign rivals. This, however, the remunerative price to be assured to them by the indiscriminate and automatic benefits tariff

protection will not make them do as the history of the sericulture industry from the days of the East India Company to our present times amply proves. Even as recently as just before the protective period the silk producer of India was receiving prices for his product ranging from 600 to 300 per cent. higher than the price he is obtaining to-day and still we find that the quality of the silk which he produced remained the same as that he produced in the East India Company days. It is not because the Indian producer is not capable of producing a better product; he simply does not want to be more efficient. The opinion of the silk manufacturers of Lyons quoted in the Industrial Commission's Report (pages 380-384) stated that though the French silk manufacturers were prepared to pay 70 francs per kilo for Bengal silk instead of the 40 francs per kilo which the Bengal producer was receiving some-time back, the Bengal producer persisted in showing the same defects that made his silk, which was unrivalled as regards taking the brilliancy required for silk hats, useless for weaving fabrics. Adversity, however, seems to be producing its effect on the Indian silk producer as the evidence of a weaving factory owner from Bishnupur in Bengal shows. The witness stated that the local reelers are now always ready and willing to give him well reeled and prepared silk superior to the ordinary product if he gave them 8 annas more per pound than the prevailing market rates. He also stated that the fabrics made out of these more efficiently reeled silks had always a ready sale. To be brief, the bulk of foreign silks (the inferior quality of Chinese and Japanese silks, the imports of which have now come to be negligible) which can be legitimately said to be competing with the bulk of Indian silks consisting of the hand-reeled and charkha silks is too small to regulate Indian prices, for the bulk of the competing Indian product being far larger than the bulk of the foreign imports, import prices can have but comparatively little influence over the Indian prices. The only silk which can be said to compete with the superior foreign silk is the silk produced by Kashmir, and Kashmir produces only about 5 per cent. of the total Indian demand, the Mysore production of filature silk being almost negligible. Kashmir, however, does not require anything except an export market and that is what tariff protection will not give.

50. From what has been stated above it follows that in judging the intensity of the foreign competition and its effect in depressing silk prices, we must take into account several factors which also have been having their influence during the quinquennium on the prices of silk in the Indian market, namely, (1) the competition of silk substitutes, (2) the competition of Kashmir silks, (3) the competition of free land imports and smuggled goods, (4) unsuitability of the Indian silks for certain uses and the suitability of foreign silks for such uses, (5) the unavailability of the Indian silks and the availability of the foreign silks in the Indian market, etc. (It is obviously difficult to estimate the effect of all these factors in depressing the silk prices in India.) Who can say whether it is the silk substitutes or the reduced purchasing

power of the Indian consumer or the free land exports or the smuggling or the Kashmir dumping or the bad quality of Indian silk or the foreign competition or the effect of all these put together has lowered the price of Indian silks or helped to pull down prices of both Indian and foreign silks and to what extent, during the quinquennium and if the effect of these factors cannot be ascertained with reasonable approximation, how can a scheme of tariff protection be framed in absence of such ascertainment. Take for instance smuggling. The present Finance Member with characteristic energy has been tackling the problem as did his predecessor for the last many years. But the very extent of the measures taken by the Government to cope with smuggling at the numerous sea ports and the different land frontiers would serve to give some idea of the wide extent of the evil. Even if the statements before us of the customs authorities that the evil has been at present brought under control be correct, the effect of smuggling in the past during the quinquennium on silk prices in India must have been considerable. As one of the witnesses has stated before us "on account of the existence of wide spread smuggling which penalises honest trading, some of the largest importing firms in Bombay have given up their business of silk import". This would show that the silk merchants who had to close down during the quinquennium on account of the competition of smuggled goods considered smuggled goods a more formidable competitor than the lawfully imported foreign goods and high prices of silk made possible by high tariffs will assuredly not tend to decrease smuggling.

CHAPTER V.

The case for protection.

51. The Fiscal Commission was immediately concerned with tariff protection only as it was asked to "examine with reference to the interests concerned the tariff policy of the Government of India, etc.,.....". In paragraph 67 of their Report they expressly base their justification for recommending tariff protection on the "verdict of the economists as to the circumstances in which tariff protection, involving as it does immediate economic loss to the community, may be justified". Now the verdict of economists like Mill on the one hand and List on the other, both of whom the Fiscal Commission cited as their authority, may be shown to be that tariff protection is justified in cases only of what are called infant industries. The passage from Mill which the Fiscal Commission cited a passage "not always correctly quoted and seldom fully quoted" refers only to protective duties especially in a young and rising nation in hopes of naturalising a foreign industry in itself perfectly suitable to the circumstances of the country; and so far as List and his followers are concerned, the argument for protection to young industries by tariffs was never applied by them to agricultural and semi-agricultural industries which depend for their progress and development on the unalterable conditions of soil and climate. The argument of tariff protection to infant industries appears to be highly inexpedient to apply to a semi-agricultural industry like sericulture in India for in it *inter alia* "there is not that close contact between different producers or that stress of competition between them which is most likely to lead to improvements". *A stimulus to improvement is the essence of the argument for tariff protection.* "In the contemporary German controversy considerations of this sort have been advanced in support of the duties on grain but there is quite as much weight in the counter argument that agricultural improvement is most effectively spurred by adversity. It comes not from high prices and easy gains but low prices and need for facing a difficult situation. The low prices of sugar which prevailed for a considerable period (especially in the decade 1890-1900) proved a blessing in disguise to the Louisiana sugar planters, and their methods of sugar extraction were improved in their effort to meet the conditions of the depression. The same seems to have been the case with the Hawaiian planters during the periods (1890-94) of free sugar. It has already been pointed out how difficult it is to say whether protection stands to promote technical improvement or retard it" (*vide* Taussie—"Some Aspects of the Tariff Question", page 94). Sericulture in India is not an infant industry and therefore the main justification for tariff protection to it in accordance with the Fiscal Commission's recommendation does not apply to it. The Fiscal Commission, however, in paragraph 100 of their report recommend tariff protection to

an industry "which has been suffering from temporary deterioration or atrophy". The last Tariff Board was of opinion that the difficulties of the sericulture industry of India were due largely to this same temporary deterioration or atrophy and they concluded that unless and until the industry was re-organised there was no hope for progress or development. While I do not think that the industry suffers from atrophy or deterioration in the sense meant by the Fiscal Commission I agree with the conclusion that the Indian industry requires reorganisation but I am decidedly of opinion that tariff protection is not the method to bring about the desired reorganisation. Sir William Beveridge's 'verdict' on the present question is as follows:—

"When the aim is not to domesticate a new industry but to make an old one change its ways and reorganise itself, protection may bring nothing at all of what is desired. The giving of protection cannot in practice be made conditional upon steps for rationalisation having been taken. It cannot in practice be withdrawn if sufficient steps are not taken. No one but an interested person now argues that tariff once put on comes off again easily. No one but a child believes it."

52. The first essential requirement for a scheme of tariff protection is the ascertainment of the costs of production and fair selling prices of the product to be protected. In

Costs of production and fair selling prices cannot be ascertained with regard to the Indian sericulture industry.

the case of the sericulture industry, in my opinion, this essential requirement cannot be satisfied. In the first place, mulberry and cocoon are joint products of the agricultural industry. The agriculturist does not set apart any extra capital except to a very negligible extent beyond what is required in his main occupation whether it be jowari, ragi or jute cultivation. How then are the costs of production to be distributed over the two joint products of the agricultural industry. Again, apart from feeding the worms mulberry has no other use and therefore no marketable value. Further, the labour of his wife and his children which the agriculturist devotes for the picking of the mulberry leaf and attending on rearing the worms has no marketable value either. This circumstance indeed is the main cause of success of the sericulture industry in countries like China, Japan and India and its failure in countries like France and America where the labour of the woman and child would either be employed more advantageously in other industries than sericulture or where, as in America, their employment is looked down upon as amounting to sweating the labour of women and children. Again, the cost of production of each individual producer of cocoons, depends on the constantly fluctuating value of the product of his main occupation, if he cultivates mulberry along with jute as in Bengal or along with jowari or ragi as in Mysore and Madras, the value to him of the product of his main occupation would vastly differ compared with the value of his sericultural product.

53. It may be contended that an average of the costs of production of mulberry and cocoon may be taken. But I fail to see how that average can be of any use in fixing a remunerative price which would meet the requirements of the different areas in different villages and in different provinces and States. ✓

There are three kinds of averages; firstly, the costs of different producers may be taken or, secondly, the average of the cost of a unit of production may be taken or, thirdly the mean cost between the highest and lowest may be taken. Each of these different kinds of averages will show different results and the question arises which kind of these averages should be taken and why? Again, averages taken over a period will differ according to the duration of the period: averages taken over a period of one year will differ from averages taken over a period of two or more years. In the silk areas of Mysore in 1937 while a cocoon producer obtained a price as high as 8 annas in one village, in another village the cocoon producer failed to obtain more than 4 annas per pound. In 1936 while a cocoon producer in the first village got As. 4-3 per pound of cocoons, in the second village in the same year the cocoon producer got 4 annas for a pound of cocoons. As the rearer is also mostly the reeler in Mysore, the market for cocoons is confined mostly to individual villages or small groups of neighbouring villages. In each of the sericulture areas with the exception of Kashmir there are, therefore, nearly as many cocoon markets as there are sericulture villages or groups of villages and competition between the cocoon producers of one sericulture area with those of another or even of one district with another district is almost non-existent. As I have already mentioned the Deputy Director of Sericulture in Bengal stated before us that he had kept some 20 cocoon producers under his observation for the purpose of ascertaining their costs of production and fair selling prices and he found that while some were making profits, others were making losses. The Director of Industries of the Mysore Government gave evidence before the last Tariff Board in which he affirmed that if the rearer got 8 annas per pound, he would continue to produce and that otherwise he would cease producing. Later on at the same enquiry he based his whole case for protection on a cocoon price of only 5 annas per lb. At the present enquiry the same gentleman stated to the effect that the rearer would be quite satisfied with a price of 5 annas per pound. The same witness as the Director of a filature company has been stating that the cocoon price should be 4 annas per pound. While the Punjab rearer gets much less than 3 annas (deducting from the present fair selling price the cost of mulberry) a pound for his cocoons, the Bengal rearer would not be satisfied with less than 5 annas a pound for his cocoons. How is any average that can possibly be taken going to satisfy the requirements of all these different cocoon producers in the differently situated areas, differently situated, geographically, economically and socially? The average price which would more than satisfy the Punjab rearer would be found absolutely unremunerative by the Bengal rearer.

Take, again what my colleagues have fixed as the basic fair selling price for the whole of India for filature and charkha silks respectively. In the former case they have fixed the selling price at Rs. 5-10-8 and in the second case at Rs. 5-4-10 per lb. Apart from the fair selling price if we only take the cost of the privately owned Kollegal filature that cost amounts to Rs. 5-15-10 which with a profit of 2 annas would give for a fair selling price the figure of Rs. 6-1-10. It is obvious that the basic remunerative price fixed by my colleagues would be absolutely unremunerative for the Kollegal filature. Take again the figure given by Jammu which is a Government owned filature. The fair selling price given for Jammu is Rs. 6-9. This again would be very different from the fair selling price of Rs. 5-10-8 fixed for the whole of India by my colleagues. Again, the Government owned filature of Mysore gives its fair selling price at Rs. 7-9-4 and this would show that the Mysore Government filature would be working at a great loss if it were to get only Rs. 5-10-8 the fair selling price fixed by my colleagues. It is plain that these differing fair selling prices are due to the different economic conditions under which the different producers have been working, and it is also plain that these different economic conditions cannot be evaluated so as to ensure an economic fair selling price to each individual producer throughout the whole country. To be brief, there cannot be an economic basic price either for cocoons or for silk for the whole of India on which a scheme of tariff protection can be based which would give equal or approximately equal benefits and remunerative prices to all the individual areas concerned. The cocoon producers and reelers are so very numerous, economic conditions under which they produce so very varying and the comparative data we have been able to gather so very defective and deficient that the figures fixed by my colleagues of basic cost of production and fair selling price for the whole of India would only be arbitrary and conjectural with no approximation to the real and the actual. In fact, it is possible for different individuals to arrive at different conclusions on the data which is before us. I myself think that the figures for cocoon and silk costs of production fixed by my colleagues for basing their scheme of tariff protection upon are much on the high side.

54. In Charkha silk production, I was told that each reeler has his own costs in the same village because the silk which each reeler produces is different from his neighbours as it depends on the amount of care and attention which he puts in his work, the condition of the cocoon on which he works, the machine which he operates and other factors. Consequently, there is no comparable data to fix even the cost of production of silk in one and the same village. However, granting that such comparable data are available and are useful, I would take two contiguous areas having similar geographical, economical and social conditions which are available to us. The Madras area is contiguous to Mysore and there is no reason why the cost of mulberry cultivation in Mysore should exceed the same in Madras. As it would be against the interest of Madras to give a figure lower than the actual one, I would prefer the Madras

figure of 1·4 pies per pound of mulberry leaf which has withstood our cross-examination to the Mysore figure which is almost the double of the Madras one. As regards charges other than the cost of mulberry cultivation, I would prefer the Mysore figure for the same reason. This would give us as the cost of production of 1 pound of cocoons as under:—

Pure Mysore	3 annas 2 pies per pound.
Cross-breed	2 annas 8 pies per pound.

The average of the two comes to 2 annas 11 pies or say 3 annas per pound. Now take the other two contiguous areas, viz., Jammu and the Punjab. In the case of the Punjab my colleagues have given the figure of 4 annas 1 pie per lb. of cocoons produced by a rearer in that province. This figure includes the cost of labour which, as I have said, has no marketable value in any economic sense of the word, it being the spare time labour of the rearer himself, his wife and his grown up children. I consider, therefore, the figures of Rs. 11-10 given for labour and Rs. 1-5-3 for implements which he does not need in the Punjab or makes for himself to be too high, more especially if regard is had to the station in life of the rearer and the standard of life which he maintains and the fact that in the contiguous areas of Jammu the rearer is not only satisfied with 2 annas 6 pies paid to him per lb. of cocoon reared for his and his family labour but actually clamours for more seed to work upon. In fact the Punjab Government have themselves stated in their replies as follows:—

“There are no large scale rearers in the Punjab. The majority of the rearers take up one or two ounces of silk seed for rearing. They do not accordingly incur any expense on rearing excepting on the purchase of seed and of mulberry leaves. The seed has been supplied to the rearers at a uniform rate of Rs. 2 per ounce during the last two years and they have to pay for mulberry leaves at the rate of As. 8 per ounce of seed. The entire labour is supplied by the rearer and his family. No appliances are used. The machans or the rearing house is made from branches of the trees on which no money is spent. The rearer incurs no other expense.”

It is plain, therefore, that what my colleagues have decided to offer and what the Punjab Government are themselves willing to accept differ greatly. I would, therefore, reduce the Punjab figure by Rs. 3-9-3 and retain only Rs. 11-14 (though the Punjab Government would not retain even this latter figure) representing the cost of 60 lbs. of cocoons at 3 annas and 2 pies per lb. which is the same figure as arrived at in the case of Madras and Mysore.

Kashmir pays to its rearers 2 annas and 6 pies per pound of cocoons giving them seed and mulberry leaf free. Mulberry grows wild in Kashmir and costs nothing to the state. I would, therefore, give Kashmir as the price for its cocoons the price of the seed and the payments made to the rearers. This would give us a figure of 2 annas 11 pies or say 3 annas per pound as the cost of

production of cocoons." The Kashmir Government in calculating their costs take into account the costs of replanting mulberry trees which are said to live more than 200 years and departmental charges which would convert sericulture from being a sideline industry of agriculture into a main occupation of an industrialist.

As regards Bengal, we find that when the industry was not in decline and was in fact prosperous the Bengal cocoon producer was getting for a maund of green cocoon sold in November 1915 Rs. 32 or 6 annas 5 pies per pound. In Bengal, however, the conditions are very peculiar. Unless and until the competing crops which the sericulturist cultivates along with mulberry sell at a lower price compared with the price of cocoon the cocoon producer has no incentive to produce cocoons. In Bengal, therefore, the price of cocoons has always been regulated mainly by the price of the competing crops such as jute. This appears so from the table given at page 7 of the Bengal Government's pamphlet on "The inadequacy of protection to the silk industry," which shows that while from 1835 to our present day the silk industry in some districts where facilities for cultivation of jute exist, has been continually declining to the point of extinction reached in 1880, in districts which have no facilities for jute production the silk industry has remained in the same condition as it was in the palmiest days of the Bengal silk industry. It may be noted that I have included the cost of family labour which neither the Punjab nor the Assam nor Madras Government or any other Government except Bengal has thought fit to claim in their original replies because my colleagues have decided to include it. It may be also noted that though the different Governments do not claim any amount for family labour, they with the exception of the Punjab and Assam do claim what they call cost of "extra labour". The figures given in this respect by Mysore and Madras are Rs. 2 and Rs. 2-13-9 per ounce of seed reared. Now it will be remembered that cocoon rearing being a cottage industry generally, a rearer is able to work on from $\frac{1}{2}$ oz. to 2 ozs. in Kashmir and 4 to 5 ounces in Madras and Mysore. The latter figures are arrived at by dividing the total quantity of seed issued in the year 1937-38 by the number of families engaged in silk worm rearing and mulberry cultivation. In the multivoltine areas of Mysore and Madras if we take the average of the seed worked upon by a rearer as 4 ounces it has to be distributed over 7 rearings in the case of Pure Mysore and 5 rearing in that of cross-bred. How, therefore, a rearer in Mysore or Madras and his family require extra labour to the extent claimed by the Madras and Mysore witnesses besides the rearer's own family labour I fail to understand especially when the Punjab rearer needs no extra labour for working on one to two ounces of seed. So far as I have made personal enquiries in the different villages, I visited in Mysore and Kashmir, I failed to find that the rearer had been employing any extra labour at all in all the cases in which I interrogated him personally.

55. Again, as regards the cost of production of silk which my colleagues have fixed, I consider it much higher than the evidence

before us would support. Take, for instance, the comparable areas of the Punjab and Jammu. In the Punjab, the cost of production of 1 pound of charkha silk is Rs. 4-5-6 per pound as given by the Punjab Government themselves. My colleagues, however, would give the Punjab Government much more than the Punjab Government's own figures by fixing the average fair selling price for the whole of India at Rs. 5-4-8 per pound for charkha silk. The cost given by the Punjab Government for filature silk is still lower, viz., Rs. 3-11 per pound. My colleagues would, therefore, give the Punjab Government two rupees per pound of silk more than the Punjab Government themselves have thought fit to claim. The contiguous area of Jammu, however, gives its cost of production as Rs. 6-7-2 per pound, i.e., an increase of 75 per cent. over the Punjab figures and the Punjab figure is not the figure of a private producer but that of Government demonstration filature where costs are always much higher than in the case of private enterprise. I would, therefore, prefer the Punjab figure of Rs. 3-11 per pound to that of Kashmir filature silk.

The Mysore Government has given figures even much higher than Jammu figures, viz., Rs. 7-7-4 per pound. Even allowing for the fact that the Mysore filature is not working to its full capacity as an economic unit, the difference, between the Punjab filature silk figure and the Mysore filature silk figure is so great that there must be an error somewhere—Rs. 3-11 in the Punjab as against Rs. 7-7-4 in Mysore. The figure for filature silk at Kollegal which is contiguous to Mysore is Rs. 5-15-10 per pound. Following my colleagues, if I take the cocoon price as I have fixed above, namely, 3 annas 2 pies per pound the cost of production of raw silk would work out as under:—

		Charkha.	Filature.
Kashmir	. . .	...	4 14 1
Jammu	. . .	...	4 13 6
Punjab	. . .	3 11 6	3 1 0
	1st quality.	2nd quality.	
Mysore	. . . 4 2 0	3 8 3	...
Madras	. . . 3 11 0	3 13 6	4 13 4-2
Bengal	. . . 4 10 11	3 3 10-4	4 6 9-7
	(Tana).	(Varna)	

These would give a very different fair selling price from that fixed by my colleagues to base their tariff protection scheme upon. I cannot say whether I am right and they are wrong but I have given these figures in order to show that the data before us is capable of being interpreted differently by different persons.

56. It may be observed here that in their calculations in fixing the fair selling prices of raw silk, my colleagues have deducted from the costs the value of silk waste at the rate of 4 annas per pound. Where we are in the region of conjectures, I submit my conjecture is as good as anybody else's. In 1926 Mysore charkha silk waste was fetching Re. 1 per pound and though the prices have fallen,

considerably on account of the low quality of the silk waste from India which had been found full of impurities and other defects the prices are now much higher as shown by the fact that Kashmir for her best quality filature silk waste which forms the bulk of her exported waste is now getting as much as Rs. 1-3 per lb. *ex-factory*. A spun silk mill has also been started in Mysore which reports that it is buying charkha waste at 6 annas 11 pies per pound and Mysore filature waste at 10 annas 9 pies per pound. We were told by the Managing Director of the Kollegal Silk Filatures Limited that though he had received an offer of 12 annas per pound for his silk waste, he was holding out in expectation of receiving Re. 1 per pound. I would, therefore, put a considerably higher figure for the price of silk waste than my colleagues have done. I would consider 7 annas per pound as not too high. This would further reduce the production costs of silk which I have arrived at above. Again, how utterly conjectural the figures for the different costs of production must be will appear if we take the instance of the costs of production of the mulberry leaf which constitutes about two-thirds of the total costs of production of cocoons. Now the annual costs of cultivating an acre of mulberry on dry land was given at the last enquiry by the different Governments as shown in Table XXIII of the last Tariff Board Report. It will be seen that the costs are distributed over four items: (1) cost of cuttings, (2) manure, (3) labour, (4) rent or assessment. Mysore gave Rs. 5-8 for cost of cuttings. Now it is well known that mulberry cuttings cost nothing. Indeed the prunings which can be planted as cuttings are used when dry as fuel. Madras, an area contiguous to Mysore, considers this item as costless, nor does Bengal or Bihar claim any costs on its account. Again while Mysore charges Rs. 25 on account of item (2) manure, the contiguous area of Madras charges only Rs. 5, one-fifth of the Mysore charges. Mysore charges Rs. 31 on item (3) labour while Madras charges only Rs. 8. As regards item (4) while Mysore claims Rs. 1-12, Madras claims Re. 1 and this may well be because the two areas are under two different Governments. While the total costs for Mysore come to Rs. 63-4, those for Madras come to Rs. 14 only, much less than one-fourth the costs claimed by Mysore. It can hardly be contended that this enormous difference in costs of two contiguous areas is due to different climatic, economic and social conditions and it follows that the Mysore figures are gross exaggeration. The Tariff Board's opinion on the above figures for Mysore and Madras was stated as follows:—

“ We are inclined to think that Mysore costs are overstated while Madras costs under these heads (labour and manure) may be too low.”

Now let us take the figures given by Mysore and Madras at the present enquiry. Mysore raises the number of items given at the last enquiry from 4 to 7. For cuttings it now charges nothing instead of Rs. 5-8 at the last enquiry. For manure it charges only Rs. 18-12, as against Rs. 25 given at the last enquiry and

makes up for this moderation by charging Rs. 38 on the remaining items what were presumably called compendiously "labour"—item (4) at the last enquiry and charged Rs. 31 to bring the total to Rs. 50-12 as against Rs. 63-4 at the last enquiry. As regards Madras at the present enquiry, presumably because the Tariff Board had found its figures too low at the last enquiry, it raises the number of its items from 4 to 9, charges Rs. 7-8 on the head of manure instead of Rs. 5 at the last enquiry, Rs. 1-9 for land assessment instead of Re. 1 at the last enquiry and for the other items (compendiously called labour at the last enquiry and charged only Rs. 8), Rs. 13-8 with an additional new item on account of initial cost of Rs. 3 making up the total of Rs. 25-9, i.e., Rs. 11-9 more than at the previous enquiry. Space forbids consideration of the other figures furnished by the different applicants for protection. The figures already given are sufficient to show that conclusions based on such figures can hardly be anything but conjectures.

57. Speaking of the American tariff on wool in connection with the principle of equalisation of costs, Prof. Taussig, after pointing

✓ Calculation of costs of production in the sericulture industry of India futile and impracticable.

out how the cost figures vary within even the same wool producing areas says "such differences in costs, even allowing for the severe price fluctuations in those areas, indicate the futility of trying to establish a rate of duty to equalise the cost of wool in the U.S.A. and in foreign countries (Taussig—Some Aspects of Tariff Problem—page 473). Even, therefore, if the costings given by the different Governments and individuals are reliable, in my opinion it would be futile to base any calculations of a cost of production which would apply to all the different areas; and when to this difficulty you add the difficulty of fixing any dependable figure for foreign costs, it would, I think, be readily admitted that to attempt to base a scheme of protection on the cost of production relating to a side line industry of agriculture is not likely to lead to any useful results. In my opinion, in the circumstances stated above, an attempt to fix a "remunerative price" for all the different rearers in the different areas would be far more difficult than to fix figures of cost of production. The last Tariff Board fixed 5 annas as the 'remunerative price' for a pound of cocoons for all India. The Government of India as well as the Indian Legislature, however, on the self same data as was relied upon by the Tariff Board, declined to accept the Tariff Board figure of 5 annas and reduced it by 20 per cent. In fact that it is not possible to fix a basic remunerative price for the cocoon producer all over India appears to have been tacitly admitted by the last Tariff Board themselves. On page 152 of their report they state "It is the cocoon which is the marketable product of the combined operations of mulberry cultivation and silkworm rearing. When the price of cocoons falls below the figure given as the cost of producing them, the effect upon the rearer is not that he suffers a cash loss, for his outlay has been in the main his own labour and that of his household,

✓ but that he gets a lower rate of remuneration for his own work on his own farm. The answer to the question whether this return on a price of 5 annas for cocoon is fair depends on a number of considerations related to the agriculturist's living cost, his standard of living, its adequacy for efficiency, etc., which we could not investigate without protracting our enquiry". The present Tariff Board has been equally unable to estimate the effects of these multifarious factors which must be evaluated if a 'remunerative price' or a fair selling price has to be fixed applicable to the whole country; and if this 'remunerative price' has not been or cannot be ascertained, it is obvious that a scheme of tariff protection based on such imperfectly ascertained 'remunerative price' is bound to be imperfect. Again, granting that this unassurable 'remunerative price' can be and has been assured by the figure given to it by my colleagues, viz., As. 4-6 per pound, I ask how is it going to help the sericulturist, even him who can be expected to consider it as "remunerative"? It is said that if the sericulturist is assured of this price it would induce him to continue and increase his production. Apart from the assumption that cocoon production is susceptible to the application of the same economic criteria in all the sericultural areas as apply to other commodities in regard to their costs of production and fair selling prices, the history of the sericulture industry in India, as stated above, amply proves that no amount of 'remunerative price' which is the automatic result of the prevailing market prices has ever been able to induce the Indian sericulturist to improve the quality of his product by putting more care and attention in his work or increase his production of cocoons if other crops than mulberry give better returns than sericulture. At the last enquiry in 1933 the Mysore Director of Industries stated that unless the cocoon producer in Mysore gets a price of 8 annas per pound for his cocoons he would cease production. At the present enquiry the same gentleman has stated that 4 annas per pound of cocoons would be sufficient to induce the Mysore cocoon producer to continue production as in fact he has been doing for the last so many years and I need not repeat the other facts which show that there is no such correlation between the basic price for cocoons applicable to the whole of India and the production of cocoons in each individual sericultural area.

58. In recommending tariff protection for a semi-agricultural industry like sericulture it is forgotten that tariff protection produces its intended effects only under certain conditions as the failure or rather the alleged

✓ Conditions required for tariff protection to be effective.

failure of the last protective scheme abundantly proves and the utter failure of tariffs to protect American beet sugar in 1924 amply demonstrates. It is claimed that the method by which tariffs protect an industry is that they check imports and thereby ensure a market to the industry at home and that by raising the price of the home product they ensure a larger remunerative price to the home producer. The American experience with regard to the sugar tariff and our own

experience with regard to the last tariff scheme relating to sericulture show that, under the conditions prevailing with regard to sericulture and those which prevailed with regard to beet sugar in America, tariff protection is absolutely impotent to achieve any of the aforesaid two objects. (In India the last tariff protection has neither checked foreign imports nor has it been able to bring greater remuneration to the Indian producer by raising the price of his product.) In fact during the quinquennium, though the quantities of the imports remained the same, the prices of silk both for the imported as well as the home product have nearly halved. Same was the case in America with regard to beetroot sugar. The explanation of this state of affairs is simple. The last protective scheme ignored the crucial fact that it is the prices of silk substitutes that govern the prices of the indigenous silks as much as those of the foreign silks. Secondly, it ignored the nature and extent of the foreign competition such as I have described in the last Chapter. In fact the only Indian silk which has been affected and could possibly be affected by the present competition of foreign silk is the filature silk of Kashmir the prices of which also are regulated by the prices of silk substitutes. Japan produces and imports into India enormous quantities of silk substitutes, and even if its cost of production of real silks be appreciably higher than those of Kashmir, it can afford to bring its price of real silk down to the level demanded by the competition of silk substitutes. If we add to this circumstance the influence of the large stocks of Japanese silks which have accumulated on account of the reduced purchasing power of the consumer all over the world, and especially in America and India, the explanation of the Japanese imports into India of real silk being stationary and its price being halved is clear.

59. So long, therefore, as the competition of silk substitutes lasts, tariffs will fail to raise the prices of Indian silks to the level demanded by the Indian producer. It

Tariffs will not lead to more efficient methods of production by ensuring higher prices than present prices.

is, however, said that if the Indian producer gets a higher price for his silk than he is getting to-day he will be enabled to make improvements in his methods of production and thereby reduce his cost of production. Granting that by the indiscriminate benefits of the tariffs, which like the rain, rain their benefits equally on the bad and the good, the efficient and the inefficient, the Indian producer will adopt more efficient methods (and this assumption is not borne out by the history of the sericulture industry in India) it is pertinent to enquire what is the amount of benefit which would effect the desired consummation? The cocoon producer in some areas will get an increased price ranging from one anna per pound of his product to zero, and in other areas would actually be working at a loss under the tariff protection scheme proposed by my colleagues. Even the cocoon producer who would stand to gain the greatest benefits from the tariffs, would hardly get more than about Rs. 10 per year by the expected increase in his price which the tariff would bring about, considering the fact that in most cases he does not produce or even cannot produce more

than about 2 maunds of cocoons. And how would that increase of Rs. 10 in his income per year make the rearer put more care and attention in cocoon production considering that his main occupation on which his livelihood depends would make a far stronger appeal to him for all the care and attention he can spare than worm rearing and mulberry cultivation. Rs. 10 would certainly not be invested in buying improved machines to be used for sericulture because the agriculturist needs no such machinery. Nor would any great part of this Rs. 10 be utilised for buying more of the better seed because the quantity of seed reared by him would be restricted by the area which he can afford to devote to mulberry cultivation, and the amount of labour of his wife and family which he could conveniently utilise. I should rather think that Rs. 10 would be devoted far more to satisfying his wants which appeal to him and to his wife and children more vividly and more urgently than improvements in his cocoon producing methods. I need say nothing about the rearer who would get a lesser selling price for his cocoons than what he has been claiming as a fair selling price and therefore presumably working at a loss. Again, so long as the present marketing organisation under which the rearer and the reeler have to sell their products lasts, it is doubtful if the benefits of protection will ever be allowed by the Sowcar and the Mahajan to permeate to them. "Whatever profit" complains a Malda rearer, "there is to be had in the rearing business is now appropriated by the middlemen." And the complaint is not confined to Malda. Almost throughout the country, the primary producer, we have been told "does not get a fair deal". During the quinquennium the prices of silk have fallen greatly and still as in the days of Lefroy so to-day "the earnings of the actual craftsmen in many places are absurdly low and the middlemen and employers make gigantic profits: if the weaver could sell direct if he could get his own materials his condition could be bettered".

(I would therefore conclude that even if tariffs increase the price for the primary producers, the rearers and the reelers and even if the benefits of that increase are allowed to permeate to the primary producer by the numerous mahajans and middlemen who have under the present marketing system great facilities for intercepting them to themselves, they will not bring about improved methods either of rearing worms or reeling the cocoons.)

60. While tariffs will not bring about the desired consummation, they are bound to harm the interests of the handloom weaver

Tariffs will harm the weaver.

who is of course the main consumer of the Indian silk, as since India lost her former export markets she has hardly been able to recover any. The extent of the loss to the weaver can be fairly estimated by comparing the figures of silk piecegoods woven by the Indian weaver a few years ago and those of the quantities which he weaves now if relevant figures are available as would appear from the statement of the Surat weavers who have stated before

us that the production of silk cloth woven at Surat has declined from one crore of rupees worth of cloth to rupees twenty lacs.

Apart from the harm the tariffs would do to the weaver on account of the necessity which they involve for imposing compensatory duties on silk substitutes and piecegoods made out of them, the harm they would do to the poor and middle class consumers' interests in India, is and would be enormous, as can be seen from the quantities of silk substitutes and fabrics made out of them which are consumed in India (*vide* Tables LXXXIX, Table XC and Table regarding imports of silk yarn made from silk waste and noils given in paragraph 62 of the Majority Report).

61. Even if tariffs lead to a greater production of silk in India by restricting imports, so long as there is no export market for it there is no chance for the silk producer to obtain better prices for his silks than he is obtaining to-day, for the rich people who are generally the main consumers of silk goods have always been and always will remain a very limited number. In fact, the demand for silk even though it is an article of luxury has shown itself in India highly inelastic as appears from the fact that the consumption of raw silk (imported and Indian) has been remarkably steady for a whole generation. It was not much below the present level when prices were twice as high as at present nor did it become very much larger in consequence of an unprecedented fall in prices. Wearing of special classes of silk fabrics is very closely bound up with the social and religious customs of India especially in Madras and Bengal and in the Indian States and a certain minimum demand for silk goods, particularly of Indian silk goods will remain for a long time to come unaffected by the availability of cheap silk substitutes which are largely consumed by the poor and middle class Indians. (If, therefore, more silk is produced in India than to-day by raising its prices and export markets are not available for it,

there is bound to be a glut of silk in India entailing disaster to the industry.) The history of the silk industry in China and Japan for the last ten years may furnish instructive lessons for India. If export markets are not available, the only means of finding consumption for the Indian silk is to develop the home market and the home market cannot possibly be developed (looking to the competition of rayon and the reduced purchasing power of the Indian consumer), by raising the prices of silks both Indian and foreign. The only way of increasing the home demand is, therefore, by lowering the prices of silk and tariffs will neither do it nor are they intended to do it by their advocates. I have, therefore, no hesitation in coming to the conclusion that tariffs will do no good to the primary producers and are bound to do positive harm to the weaving industry and to the interests of the poor and middle class consumers of India.

62. The effect of raising the duties on the revenue needs of the country are also bound to be adverse for the more you check the imports the less revenue you are likely to get. — Imports from Japan have declined greatly and had it not been for the distressed Chinese exports, the revenues would have shown an alarming decline. Under the last protective scheme, it is true, imports have remained stationary, but if we compare the prices of silk during the quinquennium with those obtaining before it, we find that the *ad valorem* duty obtained by the Treasury from silk imports is considerably lower than that obtained by the Treasury during the quinquennium preceding the present one. The latest customs revenue return shows that in the current financial year during the 9 months ended December, 1938, customs duty collected on imported raw silk amounted only to Rs. 19.93 lakhs as against Rs. 33.58 lakhs in the corresponding period last year and that on "silk yarn and thread" and "silk fabrics," to Rs. 10.49 lakhs and 40.73 lakhs respectively as against Rs. 23.99 lakhs and Rs. 44.28 lakhs in the corresponding period last year. On the basis of these figures the customs revenue realisations for the current year on the aforementioned three items are likely to fall short of the previous year's figures by 32 per cent., 54 per cent. and 10 per cent. respectively. Figures of customs revenue derived from the imports of these articles during the last few years will clearly show that the law of diminishing returns has begun to operate in the case of all of them and particularly in the case of raw silk and spun silk yarn (*vide* tables given below).

Customs duty collected on the imports of raw silk (excluding silk waste and noils) and silk cocoons.

Year.	Amount of duty collected. Rs. (000)
1934-35	30.71
1935-36	33.45
1936-37	29.04
1937-38	38.99
1938-39 (9 months ended December, 1938) . . .	19.93

Customs duty collected on the imports of spun silk yarn.

Year.	Amount of duty collected. Rs. (000)
1934-35	} Figures are not available separately for spun silk.
1935-36	
1936-37	
1937-38	
1938-39 (8 months ended November, 1938) . . .	24.51
	4.02

The picture will not be complete if I do not make a mention of the duty collected on art. silk goods which is an allied item though

the protective duty on it is rightly or wrongly not considered to be a compensatory duty in the interests of the sericulture industry. Since the grant of protection to the sericulture industry in 1934 the customs duty collected annually on artificial silk piecegoods has amounted to:—

	Rs. (000)
1934-35	1,02,94
1935-36	1,36,91
1936-37	1,82,08
1937-38	1,70,33
1938-39 (9 months ended December, 1938)	67,57

The fall in the current year's revenue is thus catastrophic, being 80 lakhs of rupees, and shows that the incidence of the duty is proving heavy and the revenue returns in consequence show a serious decline.

63. It may, however, be said that the above considerations should have no weight if the three conditions laid down by the Fiscal Commission in paragraph 97 of their report are satisfied. My colleagues consider that all these conditions are satisfied in the

case of the sericulture industry in India. I, however, differ. As regards the first condition, (there is no doubt that the Indian sericulture industry has immense natural advantages for its development in India. In fact the natural advantages of the industry are so very great and pronounced that one is forced to the conclusion that the second condition of the Fiscal Commission is not fulfilled by the industry. The second condition of the Fiscal Commission requires that the industry protected must be such that it cannot exist without protection, much less develop rapidly. The last Tariff Board found that what the industry required for its existence and development was not so much natural advantages over its rivals but re-organisation which could not be effected without state aid on account of the "grave jeopardy in which it was placed by the then world depression and the then prevailing unfair foreign competition" and I perfectly agree with that finding of our predecessors regarding the world depression. The world depression spoken of by them has hardly disappeared in the present times but the industry has already been able to adjust its costs of production to the world conditions and as regards the effect of the unfair foreign competition neither my colleagues nor myself have been able to come to a definite conclusion as regards its effect on the Indian industry. This much, however, is certain that world depression cannot be cured by tariff protection and if lack of state aid to enable the industry to re-organise itself is the sole ground for extending tariff protection to the sericulture industry of India, that ground is not covered by the second condition of the Fiscal Commission. The protection which an industry is entitled to, to save it from the attacks of unfair foreign competition is not substantive protection such as contemplated by the Fiscal Commission in its

✓ second condition, but would be what is called 'safeguarding' such as is envisaged not under condition 2 of the Fiscal Commission but under Sections 4 and 8 of the Indian Tariff Act of 1934. I am therefore of opinion that if it is held that there is no actual unfair foreign competition, there is no case for tariff protection, such as is envisaged by the Fiscal Commission, on the basis of substantive tariff protection or any other basis. That indeed was the conclusion at which our predecessors arrived at the last enquiry. In paragraph 187 of their report they say 'It is *only* in so far as the present crisis in the industry has been caused by such special matters as the bounty given by the Chinese Government to encourage the export of raw silk and the exceptional increase of cheap imports encouraged by the fall in the value of the Chinese and Japanese currencies that we consider that the industry is entitled to claim the temporary shelter of a protective tariff'. I emphasise the third word '*only*' in the quotation. In accordance with this finding of theirs our predecessors recommended protection to the sericulture industry of India purely on a safeguarding basis and not on the basis of substantive protection. This is clear from the same paragraph 187 of their report in which they calculate the measure of protection as Rs. 2-6 per pound which is made up of Re. 1 per pound on account of the advantage to the importer of the Chinese bounties and Rs. 1-8 on account of the advantage obtained by the foreign importer by the depreciated currency of his country. Rs. 1-8 added to Re. 1 would make Rs. 2-8. Our predecessors, however, appear to have considered the lower figure of Rs. 2-6 as sufficient to compensate the industry no doubt in view of its inherent vitality. Again, the last Tariff Board had found that the industry even during the period they were enquiring into had been able to adjust its costs of production to the prevailing economic conditions and since 1933 the industry has made considerable progress in all areas except perhaps in Bengal. As early as 1916, Lefroy after a painstaking enquiry had come to the conclusion that the industry in Kashmir was so well-organised that it was "in no need of anything" and it would hardly be possible for the Kashmir Government to contend that since 1916 they have not been able to make any progress. Indeed from our enquiry on the spot in Kashmir we have been able to see everything which confirms and nothing which contradicts Lefroy's opinion regarding the Kashmir industry so far as organisation is concerned. Under the zealous guidance of the present French Director of Sericulture in Kashmir who by establishing personal contact with the rearers and the reelers and with the unstinted financial aid of the Kashmir Government, the Kashmir industry has been brought to a pitch of efficiency which can enable it to contend with any normal foreign competition and if it suffers under any disadvantage it is, as I have already said, the disadvantage which all producers under a system of state monopoly suffer in their competition with private enterprise. Tariffs, far from removing this disadvantage of the Kashmir industry, are more likely than not to accentuate it. Mysore also like Kashmir

had been able to adjust its costs of production, even before the grant of tariff protection in April 1934, to the prevailing economic conditions and it cannot be contended that the grant of the tariff protection has in any way put the Mysore industry under any disadvantage. Indeed the evidence on our record proves that very creditable progress has been made by the Mysore industry during the quinquennium. Pebrine has been brought under control and cocoon production costs are reduced by at least thirty per cent. Market for silk waste on which the prosperity of the silk industry depends is being rapidly recovered and prospects for increased filature construction are assured and there is nothing which can hinder normal development. The sole cause of the Mysore industry's discontent against the existing tariff protection appears to me that tariff protection has not brought to the Mysore industry the boom prices of the post war period. The same remarks more or less apply to the Madras industry. Though the Punjab production is small, the Punjab industry, in my opinion, provides the touch stone by which the justice of the prevailing cry for tariff protection can be tested. During less than two years of its revival the Punjab industry has been able to show costs of production both for cocoon and silk which, making all reasonable allowance for the small cost of mulberry leaf in the Punjab, proves how little founded is the claim for substantive tariff protection such as is envisaged by the second condition of the Fiscal Commission put forward by the different areas. The Punjab silk producer is said to pay about 4 annas per pound for his cocoons, *i.e.*, about the same price (allowing for the small cost of leaf in the Punjab) as Mysore and the other areas and still Punjab to-day in spite of its late start, has been able to produce silk at Rs. 4-5-6 for charkha silk and Rs. 3-11 for filature silk, figures far below the admitted fair selling prices of the foreign silks and showing that either the Punjab producer has far more than the average efficiency in India or that the non-Punjab Indian producer is extremely inefficient. In my opinion the non-Punjab Indian producer in his zeal for proving the need of tariff protection and more tariff protection has been led into proving too much. The fact that the Punjab production is much smaller than the production in other areas, in my opinion, even if it were not beside the question, lends all the greater validity to my conclusion, for the costs of production of a small producer who has come into the field recently are likely to be greater than the costs of production of old established producers producing on a larger scale. Conditions in Bengal are different from those in the other areas. The Bengal rearer and reeler have had long traditions of high silk prices and the peculiar facilities which the Bengal rearer and reeler have of turning to a crop more paying than mulberry cultivation and silk worm rearing such as jute tend to weaken the incentive which the Bengal rearer and reeler can have to continue cocoon or silk production. Tariff protection, however, even if it can ensure higher prices to the Bengal producers cannot be recommended for Bengal alone. I, therefore, conclude that the substantive tariff protection such as is envisaged by the second

condition of the Fiscal Commission is not needed and that given normal conditions of competition such as are envisaged by the second condition of the Fiscal Commission, the industry is such that it would develop and develop as rapidly as can be desired without tariff protection. As regards the third condition of the Fiscal Commission that the industry must be one "which will eventually be able to face world competition without protection", this condition, in view of my finding as regards the second condition, would not need to be considered in the present connection, nor could it have been relevant in the enquiry by our predecessors in view of their finding on the second condition laid down by the Fiscal Commission. If, however, a finding be needed with regard to the third condition, my finding would be in the negative.

64. Development in the sense of increased production, as I have already stated, far from doing any good to the industry will lead to disaster if over-production results. The home market for the Indian charkha silk has been stationary for a generation and more and is incapable of being increased to any very great extent in the near future. If, therefore, the industry is to be further developed, an export market for its product is absolutely essential and how can the Indian charkha silk have an export market when in the export market it "has no use" due to its defects, its unsuitability for the European and American machinery, and its disproportionately high price compared with the prices of silk substitutes. The defects, however, are removable by greater care and attention in their work on the part of the rearers and the reelers, the silk is capable of being made suitable to be used on the European machinery by being reeled in filatures instead of on the primitive charkha, its lack of commercial cognisability is capable of being removed by the establishment of reliable conditioning houses and its capacity to withstand successfully the competition of silk substitutes can be largely increased by lowering its costs of production and so its fair selling prices. The costs of cocoon production can be lowered by more than 50 per cent. if tree mulberry plantation is encouraged and the rearers are taught more careful methods of worm rearing. The costs of reeling can be reduced considerably if filature construction is encouraged and larger market for the silk waste is made possible by better removal of the defects and impurities of the Indian silk waste. (Lastly considerably larger remuneration to the rearer and to the reeler could be assured if the ubiquity of the middleman can be reduced by the institution of the Co-operative Society on the Japanese model so far as conditions prevailing in the different sericultural areas would allow.) All these methods and means have been employed by the successful sericultural countries of the world for developing their respective sericulture industries and it will be wise to benefit by their experience and follow them by adopting the methods they have followed and rejecting the methods of tariff protection which they have rejected if our industry is to be developed and a large market for its product is to be assured. High prices made possible by high tariffs instead of bringing about

all the aforesaid improvements will retard them by restricting the use of silk by the weaver as I have already attempted to show and as is amply proved by American experience with regard to the American wool industry. (Of the three textiles, cotton, silk and wool, cotton and silk are free of import duties in the United States of America while wool has to pay a heavy duty.) The result has been that while the cotton and silk manufactures of the United States of America can compete successfully with the whole of the world, the woollen manufacturers of the United States of America (in many branches of the woollen industry to which the peculiar advantages of the American system of manufacture are not available for neutralising the effects of the high tariffs on account of their raw material being made more costly by the high import duties on wool than it would have been but for such duties) have been unable to dispense with the crutches which a mistaken protectionist policy has been bestowing on them for the last more than half a century to the detriment of the American consumer of woollen goods and of the wool and woollen industry of the United States of America. Tariff protection, however, as has been well pointed out, is not the only means of developing an industry. "Industries can be fostered and developed even under free trade, industries can be fostered by state aid and industries can be developed by Government pioneering." Both state aid and Government pioneering have been already resorted to in varying degrees within the several sericultural areas but nowhere has the problem been tackled in the manner it is tackled in Japan—the most successful sericultural country of our time. A study of the Japanese methods is said by Lefroy to be the key of the problem of the Indian industry and I proceed to indicate to what extent the Japanese methods can be followed in our own country with such modifications as the varying conditions of the different sericulture areas require.

CHAPTER VI.

Development of the Indian Sericulture Industry.

65. Tariff protection to the Indian sericulture industry, as I have attempted to show, is neither needed by the industry to protect it against normal foreign competition nor is it practicable nor is it desirable in the interests of the industry. I and my colleagues are unanimous that the development of the sericulture industry of India is required in the national interest. I, however, differing from my colleagues, have come to be of opinion that in the economic conditions at present obtaining in India and the world at large, the greatest hindrance to the development of the sericulture industry is the disproportionately high prices of silk compared with the prices of silk substitutes and that in any country where the existing silk prices cannot be lowered proportionately to the level demanded by the existing prices of silk substitutes, the sericulture industry cannot survive. Granting that this is so, it may be asked how is it in the national interest to develop sericulture in India?

Why should sericulture be developed?

66. Silk, which is the product of sericulture, is considered in all countries and from times immemorial as "the Queen of textiles". Summarising the evidence before the Committee appointed by the Board of Trade in England in 1916 to report on the position of the Textile Trades after the War, the Committee said "the silk industry represents the high water mark of technical attainment among textile industries. In all countries it has been fostered and protected for this reason.....Silk lends itself to the production of artistic designs which the other textile fibres cannot." It has been represented to us that it would be impossible to maintain the highest standard of technical training, knowledge and skill in other textile trades if the higher branches of silk industry were allowed to die out in this country. This is one important reason, we are told why the decline of the British silk industry is to be deplored. Witnesses suggest that the United Kingdom should maintain the silk industry for the sake of its more flourishing sisters on the ground that it represents the crown and apex of technical attainments in textile and that the other branches must suffer from its decay". (Vide Cd. 9070, 1918 page 81.) And the Committee came to the unanimous conclusion that "sericulture should be encouraged under Government supervision in those portions of the Empire particularly in India and Africa where conditions are suitable".

67. The value of silk to art need not be dilated upon. Its commercial value can be judged from the fact that the silk thread produced annually in Europe is estimated to be worth thirty millions of pounds sterling and in Europe and Asia combined about seventy millions and if we add to this seventy million pounds the

Commercial value of silk.

value of silk consumed in Japan, China and other countries of which we have no statistics, the commercial value of silk will be apparent.

68. A French authority has estimated the quantity of silk for Germany's war requirements at 6,000,000 kilos a year during the war time. According to the British Committee above referred to, the war requirements of the British Empire are not less than

Value of silk for military purposes. those of Germany. India is the only country within the British Empire which has resources to satisfy these military requirements of the whole British Empire. Reliable evidence was also placed before us to the effect that as silk substitutes were cheaper than silk, the former keenness of the military authorities for real silk was waning and this furnishes another reason why if sericulture industry is to be developed, the prices of silk must be lowered.

69. The attempts of the different countries to develop sericulture in the United States of America, France, Italy, Turkey, Russia, the Balkan countries and England even in James I's time not to speak of China and Japan and the great sacrifices which all these countries have made in the past and are making at present are fully described in the various text books on silk and need not be described here.

70. Whatever may be the chances of successful sericulture being carried on in other countries after the advent of the silk substitutes, the natural resources of India for the development of the industry are such that it would be truly deplorable if they are allowed

Natural advantages of sericulture in India. to remain unutilised. "There can be no question that in India we are, in our sericultural wealth, more than equal to France, Italy or any other country in the world, being in some respects better off than China for we are not confined to one species of silk worm nor two. India has the greatest silk producing fauna in the world, both mulberry-feeding and oak-feeding moths abound."

(Vide Sir Thomas Wardle's Report on the Royal Commission and Government of India Silk Culture Court, 1886.) It can, I think, hardly be contended that such immense and valuable resources of India can, in the national interest, be allowed to remain unutilised and run to waste. Complaint was made before us at Bangalore that the Government of India are indifferent to the development of the industry. "In the course of our interview at the recent Simla Deputation", a witness has given us in writing "the Chairman of the Sericultural Committee of the Imperial Agricultural Research Council plainly said that in his view it would be a mistake "to bolster up" the Indian sericultural industry which was unable any longer to hold its own. His idea seemed to be that artificial silk was steadily displacing natural silk and that the latter was bound to go to the wall. Whether we agree with this opinion or not, the fact cannot be ignored that it has been put forward from an authoritative quarter". Now if the want of sympathy of the Government of India complained of really

exists or is likely to continue, it augurs ill for the sericulture industry of India, for nowhere has the industry ever prospered and developed without active Government encouragement and assistance *vide* Tariff Board Report, 1933, paragraph 35. Capital in India is generally considered to be shy and if filature reeling is to be developed, large investment of capital would be necessary and nothing would check capitalist enterprise so much as the popular fears, real or imaginary, that the active sympathy and power of the Government are not behind it in its contest with foreign unequal competition. I, however, believe that the complaint is based on some misapprehension for the alleged want of Government sympathy is patently inconsistent with the successive expensive Tariff Board enquiries which the Government has ordered within the last six years. In any case, development of industries is now a provincial subject under the entire control of popular Governments and popular legislatures and they are not likely to allow the most important of the cottage industries on the development of which according to Mahatma Gandhi depends the salvation of India to suffer for lack of funds or Government sympathy. The present Finance Minister and the Director of Industries of Bengal realising the vast potentialities of the Bengal silk industry and the fact that what an Indian State like Mysore with its comparatively poor soil has been able to achieve is not beyond the resources of a province with the history and traditions of Bengal have stated that the Government of Bengal are prepared to develop the industry, "at any cost". The Punjab Government appears to be equally in earnest and even the Bombay Government has provided in its last budget a grant for exploring the possibilities of sericulture in the Bombay Presidency. Lefroy laid great stress on what single individuals whether they be Rajas or Zamindars or popular leaders, can do to develop the industry and how right he was in stressing the influence of single individuals can be seen (in spite of the attempt before the Board of certain Mysore witnesses to minimise the progress) from what Mysore has been able to achieve during the quinquennium under the able and energetic guidance of Sir Mirza Ismail, the present Dewan, with the active and enlightened sympathy and support of His Highness the Maharaja of Mysore. "The industry in Kashmir" said Lefroy in 1916 "is in no need of anything". Our visit to Kashmir has convinced us that the only thing which the industry lacks is an outside market. Funds have been provided by the State on a lavish scale, perhaps too lavish for the industry to be economic and the present Director of Sericulture in Kashmir, in his zeal for adopting the latest European methods and machines has perhaps over shot the mark as he himself admitted when pointed out the unsuitability of the jette bout and the machine brush to Indian conditions. Every sericultural area, therefore, in my opinion is fully alive to the desirability of developing sericulture within its territories and if they all appear to pin their faith on tariff protection it is because they have failed to grasp what tariffs can and what tariffs cannot do for the development of the industry and

the imperative need of lowering the price of silk by lowering the costs of production.

71. If I have read the situation aright that tariff protection by increasing prices will put the industry at a greater disadvantage

Methods of successful sericultural countries show that Government aid is essential for developing sericulture.

than it would be without tariff protection in its contest with silk substitutes and thereby hinder its development instead of helping it, it is obvious that if we want to develop the sericulture industry in India, we should follow the methods of other successful sericultural countries which have not resorted to tariff protection. Speaking of the silk industry of India, Lefroy wrote in 1916 "And the key to the whole business, the factors of success in Japan, is at present wholly unknown to us" and this applies as much to sericulture as to the silk industry in general. Since Lefroy wrote, many Indians have visited Japan and other successful sericulture countries of the world and have studied on the spot the factors of success in all these countries. We have also available to us official and non-official publications relating to all these countries including Japan, giving us much valuable and reliable information about these factors of success in the different sericultural countries of the world and the one definite and indisputable conclusion which emerges from this information is that state aid in different directions varying with the different needs of each individual country is an absolute *sine qua non* of success in sericulture. As I have said above, our predecessors found, as I have found, that our natural advantages being what they are, the industry requires no substantive protection under normal conditions of foreign competition and that what our industry does require for its increased development is reorganisation in all its branches so as to enable it to increase its profits not by obtaining high prices but by reducing its costs of production by cheapening mulberry leaf, eliminating loss in cocoon production, improving the efficiency of its reeling methods and by introducing some degree of method and system into its marketing which would enable the primary producer to get the remuneration which the price paid by the consumer (the weaver) would fairly entitle him (the primary producer) to get without the present unfair and unreasonable interception by the Sowcar and the Mahajan. Indeed, the sole object with which our predecessors proposed tariff protection to the industry was to afford the industry time during the period of the "unfair" competition from China and Japan to enable it to reorganise itself so as to carry out all the aforesaid improvements. What, however, was required, as I have already shown was not tariff protection by ordinary duties but tariff protection by prohibitive duties which were at the time our predecessors reported as they are to-day impossible. In fact tariff protection by ordinary duties in the particular circumstances of the case were bound to and did in fact prove absolutely innocuous. Whatever might have been the views of our predecessors regarding the desirability of tariffs to protect the industry against the "unfair" attacks of foreign

competition, they appear to have been conscious of the small usefulness of protective duties to bring about the improvements on which the development of the industry depends. For, speaking of the necessity of subsidising provincial research they say "such bounties, as have been proved by the history of France and Japan in this respect (subsidising provincial research) are a more powerful agency for improving the industry than a general scheme of protection as by these means a direct correlation between reward and endeavour is obtained" (Tariff Board Report, paragraph 200). It is plain that the automatic and indiscriminate benefits of tariffs even if they are available would not ensure the correlation spoken of.

72. Lefroy's Report is as admitted by himself "rather patch work" and is marred by hasty and ill-considered judgments on the work of individuals and bodies working in the same field as himself and suffers from his repeated insistence upon discriminating between the capabilities of European and Indian officers. It, however, contains much useful and valuable material and most of his recommendations for developing the whole silk industry of India appear to me as valid and helpful to-day as they were in 1916. Indeed, the Industrial Commission recommends that Lefroy's Report should be taken as the basis of all future investigations regarding the development of sericulture in India. After giving his general impressions about the deficiencies of the Indian industry such as industrial apathy, want of business enterprise, apathy of the people and their leaders, inability of the Government of India to adopt the autocratic methods of Kashmir, etc., Lefroy makes, under the heading "Legislation" by which he evidently means state aid, the following concrete recommendations:—

- ✓ 1. A bounty on cocoons production or the growth of mulberry.
- ✓ 2. Regulation of the supply of seed.
- ✓ 3. Regulation of rearing diseased worms.
- ✓ 4. Bounty on reeling, whereby better methods can be adopted.
- ✓ 5. Protective import duties on silk goods.
- ✓ 6. Regulation of the sale of silk and non-silk goods.

It will be noticed that Lefroy does not, as indeed he could not with the experience and practice of the different sericultural countries before him, recommend a protective duty on raw silk and in 1916 there was no competition between raw silk and silk substitutes worth mentioning, at least nothing comparable to what it is in the present time. I would press every one of these recommendations on the attention of the powers that be.

73. In France, as Lefroy pointed out, the Government pays a bounty of Rs. 15 per maund of cocoons produced. In Brazil Bounties by local Governments and their Rs. 42-8 per maund of cocoons (probably dry) is paid to the cocoon producer by Government. The Turkish Government

pays a bounty of Rs. 30 per acre of mulberry cultivation and from Rs. 13-8 to Rs. 70 for 30 to 600 square yards of trays used in rearing. These are not experimental bounties but are actually paid for all cocoons produced and even on the full crop. I enquired of almost every responsible witness about the desirability and feasibility of giving bounties to the primary producers, the rearers and the reelers and everyone of the witnesses was of opinion that the administrative difficulties of administering bounties were insuperable. They appeared to me much pressed by the fact that the development of industry being now a provincial subject, the burden of the bounties is bound to devolve on the provincial and state Governments concerned, and by their belief that tariff protection involving as it does a burden on that "shadowy figure", the consumer alone would necessitate no immediate and direct trenching on anybody's pocket. Now it seems to me that it is not beyond human wit to devise a scheme of bounties which need not involve any of the difficulties mentioned by the witnesses. If disease-free seed or at least such seed as may fairly be considered disease-free be given free to the rearers as it is being actually done in Kashmir, the cost of production of cocoon would be lowered by 2-7 pies per pound in the case of pure Mysore cocoons and 3-9 pies per pound in that of cross-bred cocoons. If again mulberry leaf by planting mulberry trees is made available free by the State as in Kashmir, the cost will be further reduced by 2 annas 8 pies per pound of cocoons in the case of pure Mysore and 2 annas 3-5 pies per pound in the case of cross-bred cocoons. The total costs would thus be lowered on the average by 61 per cent. bringing down the cost of cocoon to 1 anna 9 pies per pound as against 4 annas 6 pies per pound fixed by my colleagues. On the supposition that 25 trees will be required for rearing one ounce of seed the cost of planting of these 25 trees distributed over the quantity of cocoons produced would be as follows:—

As the trees would be planted on borders and hedges of fields, on road sides and on waste lands, the cost to the Government concerned by way of land revenue or capital value of land would be almost negligible. The cost of seedlings distributed free given by the Mysore Government comes to 9 annas 7 pies per seedling. I consider the figure to be a gross exaggeration. From my own personal experience it would be quite reasonable to take 3 pies per seedling as the cost. This would give 6 annas 3 pies for 25 trees. Even if we add 100 per cent. further to this cost it would not exceed 12 annas 6 pies. This would give the cost of the concession by the Government concerned per pound of cocoon produced as 3 pies as 50 pounds of cocoons are obtained from an ounce of pure Mysore breed worms. Again 25 trees would supply leaf more than once in the year and this would enable some further economy of expenditure to be effected. I am fortified in my conclusion as regards the cost to the State or Government concerned by the price of leaf which the Punjab Government charges to its rearers which is only 8 annas per ounce of seed reared and

also by the cost of seedlings or cuttings which the Punjab Government has given as nil. Mulberry trees planted on borders and hedges or on waste land may be given a small bounty per tree planted. With regard to the free grant of land it may be contended that the permanent settlement in Bengal would preclude such a concession but I think the difficulty is not insuperable. The zemindar's objection can easily be met by compensation from the Bengal Government who are bent upon developing the industry "at any cost". Suitable safeguards for assuring the proper use of the seed and the land would no doubt be necessary but that would not involve insuperable difficulties. Again, though in the absence of filatures no bounties on reeling are practicable, substantial concessions for encouraging the construction of filatures by duty free imports of machinery, free building sites, etc., may bring about rapid construction of filatures in areas where they at present do not exist. These concessions would not involve any great sacrifice on the part of the Governments concerned.

74. These concessions as direct state aid to the silk producers will be required in varying degrees and at different stages of development in each sericulture area and the best judge of when and what concessions in kind and amount are required will be the Government of the individual sericulture area concerned. Thus mulberry tree plantation is the most pressing need of all areas except Kashmir and the Punjab. So long as the present class of cocoons is grown in Bengal and the improved varieties Nismo and Nistid are even now in the experimental stage in Bengal, filatures will not be required there. The opponents of the machine may contend that filature development would be a step in the wrong direction. Charkha silk, no doubt, has special utilities for the Indian handloom weaver which filature silk cannot supply. If, however, the lost export market for Indian silk has to be recovered and that in my opinion is absolutely essential for the greater and more rapid development of the Indian sericulture industry, better reeled filature silk free from the defects of the hand-reeled charkha silk, (that being the only silk consumable by the delicate and expensive weaving machinery of Europe and America) must be made available. Almost every witness who was interrogated on the point stated that the development of filature reeling will not throw out of employment any appreciable number of charkha reelers as their services would be utilised with perhaps increased remuneration to them in filature reeling. From the cottage to the factory would no doubt in some aspects of the question be a retrograde step, more especially as use of small electric machines is being made increasingly possible in the cottage by the increasing supplies of cheap electric motive power. (The economies of large scale production are, however, not available in the cottage and if these large scale production economies are not available to the Indian producer, he is likely to have small chance of competing successfully in the outside markets with countries like Japan.)

75. Lefroy's recommendations (2), (3), (5) and (6) involve state interference with the liberty of the citizen and the use of what Lefroy calls "the autocratic methods of the Native States". "There is, I think, no doubt that a big industry can be created if the autocratic methods of the Native States are adopted." "The sericulture industry," said our predecessors "is a unique industry, differing from other industries in this sense that in its modern form it cannot stand without Government organisation and assistance" and Mr. Norton Breton whose authority our predecessors cited said as follows:—

State interference necessary.

"Why should the Governments of these countries be so concerned in the establishment of sericulture and why should no private enterprise do it? I am all out for as little Government interference as possible but in the case of sericulture, it is necessary to have the most stringent rules and regulations in regard to the industry if it is to prove successful. Silk worms are prone to infectious diseases and the production of eggs has to be strictly controlled. However, careful private enterprise, in its own interests, might be to keep these diseases at bay, if there is no control, any Tom, Dick or Harry could start the business in the country."

Controlling disease is not the only direction in which Government aid is required. Constant research for improvements in the methods of production in all the different stages of the industry is essential as is proved by what is being done in France, Italy, Japan and even in China where what the Chinese Government is unable to do has been undertaken by American capitalists interested in the silk trade. It is also necessary to co-ordinate the research in the different areas so that what is achieved by one may also benefit the others. We have found that a certain area though it was keeping itself informed of the research work done in Japan, did not know what was actually being done in a contiguous area. At another place we found that the Director of Sericulture was spending the central grant on conducting researches to find out whether the pebrine spore in India was in any way different from the pebrine spore in France and other parts of the world (on which ample information is available) instead of making practical use of the finding of the Pusa Institute that the silk worm was almost immune from pebrine if it was properly fed and tended. Again as our predecessors found "the supreme problem of finding markets for the finished product is best tackled on national lines".

76. Silk is, as stated before, a highly hygroscopic material and its defects and merits are unperceivable by the naked eye and as

Conditioning house and railway freight facilities.

stated before silk which has not been graded and guaranteed by a conditioning house certificate can have no market in countries where weaving is done on expensive and

delicate machinery and this requirement for grading and a conditioning house certificate is as necessary for the Indian market as for the markets outside India. Conditioning houses, therefore, whose certificates can inspire confidence in the buyers of silk are necessary for expanding the market for Indian silks and the establishment of one or more conditioning houses can only be by Government and not private enterprise. Indian silk like Indian cotton ✓ has acquired a bad name due to its admitted defects and the impurities which it contains and nothing will rehabilitate it in the foreign markets so much as an authoritative conditioning house certificate. The recently established conditioning house at Howrah is, as I have said above, a move in the right direction but as it is right on the eastern sea-board of the country, it cannot be availed of by the distant areas without incurring prohibitive freight costs. Even in Bengal distances are not small and if the industry is to be helped to avail itself of the services of the Howrah conditioning house, railway freight facilities should be granted in respect of silk sent to Howrah for obtaining the conditioning house certificate and returned therefrom.

77. The restriction of the market for Indian silk goods by the increasing use of silk substitute goods is as I have already shown

very substantial and cannot be avoided by
 ✓ Legislation to prevent fraud. sumptuary laws such as obtained in by-gone times. Apart, however, from their low prices silk substitute goods afford peculiar facilities for being passed off on the consumer as real silk goods and both the interests of the consumer as well as of the silk industry require that the existing facilities for passing off the silk substitute goods as real silk goods should be curtailed. Laws have been passed in France, Spain, Brazil and many other countries by which such frauds on the consumer are made penal. If buyers want silk substitute goods and for financial or other reasons prefer them to real silk goods, it is but right that they should have them but they should be guarded against buying them in the belief that they are real silk. I think, therefore, that a law should be passed requiring the manufacturer to stamp every silk fabric with a statement of its composition and penalising false description. Appropriate legislation is demanded by all the provinces and states concerned and it appears to have been long overdue. Such legislation will tend appreciably to widen the market for the Indian silk weaver's product at home as well as in the few places outside India such as Ceylon, Malaya, etc., where real Indian silk cloth of special designs is still in appreciable demand.

78. One main cause of the rearer and the reeler not obtaining a substantial portion of the price for their product which the buyer

or the consumer actually pays for it is the
 Middleman. prevailing marketing system both for cocoons and raw silk. The Japanese primary producers during the last ✓ century had to face similar difficulties as appears from Ogata's book on the Co-operative Movement in Japan and it has been found

by the experience of Japan that if there is anything that can remove or at least alleviate the difficulties of the primary producers, it is the institution of the Co-operative Society. In Japan there are co-operative societies of mulberry nursery men, silk egg producers, rearers, reelers, etc., and their declared objects are to introduce improvements in the methods of production, to buy articles necessary for production and distribute them among members at cost price, stock and sell the member's products at the most remunerative prices obtainable and eliminate the middleman as much as possible. As stated previously, according to a rearer of Malda "Whatever profit there is to be had in the rearing business is now appropriated by the middlemen. If the producers are able to sell direct to the consumers, their lot would be better. The co-operative society is not able to make much headway in competition with the mahajan". Similar complaints have been received by us wherever we had opportunity to enquire into the matter both with regard to the inequities of the mahajan and the failure of the co-operative society to make any appreciable headway. Illiteracy and indebtedness drive the silk producers into the clutches of the mahajan and illiteracy and indebtedness retain them there. Another cause which hinders the success of the co-operative society is the dearth of selfless workers. All these hindrances are being removed in several places by educated youngmen imbued with a spirit of service to the needy and the helpless and the work which bodies like the All-India Spinners' Association are doing among the sericulturists and the handloom weavers and I have little doubt that if the different provincial and state Governments take an earnest interest and provide the needed funds in reasonable amounts, the co-operative society among the sericulturists will serve its purpose.

What the co-operative society can do for the sericulturist, it can do for the weaver also and perhaps to a greater degree.

79. Lefroy's recommendation (5) is concerned with protective import duties on silk goods in the interests of the silk handloom

Protective tariffs on silk goods.

weaver who is by far the largest manufacturer of silk cloth from Indian silk in India, the Indian silk mills being mostly concerned with the manufacture of cloth from silk substitutes. Such duties, no doubt, would ordinarily by raising the price of the weaver's cloth tend to restrict the demand. Fabrics made out of Indian silk, however, mainly consist of specialities, the consumption of which is enjoined by social or religious customs and is confined to the rich who can afford to indulge their taste or satisfy their social and religious requirements without much regard for the cost and I do not think such duties as I suggest will tend in any appreciable degree to restrict the demand for the handloom weaver's product, more specially as there will be ample scope for internal competition among the weavers. On the other hand by raising the price of the foreign silk fabrics, such duties will enable the Indian weaver, benefited as he would be by the lower price of his raw material,

to withstand foreign competition more successfully than he is doing at present. He will have less inducement to resort to silk substitutes and more scope to utilise his hereditary art.

✓ 80. The development of the sericulture industry in India affords great opportunities for co-operation between Britain and India.

Co-operation
between Britain
and India.

and If British capital and British machinery could develop the silk industry of Austria even at the expense of the British Industry, there is even greater reason why the same

British co-operation can and should be extended to India. In the manufacture of those goods which necessitate the use of the handloom and the use of the Indian silk and the consumption of which will always be governed by their exclusive designs and uncommon characteristics, no manufacturer on power driven machinery necessitating production on a comparatively large scale will ever have a chance against the Indian handloom weaver. On the other hand, the development of filatures which is absolutely necessary for the recovery of the lost export markets both for Indian silk and Indian silk waste will receive great impetus from British enterprise and British capital. Again England needs raw silk for her silk industry and silk waste for her spun silk industry. Formerly she imported huge quantities of Indian silk, and Indian silk waste but now her imports are negligible. "The fall of the Bengal silk" according to Mr. Leotard, writing in 1883, "has been due to England's failure to patronise it. England's behaviour in this respect is all the more regrettable since other European countries did not see any reason for abandoning Bengal silk in the same manner as England did. The cocoon crop of France and Italy began steadily to improve from 1876 and yet France went on importing almost as much silk from India and Italy imported more and more of it". "It will be seen", wrote Leotard in 1883 "from this series of tables that of Indian raw silk, the United Kingdom was by far the best consumer 13 years ago (*viz.*, 99½ lakhs of rupees in 1870-71) but that the exports thither declined rapidly till they came down to Rs. 11 lakhs in 1875-76, to Rs. 4½ lakhs in 1880-81 and to about Rs. 3 lakhs in 1882-83. It is chiefly this decline, this abandonment of the Indian supplies by the United Kingdom, that has brought about the fall of the Indian raw silk trade". It must be admitted that the fault was not on the side of England alone. While her competitors adopted the latest methods of cocoon production and silk reeling, making their silks in all respects suitable to the British manufacturer, India lagged behind persisting in her old inefficient methods. Again it has been stated that "there has been no deterioration in the quality of raw silk so much as tremendous increase in the requirements of perfection". How Indian silk has been unable to meet "this tremendous increase in the requirements of perfection" in comparison with the French, Italian and Japanese silks has already been described and it can be no fault of the British manufacturer that he has been unable to buy Indian silk which lacks even the essential quality of cognisability. Things, however, have changed now. Kashmir filature silk we are told, is second

to no other silk in all the qualities required by the British manufacturer and if such be the case, I fail to understand why the British manufacturer prefers the Japanese silk to the Kashmir product. Price is not the factor that can dictate the preference, for the price of the Japanese silk is higher in England than the price of the Kashmir silk would be, provided the Kashmir silk is backed up by a reliable conditioning house certificate. And I think what was stated in the Bengal Government publication "The Handbook on sericulture" some forty years ago deserves consideration by all concerned even to-day:

"There seems to be only one means now by which England can combat successfully with the continental silk trade, *viz.*, by transferring the centres of competition from Manchester, Macclesfield and Leek to Baluchar, Mirzapur, Benares, Amritsar and Srinagar. Such a policy alone can restore the commercial supremacy which England enjoyed in the days of the East India Company. The interests of England and India are identical in regard to the silk trade. Indian silk weavers are artisans of no mean order. Skilled Indian labour guided by English enterprise can produce silks of European excellence and finish."

Again, till recently, large quantities of Indian silk waste used to be exported to England and the loss of the market for Indian silk waste has been one of the main causes of the Indian industry's failure to develop in proportion to the natural advantages it enjoys in India. Here also the fault no doubt is not wholly on the side of the British buyer. The Indian silk waste has failed to come up to the standards of modern requirements. Kashmir silk waste, however, in our own times, has made rapid improvements and is able to command in Switzerland a price of Re. 1-3 *ex-factory*. I believe, therefore, there is a great scope for increased imperial preference for Indian silk and Indian silk waste and it may be hoped that in the pending negotiations between Britain and India, the question will receive the consideration it deserves.

CHAPTER VII.

Recommendations.

I have no proposals to make with regard to the protection by tariffs of the sericulture industry because in my opinion, under normal conditions of foreign competition, it needs none. The following proposals are made by me for the development of the industry so that the natural advantages it possesses in India may be fully exploited and its wealth producing potentialities may be fully availed of by the country. As I have come to be of opinion that high prices of silk are detrimental to the Indian sericulture industry, consistency requires that I should recommend a total abolition of the import duties on raw silk. Revenue considerations to which our terms of reference require us to pay special regard, however, obtrude. (It is possible that what the Commerce Member of the Government of India may welcome, the Finance Member may deplore.) Our budgetary equilibrium, as that of any other country in the present world conditions, is none too stable and the deficit which is at present threatening the central revenues may require duties for revenue purposes which are not required for purposes of protection. Whether, however, a duty is called revenue or protective, the effect is bound to be the same on the industry concerned. There can be no doubt that if the present import duties on raw silk and the accompanying compensatory duties are considerably reduced or abolished, the Treasury would suffer in ordinary circumstances. The circumstances of the sericulture industry of India are, however, not ordinary. For a whole generation and more, the imports, the home production and the consumption of raw silk in India have been remarkably constant and stationary and if the past can furnish some indication for the future, moderate import duties whether they are called revenue or protective are more likely than not to be, for some time at least, innocuous and if they are likely to be innocuous, it would hardly be wisdom and common sense, in the interests of the revenue to reduce or abolish them altogether. Again, the Conference of the Directors of Industries which we recently called at Calcutta came to a unanimous conclusion that the trend of silk prices is in the direction of decrease and not increase. The advent of the silk substitutes, in my opinion, can point to no other conclusion. Further, the foreign imports of raw silk satisfy a demand which cannot be met by the home industry as at present organised and it would be hardly desirable to check them unless they assume undesirable proportions. Moreover, what the sericulture industry of India requires most for its development is its lost export market and the recovery of the lost export markets will in no very appreciable degree be affected by the import duties. In order to provide a greater incentive for the adoption of efficient methods of rearing and reeling which the rearers and reelers in Bengal at least lack at present I have provided state aid by direct concessions, such as

cannot be intercepted ordinarily by the mahajan and which should, by considerably reducing the costs of production of cocoons and silk, benefit both the rearer and the reeler. The weaver who needs help most also will be doubly benefited. He will get his raw material cheaper than he is doing to-day on account of the lower cost of production and better quality of silk and his capacity will be increased for withstanding the competition of foreign fabrics which will have to pay the present protective duties. The weaver, thus doubly benefited, will be able to sell his silk cloth cheaper than he would be, under high import duties on his raw material, to the ultimate benefit of the consumer of Indian silk fabrics and so of the sericulture industry the demand for the product of which will be increased. (Bearing these and other complex and conflicting considerations in mind, I recommend that the protective duties imposed on real silk goods under the Indian Tariff (Textile Protection) Act, 1934, should be reimposed for a further period of five years.)

As regards the other duties namely the duties on raw silk and the accompanying compensatory duties I have no recommendations to make except that if the exigencies of the revenue require the Government to retain them, the duty on raw silk and real silk yarn should be at a lower figure than the existing duties on both these articles so that the price differential between the prices of real silks and those of the prices of silk substitutes may be as small as possible and the consumer's choice between real silk goods and silk substitute goods may not be unduly deflected from real silk goods to silk substitute goods. It may also be brought to the notice of Government that as already pointed out the duty on spun silk increased in 1936 has led to the deterioration of the weaving industry in weaving centres like Surat and to a considerable fall in the customs revenue.

While the duty on real silk goods will be definitely protective, whether the other duties, if the Government must retain them for their revenue purposes, should be called in the Tariff Schedule of the Tariff Act of 1934, "protective" or "revenue" is a question of some nicety. If they are merely revenue, as they must be in accordance with the situation as I view it, they will be regulated within the limits just suggested, solely by the revenue exigencies of the Government and in accordance with the ordinary powers of the Executive. If on the other hand, they are, in spite of their being solely revenue duties, merely called "protective" in the Tariff Schedule they will be amenable to be regulated by the special powers of the Executive under Section 4 of the Tariff Act, 1934. Japanese dumping is an ever present menace and no one can say when it will materialise in an active form. Section 4 of the Tariff Act of 1934 will enable the Government to take action with promptitude and celerity whenever occasion arises for the exercise of their special powers. Under the present Constitution, however, the Executive may at any time issue Ordinances to meet emergencies when they arise. Temporary increase in the import duties against Totalitarian methods of foreign competition, it may be further noted, may

not as I have said before serve the object in view and to meet the Government will have "to learn and adopt a new technique such as suggested by the present President of the British Board of Trade.

My third recommendation is that funds should be provided for a period of five years by the Central Government state aid to the industry and that the central grant should be allotted to the different areas in proportion to their existing need and on appropriate conditions such as maintaining a condition in house and affording facilities to contiguous areas for availing themselves of its services, providing facilities for free supply of leaf by encouraging tree mulberry cultivation, by free supply of mulberry seedlings, by revenue free assignments of waste lands and road sides for mulberry planting, for free supply of disease-free or what may fairly be called disease-free seed, subsidising silature constructions, encouraging the establishment of co-operative societies of rearers, reelers and weavers on the Japanese model as far as the local conditions may permit, maintaining a qualified sericulture expert with an adequate trained staff to give advice and guidance to the sericulturists and by establishing personal contacts with them to make them understand and adopt efficient methods of rearing worm and reeling silk and supplying such information as the Imperial Sericulture Committee may require to ascertain whether and in what degree the conditions of the grant are carried out. The functions of the Imperial Sericulture Committee will have to be considerably enlarged to enable it to supervise the action taken by the different areas which accept the central grant and to recommend to them such measures as it may think fit for the greater development of the industry. In recommending the following allotments of the grant, I have taken into consideration the immediate and varying needs of the different areas concerned:—

- (1) The Bengal Government should be given an annual grant of two lacs of rupees for five years on the condition above mentioned.
- (2) The Mysore Government should be given an annual grant of one lac of rupees for five years on the condition above mentioned.
- (3) The Madras and the Punjab Governments should be given each an annual grant of rupees fifty thousands for five years on the conditions above mentioned or such conditions as the Imperial Sericultural Committee may recommend.
- (4) An annual grant of rupees one lac should be given to the other sericultural areas for five years in such proportions and under such conditions as the Imperial Sericultural Committee may determine.

My fourth recommendation is that a law may be enacted by the Central Legislature and the Governments of the States to prevent fabrics made out of silk substitutes and foreign silks being passed off as real Indian silk fabrics by requiring every fabric made of

silk or of any silk substitute or of a mixture of both, to be stamped with a statement of its composition and country of origin on the model of the recently passed cognate law in Brazil, a copy of which is on our record. ✓

Before concluding, it may be permitted to me to put on record (my firm belief that the sericulture industry of India is a very important and valuable industry with a great future before it and that its development is not in the interests of India alone but of the whole British Empire) ✓
Though the advent of rayon has created great difficulties for the silk industry all over the world, it may prove a blessing in disguise if it leads to lower costs of production in the Indian industry. ✓
It may help to overcome the apathy of capitalists and popular leaders with regard to the development of the sericulture industry of India, to know that the difficulties created for the industry by the advent of rayon can at worst be only temporary. ✓
Consumers and manufacturers are fast beginning to realise that silk is silk and rayon is rayon. ✓
The evidence which the Board has received as well as the continuous and increasing efforts of the different countries to develop their sericulture industries point to no other conclusion.

N. N. ANKLESARIA,

Member.

NEW DELHI,

The 24th January, 1939.