SILK IN INDIA

BIENNIAL

STATISTICAL

1976

CENTRAL SILK BOARD
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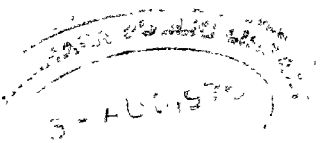


Section I

INTRODUCTION

INTRODUCTION

WORLD SILK INDUSTRY

1:1 Silk and Textile World

In 1974, the global output of textile fibres was of the order of 26,081 million tonnes. Of this, natural silk accounted for about 45,000 tonnes which works out to 0.17 per cent of the global output of all textile fibres. However, in the group of "natural fibres" which comprises silk, cotton and wool, silk fibre accounts for 0.30 per cent.

The world production of raw silk registered an impressive increase of 40.6 per cent between 1965 and 1974 as may be seen from the table below.

TABLE I

GLOBAL PRODUCTION OF TEXTILE FIBRES ('000 tonnes)

Variety	1965	1974	Percentage variation (1974 over 1965)
A. Natural Fibres:			
Cotton	11,390	13,595	+ 19.4
Wool	1,485	1,478	— 0.5
Silk	32	45	+ 40.6
Sub-Total :	12,907	15,118	+ 17 1
B. Man-made fibres	5,360	10,963	+ 104 6
Total :	18,267	26,081	+ 42.8

1:2 Growth in Raw Silk Production

Global output of raw silk, in 1974, has been estimated at 45,000 tonnes. During the decade 1965-1974, the production achieved an overall growth of 40.6 per cent. The following table indicates country-wise distribution of production covering 8 major silk producing countries of the world. The projections for 1980, as forecast by the FAO, have also been included in the table for reference.

As the table II clearly indicates, three-fourths of the above 40% increase in world raw silk output during the decade has been shared by China, South Korea, India and Brazil. Production in two major countries viz., Japan and Soviet Union by and large stagnated during the decade. While the planned progress of sericulture in South Korea and India have been well known and duly acclaimed in world meetings all these years, it is indeed interesting to observe the

TABLE II

TRENDS IN GLOBAL RAW SILK PRODUCTION

(tonnes)

Country	1965	1972	1973	1974	1980*
1. Japan	19,106	19,137	19,317	18,936	17,000
2 Peoples' Republic of China.**	6,860	11,124	11,124	13,200	16,000
3. Republic of South Korea.	849	3,656	3,573	4,386	6,500
4. U.S.S R.**	2,833	3,000	3,000	3,000	3,200
5. **India**	**1,634**	**2,119**	**2,411**	**2,445**	**3,500**
6. Brazil	89	385	385	420	300
7. Bulgaria	219	247	250	247	250
8. Italy	611	155	244	156	200
9. Others	464	177	1,696	2,210	1,223
Total :	32,665	40,000	42,000	45,000	48,173

* FAO's projections

**Estimated

phenomenal growth of sericultural activities in Brazil. She is perhaps the only country having pierced the FAO projection target of 1980 years in advance.

Besides the above leading producers, Madagaskar, Algeria, Lebanon, Yugoslavia, Thailand as also Sri Lanka are knocking at the "sericultural-club" thanks to the planned efforts being vigorously effected by their respective Governments with the assistance either from various United Nations' Organisations or bilateral co-operations

1:3 Cocoons

The world production of cocoons in 1974 aggregated to 3,98,000 tonnes as against 2,73,000 tonnes in 1965. Most outstanding contribution to this grand growth of 45% during the decade came from South Korea where the cocoon output registered a 450% increase from around 8,000 tonnes in 1965 to around 37,000 tonnes in 1974. Brazil improved her cocoon output from 1,561 tonnes in 1965 to about 6,213 metric tonnes in 1974.

The relative rates of growth in cocoon production during the decade in respect of other leading countries are: India 45%, China 44%, and the U.S.S.R. 15%.

It may however be noted that, by and large, cocoon is not a commodity for trading in the international market as almost the entire production is reeled by the producing countries. Of late, Japan has been importing quite a sizeable quantity of cocoons from China, Taiwan, Brazil, Ivory Coast, Greece, Paraguay, Indonesia and Turkey. According to latest report, till 1974 the imports were confined to a small quantity of under 200 tonnes, but in 1975 Japanese imports of cocoons registered a 12-fold increase to reach 2,550 tonnes.

This entirely new phenomenon in the pattern of cocoon trade is ascribed to the 10% fall registered by Japan in cocoon production during 1975. This

brought down her cocoon output from more than 1 lakh tonnes in 1974 to 91,200 tonnes in 1975, leaving a wide gap of 40,000 tonnes between her reeling capacity and availability of cocoons. The heightening hectic imports by Japan are obviously the immediate measures to narrow this gap.

1:4 Consumption of Raw Silk

Besides India, the other main consumers of raw silk are Japan, China, Italy, France, West Germany, Switzerland, the U.S A and Thailand. A notable feature, however, is the fact that the developed nations of the world, particularly the West European countries, Japan and the U.S.A. consume around 30,000 to 35,000 tonnes of raw silk per annum, accounting for nearly 80 to 85 per cent of global raw silk consumption. The F.A.O., in May, 1972, had forecast that the global consumption of raw silk was likely to reach 48,600 tonnes by 1980. The countrywise data regarding the current levels of consumption, the projections of consumption levels likely to be reached by 1980 vis-a-vis the import requirements of these countries by 1980 are indicated below.

TABLE III

CONSUMPTION OF RAW SILK

(tonnes)

Country	Consumption (1974)	Requirements (1980)	Import Projections (1980)
1. Japan	21,813	28,000	11,000
2. Peoples' Republic of China	n.a.	6,000	—
3. U.S.S.R.	n.a.	3,200	—
4. Italy	985	2,000	1,800
5. U.S.A.	146	1,000	1,000
6. France	333	700	700
7. West Germany	160	250	250
8. Switzerland	75	220	220
9. Others	n.a.	7,230	495
Total		48,600	15,465

1:5 Imports

While the demand for raw silk is gradually expanding, it is interesting to note that production in the temperate countries, which hitherto virtually held monoploy of silk production in the world, is progressively shrinking due to high labour cost. The European countries have virtually vanished from the silk map and even in the U.S.S.R. and Japan silk production has almost stagnated. Thus, China and South Korea are the only two countries of the temperate zone where production is growing.

Interestingly, the F.A.O. study points out that the developed countries continue to consume more than 90% of the world raw silk output at present.

It is further stated that their demand is likely to double — from 6,716 tonnes in 1970 to 15,223 tonnes by 1980.

Obviously, the great gap between demand and supply of raw silk has to be squarely met by tropical countries which have of late shown considerable prospects.

1:6 Exports

Next only to China, South Korea is the leading supplier of raw silk to the international raw silk markets. Third in importance comes Brazil which exports around 400 tonnes annually. Apart from these, the net importing countries of Italy, Switzerland, West Germany and France also re-export aggregatedly around 150 tonnes a year.

1:7 Trade in Silk Fabrics

The table below indicates the trends in imports of silk fabrics of all varieties including mixed silk fabrics by seven chief importing countries of the world.

TABLE IV

IMPORTS OF SILK FABRICS BY SEVEN MAJOR IMPORTERS

(Units as specified)

Country	Unit	1970	1971	1972	1973	1974
Japan	'000 sq. m.	14,504	13,175	21,678	34,685	21,690
U.S.A.	"	9,848	7,024	6,559	7,205	2,674
U.K.	"	1,727	1,507	2,018	1,930	1,515
West Germany	m. tons	521	539	565	586	409
France	"	248	246	358	436	492
Italy	"	377	167	244	n.a.	275
Switzerland	"	137	122	126	120	107

An analysis of the trends in international trade pattern in general, and of the finished goods sector in particular, indicates that it is the developed nations of the world which are the ultimate end-users of the fabrics and made-ups of silks besides raw materials such as raw silk, silkwaste and semi-processed articles like silk yarn.

1:8 Outlook for Silk

A second close look at Table-I would clearly indicate the intrinsic worth of silk as a textile fibre *par excellence;* the phenomenal growth of man-mades notwithstanding.

The F.A.O , in its world-wide survey of silk industry, has also observed that the output of raw silk, in the years to come, would become more pronounced in the developing countries such as India and South Korea while declining trend was to be expected in the developed countries of the world like Japan due to rising cost of labour In so far as countries with centrally planned economies like the U.S.S.R., Bulgaria, Rumania etc., are concerned, the production was likely to

remain steady barring of course China where the rate of increase is forecast at around 5 per cent per annum.

The favourable incipient demand trend notwithstanding, the developing countries ought to lay maximum emphasis on the production of high quality raw silk if they want to enter the international markets in really a big way. This is so because the demand in developed countries is almost confined to quality raw silk which alone could be processed on their highly sophisticated weaving machinery.

In this context, it is apposite to observe that the high level Indian Silk Delegation which visited Japan and South Korea in late 1975 has rightly laid the emphasis on technical-cum-business collaborations, bilaterally, between India and these countries. This, in the long run, is bound to prove a mutually beneficial proposition in that the sericulturally advanced nations such as Japan and South Korea could import their requirement of finished products economically and upto their specifications due to the lower labour costs and other infrastructural facilities available in the developing nations like India. We, on the other hand, stand to benefit by the availability of superior technical knowhow both in the production of finished products as also in the fabrication of the requisite machinery. This is a natural corollary to the foreseen phenomenon of a rising demand for finished products against a shrinking demand for raw materials discernible in the advanced nations of the world. Secondly, the FAO also suggests that the sericulture projects in the developing countries ought to include plans for self-processing the raw materials as long as output of high quality silk can be assured to meet the growing demands of the high fashion markets in Europe : the citadel of world fashion.

1:9 Projections

A study made by the F A.O. has placed the estimated world raw silk production in 1980 at 48,000 metric tons. The estimated production of raw silk in the major silk producing countries of the world are as under.

TABLE V

WORLD RAW SILK PRODUCTION

(tonnes)

Country	Production (1970)	Production (1980)	Percentage variation (1980 over 1970)
Japan	20,515	17,000	(—) 17
Peoples' Rep. of China	10,200	16,000	(+) 57
U.S.S R.	2,940	3,200	(+) 9
Rep. of South Korea	2,846	6,500	(+) 128
India	**2,250**	**3,500**	(+) **56**

According to the FAO experts, besides the Peoples' Republic of China, the Republic of South Korea and India are required to plan for significantly larger

production in future to meet the growing demand for raw silk and silk goods in the international silk markets, which is expected to reach 48,000 tons as against 45,000 m. tons at present. The survey has further revealed that the domestic demand of Japan which is the major supplier of raw silk and silk goods to the world would be of the order of 28,000 tons while her own output would shrink to 17,000 tons. The above situation leading to a wide gap in the demand and supply position offers unlimited potential for India to step in to bridge the gap and thus profit itself thereby.

2: INDIAN SILK INDUSTRY

2:1 Present Status of Sericulture Industry and Its Economic Importance

Sericulture is an agro-based industry providing quick returns to the rural folk. While the activities relating to mulberry cultivation and production of reeling cocoons are agricultural in character, the reeling of raw silk and production of handspun silk yarn are cottage-based industries practised in rural and semi-urban centres, employing hand and power driven appliances and skilled labour. The industry can broadly be classified into two distinct sectors: Mulberry and Non-mulberry. Each sector in turn is divided into three well defined sections: (i) production of cocoons; (ii) production of raw silk and (iii) utilisation of bye-products, viz., silkwaste.

Sericulture is practised in some States as an industry subsidiary to agriculture; while in some others, it is practised as a main occupation thanks to the recent developments making it an economically viable full-time occupation. The pursuit of sericulture affords gainful subsidiary occupation in rural areas where holdings are small.

The industry affords employment to over 3 million persons of whom nearly 30 per cent belongs to the economically weaker sections of the society such as Scheduled Castes and Scheduled Tribes.

The total annual production of raw silk averages around 30 lakh kg. while the output of silkwaste is around 12 lakh kg. per annum. The aggregate value of sericultural products at current level of prices is around Rs. 80 crore. While mulberry raw silk output per annum aggregates to about 24.00 to 25.00 lakh kg., the annual non-mulberry raw silk production amounts to 5.00 to 6.00 lakh kg. In the silkwaste sector, the annual production of mulberry silkwaste is around 10.00 lakh kg. while that of non-mulberry silkwaste is about 2.00 lakh kg.

Besides raw silk and silkwaste, India also produces annually about 65,000 kg. of spun silk yarn and 85,000 kg. of noil yarn in the organised mill sector. Additionally, an estimated 1.00 lakh kg. of coarse counts hand spun yarn is also produced in the decentralised hand spinning sector dispersed over large parts of the central and eastern States. The hand spun yarn — a product of dextrous and skilled spinners in the interior rural areas, find extensive usage in the manufacture of a wide range of dress materials and furnishings having considerable export demand.

India has the unique distinction of being the only country in the world producing all the four commercially viable varieties of natural silk viz., mulberry,

tasar, eri and muga silks. Ranking fifth in the comity of sericultural nations of the world, India accounts for a little over 5 per cent of global output of mulberry raw silk. Besides, India is the second largest producer of tasar silk, next only to the Peoples' Republic of China, accounting for about 10 per cent of total tasar silk production. India however enjoys virtually the world monopoly for the fabulously famed golden yellow 'MUGA' silk produced only in the State of Assam.

In recent years, the industry has also achieved the rare distinction as an export-oriented sector of the economy with an annual foreign exchange earning of around Rs. 15 crore chiefly from the affluent hard currency areas of the Western world.

Tariff Protection

Sericulture industry has been enjoying tariff protection since 1934. Tariff Board/Commission had undertaken periodical enquiries since then in 1938, 1948, 1951, 1953, 1958, 1963, 1966, 1969 and recently in 1974. Government of India have, on the recommendation of the Tariff Commission, extended the protection granted to the industry upto the end of 1979. The current rate of protective duty levied on raw silk is 30 per cent ad valorem plus an auxiliary duty of 5 per cent ad valorem.

2:2 Distribution of the Industry

Raw Silk Production

Production of mulberry silk is largely confned to the States of Karnataka, West Bengal and Jammu & Kashmir which together account for more than 90 per cent of the country's total mulberry silk production. Tasar silk is largely produced in the States of Bihar, Madhya Pradesh and Orissa while Assam accounts for the bulk of eri silk. Muga silk production however remains the virtual monopoly of the Assam State.

Silk Throwing & Twisting

India is self-sufficient in the matter of silk throwing and silk twisting capacities. There are reportedly around 1.45 lakh spindles engaged in this sector.

Silk Weaving

Silk weaving is largely undertaken on handlooms. There are reportedly 1.40 lakh handlooms and around 4,000 powerlooms engaged in pure silk weaving. The output of silk goods is estimated at 450 lakh sq m valued over Rs. 100 crore. Uttar Pradesh tops the list with over 30,000 handlooms followed closely by Tamil Nadu and Assam. Next in importance come Andhra Pradesh, Karnataka and West Bengal.

Spun Silk Industry

The processing of silkwaste in the organised field is confined to the public sector. There are three spun silk mills located in Channapatna (Karnataka); Jagi Road (Assam) and Bhagalpur (Bihar). The installed capacity of the above

Mills as also the production capacity of these units at current levels of working are as under.

TABLE VI

INSTALLED AND PRODUCTION CAPACITY OF PUBLIC SECTOR SPUN SILK MILLS

Name of the Mill	Installed capacity		PRODUCTION CAPACITY			
	Spun Yarn	*Noil Yarn*	*Spun silk yarn*		*Noil Yarn*	
			I Shift	II Shift	I Shift	II Shift
	(spindles)		(.. .. ..kg. .....)			
Govt. Spun Silk Mills, Channapatna	7,500	630	30,000	60,000	36,000	72,000
Assam Spun Silk Mills, Jagi Road.	3,000	420	12,000	24,000	13,365	26,730
Bihar Spun Silk Mills, Bhagalpur.	3,000	420	12,000	24,000	15,000	30,000
Total	13,500	1,470	54,000	1,08,000	64,365	1,28,730

Besides the above three units, silkwaste is also being consumed for production of coarse counts of spun silk yarn in the decentralised hand spinning sector dispersed over large parts of the central and eastern States.

The spun silk industry in the country at present consumes around one-third of the country's total output of silkwaste. The bulk of the non-mulberry silkwaste and some varieties of mulberry silkwaste are consumed by the hand spinning sector. Superior qualities of mulberry silkwaste, particularly of South Indian Origin, are being consumed by the organised mill sector besides around 60,000 to 70,000 kg. of eri and muga silkwastes. The surplus silkwaste, after meeting the demands of the domestic spun silk industry, is available for exports.

2:3 Organisational Set-up of the Industry

Sericulture is a State subject and as such the developmental programmes relating to this industry are to be implemented by the States. The Central Silk Board, at the central level, assists the States in the formulation of the programmes and policies governing the development of the industry. At the State level, emphasis is laid on the improvement of food plants and silkworm seed; introduction of improved techniques of rearing; modernisation of reeling and spinning as also rationalisation of marketing of cocoons and raw silk. Allocations for development of the industry in the States under Plan programmes are made on the basis of the Annual Plans approved by the Central Silk Board.

In the major sericultural States i.e., Karnataka, Jammu & Kashmir, West Bengal and Assam, sericultural development programmes are looked after by separate directorates. In other States, the subject is handled by the Departments of Industries and Commerce or the Directorates of Handlooms & Textiles as the case may be.

The organisational set-up of Central Silk Board is indicated in Appendix—II.

2:4 Central Silk Board

Central Silk Board is a statutory body presently under the administrative control of the Ministry of Commerce in the Government of India. One of the earliest Commodity Boards, constituted in April 1949 under an Act of the Parliament (Act No. LXI of 1948), the CSB is entrusted with the overall responsibility of developing silk industry covering the full gamut of sericultural activities in the country. CSB is an autonomous body, triennially constituted, and has 36 members including the Chairman and comprising representatives drawn from both the Houses of Parliament, sericultural States and special interests concerning the industry and the trade. The Board is presently headed by Shri S. Muniraju. The present composition of the Board is given in Appendix — I.

Functions of CSB

The main functions of the Board as stipulated under the Act are:

(i) promoting the development of the silk industry by such measures as it thinks fit;

(ii) undertaking, assisting and encouraging scientific, technological and economic research;

(iii) collection of statistics;

(iv) advising the Central Government on matters relating to the development of silk industry, including broad policies governing import and export of silk products.

Besides co-ordinating the development of the sericulture industry in various States, the CSB is also directly responsible for organising sericultural research, post-graduate training, basic seed production, preshipment inspection of silk goods and silkwaste for export, import and distribution of raw silk, standardisation and quality control.

Regional Offices

The Board has its headquarters in Bombay and has 4 Regional Offices in different regions for purposes of ensuring close co-ordination of Central and State efforts to develop the sericulture industry. These are located in Bangalore (Karnataka); Calcutta (West Bengal); New Delhi (Delhi); and Srinagar (Jammu & Kashmir).

Certification Centres for Preshipment Inspection

To discharge its functions relating to preshipment inspection, the Board has set up certification centres at Bangalore, Bhagalpur, Bombay, Calcutta, Madras, New Delhi, Srinagar and Varanasi.

Research

The Central Silk Board has organised two research stations for mulberry in Mysore and Berhampore; one in Ranchi for tasar and one station in Titabar for eri and muga. Besides these, three Regional Research Stations for tasar have

been set up by the Board in Mantripokhri (Manipur), Bhimtal (U.P.) and Batote (J & K); and two Regional Research Stations for mulberry in Kalimpong (W. B.) and Majra (U. P.).

Research Extension Centres

With a view to translating the results of the research to the field, to benefit the sericulturists, suitable Extension Centres have also been attached to these Research Stations. Presently, there are 5 Research Extension Centres functioning in Lalgondanahalli (Karnataka); Krishnapuradoddi (Karnataka), Coimbatore (Tamil Nadu); Jalalpur (W.B.) and Panchgram (W.B.) in the mulberry sector. Similarly, there are 3 Research Extension Centres in the tasar sector located in Kathgora (M.P.); Hatgamaria (Bihar) and Bangriposi (Orissa). The Board has also plans to establish additional such centres in suitable areas as and when the need arises so as to popularise the fruits of research.

Basic Seed Stations

Pursuant to the decision to centralise production of basic seed, the Board has also established two Basic Seed Stations for mulberry at Pampore (Srinagar) and Coonoor (Tamil Nadu); and one station for tasar in Raigarh (M. P.).

Central Silk Conditioning & Testing House

Additionally, the Board has also established under its control a Central Silk Conditioning and Testing House in Srinagar in addition to the already existing two units under the respective States' control in Bangalore and Calcutta.

Publications

Central Silk Board publishes the following:-

MONTHLY : *INDIAN SILK*	Subscription : Rs. 12.00 per annum. Price per copy: Re. 1.00 (Ads accepted)
ANNUAL : *INDIAN JOURNAL OF SERICULTURE*	Released in December every year. This is a scientific journal devoted to the science of sericulture and technology of silk. Subscription: Rs. 5.00 for 4 years.
BIENNIAL : *SILK IN INDIA*	A statistical biennial.
TRANSLATION PROJECT	There is acute scarcity of technical and scientific literature on sericulture in English language. To remedy this lacuna, Central Silk Board has on hand a programme to translate sericultural works of noted sericultural scientists of Japan, the U.S.S.R., etc. into English for the benefit of sericulturists in India.

BROCHURES & PAMPHLETS

Central Silk Board also releases regularly brochures and pamphlets in English, Hindi and Kannada on popular subjects of sericulture for mass circulation.

Subscription for INDIAN SILK is accepted for full financial year or part thereof (to end every March). INDIAN JOURNAL OF SERICULTURE is booked for 4 years at a stretch for four annual issues.

External Drive

MEMBERSHIP OF INTERNATIONAL ORGANISATIONS

CSB is a full-fledged member of the two international organisations concerned with development of silk industry at present as detailed below.

(1) International Silk Association, 55, Montee de Choulans, Lyon (France)

This is a non-official organisation consisting of industrialists' federations, associations, technicians and experts from various countries. The affairs of the Association are managed by a permanent Executive Committee. It has also a Directing Board and 13 Work Sections covering various sectors of the industry. Shri S. MUNIRAJU, Chairman, Central Silk Board is India's National Delegate.

(2) International Sericultural Commission, Ales (Gard), France.

This is purely an official organisation and is affiliated to the FAO. The Central Silk Board is one of the most active members of the International Sericultural Commission. It has its headquarters at Ales, France.

2:5 Training in Sericulture

Training at the junior level is imparted by the sericultural States themselves while the CSB is responsible for advanced training. State-level training institutions are located at (1) Srinagar (Jammu & Kashmir); (2) Channapatna (Karnataka); (3) Berhampore (West Bengal); (4) Bhagalpur (Bihar) and (5) Titabar (Assam.).

Training Facilities under CSB

(i) *Post-graduate Diploma Course*

A fifteen-month course is offered in mulberry culture at the Central Sericultural Research & Training Institute, Mysore and at the Central Sericultural Research Station, Berhampore. Similarly, a fifteen-month course is conducted at the Central Tasar Research Station, Ranchi on tasar culture. The course commences on 1st July every year; and 25 seats are available in each of the centres. The course also caters to the needs of the foreign trainees deputed under the various collaboration plans. Only graduates in natural sciences are eligible for admission.

(ii) Refresher Course

Short duration refresher courses of 4 weeks are offered every year - both at the Central Sericultural Research & Training Institute, Mysore and at the Central Tasar Research Station, Ranchi, for in-service candidates sponsored by the State Governments.

(iii) Special Training Course

Special training courses are also organised by the Board's Research Stations/ Institutes from time to time to impart training to meet the specific requirements of any projects. The duration of such courses varies according to the requirements.

2:6 Progress of Sericulture : in Retrospect

India has maintained a steady uptrend in the output of natural silks and also in the matter of stabilising herself as an important exporter of silk goods during the Plan periods will be evident from the tables given below.

TABLE VII

PROGRESS AT A GLANCE

(units as specified)

Year	Area under mulberry	Production			Foreign Trade	
		Reeling cocoons (mulberry)	Raw silk	Silkwaste	Import (raw silk)	Export (silk goods & silkwaste)
	(hectare)	(.....m. tons .....)			(m. tons)	(lakh Rs.)
1949	47,200	n.a.	1,242	n.a.	117	41
1951	56,732	12,088	1,140	628	527	53
1960	82,954	21,637	1,499	762	108	103
1965	86,191	25,046	2,152	986	49	245
1970	98,248	34,278	2,844	1,187	32	1,350
1971	1,04,885	32,955	2,720	1,083	26	702
1972	1,04,092	34,255	2,611	1,028	37	760
1973	1,08,962	38,988	3,019	1,267	13	1,148
1974	1,20,567	36,533	2,969	1,187	17	1,287
1975	...	33,385	2,919	1,135	20	1,502

TABLE VIII

INDIAN SERICULTURE AT A GLANCE (1974-75)

Food Plants		
(i) Area under Mulberry	hectares	1,20,567
(ii) Number of mulberry trees utilised for rearing	lakh nos.	48
Production Capacity		
(i) Reeling Units :		
Filature basins	nos.	2,203
Cottage basins	nos.	4,590
Charka	nos.	12,619

(ii)	Silk Throwing (spindles)	nos.	1,21,000
(iii)	Silk Weaving :		
	Handlooms	nos.	1,41,000
	Powerlooms	nos.	3,900

(iv) Spun silk/Noil Yarn (in the organised mill sector) (spindles)

		Spun silk yarn	*noil yarn*
Govt. Spun Silk Mills, Channapatna (Karnataka)	nos.	7,500	420
Assam Spun Silk Mills Ltd., Jagi Road (Assam)	nos.	3,000	420
Bihar Spun Silk Mills, Bhagalpur (Bihar)	nos.	3,000	420
TOTAL :		13,500	1,260

Current levels of Production

(i)	Mulberry raw silk		metric tons.	2,434
(ii)	Non-mulberry raw silk		,,	558
	a) Tasar	402)		
	b) Eri	115)		
	c) Muga	41)		
(iii)	Mulberry Silkwaste		,,	1,003
(iv)	Non-mulberry silkwaste		,,	209
(v)	Spun Silk Yarn		,,	61
(vi)	Noil Yarn		,,	77
(vii)	Silk Fabrics		lakh sq. m.	440
	a) Mulberry	365)		
	b) Non-mulberry	67)		
	c) Spun silk/noil yarn	8)		

Exports

		Quantity (lakh sq m.)	*FOB Value (lakh Rs.)*
(i)	Mulberry silk fabrics	43.09	1,032.01
(ii)	Tasar silk fabrics	7.66	196.52
	Sub-total:	50.75	1,228.53
(iii)	Silkwaste (Qty. : lakh kg.)	3.26	37.27
	TOTAL (FOB Value)		1,265.80

Imports

		Qty.	*CIF Value (lakh Rs.)*
(i)	Raw Silk	15,694 kg.	39.25
(ii)	Silkworm Seed	7,500 oz.	10.62
	TOTAL (CIF Value)		49.87

2:7 Imports

Raw silk is the major industrial raw material currently permitted for imports. A limited quantity of silkworm eggs is also imported to meet the specific demands. Imports of silk yarn and silk fabrics are not permitted.

Apart from the above, machinery/machinery parts; spare parts and accessories, etc. essentially required by the silk industry are permitted for imports after taking into consideration the indigenous availability, essentiality of imports and other related factors.

Import of raw silk is in turn linked with exports of silk goods under the Import Trade Control Policy announced annually. Actual imports and distribution thereof to the exporters are however canalised through the Central Silk Board.

2:8 Exports

The main items of export of the silk industry are silk fabrics, readymade garments and madeup articles made therefrom and silkwaste. Export of silk goods i.e. fabrics, readymades and made-ups, are permitted freely while silkwaste export is regulated keeping in view the requirements of the indigenous spun silk industry and the availability.

The exports of silk goods have made phenomenal progress during the last decade and a half. The export of silk goods which amounted to less than Rs. 25 lakh in 1955 rose ten-fold to Rs. 244.97 lakh in 1965 and to Rs. 1501.59 lakh in 1975 Our exports in the past were confined to traditional items like sarees, blouse material etc., largely for meeting the demand of Indian people settled abroad.

Around 60 lakh sq m. of silk goods valued around Rs. 13 to Rs. 15 crore are being exported annually. Silkwaste export is around 6 to 7 lakh kg. per annum valued at about Rs. 60 to Rs. 70 lakh. The outstanding achievement in this regard is the fact that the non-traditional markets viz., the developed nations of the world, account for over 75 per cent of our total exports. Equally significant is the fact that the lion's share of our exports of silk goods is accounted for by the non-traditional items such as dress materials, furnishings, scarves/stoles, readymade garments and madeup articles accounting for about 60 to 70 per cent of the export product mix.

2:9 Promotion of Exports of Silk Goods

(i) Import Replenishment Licences

With a view to promoting exports, natural silk goods exporters are granted replenishment licences for imports of raw silk, dyes and chemicals etc., under I.T.C. Policy. Schedules published under the Commodity Group 'P' and 'K' of the Import Trade Control Policy (Red Book) Vol. II deal with the replenishments available against exports of silk goods. The assistance currently available against export of silk goods are indicated in Appendix — IV.

(ii) Procedure for Export

The exporters of silk goods are required to follow a prescribed procedure to enable them to get the import entitlements permitted under the current policy.

Exports of silk goods are subject to preshipment inspection by the Central Silk Board. The exporters should also get themselves registered with the Handloom Export Promotion Council, Madras. The procedures for registration and preshipment inspection of silk goods are briefly indicated below.

Registration

The authority for registration of exporters has been vested in the Handloom Export Promotion Council, Rasheed Mansion, 123-Mount Road, Madras-600 006. (Phone: 87879 - Telegram: GOSSAMER). In case of Jammu & Kashmir only, the registering authority is the Director of Industries, Government of Jammu & Kashmir, Srinagar (J & K).

The Handloom Export Promotion Council, which has no branches, charges Rs. 250.00 as registration fee and Rs. 100.00 (or part thereof) as annual membership fee. Registration is not commodity-wise and, as such, the membership covers all the handloom items falling under the purview of the Handloom Export Promotion Council. This means that an exporter registered for handloom cotton need not apply afresh for handloom silk.

An exporter may ship his goods in anticipation of registration. In any case, he must get himself registered with the Handloom Export Promotion Council within 6 months from the date of export.

Registration with Silk Board

Central Silk Board is the authority for preshipment inspection of natural silk goods, silk yarn and silkwaste under the import policy. Central Silk Board is also the accredited authority for issuance of "certificate of handloom production" and "certificate of origin" required under different schemes The exporter should get himself registered with the Central Silk Board. Application for registration should be submitted in the prescribed form and addressed to Secretary, Central Silk Board at any of its certification centres. There is no registration fee.

(iii) Procedure for Preshipment Inspection

The purpose of preshipment inspection is to exercise a measure of control on the quality of the products exported for ensuring stabilised growth of our export trade. The scope of inspection varies for different items. The silk goods are inspected and certified with reference to fibre purity, dimensional specifications and the general quality of the material exported. In respect of tasar and tasar mixed silk goods, provision has been made for detailed quality control inspection with reference to the minimum standards prescribed by the Board. Minimum weight and floor prices have also been fixed as a measure of quality control in respect of some of the items like scarves, stoles, ties etc.

Export Documents for Submission to the Board for Preshipment Inspection

The goods shall be tendered for inspection at the certification centre con-

cerned on the appointed date along with the following documents:-

(a) Application in the prescribed form.

(b) Packing list.

(c) In respect of garments, a statement showing the details of the quantum of silk fabrics utilised in the production of garments.

(d) Shipping bill duly registered with the customs authorities along with certified copy of the invoice.

(e) Invoice in triplicate.

(f) P.P Form duly attested by the negotiating bank in case of export by post parcel.

After inspection, the goods will be got packed by the exporter in the presence of the inspecting authority. Thereafter, the consignment shall be sealed by the inspecting authority and released for export. Necessary endorsement will also be made by the inspecting authority on the invoice. It may be noted that the intactness of the Central Silk Board seals will be checked by the customs/postal authorities, before accepting the goods for export, who will also make an endorsement to that effect in the concerned documents.

Certificate of Inspection

The certificate of inspection will be issued to the exporters in duplicate within seven days from the date of inspection on production of documentary evidence in support of having actually exported the goods such as Bill of Lading duly endorsed by the customs, air consignment note/postal receipt etc., as the case may be.

(iv) Preferential Tariffs and Quotas

Prior to 1966, Indian silk goods did not enjoy any tariff preferences in the import markets of the developed countries where they were exposed to severe international competition. The only exception in the matter was the Commonwealth preferences The barriers of tariff, however, started melting following the fruitful outcomes of the Kennedy Round of Talks and the subsequent negotiations held under the aegis of the UNCTAD. Under these negotiations, the various duty concessions offered by developed countries to the developing countries were crystallized into what is now popularly known as GENERALISED SYSTEM OF PREFERENCES (GSP).

The nature and quantum of concessions offered to specific items of silk under G S.P. varies from country to country. Details of the above may be had from Secretary, Central Silk Board. The countries who have already implemented G.S.P are: the EEC, Japan, Norway, Sweden, Finland, New Zealand, Switzerland, Hungary, Austria, Czechoslovakia, Bulgaria, Australia and Canada.

Zero Tariff with Quotas

Besides G.S P , Indian silks enjoy special ZERO TARIFF facilities with quota restrictions - in the EEC. While the EEC quota for silks (fabrics alone) was 2.2 million units of account for 1975, the same in respect of the U.K. was 2.0 lakh sq yds. during the same year. Unlike the EEC, the U.K. quota included all varieties of handloom silks.

Zero Tariff without Quota

In addition to the G.S.P., Switzerland also offers duty-free concessions to handloom silk fabrics. This scheme will be in force upto 28.2.1982

Certificate for Duty Concessions

Central Silk Board is the operative authority for all the schemes of preferential tariffs indicated in the foregoing paragraphs. The importer abroad can claim the preference only when the consignment imported by him is duly vouched by a prescribed certificate issued by Central Silk Board Proforma certificate in respect of all the schemes are supplied by the Board and its certification centres free of cost except for the G.S.P. proforma certificate which costs Re. 0 75 each. The exporter should submit the proforma certificate, duly filled in (1 original plus 3 copies), together with a postal order for Rs. 5.00 drawn in favour of Secretary, Central Silk Board, Bombay-400 002, being the prescribed fee.

Lead Seals

Exporter shipping his goods to any of the E.E.C. countries, under the special duty-free quota scheme, has to tag a lead seal each at the beginning and end of each fabric piece. The lead seal shall be supplied by exporter himself, duly attached to the pieces, which will be stamped by the certification centre during inspection.

(v) CENTROSILK Certification Scheme

In order to protect the interests of the consumers of silk fabrics and thereby to promote the silk industry in India, the Central Silk Board has been operating a scheme for inspection and STAMPING of pure silk fabrics for purity with "CENTROSILK" Trade Mark on voluntary basis. The scheme has been in operation since January 1965. The CENTROSILK Trade Mark is the property of the Board as registered with the Trade Marks Registry, Government of India, Bombay.

'CENTROSILK" protects the consumers as well as producers of pure silk fabrics from being exploited by unscrupulous traders and manufacturers.

"CENTROSILK" instils confidence in our overseas buyers and thus promotes our silk exports.

"CENTROSILK" is a must for a successful manufacturer, exporter or trader of pure silk fabrics.

The above service is made available to the manufacturers and dealers of natural silk goods at all the Certification Centres of the Central Silk Board. For further particulars of the scheme, reference may be made to the Secretary, Central Silk Board or to the officer in-charge of the Certification Centres.

(vi) Sponsoring Delegations/Study Teams Abroad

The Board arranges to sponsor Delegations/Study Teams, etc., to the important silk consuming countries of the world from time to time to study the organisation and progress of sericulture industry in other countries and to conduct on-the-spot study/evaluation of the current market conditions for silk goods in

general and with particular reference to the demand for Indian silk goods. Besides sponsoring official delegations, the Board also issues suitable recommendatory letters to the concerned authorities abroad wherever necessary on specific requests from the individual members of the trade.

(vii) Procurement of Raw Materials for Export Production

The trade is also assisted by the Board in the procurement of essential raw materials required for production of silk goods particularly for exports. In this context, the Board has also established a Raw Material Bank in Chaibasa for providing off-the-shelf supplies of tasar reeling cocoons to the manufacturer-exporters of tasar silk goods. A similar arrangement in the mulberry sector is also receiving active consideration of the Government of India.

(viii) Liaison between the Trade and the Government

Under the Act, the Central Silk Board is responsible for advising the Government of India on all matters connected with the exports of silk goods. The Board has, for this purpose, constituted a Standing Export Advisory Committee comprising leading exporters. The Committee maintains a close watch on the trends in exports from time to time and advises the Board suitably in the matter of promotion of exports. The Board has also established a Technical Advisory Committee to examine periodically the question relating to the working of the quality control/standardisation measures germane to promotion of exports of quality silk goods.

2:10 Five Year Plans

With the advent of economic planning in the country, sericulture industry set out on its course of progressive development through the consecutive plans. The following paragraphs trace out the scale of growth achieved by the industry during the four plan periods and the objectives set for the V Plan currently in force.

(1) First Plan (1951-52 to 1955-56)

During the plan, sericulture did not find a separate place; but was included in the broad budget head: "Other Village Industries". The Central assistance was made available to the States through the Central Silk Board as grants and loans.

Grants-in-aid amounting to Rs. 45.97 lakh were made available to the States out of which the expenditure incurred was reported at Rs. 21.69 lakh. The rate of expenditure was low due to paucity of trained personnel and delay in constructional activities. However, output of raw silk rose from 8.94 lakh kg. in the beginning of the Plan to 14.86 lakh kg. at the end accounting for a 66 per cent increase.

130 schemes were implemented designed to consolidate the industry and provide the necessary organisational base.

(2) Second Plan (1956-57 to 1960-61)

Out of an allocation of Rs. 379.25 lakh for implementation of 339 schemes,

about Rs. 224.49 lakh representing nearly 60 per cent of the provision were utilised by the States. During the period, the production of raw silk recorded a 14 per cent increase to 16.95 lakh kg.

Emphasis was laid on the development of the seed organisation and improvement of silk reeling. Among the major achievements, mention should be made of the passing of the legislation in Mysore State to prevent the use of un-examined seed for industrial production; the large-scale introduction of improved cottage basins for improving the quality and output of raw silk; establishment of Central Silkworm Seed Station at Pampore (Srinagar); and setting up of All India Sericultural Training Institute at Mysore (now stands merged into the Central Sericultural Research & Training Institute) by the Board.

The Government of India, on the advice of the Board, canalised the imports of raw silk and its distribution to regulate the imports and stabilise the domestic markets. In the export sector, for the first time an organised effort to promote exports was ushered in with the introduction of an export promotion scheme administration of which was entrusted to the Board. Accordingly, the Board established 5 inspection centres in September, 1958.

(3) Third Plan (1961-62 to 1965-66)

The Plan period assumes added importance since it was only during this period that sericulture was assigned a separate place within the overall budget head of "Village and Small Scale Industries." The export promotional efforts were further enlarged both in their nature and content.

An outlay of Rs. 7.02 crore was approved for development of the industry during the 3rd Plan period of which Rs. 5.52 crore related to States' schemes and Rs. 1.50 crore for Central Schemes to be implemented through the Central Silk Board. The total expenditure incurred by the States was Rs. 3.39 crore accounting for 61.4 per cent of the allocation. An expenditure of Rs. 1.06 crore was incurred in respect of Central Schemes.

During the plan, the seed organisation was further strengthened in the States of Jammu & Kashmir and Mysore. Organisation of research received particular attention. The Board also organised the Central Sericultural Research & Training Institute, Mysore (1961); the Central Tasar Research Station at Ranchi (1964); re-organised the Central Sericultural Research Station, Berhampore and established the basic tasar seed station (Central Tasar Silkworm Seed Station) at Lakha (1964).

Modernisation of reeling with a view to improving the quality of raw silk made considerable progress. Improved reeling and spinning equipments were introduced for reeling of tasar and muga cocoons and for spinning of tasar, muga and eri wastes.

On the export front, quality control inspection and standards were introduced in January, 1965. "Centrosilk Trade Mark" Scheme for quality was also introduced in January, 1965 for implementation on a voluntary basis to prevent sales of art silk fabrics as pure silk fabrics by unscrupulous traders

A second spun silk mill was set up in 1961 in Assam in the public sector for economic utilisation of eri and muga silk wastes.

(4) Transitional Period (1966-67 to 1968-69)

During this period, out of a total allocation of Rs. 552.52 lakh recommended by the Planning Commission, the actual amount made available was only Rs. 378.67 lakh. Of this, a total expenditure of Rs. 288.73 lakh was reported.

Among the important schemes initiated during this period, mention may be made of the initiation of a Price Support Scheme for tasar cocoons in December, 1966 by the Board with a view to arresting the steep fall in prices as also to ensuring a fair return to the primary adivasi rearer to sustain the industry.

(5) Fourth Plan ((1969-70 to 1973-74)

The broad objectives of the IV Plan envisaged attainment of self-sufficiency in regard to country's demand for raw silk through increased productivity, reduced costs of production through rationalisation of production techniques besides creating additional employment opportunities to about 4 lakh persons.

The Planning Commission originally approved an outlay of Rs. 10.39 crore which was later revised down to Rs. 9.69 crore Out of this, a sum of Rs. 593.19 lakh was spent on States' Schemes numbering 606 Expenditure on Central Schemes during the period amounted to Rs. 81.61 lakh.

By the end of the Plan period, production of raw silk reached 28.94 lakh kg. and exports Rs. 12.37 crore.

(6) Fifth Plan (1974-75 to 1978-79)

The Planning Commission, Government of India, has recommended a provision of Rs. 33.65 crore (Rs. 25.65 crore for State Schemes and Rs 8 crore for implementation of Central Schemes) during the V Plan period There are currently 143 schemes under implementation at the State level; while there are 40 schemes under progress in the Central sector.

The Planners have identified sericulture as a vital labour-intensive industry with immense potential for creation of rural employment.

The projections for the Fifth Plan are as under:-

TABLE IX

TARGET OF PRODUCTION OF RAW SILK

Variety	Current level (1974-75)	Traget as at end of V Plan (1978-79)
	(.... .lakh kg. ...)	
i) Mulberry raw silk	24 34	35 00
ii) Tasar raw silk	4 02	6 50
iii) Eri raw silk	1 15	3 75
iv) Muga raw silk	0 41	1.20
Total	29 92	46 45

TABLE X

TARGET OF EXPORTS

(crore rupees)

Year	Silk goods	Silkwaste	Raw silk/ spun silk yarn.	Total
1974-75	13 00 (12.29)	0.50 (0 37)	0.50	14.00 (12.66)
1975-76	14.50 (16.47)	0.50 (1.05)	0 50	15.50 (17.52)
1976-77	16 00	0.50	1.00	17.50
1977-78	17.50	1 00	1.00	19.50
1978-79	19.00	1 00	1 00	21.00

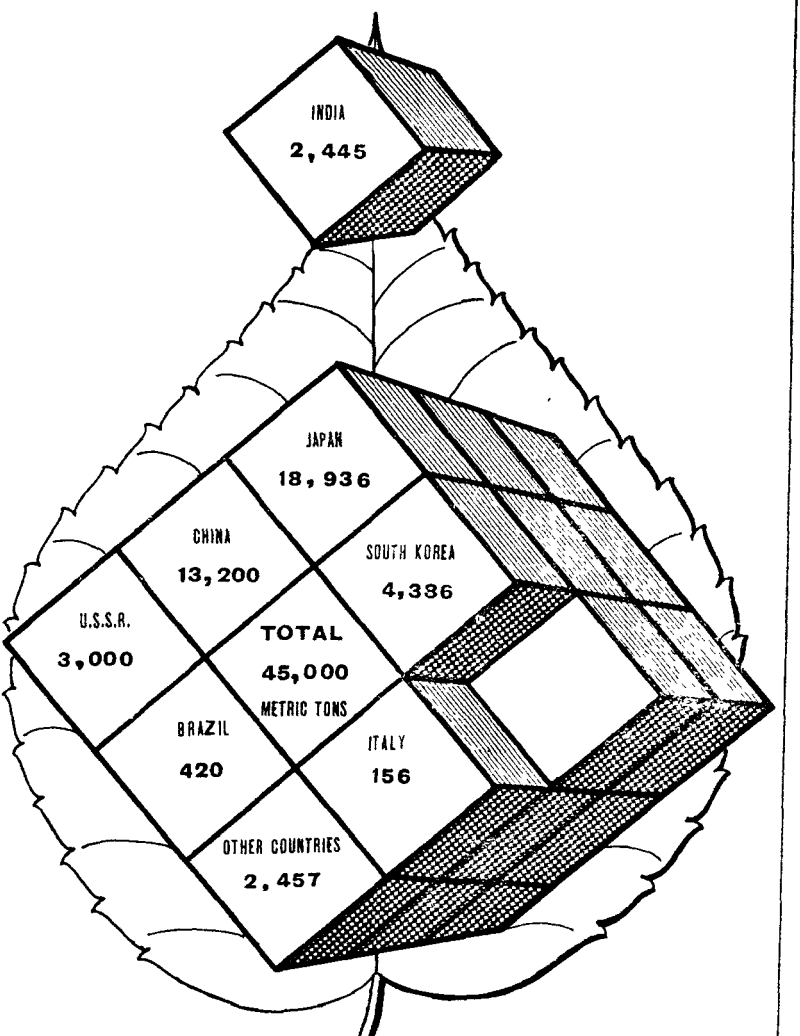
(Figures in bracket indicate the actual achievement)

Section II

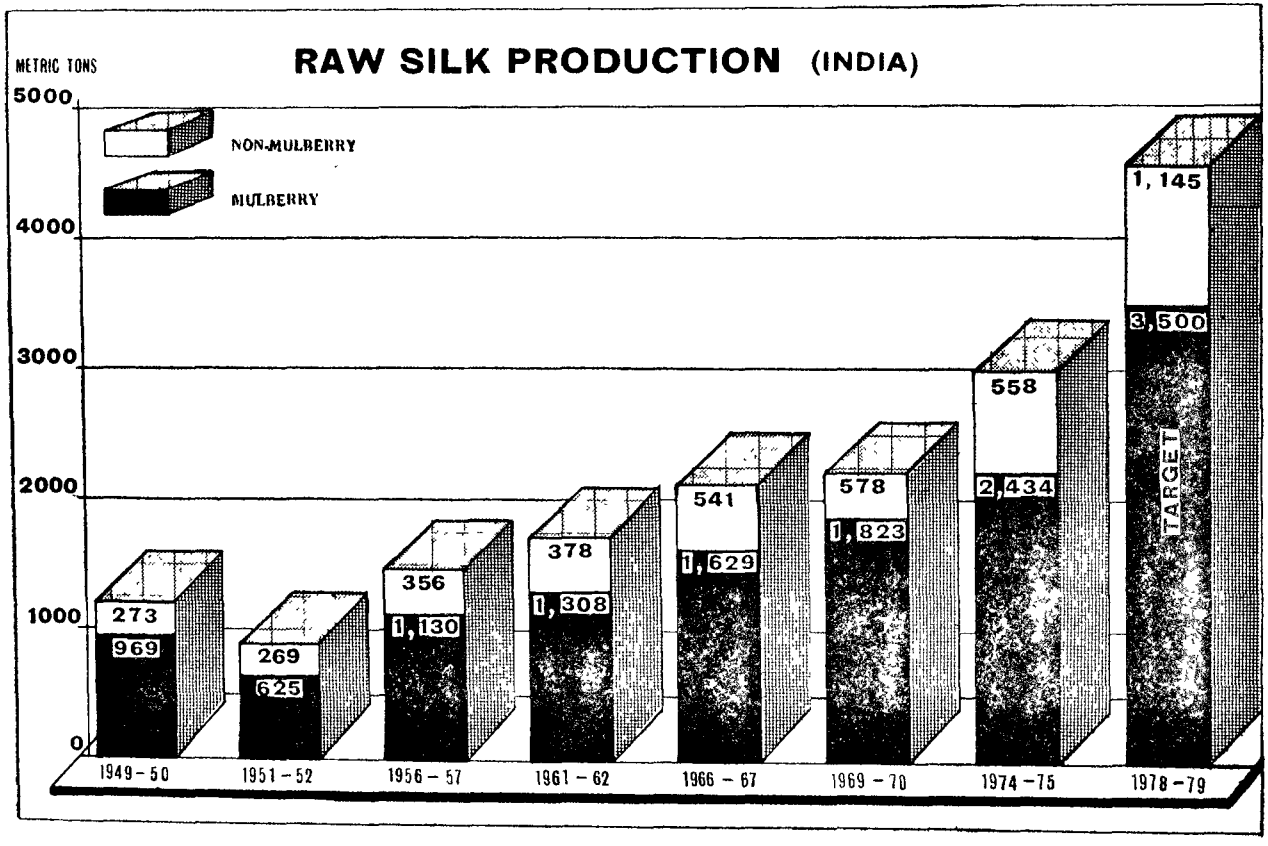
GRAPHS

WORLD RAW SILK PRODUCTION

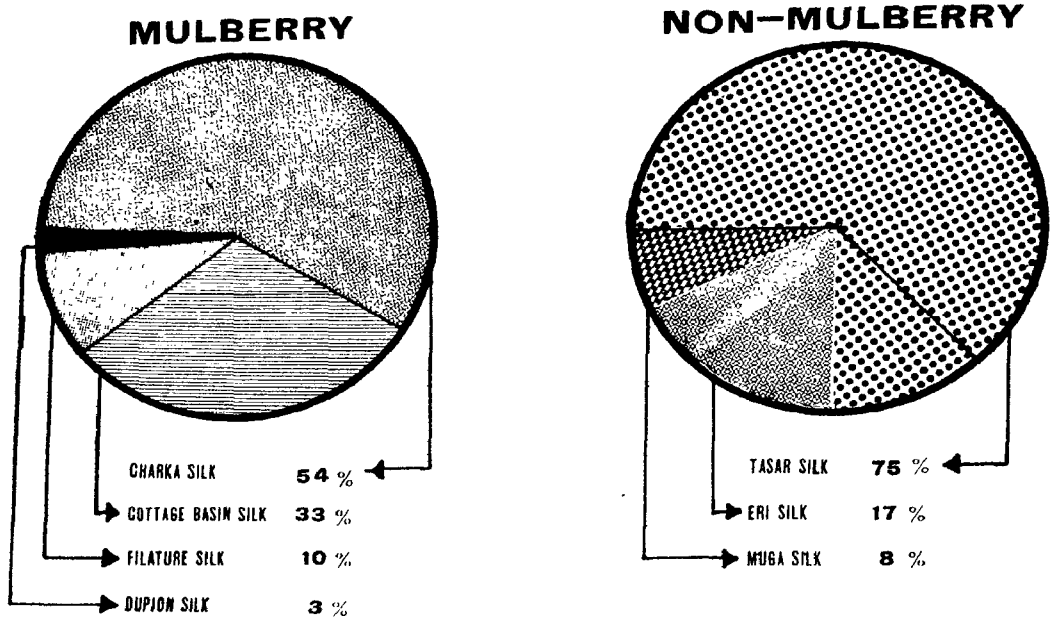
1974

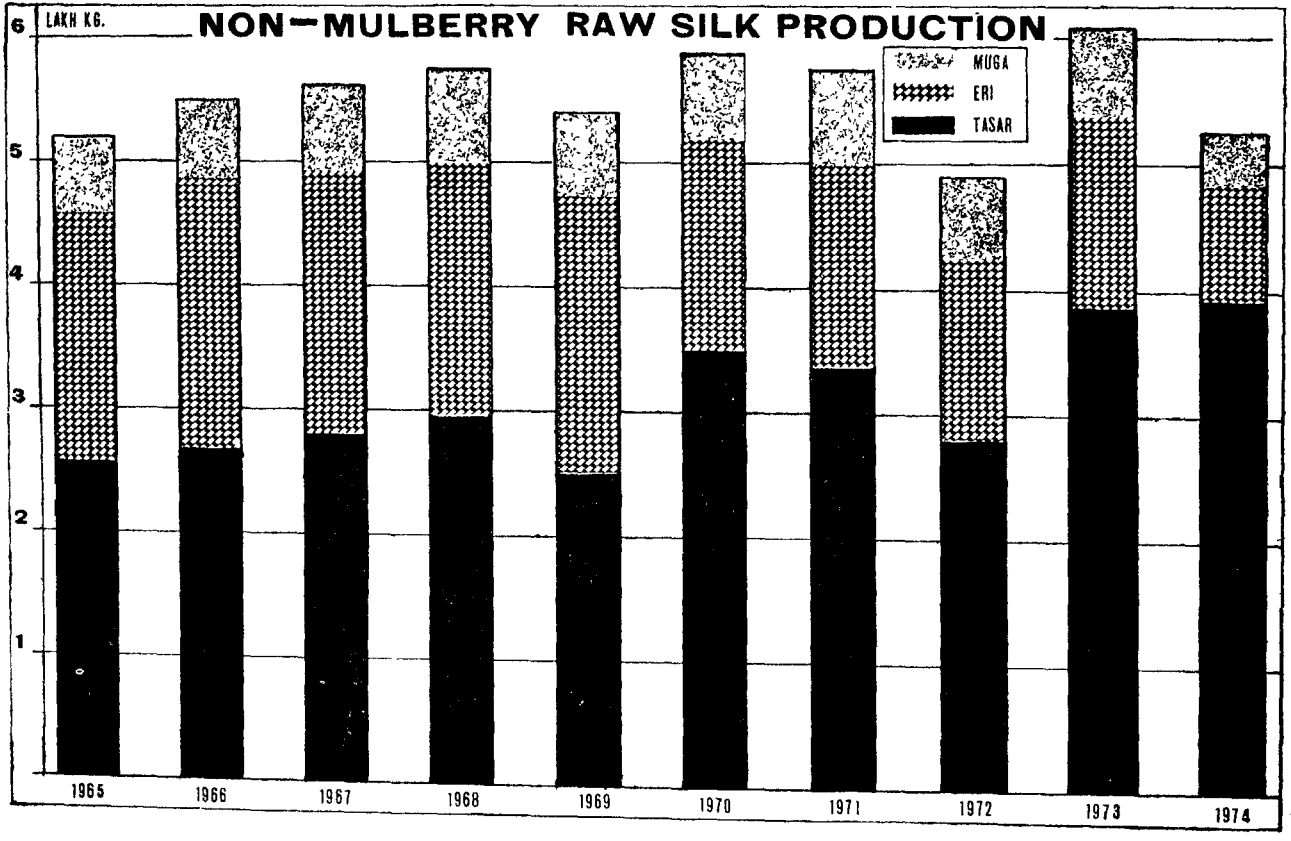


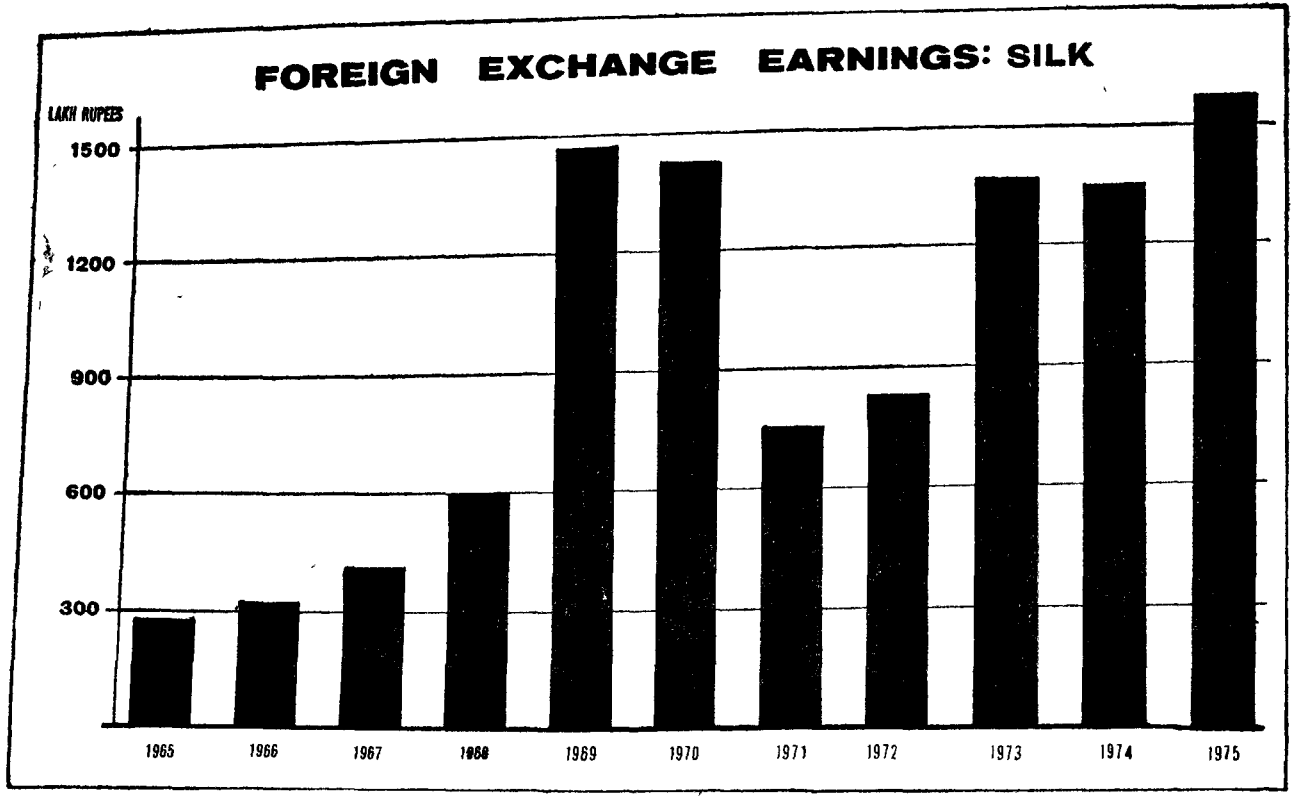
WORLD MULBERRY RAW SILK PRODUCTION
THOUSAND METRIC TONS
OTHER COUNTRIES
INDIA
SOUTH KOREA
U.S.S.R.
CHINA
JAPAN
40
30
20
10
21,129
21,298
31,110
31,831
32,600
42,000
45,000
48,173
1949
1951
1956
1961
1966
1973
1975
1980


RAW SILK PRODUCTION (INDIA)
METRIC TONS
5000
4000
3000
2000
1000
0
NON-MULBERRY
MULBERRY
273
969
269
625
356
1,130
378
1,308
541
1,629
578
1,823
558
2,434
1,145
3,500
TARGET
1949-50
1951-52
1956-57
1961-62
1966-67
1969-70
1974-75
1978-79

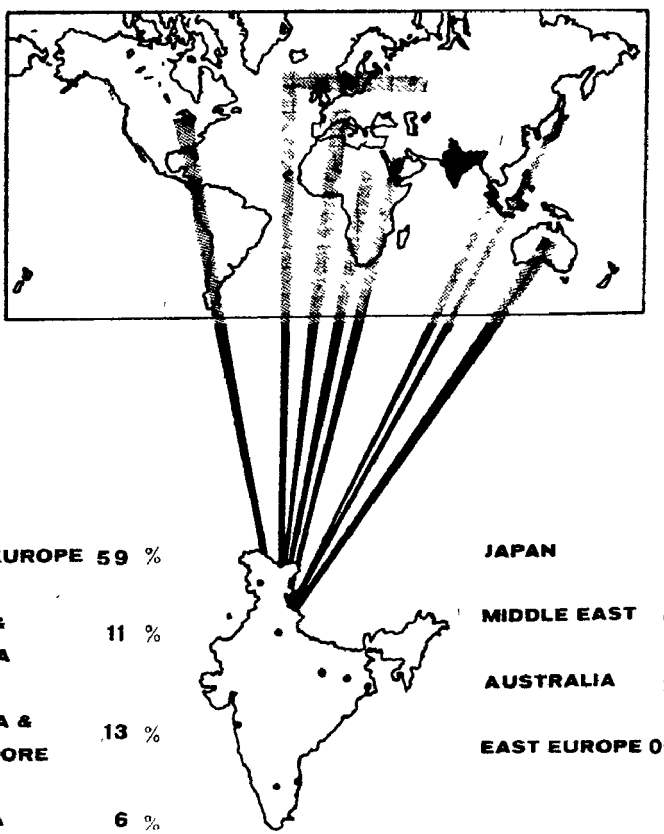
RAW SILK PRODUCTION
1974




NON-MULBERRY RAW SILK PRODUCTION
LAKH KG.
6
5
4
3
2
1
MUGA
ERI
TASAR
1965
1966
1967
1968
1969
1970
1971
1972
1973
1974

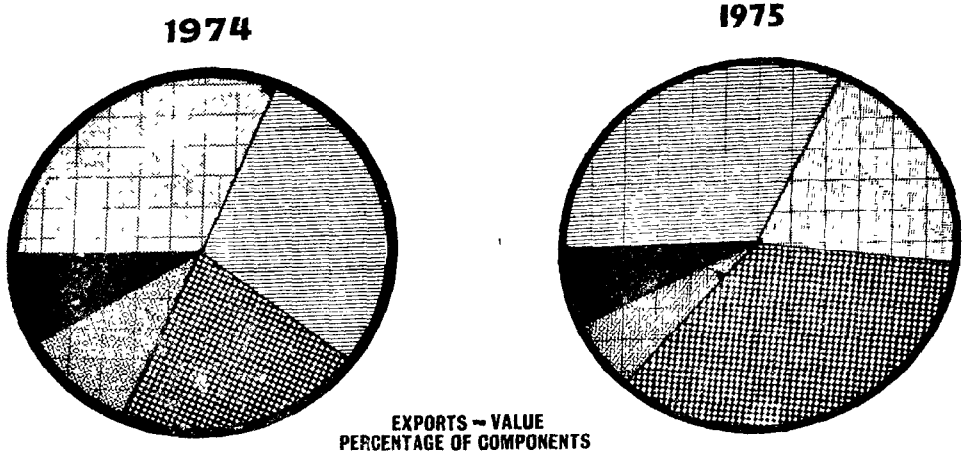

FOREIGN EXCHANGE EARNINGS: SILK
LAKH RUPEES
1500
1200
900
600
300
1965
1966
1967
1968
1969
1970
1971
1972
1973
1974
1975

DIRECTION OF EXPORTS



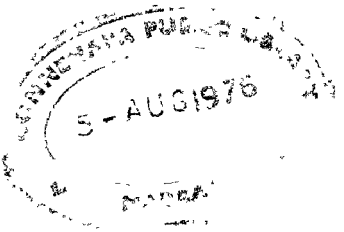
WEST EUROPE	59 %	JAPAN	2 %
U.S.A. & CANADA	11 %	MIDDLE EAST	6 %
MALAYA & SINGAPORE	13 %	AUSTRALIA	2 %
AFRICA	6 %	EAST EUROPE	0·4 %

VARIETY-WISE EXPORT OF MULBERRY SILK GOODS



EXPORTS – VALUE
PERCENTAGE OF COMPONENTS

1974		1975
29	SCARVES	32
31	DRESS MATERIALS	20
24	SAREES	35
10	READYMADE GARMENTS	6
6	TIES AND OTHERS	7



Section III

STATISTICAL TABLES

Part 1 : WORLD MULBERRY SILK INDUSTRY

GLOBAL TEXTILE PRODUCTION

TABLE : 1 ('000 m. tons)

Year	NATURAL FIBRES				Man-made fibres	Grand total
	Cotton	Wool	Silk	Sub-Total		
1970	11,367	1,591	40	12,998 (62)	8,127 (38)	21,125
1971	12,412	1,556	40	14,008 (61)	9,047 (39)	23,055
1972	12,931	1,474	40	14,445 (59)	9,899 (41)	24,344
1973	12,995	1,464	42	14,501 (56)	11,236 (44)	25,737
1974	13,595	1,478	45	15,118 (58)	10,963 (42)	26,081
Variation of 1974 over 1970 (%)	+20	—8	+12	+16	+35	+23

Figures within bracket indicate percentage to grand total

GLOBAL PRODUCTION OF GREEN COCOONS

TABLE : 2 (m. tons)

Country	1965	1970	1971	1972	1973	1974
Japan	105,513	111,714	108,000	105,109	106,500	101,948
China*	84,000	120,900	120,900	120,900	120,900	120,900
U.S.S R.*	33,000	33,638†	38,000	38,000	38.000	38,000
India	**25,046**	**34,278**	**32,955**	**34,255**	**38,988**	**36,533**
Rep. of South Korea	7,765	21,409†	24,691	26,800	30,980	37,178
Italy	3,334	1,533	764	299	432	548
Brazil	1,561	2,054	2,394	3,192	5,064	6,213
Others	12,781	16,974	12,296	11,445	6,936	56,680*
TOTAL	273,000	342,500†	340,000	340,000	347,800	398,000*

* Estimated
† Revised

GLOBAL PRODUCTION OF RAW SILK

TABLE : 3

(m. tons)

Country	1960	1965	1970	1971	1972	1973	1974	1980**
Japan	18,048	19,106	20,515	19,684	19,137	19,317	18,936	17,000
China*	7,000	6,860	11,124	11,124	11,124	11,124	13,200	16,000
U.S.S.R.*	2,358	2,833	3,000	3,000	3,000	3,000	3,000	3,200
India	**1,154**	**1,634**	**2,258**	**2,143**	**2,119**	**2,411**	**2,445**	**3,500**
Italy	893	611	310	153	155	244	156	200
Rep. of South Korea	470	849	3,026	3,041	3,656	3,573	4,386	6,500
Brazil	93	89	259	317	385	385*	420	300
Others	1,354	683	508	538	424	1,946	2,457*	1,473
TOTAL	31,370	32,665	41,000	40,000	40,000	42,000	45,000*	48,173

* Estimated

** Projections by the F.A.O.'s Commodity Group (1972).

GLOBAL RAW SILK IMPORTS

TABLE : 4

(m. tons)

Year	*Japan*	*Italy*	*France*	*West Germany*	*Switzer-land*	*U.S A.*	*India*
1960		1,227	1,117	315	. .	2,972	108
1964	18	1,156	680	214	344	2,226	103
1965	307	1,245	700	191	359	1,827	49
1970	3,959	1,852	619	183	224	457	32
1971	5,911	1,114	407	185	142	140	26
1972	10,118	1,229	595	183	152	246	37
1973	8,600	1,599	634	198	141	235	13
1974	5,921	910	320	184	95	186	17
1975	2,465	1,081**	458	59@	186	262	20
1980*	11,000	1,800	700	250	220	1,000	. .

* Future projections by the F.A O.'s Commodity Group (May, 1972).

** January-August, 1975.

@ January-October, 1975.

GLOBAL EXPORTS OF RAW SILK

TABLE . 5 (m. tons)

Year	*Italy*	*Rep. of Korea*	*Switzer-land*	*Japan*	*West Germany*	*France*	*Brazil*
1960	54	154	73	5,299	1	20	n.a.
1965	433	587	45	1,037	2	11	—
1970	589	2,073	49	75	5	49	170
1971	167	2,201	50	69	15	21	137
1972	138	2,625	53	21	8	55	272
1973	354	2,108	141	9	17	50	319
1974	22	1,985	95	471	22	17	627
1975	2+	—	36★	—	11@	15	1,004★

+ January-August, 1975.
@ January-October, 1975.
★ Estimated

GLOBAL CONSUMPTION OF RAW SILK

TABLE : 6 (m. tons)

Year	*Japan*	*Italy*	*West Germany*	*France*	*U.K*	*U S A.*	*Switzer-land*
1960	15,415	2,154	314	1,114	253	2,880	617
1965	18,948	1,212	189	695	146	1,974	322
1970	24,454	1,673	177	588	160	430	175
1971	24,470	1,002	171	401	76	168	92
1972	30,211	1,126	175	554	105	191	99
1973	27,341	1,500	177	632	n a.	221	106
1974	21,813	985	160	333	n.a.	146	75
1975	23,357	1200★	48★	430	—	261	148★

★ Estimated

GLOBAL TRADE IN SILK WASTE

TABLE · 7 (m tons)

Country	*Production*			*Imports*			*Exports*		
	1972	1973	1974	1972	1973	1974	1972	1973	1974
Japan	3302	3218	3321	1853	3258	2040	—	593	572
Republic of Korea	1152	1540	1500	—	—	—	1000	893	888
Italy	—	—	—	1802	2070	1950	71	394	260
India	**824**	**979**	**997**	—	—	—	**794**	**1218**	**430**
Switzerland	—	—	—	84	144	38	48	40	28
West Germany	—	—	—	172	137	179	17	32	28
France	—	—	—	69	162	224	37	74	40

GLOBAL TRADE IN SPUN SILK YARN

TABLE : 8

(m. tons)

Country	Production			Imports			Exports		
	1972	1973	1974	1972	1973	1974	1972	1973	1974
Japan	1863	1880	1687	798	924	479	6	11	30
Republic of Korea	149	237	212	—	—	—	102	203	114
India	**63**	**62**	**63**	—	—	—	**40**	**20**	—
Italy	—	—	—	83	70	45	169	288	225
Switzerland	—	—	—	14	26	21	93	118	104
West Germany	—	—	—	87	165	143	30	23	38
France	—	—	—	102	46	42	6	12	23

GLOBAL TRADE IN NOIL YARN

TABLE 9

(m. tons)

Country	Production			Imports			Exports		
	1972	1973	1974	1972	1973	1974	1972	1973	1974
Japan	—	102	—	18	283	—	8	2	5
Republic of Korea	90	133	129	—	—	—	120	139	165
India	**78**	**73**	**76**	—	—	—	—	—	—
Italy	—	—	—	5	10	100	110	125	115
Switzerland	—	—	—	30	24	21	8	5	2
West Germany	—	—	—	14	12	37	147	201	207
France	—	—	—	39	30	55	3	3	11

Part 2 : INDIAN SILK INDUSTRY

ABSTRACT STATISTICS

MULBERRY SILK ABSTRACT

TABLE : 10 (Unit: as specified)

Year	Area under Mulberry	No. of Trees	PRODUCTION			
			Silkworm Seed**	Reeling Cocoon	Raw Silk	Silk-waste
	hectares	'000	kg./dfl	'000 kg.	'000 kg.	'000 kg.
1959	76,492	2,215	16,219	19,502	1,141	539
1960	82,954	2,538	18,097	21,637	1,154	581
1961	84,247	3,650	21,072	19,918	1,264	625
1962	85,433	3,421	20,884	20,779	1,401	716
1963	85,644	3,449	960.52	21,977	1,423	650
1964	86,209	3,540	868.64	23,279	1,466	694
1965	86,191	3,290	1,135.44	25,046	1,634	714
1966	84,138	4,337	1,104.43	22,454	1,502	652
1967	88,379	4,172	1,244.76	24,788	1,668	720
1968	87,071	4,084	1,300.00	25,000	1,748	722
1969	91,621	4,286	1,315.70	26,568	1,758	756
1970	98,248	3,959	1,411.82	34,278	2,258	939
1971	1,04,885	3,598	1,409.59	32,955	2,143	838
1972	1,04,092	—	1,551.22	34,255	2,119	824
1973	1,08,962	3,750	1,659.74	38,988	2,411	979
1974	1,20,567	4,800	1,791.35	36,533	2,445	997
1975*	—	—	1,701.87	33,385	2,376	911

** lakh d.f.l.s from 1963.

* Estimated

NON-MULBERRY SILK ABSTRACT

TABLE: 11 (Unit: '000 unless specified)

Year	PRODUCTION										
	Reeling Cocoon			Raw Silk				Silkwaste			
	Tasar	Eri	Muga	Tasar	Eri	Muga	Total	Tasar	Eri	Muga	Total
	Kahan	kg.	crore Nos.	kg.	kg.	kg.	kg.	kg.	kg.	kg.	kg
1961	142	263	26	203	133	56	392	138	80	20	238
1962	153	281	21	202	132	45	379	111	78	16	205
1963	154	301	18	230	196	50	476	140	62	19	221
1964	181	328	18	224	203	50	477	148	62	19	229
1965	217	329	26	257	203	58	518	181	63	28	272
1966	228	322	30	268	208	68	544	173	66	23	262
1967	248	333	32	281	211	69	561	159	67	22	248
1968	217	363	37	292	211	70	573	133	72	25	230
1969	139	343	36	252	216	72	540	135	76	30	241
1970	225	274	23	353	164	69	586	167	53	28	248
1971	177	275	39	335	170	72	577	165	55	25	245
1972	255	223	33	281	146	65	492	134	49	21	204
1973	280	283	36	386	149	73	608	178	86	24	288
1974	296	170	11	392	91	41	524	152	28	10	190
1975*	264	182	4	395	121	27	543	168	43	13	224

* Estimated

RAW SILK AVAILABILITY

TABLE : 12 (Unit: '000 kg.)

YEAR	PRODUCTION			RAW SILK IMPORTS	AVAILABILITY
	Mulberry	Non-Mulberry	Total		
1959	1,141	374	1,515	150	1,665
1960	1,154	345	1,499	108	1,607
1961	1,264	392	1,656	106	1,762
1962	1,401	379	1,780	112	1,892
1963	1,423	476	1,899	100	1,999
1964	1,466	477	1,943	103	2,046
1965	1,634	518	2,152	49	2,201
1966	1,502	544	2,046	45	2,091
1967	1,668	561	2,229	42	2,271
1968	1,748	573	2,321	51	2,372
1969	1,758	540	2,298	55	2,353
1970	2,258	586	2,844	32	2,876
1971	2,143	577	2,720	26	2,746
1972	2,119	492	2,611	37	2,648
1973	2,411	608	3,019	13	3,032
1974	2,445	524	2,969	17	2,986
1975*	2,376	543	2,919	20	2,939

* Estimated

PRODUCTION, CONSUMPTION AND EXPORTS OF SILKWASTE

TABLE : 13

(Unit : '000 kg.)

Year	*Production of Silkwaste*			*Consumption of Silkwaste*			*Exports of Silkwaste (Mulberry)*
	Mulberry	*Non-mulberry*	*Total*	*Mulberry*	*Non-mulberry*	*Total*	
1963	650	221	871	241	31	272	604
1964	694	229	923	233	32	265	382
1965	714	272	986	351	25	376	599
1966	652	262	914	263	47	310	751
1967	720	248	968	271	68	339	684
1968	722	230	952	256	64	320	444
1969	756	241	997	259	62	321	480
1970	939	248	1187	278	80	358	745
1971	838	245	1083	260	73	333	633
1972	824	204	1028	250	57	307	794
1973	979	288	1267	234	71	305	1218
1974	997	190	1187	377	68	445	430
1975*	911	224	1135	401	74	475	718

* Estimated

PRODUCTION OF SPUN SILK YARN AND NOIL YARN

TABLE : 14 (Unit: '000 kg.)

Year	SPUN SILK YARN				NOIL YARN			
	Gssm	*Assm*	*Bssm*	*Total*	*Gssm*	*Assm*	*Bssm*	*Total*
1962	31	8		39	—	—		27
1963	35	17		52	29	21		50
1964	34	14		48	31	23		54
1965	42	17		59	43	28		71
1966	40	19		59	41	21		62
1967	34	21		55	38	19		57
1968	40	21		61	50	22		72
1969	39	22		61	45	20		65
1970	36	25		61	43	20		63
1971	39	24		63	54	22		76
1972	41	22		63	52	26		78
1973	36	26		62	46	27		73
1974	40	23	3	66	55	21	6	82
1975	40	22	4	65	53	25	9	87

Gssm: Govt. Spun Silk Mills, Channapatna (Karnataka).
Assm: Assam Spun Silk Mills Ltd., Jagi Road (Assam).
Bssm: Bihar Spun Silk Mills, Bhagalpur (Bihar)—(Commissioned in February, 1974).

MULBERRY RAW SILK PRODUCTION

TABLE : 15 (Unit: '000 kg.)

Year	*Filature Silk*	*Charka Silk*	*Cottage Basin Silk*	*Dupion*	*Total*
1959	126	894	89	32	1,141
1960	157	821	142	34	1.154
1961	161	889	170	44	1,264
1962	186	850	320	45	1,401
1963	177	919	284	43	1,423
1964	180	855	392	39	1,466
1965	161	1,249	201	23	1,634
1966	185	979	323	15	1,502
1967	200	970	482	16	1,668
1968	184	1,102	438	24	1,748
1969	153	1,096	467	42	1,758
1970	189	1,498	523	48	2,258
1971	179	1,357	557	50	2,143
1972	167	1,289	630	33	2,119
1973	228	1,426	717	40	2,411
1974	242	1,320	806	77	2,445
1975*	238	1,214	861	63	2,376

* Estimated

NON-MULBERRY RAW SILK PRODUCTION

TABLE : 16 (Unit: '000 kg.)

Year	*Tasar*	*Eri*	*Muga*	*Total*
1959	162	128	84	374
1960	179	112	54	345
1961	203	133	56	392
1962	202	132	45	379
1963	230	196	50	476
1964	224	203	50	477
1965	257	203	58	518
1966	268	208	68	544
1967	281	211	69	561
1968	292	211	70	573
1969	252	216	72	540
1970	353	164	69	586
1971	335	170	72	577
1972	281	146	65	492
1973	386	149	73	608
1974	392	91	41	524
1975*	395	121	27	543

* Estimated

MULBERRY SILKWASTE PRODUCTION

TABLE : 17

(Unit: '000 kg)

Year	*Filature*	*Charka*	*Cottage Basin*	*Total*
1959	93	406	40	539
1960	118	399	64	581
1961	103	441	81	625
1962	*n.a.*	*n.a.*	*n.a.*	716
1963	108	408	134	650
1964	113	386	195	694
1965	126	497	91	714
1966	114	381	157	652
1967	134	366	220	720
1968	121	440	161	722
1969	84	479	193	756
1970	118	607	214	939
1971	107	508	223	838
1972	97	443	284	824
1973	150	537	292	979
1974	186	322	489	997
1975*	151	343	417	911

* Estimated

NON-MULBERRY SILKWASTE PRODUCTION

TABLE : 18 (Unit: '000 kg.)

Year	*Tasar*	*Eri*	*Muga*	*Total*
1959	86	79	34	199
1960	93	67	21	181
1961	138	80	20	238
1962	111	78	16	205
1963	140	62	19	221
1964	148	62	19	229
1965	181	63	28	272
1966	173	66	23	262
1967	159	67	22	248
1968	133	72	25	230
1969	135	76	30	241
1970	167	53	28	248
1971	165	55	25	245
1972	134	49	21	204
1973	178	86	24	288
1974	152	28	10	190
1975*	168	43	13	224

* Estimated

Part 2 : INDIAN SILK INDUSTRY

STATEWISE ABSTRACT

(1974)

MULBERRY SILK ABSTRACT

TABLE : 19 (1974) (Unit: as specified)

State	Area	No. of Trees	PRODUCTION			
			Silkworm Seed	Reeling Cocoon	Raw Silk	Silk-waste
	(hectares)	('000)	('000 layings)	('000 kg)	('000 kg.)	('000 kg.)
Andhra Pradesh	3,173	—	361	319	—	—
Assam	700	1,100	407	86	7	3
Bihar	129	26	33	2	—	—
Jammu & Kashmir	—	2,400	4,941	1,072	68	51
Madhya Pradesh	210	—	75	9	1	—
Meghalaya	75	90	296	9	1	—
Karnataka	1,05,025	1	1,27,403	30,000	2.036	825
Punjab	78	130	224	40	1	—
Tamil Nadu	4,000	5	1,391	212	9	3
Uttar Pradesh	334	670	229	90	4	3
West Bengal	6,623	261	43,757	4,672	316	110
Himachal Pradesh	170	117	15	22	2	1
Manipur	50	—	2	—	—	—
Tripura	—	—	1	—	—	—
TOTAL	1,20,567	4,800	1,79.135	36,533	2,445	997

NON-MULBERRY SILK ABSTRACT

TABLE : 20 (1974) (Unit: as specified in thousands)

State	Seed Production			Cocoon Production			Raw Silk Production		
	Tasar	Eri	Muga	Tasar	Eri	Muga	Tasar	Eri	Muga
	laying			kahan	kg.	nos.	kg.		
Andhra Pradesh	32	1	—	—	—	—	1	—	—
Assam	—	898	1880	—	122	1,07,003	—	87	41
Bihar	2,090	220	—	155	8	—	234	3	—
J & K (Jammu)	24	—	—	—	—	—	—	—	—
Madhya Pradesh	157	—	—	55	—	—	117	—	—
Manipur	274	1	—	1	—	—	—	—	—
Meghalaya	—	158	115	—	16	—	—	—	—
Maharashtra	162	—	—	7	—	—	1	—	—
Orissa	226	17	—	25	1	—	19	—	—
Tripura	—	76	—	—	22	—	—	1	—
Himachal Pradesh	2	—	—	9	—	—	—	—	—
West Bengal	—	—	—	43	2	—	21	—	—
TOTAL	2,966	1,371	1,995	296	170	1,07,003	392	91	41

SILK REELING UNITS

TABLE : 21 (1974) (no.)

State	Filature Basins		Cottage Basins		Charka Basins	
	Installed	Active	Installed	Active	Installed	Active
Andhra Pradesh	—	—	123	123	—	—
Assam	—	—	—	—	100	96
Bihar	—	—	17**	8	1,122*	1,122
Jammu & Kashmir	638	546	—	—	—	—
Madhya Pradesh	—	—	10	10	48	48
Karnataka	3,489	1,533	4,050	4,000	8,874	6,656
Punjab	—	—	4	3	12	6
Tamil Nadu	—	—	80	65	18	16
Uttar Pradesh	30	30	20	20	—	—
West Bengal	114	74	456	356	4,671	4,271
Himachal Pradesh	20	20	—	—	4	4
Manipur	—	—	3	1	600	400
Tripura	—	—	4**	4	—	—

* Improved tasar reeling machines.
** Units.

DISTRIBUTION OF HANDLOOMS AND POWERLOOMS

TABLE : 22

State	*Handlooms*	*Powerlooms*
Andhra Pradesh	9,700	204
Assam	36,000	—
Bihar	5,000	34
Jammu & Kashmir	1,506	289
Karnataka	7,500	3,363
Madhya Pradesh	2,000	—
Orissa	583	—
Tamil Nadu	40,000	44
Uttar Pradesh	30,000	195
West Bengal	7,880	10
Others	983	—
TOTAL	1,41,152	4,139

ESTIMATED STATEWISE EMPLOYMENT IN SERICULTURE INDUSTRY DURING THE IV PLAN AND THE PROJECTIONS FOR THE V PLAN

TABLE : 23

State	*Estimated Employment as at end of*	
	IV Plan	*V Plan*
	(lakh persons)	
1. Karnataka	20.00	21.00
2. West Bengal	4.00	5.00
3. Assam	3.60	5.18
4. Bihar	1.00	1.25
5. Madhya Pradesh	0.40	0.70
6. Jammu & Kashmir	0.38	0.60
7. Orissa	0.10	0.15
8. Uttar Pradesh	0.06	0.11
9. Tamil Nadu	0.30	0.90
10. Andhra Pradesh	0.13	0.82
11. Manipur	0.03	0.25
12. Others	0.37	1.98
TOTAL	30.37	37.94

PRODUCTION OF MULBERRY RAW SILK

TABLE : 24 (1974) (kg)

State	*Filature*	*Cottage Basin*	*Charka*	*Dupion*	*Total*
Andhra Pradesh	—	189	—	—	189
Assam	—	—	7,030	—	7,030
Bihar	—	—	146	—	146
Jammu	18,688	—	—	—	18,688
Kashmir	49,699	—	—	—	49,699
Madhya Pradesh	—	524	—	—	524
Karnataka	1,60,077	7,77,000	10,22,960	76,097	20,36,134
Punjab	—	239	655	5	899
Tamil Nadu	—	5,002	3,702	75	8,779
Uttar Pradesh	3,418	322	—	575	4,315
West Bengal	7,665	22,000	2,85,849	—	3,15,514
Himachal Pradesh	2,129	45	12	59	2,245
Manipur	—	18	—	3	21
Tripura	—	4	—	—	4
Meghalaya	—	662	—	—	662
TOTAL	2,41,676	8,06,005	13.20,354	76,814	24,44,849

PRODUCTION OF NON-MULBERRY RAW SILK

TABLE : 25 (1974) (kg.)

State	*Tasar*	*Eri*	*Muga*	*Total*
Andhra Pradesh	735	4	—	739
Assam	—	87,480	40,820	1,28,300
Bihar	2,34,010	3,063	—	2,37,073
Madhya Pradesh	1,17,000	—	—	1,17,000
Maharashtra	645	—	—	645
Orissa	19,182	7	—	19,189
West Bengal	20,796	—	—	20,796
Manipur	5	58	—	63
Tripura	—	677	—	677
TOTAL	3,92,373	91,289	40,820	5,24,482

PRODUCTION OF MULBERRY SILKWASTE

TABLE : 26 (1974) (kg.)

State	Filature	Cottage Basin	Charka	Total
Andhra Pradesh	—	80	—	80
Assam	—	—	3,115	3,115
Bihar	—	—	146	146
Jammu	19,252	—	—	19,252
Kashmir	31,966	—	—	31,966
Madhya Pradesh	—	67	—	67
Karnataka	1,27,838	3,13,000	3,84,000	8,24,838
Punjab	—	83	271	354
Tamil Nadu	—	384	2,388	2,772
Uttar Pradesh	2,166	1,120	—	3,286
West Bengal	4,327	6,600	99,190	1,10,117
Himachal Pradesh	742	25	19	786
Manipur	—	3	3	6
Tripura	—	1	—	1
Meghalaya	—	165	—	165
TOTAL	1,86,291	3,21,528	4,89,132	9,96,951

PRODUCTION OF NON-MULBERRY SILKWASTE

TABLE : 27 (1974) (kg.)

State	Tasar	Eri	Muga	Total
Andhra Pradesh	350	2	—	352
Assam	—	26,750	9,700	36,450
Bihar	97,004	1,021	—	98,025
Madhya Pradesh	36,000	—	—	36,000
Maharashtra	681	—	—	681
Orissa	9,992	—	—	9,992
West Bengal	8,461	—	—	8,461
Manipur	5	—	—	5
Tripura	—	—	—	—
TOTAL	1,52,493	27,773	9,700	1,89,966

Part 2 : INDIAN SILK INDUSTRY

FOREIGN TRADE

TABLE : 28 ('000)

Year	IMPORTS				EXPORTS			
	Raw Silk*		Spun Silk Yarn		Silkwaste		Silk Fabrics	
	Qty. (kg.)	Value (Rs.)	Qty. (kg.)	Value (Rs.)	Qty. (kg)	Value (Rs.)	Qty. (sqm.)	Value (Rs.)
1955	209	9,187	15	425	391	2,163	180	2,391
1956	49	2,045	23	740	633	2,608	200	2,580
1957	150	6,997	18	444	326	3,271	210	1,795
1958	56	2,481	4	132	119	1,020	377	3,467
1959	150	5,983	8	255	369	2,767	907	8,254
1960	108	4,604	28	1,091	524	3,402	1,081	10,306
1961	106	5,751	18	752	785	4,802	1,009	10,428
1962	112	6,212	—	—	752	5,960	1,126	12,244
1963	100	7,765	—	—	604	4,299	2,088	21,611
1964	103	6,276	—	—	382	2,578	2,051	22,296
1965	49	3,068	—	—	599	3,741	2,396	24,497
1966	45	4,464	—	—	751	6,349	2,060	26,842
1967	42	5,467	—	—	684	6,958	2,119	34,211
1968	37	5,121	—	—	444	5,021	3,487	55,016
1969	55	6,774	—	—	480	5,110	9,861	1,43,038
1970	32	4,837	—	—	745	7,325	8,609	1,34,992
1971	26	3,938	—	—	633	5,341	4,498	70,157
1972	37	5,710	—	—	794	6,091	4,577	76,032
1973	13	2,660	—	—	1,218	21,046	5,832	1,14,787
1974	17	4,567	—	—	430	6,445	5,486	1,28,687
1975	20	3,760	—	—	718	7,392	5,752	1,50,159

* Data relate only to imports effected by the C.S.B. under the canalisation policy.

VOLUME OF EXPORTS AND FOREIGN EXCHANGE EARNINGS

(Unit : lakh)
(Value: Rs.)
(Qty.-Fabrics : Sq. mts., Silkwaste: kg.)

TABLE : 29

YEAR	QUANTITY				VALUE				
	Fabrics			Silkwaste	Fabrics			Silkwaste	Grand Total
	Mulberry	Tasar	Total		Mulberry	Tasar	Total		
1960	9.20	1.61	10.81	5.24	81.36	21.70	103.06	34.02	137.08
1961	7.28	2.81	10.09	7.85	67.06	37.22	104.28	48.02	152.30
1962	8.92	2.34	11.26	7.52	86.07	36.37	122.44	59.60	182.04
1963	15.89	4.99	20.88	6.04	151.82	64.29	216.11	42.99	259.10
1964	14.10	6.41	20.51	3.82	138.51	84.45	222.96	25.78	248.74
1965	18.48	5.48	23 96	5.99	173.10	71.87	244.97	37.41	282.38
1966	17.35	3.24	20.59	7.51	222.27	46.15	268.42	63.49	331.91
1967	17.48	3.71	21.19	6.84	287.93	54.18	342.11	69.58	411.69
1968	25.74	9.13	34.87	4.44	418.21	131.95	550.16	50.21	600.37
1969	85.85	12.76	98.61	4.80	1233.50	196.88	1430.38	51.10	1481.48
1970	78.27	7.82	86.09	7.45	1213.02	136.90	1349.92	73.25	1423.17
1971	38.53	6.45	44.98	6.33	586.49	115.08	701.57	53.41	754.98
1972	39.01	6.76	45.77	7.94	624.46	135.86	760.32	60.91	821.23
1973	49.41	8.91	58.32	12.18	947.01	200.86	1147.87	210.46	1358.33
1974	46.69	8.17	54.86	4.30	1081.27	205.60	1286.87	64.45	1351.32
1975	49.48	8.04	57.52	7.18	1285.28	216.31	1501.59	73.92	1575.51

VARIETYWISE EXPORTS OF MULBERRY SILK FABRICS

(Unit: lakh)
(Quantity: Sq. metres)
(Value: Rupees)

TABLE : 30

Year	Sarees		Dress Material		Scarves		Ties		Readymade Garments		Others		Total	
	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value
1965	5.01	45.19	6.73	76.82	6.37	44.46	0.10	1.72	0.12	2.82	0 15	2.09	18.48	173.10
1966	3.45	40.65	7.53	113.85	5.64	50.20	0.11	2.27	0.60	14.92	0 02	0 38	17.35	222.27
1967	2.36	38.88	8.80	157.97	4.42	55.04	0.16	3.82	1.73	32.00	0.01	0.22	17.48	287.93
1968	4.13	62 84	10.15	192 31	9.30	109.40	0.17	4.75	1.96	47.47	0.03	1.44	25.74	418.21
1969	5.03	82.79	14.58	279.28	64.06	799.29	0.33	11.03	1.71	55.74	0.14	5.37	85.85	1233.50
1970	5.50	100.14	12.85	252.36	56.20	752.30	1 00	32.25	2.51	69.32	0 21	6.65	78.27	1213.02
1971	6.08	101.25	11.33	212.01	17.25	171.37	1.08	38.90	2.55	55.67	0.24	7.29	38.53	586.49
1972	7.21	118.09	11.51	221.98	16.13	186.01	0.63	21.97	3.33	70.07	0.20	6.34	39.01	624.46
1973	10.11	196.78	16.36	366.56	16.70	219.24	0.87	29.98	4.96	116.88	0.41	17.57	49.41	947.01
1974	10.19	259.30	11.94	335.39	20 07	318.28	0.30	14.17	3.66	105.34	0.53	48.79	46.69	1081.27
1975	14 42	447.41	8.51	253.86	23.79	416.01	0.10	5.63	2.30	74.58	0.36	87.79	49.48	1285.28

COUNTRYWISE EXPORTS OF MULBERRY SILK FABRICS

TABLE : 31

(F.O.B. Value : '000 Rs.)

Country	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
TRADITIONAL MARKET										
Malaysia and Singapore	2,014	1,893	3,265	4,699	5,987	5,424	6,009	10,382	10,972	20,056
Hong Kong	1,747	971	1,080	1,195	1,432	601	566	407	252	317
Aden	462	590	566	634	494	177	48	63	109	12
Fiji Islands	48	57	38	359	584	466	350	597	948	1,334
Kenya	611	819	1,514	1,372	1,880	2,490	3,090	3,521	3,978	3,801
Other African Countries	199	396	623	846	562	2,303	2,770	3,891	3,995	5,108
Other Asian Countries	236	138	358	714	1,363	2,195	1,366	2,521	3,094	6,029
TOTAL	5,317	4,864	7,444	9,819	12,312	13,656	14,199	21,382	23,348	36,657

Country	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
					NON-TRADITIONAL MARKET					
U.S.A.	4,717	5,584	6,507	14,438	11,247	6,162	4,645	8,844	8,407	11,131
Italy	681	430	582	2,884	3,018	2,128	1,746	5,129	9,082	6,954
West Germany	1,274	2,577	4,074	25,948	33,750	14,712	14,478	18,944	24,552	18,267
U.K.	1,317	1,586	2,486	4,849	6,689	3,546	3,449	7,748	10,883	20,516
Switzerland	200	251	430	4,476	4,477	1,730	1,625	2,411	2,122	2,642
France	984	1,362	4,372	26,175	8,668	3,786	6,788	10,900	12,332	14,894
Australia	369	947	859	1,373	1,632	1,510	1,139	1,684	1,778	2,783
Sweden	2,675	4,372	5,142	10,293	5,828	1,656	1,868	2,276	2,977	1,762
East Germany	104	262	223	613	722	127	628	189	2	—
U.S.S.R.	1,846	1,437	1,395	425	25	3	—	—	—	—
Czechoslovakia	79	227	425	224	101	156	1,034	716	—	—
Canada	492	1,089	738	1,138	2,478	996	565	745	1,082	2,369
Japan	346	1,624	3,242	8,021	8,213	3,787	3,339	7,183	3,532	3,368
West Indies	318	138	246	212	313	89	149	115	164	97
Other West European Countries	1,210	1,804	2,938	11,620	29,224	2,879	2,837	5,576	6,655	5,979
Others	298	292	718	842	1,605	1,726	3,957	859	1,211	1,109
TOTAL	16,910	23,929	34,377	1,13,531	1,08,990	44,993	48,247	73,319	84,779	91,871
GRAND TOTAL	22,227	28,793	41,821	1,23,350	1,21,302	58,649	62,446	94,701	1,08,127	1,28,528

COUNTRYWISE EXPORTS OF TASAR SILK FABRICS

TABLE : 32

(F.O.B. Value : '000 Rs)

Country	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
West Germany	554	1,175	3,024	4,846	5,184	5,291	6,949	10,840	10,708	13,053
Sweden	80	498	2,947	4,616	1,007	300	381	950	1,089	523
Japan	247	1,096	2,600	3,301	1,789	587	1,532	1,290	446	143
U.S.A.	2,677	1,623	1,597	1,459	574	572	1,210	1,889	2,331	2,626
Switzerland	66	43	331	881	390	405	524	641	911	438
Denmark	22	77	481	876	448	164	139	61	225	36
Australia	71	240	412	667	475	176	249	136	149	68
Italy	41	41	43	651	1,026	1,257	650	837	577	462
France	14	45	235	566	1,056	1,583	1,112	741	632	1,060
Hong Kong	483	183	509	456	380	98	156	144	247	226
U.K.	84	59	255	324	267	89	280	647	742	866
Finland	16	13	57	312	142	19	101	325	192	144
Canada	192	243	378	204	110	108	209	302	584	418
Austria	6	6	38	124	174	268	441	357	739	635
Malaysia and Singapore	3	10	66	76	102	152	244	221	281	190
Netherland	8	13	6	73	114	46	36	51	53	130
Belgium	7	8	41	38	46	48	35	23	54	90
Yugoslavia	—	—	98	1	9	160	—	58	60	142
Others	44	45	147	107	339	227	338	572	640	381
TOTAL	4,615	5,418	13,195	19,658	13,572	11,450	13,586	20,085	20,560	21,631

COUNTRYWISE EXPORTS OF SILKWASTE

TABLE : 33

(Quantity : kg.)
(Value : Rupees)

Destination	1970		1971		1972		1973		1974		1975	
	Qty.	*Value*	*Qty.*	*Value*	*Qty.*	*Value*	*Qty*	*Value*	*Qty.*	*Value*	*Qty.*	*Value*
Italy	6,64,379	64,21,137	5,08,528	42,55,571	4,03,719	27,11,585	3,19,477	35,84,206	3,90,464	55,42,878	3,84,116	25,65,828
Japan	53,362	7,02,837	1,24,609	10,85,451	3,64,709	32,10,967	7,79,306	155,96,616	22,527	3,85,525	1,05,255	15,39,766
Republic of Korea	—	—	—	—	25,000	1,67,535	1,18,896	18,65,664	17,374	5,17,043	2,28,241	32,85,979
Switzerland	18,312	1,12,000	—	—	—	—	—	—	—	—	—	—
Others	9,180	88,871	—	—	114	1,021	—	—	—	—	—	—
TOTAL	7,45,233	73,24,845	6,33,137	53,41,022	7,93,542	60,91,108	12,17,679	210,46,486	4,30,365	64,45,446	7,17,612	73,91,573

Part 2: INDIAN SILK INDUSTRY

PRICES

PRICES OF MULBERRY REELING COCOONS AND SILKWASTE

TABLE : 34

(Unit: Rs. per kg.)

State	Market	1970		1971		1972		1973		1974		1975	
		Max.	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*
						REELING COCOONS							
Assam	Gauhati	6.00	4.50	6.00	4.50	6.25	4.75	6.50	5.00	13.00	10.00	15.60	10.00
Karnataka	Sidlaghatta	13.97	11.27	11.10	5.80	15.20	8.50	23.32	11.16	28.75	15.70	26.60	13.90
	Channa-patna	—	N.A.	—	N.A.	N.A.	—	20.10	8.50	26.00	12.00	N.A.	N.A.
	Mugur	10.72	8.37	7.76	5.20	11.40	8.00	17.04	10.22	20.00	13.00	19.00	11.30
West Bengal	Malda	9.72	8.53	5.93	5.17	11.50	10.50	14.20	12.40	16.80	15.50	15.50	14.80
						SILKWASTE							
Assam	Gauhati	6.00	5.00	6.00	5 00	6.00	5.00	6 00	5.00	N.A.	N.A.	N.A.	N.A.
West Bengal	Malda	3.20	2.55	2.43	1.80	N.A	N A.	3.30	2 70	8.60	6.90	4.00	3.00

PRICES OF MULBERRY RAW SILK

TABLE : 35

(Unit: Rs. per kg.)

State	Market	1970		1971		1972		1973		1974		1975	
		Max.	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*
						FILATURE							
Karnataka	Bangalore	198.00	—	159.00	—	193.00	188.00	258 00	252.00	318.00	312 00	290 00	285.00
U P.	Varanasi (Mysore Origin)	196.00	191.00	159.00	140.00	197.00	180.00	244.00	226 00	325.00	300.00	318.00	298.00
	J & K Origin	301.00	285.00	229.00	219.00	221.00	210 00	330.00	275.00	410.00	350.00	325.00	300.00
						COTTAGE BASIN							
Karnataka	Bangalore	215.00	209.00	176.00	171.00	208 00	203.00	265.00	260.00	315.00	310.00	310.00	305.00
U.P.	Varanasi	201.00	184.00	146.00	133.00	195.00	190.00	265.00	230.00	315.00	255.00	315.00	275.00
West Bengal	Malda	158.00	150.00	115.00	107.00	170.00	164.00	228.00	200.00	280.00	255 00	275.00	250.00
						CHARKA							
Assam	Gauhati	200.00	189.00	188.00	170.00	200.00	190.00	260.00	240.00	285.00	270.00	250 00	230.00
Karnataka	Bangalore												
	Superfine	164.00	153.00	126.00	122.00	163.00	160 00	225.00	220.00	275.00	270.00	—	—
	1st Quality	150.00	—	110.00	105 00	168.00	164 00	222 00	217.00	267.00	262 00	252.00	248.00
	2nd Quality	144.59	139.42	103.00	100.00	161.00	159.00	212.00	205.00	265.00	260.00	—	—
	3rd Quality	139.16	134.00	100.00	94.00	158.00	155.00	205.00	195.00	245.00	240.00	—	—
U P.	Varanasi	141.00	126.00	110.00	80.00	150 00	125.00	177.00	153.00	250.00	225.00	210.00	180.00
West Bengal	Malda	166.00	131.00	126 00	120.00	167 00	160.00	217.00	205.00	267.00	232.00	275.00	250.00

PRICES OF TASAR PRODUCTS

TABLE : 36

(Unit : as specified)

State	Market	1970		1971		1972		1973		1974		1975	
		Max.	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*
		REELING COCOONS (Rs. per Kahan)											
Bihar	Bhagalpur												
	Daba	178.00	170.00	186.00	176.00	205.00	195.00	179.00	168.00	180.00	170.00	205.00	190.00
	Bogai	159.00	151.00	166.00	160.00	200.00	185.00	155.00	140.00	175.00		n. a.	n. a.
		RAW SILK (Rs. per kg.)											
Bihar	Bhagalpur	128.00	122.00	143.00	*136.00	171.00	164.00	197.00	142.00	165.00	160 00	190.00	178 50
		SILK WASTE (Rs. per kg.)											
Bihar	Bhagalpur	18 00	15.00	22.00	20.00	32 00	26.00	38.00	31.00	38.00	31.00	40 00	32.00
		HAND-SPUN YARN (Rs. per kg.)											
Bihar	Bhagalpur	42.25	36.00	64.00	*58 00	89 00	75.00	96.00	66.00	90.00	70.00	97.00	80.00

(*) Champa Market.

PRICES OF ERI PRODUCTS

TABLE : 37

(Unit: Rs. per kg.)

State	Market	1970		1971		1972		1973		1974		1975	
		Max.	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*
						CUT COCOON							
Assam	Gauhati	18.00	12.00	23.00	15.00	19.00	12.00	20.00	12.00	18.50	14.50	45.00	17.00
Bihar	Monghyr	12.00	10.00	10.00	—	12.00	—	13.00		Not Available			
						HAND-SPUN YARN							
Assam	Gauhati	45.00	35.00	48.00	38.00	52.00	42.00	55.00	40.00	56.00	48.00	85.50	55.00
Bihar	Monghyr	30.00	28.00	30.00	28.00	42.00	34.00	30.00	28.00	Not Available			

PRICES OF MUGA PRODUCTS IN ASSAM

TABLE : 38

(GAUHATI MARKET)

(Unit: as specified)

Item	Unit	1970		1971		1972		1973		1974		1975	
		Max.	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*	*Max.*	*Min.*
Reeling Cocoons	Rs. per thousand cocoons	35.00	25.00	43.00	38.00	47.00	40.00	45.00	30.00	44.00	36.00	75.40	55.50
Raw Silk	Rs. per kg.	249.00	190.00	240.00	213.00	274.00	238.00	240.00	175.00	230.00	190.00	310.80	272 30
Silkwaste	Rs. per kg.	11.50	11.50	11.80	11.10	13.00	12.00	13.00	12.00	Not Available			

COST OF PRODUCTION OF GOVERNMENT FILATURE RAW SILK IN KARNATAKA

TABLE : 39

(Rs. per kg.)

Unit	1969	1970	1971	1972	1973	1974	1975
Kanakapura	151.24— 193.92	157.55— 223.38	116.38— 197.58	165.62— 219.78	216.47— 308.69	243.15— 329.59	261.49— 362 35
Kollegal	160.47— 235.40	193.86— 251 87	137.03— 216.91	203.47— 282.53	253.69— 339.44	298.26— 382.91	319.00— 423.96
Mysore	172.07— 294.91	188.90— 269.40	136 00— 209.15	241.56— 278.66	268 39— 409.69	302.59— 414.50	332.15— 433.26

PRICES OF JAPANESE RAW SILK AND SPUN SILK YARN

TABLE : 40

(Rs. per kg.)

Variety		1967	1968	1969	1970	1971	1972	1973	1974	1975
Raw Silk 2/A gr. 20/22 dr.	F.O.B.	156.05	142.35	137.36	168.04	150.29	183.59	327.09	240.10	276.25
	C.I.F.	160.71	146.61	141.41	177.73	155.00	189.11	336.90	247.20	284.54
	Landed Cost	249.80	201.08	184.33	229.98	201.23	245.81	438.00	333.72	384.13
Spun Silk Yarn 2/140's	F.O.B.	105.20	106.21	104.14	105 00	106.54	124.46	246.80	147.50	n.a.

Section IV

COMPARATIVE FOREIGN STATISTICS

TRENDS IN AREA UNDER MULBERRY vis-a-vis PRODUCTION IN JAPAN

TABLE : 41

(Unit : as specified)

YEAR	AREA UNDER MULBERRY	NUMBER OF SERICULTURAL HOUSEHOLDS	PRODUCTION				PRODUCTIVITY		
			Mulberry saplings	Silkworm Eggs	Cocoons	Raw Silk	Silkworm Eggs per 10 Are	Cocoons per 10 Are	Cocoons per case of eggs
	('000 ha)	('000)	('000 trees)	('000 cases)	(m. tons)	(m. tons)	(cases)	(kg.)	(kg.)
1960	165.6	645.7	36,645	3,896	111,208	18,048	2.35	67.2	28.6
1961	163.4	628.6	52,251	4,069	115,287	18,679	2.49	70.6	28.3
1962	161.7	596 8	65,606	3,802	109,066	19,896	2.35	67.5	28 7
1963	161.2	584.2	77,302	3,911	110,916	18,079	2.40	68.8	28.4
1964	163.7	551.2	88,134	3,822	111,648	19,458	2.30	68.2	29.2
1965	163.8	513.7	79,366	3,560	105,513	19,106	2.20	64.4	29.6
1966	161.7	477.8	72,794	3,536	105,392	18,694	2.40	65.2	29.8
1967	160.7	466.8	71,039	3,885	114,476	18,926	2.60	71.2	29.5
1968	161.8	455.2	93,325	3,978	121,014	20,755	2.70	74.8	30.4
1969	162.8	424.4	84,342	3,730	113,996	21,485	2.29	70.0	30.6
1970	163.1	399.1	93,959	3,685	111,736	20,515	2.30	68.5	30.3
1971	165.6	372.5	112,011	3,478	107,694	19,684	2.10	65 0	30.8
1972	164.0	330.0	90,348	3,307	105,110	19,137	2.00	64.1	31.8
1973	161.6	305.0	61,111	3,396	108,156	19,317	2.10	66 9	32.3
1974	158.1	281.0	50,765	3,187	101,948	18,936	2.00	64.5	32.0

Note: 1 Case = 11.7 gms. 100 ares = 1 hectare.

PRODUCTIVITY PER HOUSEHOLD IN JAPAN

TABLE : 42

(Unit : as specified)

Year	*Mulberry Field per h/h*	*Silkworm Eggs used per h/h*	*Cocoon Production per h/h*	*Labour Hrs. reqd. to produce one kg. cocoon*
	(are)	(case)	(kg.)	(hrs.)
1960	25.6	6.0	172.2	6.3
1961	26.0	6.5	183.4	...
1962	27.1	6.4	182.8	...
1963	27.6	6.7	189.8	5.2
1964	29.7	6.9	202.6	4.8
1965	31.9	6.9	205.4	4.5
1966	33.8	7.4	220.6	4.3
1967	34 4	8.3	245.2	3.9
1968	35.5	8.7	265.8	3.6
1969	38.4	8.8	268.6	3.4
1970	40.9	9.2	280.0	3.2
1971	44.5	9.4	289.1	3.1
1972	49.8	10.0	318.8	2.9
1973	53.0	11.1	355.0	2.7
1974	56.2	11.3	362.3	2.6

Note: 100 ares = 1 ha.
1 case = 11.7 gms.

TRENDS IN AREA UNDER MULBERRY AND PRODUCTION vis-a-vis PRODUCTIVITY IN SOUTH KOREA

TABLE 43

(Unit : as specified)

YEAR	AREA UNDER MULBERRY	NUMBER OF SERICULTURAL HOUSEHOLDS	PRODUCTION			PRODUCTIVITY			
			Silkworm Eggs	Reeling Cocoon	Raw Silk	Eggs per ha	Cocoons per ha	Cocoons per Box of Eggs	Raw Silk per ha
	ha	no	Box	m tons	m tons	Box	kg	kg	kg
1960	20,408	3,79,234	2,56,710	4,446	470	12 68	217.8	17.3	23.0
1961	23,377	3,59,890	2,59,680	4,896	502	11.11	209.5	18.9	21.5
1962	27,250	3,81,506	2,84,472	5,513	650	10.44	202.3	19.4	23 8
1963	30,900	3,88,824	2,97,302	6,162	686	9.62	199 4	20.7	22.2
1964	42,262	3,90,636	3,03,940	5,842	752	7.19	138.3	19.2	17.8
1965	50,477	4,03,134	3,52,057	7,768	851	7 00	153 9	22.1	16.9
1966	61,692	4,34,636	4,10,381	9.601	1,160	6.65	155.6	23.4	18.8
1967	68,516	4,58,412	4,84,843	10,903	1,548	7.08	159.2	22.5	22.6
1968	94,443	4,80,540	6,49,646	16,616	1,876	6.88	176.0	25.6	19.9
1969	99,264	4,99,699	8,12,346	20,748	2.561	8.18	208.9	25.5	25.8
1970	84,977	4,92,734	8,85,708	21,409	3,027	10.42	252.0	24.2	35.6
1971	81,356	4,82,438	9,43,212	24,691	3,041	11.59	303.5	26 2	37.4
1972	78,441	4,67,881	9,30,746	26,800	3,656	11 87	341.7	28 8	46.6
1973	80,267	4,60,184	11,92,425	30,980	3,721	14.85	385.8	25.9	46.3
1974	86,200	4,76,000	13,76,000	37,178	4,386	16 00	431 3	27.0	50.9

PRODUCTIVITY PER HOUSEHOLD IN SOUTH KOREA

TABLE : 44

(Unit : as specified)

Year	*Mulberry Field per Household*	*Silkworm Eggs Used per Household*	*Cocoon Production per Household*
	(arc)	(case)	(kg.)
1960	5.4	0.68	11.7
1961	6.5	0.72	13.6
1962	7.1	0.80	14.5
1963	7.9	0.76	15.8
1964	10.8	0.78	14.9
1965	12.5	0.90	19.3
1966	14.1	0.94	22 1
1967	14.9	1.06	24.0
1968	19.7	1.35	34.6
1969	19.9	1.63	41.5
1970	17.2	1.80	44.9
1971	16.9	1.96	51.2
1972	17.3	1.99	57.1
1973	17.1	2.26	67.2
1974	18.1	2.89	78.1

PRODUCTION OF REELING COCOONS AND RAW SILK IN BRAZIL

TABLE : 45 (Unit : as specified)

SILK YEAR	*PRODUCTION*		
	Cocoons	*Raw Silk*	*Renditta*
	(m. tons)	(m. tons)	(no.)
1960-61	908.6	102.1	8.9
1961-62	1,114.0	89.9	8.4
1962-63	838.3	106.3	8.5
1963-64	713.8	88.6	8.3
1964-65	932.2	118.5	8.0
1965-66	1,114.7	134.6	8.1
1966-67	1,313.5	146.9	7.9
1967-68	1,856.3	187.4	7.7
1968-69	1,994.7	216.5	7.6
1969-70	2,053.6	259.2	6.3
1970-71	2,394.4	317.5	7.5
1971-72	3,192.1	385.2	7.3
1972-73	4,069.2	462.7	7.6
1973-74	5,354.1	635 6	7 9

Note : Silk Year · October to September.

Section V

APPENDICES

LIST OF APPENDICES

Sericultural Map of India

Appendix - I

LIST OF MEMBERS OF THE CENTRAL SILK BOARD

(as on 31st May, 1976)

Under Section 4(3) (a)

Chairman

Shri S. Muniraju,
Advocate & President,
Charka Reelers' Association,
Chickaballapur Post — 562 101.
Dt. Kolar (Karnataka)

Members

Under Section 4(3) (b)

1. Shri A. K. Ray, Director (IC),
   Government of India,
   Ministry of Industry & Civil Supplies,
   New Delhi-110 011.

2. Shri M. Venkateswaran,
   Under Secretary (Ind.),
   Ministry of Finance,
   Dept. of Expenditure
   (C & I Division),
   New Delhi-110 011.

3. Textile Commissioner,
   Govt. of India,
   Ministry of Commerce,
   New C. G. O. Bldgs.,
   New Marine Lines,
   Bombay-400 020.

Under Section 4(3) (c)

4. Shri Raghunandan Lal
   Bhatia, M.P.,
   28, Janpath,
   New Delhi-110 001.

   Bhatia House,
   26, 'The Mall',
   Amritsar-143 001.

5. Shri Hukam Chand
   Kachwai, M. P.
   19, Windsor Place,
   New Delhi-110 001.

   12/17, Kachwai Bhavan,
   Arya Samaj Marg,
   Ujjain-456 001 (M P.).

6. Shri Shankar Narayan
   Singh Deo, M.P.,
   183, North Avenue,
   New Delhi-110 001.

   Kashipur,
   P. O. Panchakotraj-723 132.
   Dt Purulia (W. B.)

7. Shri S M. Siddayya, M P.,
   46, North Avenue,
   New Delhi-110 001.

   Old Sosale-571 124,
   T. Narasipur Taluk,
   (Karnataka).

8. Shri Nripati Ranjan
   Choudhury, M.P.,
   223, North Avenue,
   New Delhi-110 001.

   Ramakrishna Mission Rd ,
   P.O Karimganj-788 710,
   (Assam).

9. Shri Rabi Ray, M P.,
   21, Meena Bagh,
   New Delhi-110 001.

   Unit 4, 1/3 Lohia
   Academy,
   P.O. Bhubaneswar-751 001.
   (Orissa).

Under Section 4(3) (d)

10. Secretary to the Govt. of Karnataka,
Commerce and Industries Deptt.,
Vidhana Soudha,
Bangalore-560 001.

11. Director of Sericulture,
Government of Karnataka,
4th floor, Multistoreyed Bldg., Vidhana Veedhi,
Bangalore-560 001.

12. Shri B. Basavaiah,
No 184, 13th Cross,
Jayanagar, Mysore.

13. Shri M. Linganna,
Ex-MLC ,
Agriculturist,
Nanjangud-571 301
(Karnataka).

14. Shri A. K. A Samad,
President,
The Karnataka State Silk Coop. Marketing Federation Ltd.,
103, Avenue Road,
Bangalore-560 002.

Under Section 4(3) (e)

15. Director of Industries & Commerce,
Government of Tamil Nadu,
Chepauk, Madras-600 005.

Under Section 4(3) (f)

16. Jt. Secretary to the Govt. of West Bengal,
Cottage and Small Scale Industries Dept ,
Writers' Bldg.,
Calcutta-700 001.

17. Smt. Maya Ray, M P ,
2, Circular Road,
Chanakya Puri,
New Delhi-110 001.

2, Beltala Road,
Calcutta-700 026.

Under Section 4(3) (g)

18. Director of Sericulture & Weaving,
Government of Assam,
Lachitnagar,
Near Bharalu Bridge,
Rajgarh,
Gauhati-781 007.

19. Secretary to the Govt. of Bihar,
Dept. of Industries and Technical Education,
Patna-800 001.

20. Special Secretary to the Govt. of Madhya Pradesh,
Commerce and Industries Dept.,
Bhopal-462 001 (M.P.).

21. Director of Handlooms & Textiles,
Government of Andhra Pradesh,
H. No. 3-6, 440,
Hardikar bagh,
Himayath Nagar,
Hyderabad-500 029.

22 Director of Handlooms,
Government of Uttar Pradesh,
Kanpur-208 001 (U.P)

23. Shri Maheshbhai Jashwantlal Shah,
Chairman,
Gujarat State Industrial Co-op. Sangh Ltd.,
Patharkuva Relief Road,
P.O. Box 139,
Ahmedabad-380 001.

Under Section 4(3) (h)

24. Adviser,
Government of Jammu & Kashmir,
Sericulture Development Dept.,
Sericulture Bungalow,
Near Seed House.
Tulsi Bagh,
Srinagar-190 001.
(Kashmir).

Under Section 4(3) (i)

25 Secretary to the Govt. of Orissa.
Industries Dept.,
Bhubaneswar-751 001.

26. Director of Industries,
Govt of Himachal Pradesh,
Simla-171 004 (H P).

27. Shri R Sharma.
Adviser (Seri.),
North Eastern Council,
Rikyanti, Motinagar,
Shillong-793 001

Under Section 4(3) (j)

28. Director, Govt. Silk Industries,
Govt of Karnataka,
Asiatic Building Compound,
Bangalore-560 009

29. Shri Mihir Sen,
M/s Hindusthan Handloom and Handicrafts,
10, Govt. Place East,
14, Ezra Mansion,
Calcutta-700 001 (W.B.).

30. Dr. G. Rangaswami,
Vice-Chancellor,
Tamil Nadu Agricultural University,
Coimbatore-641 003.

31. Shri Kashmiri Lal Kapoor,
M/s Kapoor & Co.
1st Bridge,
Srinagar-190 001. (Kashmir).

32. Shri J. G. Parikh,
Director,
Silk & Art Silk Mills Research Association,
Worli, Bombay-400 018

33 Shri T N. Theerthagiri
Gounder, Ex-M P,
Harur-636 903.
Dharmapuri Dt. (Tamil Nadu)

34 Shri M. Nanjappa.
Managing Director,
M/s. Raja Silk House (P) Ltd.,
Bangalore-560 002

35. Shri K. B Thimmayya,
President,
Indian National Trade Union Congress,
(Karnataka State Branch)
Pudiabucca Estate,
P.O. Maya Mudi.
South Coorg (Karnataka)

Appendix-II

ORGANISATIONAL SET-UP

		Phones
Chairman		
SHRI S. MUNIRAJU	Bangalore	
Office:	Office :	73416
26/7, Srikantan Layout,	Resi. :	142
Crescent Road,	(Chickaballapur)	
Bangalore-560 001.	Bombay	
	Office :	29-1761
Vice-Chairman		
Main Secretariat		
CENTRAL SILK BOARD		
'Meghdoot', 95-B, Marine Drive,	Office :	29-2413
Bombay 400 002		
(Grams : SILBOARD)	:	29-1761
(Telex : SILBORD 011-4238)	:	29-1826
SECRETARY:	Office :	29-1826
S. R. Ullal	Resi. :	45-1458
Special Officer (TDC):	Office :	29-1761
A. R. S Gopalachar	Resi. :	57-9391
Deputy Secretary (Tech.)	Office :	29-1761
T. S Sundaramurthy		
Publicity Officer:	Office :	29-2413
K. I. Ahmed	Resi. :	37-0496
Assistant Secretary (Tech.):	Office :	29-1761
H. S. Rama Rao		
Special Officer (Silk Trading)	Office :	29-2413
H. L. Shah		
Assistant Secretary (Admn.):	Office :	29-2413
D. S. Virk		
Inspecting Officer :	Office :	29-2413
Narander Kumar		

Regional Offices

(CERTIFICATION CENTRES ATTACHED)

8-B, Pusa Road, Rajinder Park, NEW DELHI-110 060. (Grams: SILKBOARD)	Deputy Secretary (*S. P. Mediratta*)	Office : Resi. :	58-6860 39-1904
26/7 Srikantan Layout, Crescent Road, BANGALORE-560 001. (Grams: SILKBOARD)	Asst. Secretary (*Abdul Majid*)	Office : Resi. :	73-416 67-032
4-Tottee Lane, Off Sudder Street, Behind Museum, CALCUTTA-700 016. (Grams: SILKBOARD)	Ass. Secretary (*Chaman Lal*)	Office :	24-7113
Silk Factory Premises, Silk Factory Road, P.O. Central Market, SRINAGAR-190 009. (J & K) (Grams : LIAISON)	*Senior Tech. Silk Inspector*		

Certification Centres

58-H, Burkit Road, T. Nagar, MADRAS-600 017. (Grams : SILKBOARD)	Inspector	Office :	44-6065
K-61/158-B, Raj Devi Katra, Bulanala, VARANASI-221 001. (U.P.) (Grams : SILKBOARD)	Inspector	Office :	63-337
44, D. N. Singh Road BHAGALPUR-812 001 (Bihar). (Grams : SILKBOARD)	Inspector		

Research Institutions

Central Sericultural Research Station, BERHAMPORE-742 101. (West Bengal) (Grams : SERISTATION)	Director of Research (*Dr. K. Sengupta*)	Office : Resi. :	BHB 46 BHB 298
Central Sericultural Research & Training Institute, Srirampuram, Manandavady Road, Mysore South, MYSORE-570 008 (Karnataka) (Grams : RESEARCH)	Director (*Dr. M. N. Narasimhanna*)	Office : Resi. :	20-757 20-905
Central Tasar Research Station, Nirvan, No-1, West End Park, Hehal Post, RANCHI-834 005. (Bihar) (Grams : SILKBOARD)	Director (*Dr. M. S. Jolly*)	Office : Resi. :	21-107 21-220
Central Muga & Eri Research Station, TITABAR-785 632. (Assam) (Grams :MUGA-RESEARCH)	Asst. Director (Seri.) (*Dr. G. Subba Rao*)		

Central Projects

Office of the Project Co-ordinator, C/o Regional Office of the Central Silk Board, 26/7, Srikantan Layout, Crescent Road, BANGALORE-560 001. (Grams : SILKBOARD)	Project Coordinator (*K. Ranganatha Rao*)	Office Resi	73-416 67-795
Office of the Project Officer, Taluk Office Road, HOSUR-635 109 (Tamil Nadu)	Project Officer (*H. M. M Pasha*)		

Service Stations

		(*Phone: Office*)
Central Silkworm Seed Station, PAMPORE P.O.-192 121 (Kashmir) (Grams : UNIVOLTIN)	Director (*B. L. Tikoo*)	2680
Silkworm Seed Station, COONOOR-643 101 (Tamil Nadu) (Grams : SILKBOARD)	Seri Expert (*T. R. Jammy*)	413
Central Tasar Silkworm Seed Station, Lakha P. B. No. 15, P. O. RAIGARH-496 001 (M.P.) (Grams : SILKBOARD)	Spl. Officer (*K N. Singh*)	495
Tasar Depot, Raw Material Bank, Central Silk Board, P. B. No. 44, CHAIBASA-833 201 Dist: Singhbhum (Bihar) (Grams : SILKBOARD)	Spl Officer (RMB)* (*K. C. Banerjee*) Asst. Secretary (*M. V Abhyankar*)	453
Silk Conditioning & Testing House, Silk Factory Premises, Silk Factory Road, P. O. Central Market, SRINAGAR-190 009 (J & K) (Grams : LIAISON)	Superintendent (*S K Chowdhury*)	

Regional Research Stations (Tasar)

Regional Tasar Research Station, P. O. MANTRIPOKHRI, IMPHAL-795 002 (Manipur) (Grams : SILKBOARD)	Dy. Director (*S S. Sinha*)	918

* Based at Regional Office in Calcutta.

Regional Tasar Research Station, Industrial Estate, BHIMTAL-263 136 Dist : Nainital (U.P.) (Grams : SILKBOARD)	Sr. Research Officer (*M. L. Kapila*)	27
Regional Tasar Research Station, BATOTE-182 143 (J & K)	Sr. Research Officer (*J. Jayaswal*)	23

Regional Research Stations (Mulberry)

Central Sericultural Research Sub-Station, Central Silk Board, P.O. KALIMPONG-734 301 (W. B.)	Asst. Director (Tech.) (*M. R. Yusuf*)	
Univoltine Research Sub-Station, Central Silk Board, P.O. MAJRA-248 171. Via : Dehra Dun (U. P.) (Grams: UNIVOLTINE)	Sr. Research Officer (*M. P. Nigam*).	56

Research Extension Centres

Central Sericultural Research & Training Institute Extension Centre, Government Silk Farm, Lalgondanahalli, P.O. DEVANAHALLI-562 110 Dist. Bangalore (Karnataka)	Asst. Director (Ext.) (*K. V. Benchamin*)	
Central Sericultural Research & Training Institute, Extension Centre, Government Silk Farm, Krishnapuradoddi, P.O. RAMANAGARAM-571 511 (Karnataka)	Asst. Director	

Central Sericultural Research & Training Institute Extension Centre, 79-A, Gokhale Street, COIMBATORE-641 009 (Tamil Nadu).	Asst. Director (*S. Venugopala Pillai*)
Extension Centre, Central Tasar Research Station, At & P.O. KATHGHORA-495 445, Dist : Bilaspur, (Madhya Pradesh).	Senior Research Officer (*V. N. Bardaiyar*)
Extension Centre, Central Tasar Research Station, HATGAMARIA POST-833 214, Dist : Singhbhum, (Bihar)	Senior Research Officer (*Surendra Prasad*)
Extension Centre, Central Tasar Research Station, At BANGRIPOSI-757 032. (Orissa).	Senior Research Assistant
Extension & Demonstration Centre, Central Sericultural Research Station, P.O. JALALPUR, Dist. Malda (W.B.).	Senior Scientific Research Assistant
Extension & Demonstration Centre, Central Sericultural Research Station, P.O. PANCHGRAM (W.B.)	Senior Scientific Research Assistant

Appendix - III

EXPORT POLICY

Main items of export of silk industry are as follows:-

(1) **Silk goods:**

Comprising fabrics, made-up articles, readymade garments, furnishings, embroidery thread, carpets etc.

Exports of the above are allowed without any restriction or export duty at present.

(2) **Silkwaste:**

This constitutes second largest item of export of silk industry. Export of silkwaste is partially restricted as detailed below.

Banned items:

(i) Non-mulberry silkwaste.

(ii) Mulberry pierced cocoons.

(iii) Hand spun silk yarn.

Linked items:

(i)	Throwsters' silkwaste :	Export is linked with supplies to registered indigenous spinners
(ii)	Mulberry silkwaste of South Indian origin	Export is linked with supplies effected to the Government Spun Silk Mills, Channapatna (Karnataka), Assam Spun Silk Mills, Jagi Road (Assam) and Bihar Spun Silk Mills, Bhagalpur (Bihar). The linking ratio varies from time to time

Free items:

Export of following is freely permitted subject to preshipment inspection by the Central Silk Board:

(a) Mulberry silkwaste of other than South Indian origin

(b) Boiled cocoons,

(c) Basin refuse,

(d) Fluff/floss,

(e) Flimsy cocoons,

(f) Noil and noil droppings.

(3) **Raw silk and silk yarn excepting handspun yarn: Export is allowed only on merits.**

(4) **Pupae : Freely allowed.**

Appendix - IV

EXPORT ASSISTANCE

Under the current import policy, exporters of natural silk goods are granted replenishment licences for import of raw silk, dyes and chemicals etc in accordance with the schedules published under commodity groups 'P' and 'K. 3' of Import Trade Control Policy (Volume II).

The extent of import entitlement and assistance currently available against export of the different silk items are as under.

	Name of the Export Product	Import Entitlement Percentage (f.o b.)
(a)	Natural silk fabrics/made-up articles containing 50% or more of mulberry silk by weight, except silk carpets (P 1 1)	20 per cent.
(b)	Readymade garments of natural silk fabrics containing 50% or more of mulberry silk by weight (P 1.2).	20 per cent
(c)	Natural silk fabrics and made-up articles containing less than 50% mulberry silk by weight and/ or containing no mulberry silk yarn. (P 1.3) *	10%
(d)	Readymade garments of natural silk fabrics containing less than 50% mulberry silk by weight and/or containing no mulberry silk yarn. (P 1 4) **	12%
(e)	Natural silk thread and yarn excluding yarn spun by hand (P.1.5).	20%
(f)	Silk carpets containing less than 50% of mulberry silk by weight where F O.B value is not less than Rs. 250/- per sq metre (K 3.1).	25%
(g)	Silk carpets containing 50% or more of mulberry silk by weight (K.3.2)	40%

(For further details please refer to "Import Trade Control Policy" 1975-76 Volume II)

* Where the product exported under this serial number contains not less than 20% of mulberry silk by weight, an additional replenishment of 10% of the f.o.b. value of exports will be provided for import of raw silk

** Where the product exported under this serial number contains not less than 20% of mulberry silk by weight, an additional import replenishment of 8% of the f.o.b. value of exports will be provided for import of raw silk.

Appendix - V

STANDARD RAW SILK PACKAGES & MEASURES

Japanese/Korean bale:

1 picul - 60 kg. or 132.27 lb.

Brazilian cartons:

30 kg. flat skeins.

Weight of skeins standard for 20/22 denier raw silk : 70 gms. (approx.).

Indian filature raw silk

Bale : 20 kg.

Book : 2 kg.

Units in vogue in tasar industry

Kahan: One unit containing 1280 cocoons (Bihar).

Kahan: One unit containing 1600 cocoons (Orissa).

Kahan: One unit containing 1000 cocoons (M.P.).

Khandi: One unit containing 4000 cocoons (Maharashtra).

4	cocoons	: 1	ganda.
20	gandas	: 1	pon.
16	pons	: 1	kahan (Bihar).
20	pons	: 1	kahan (Orissa).

Local names of yarns

Ghicha : Yarn drawn by hand out of tasar cocoons without any twisting.

Matka : Yarn spun by hand appliances out of mulberry pierced cocoons.

Katia : Yarn spun out of tasar waste after opening and cleaning.

Jhuri : Yarn spun out of uncleaned tasar waste without subjecting it to opening process.

Noil : Yarn spun out of noil silk which is a bye-product of spun silk industry.

Appendix -VI

RAW SILK COUNT

In silk industry, 'Direct System' of counting is followed i.e. the count or size of raw silk is indicated in terms of mass of the yarn per unit length expressed in deniers.

The weight of 9,000 metres of raw silk in grams is the 'denier' or size of the raw silk. 20/22 dr. raw silk means 9,000 metres of raw silk weighing 21 gms. (average). The table below gives the popular 'deniers' used in raw silk trade. 'Tex' is the universal count which is expressed as mass per unit length i.e number of grams per 1,000 metres. Cotton and Metric counts are also juxtaposed.

Popular silk count	**Corresponding counts**			
Size dr.	Average dr.	Tex. No.	Cotton No.	Metric No.
9/11	10	1.1	537	909
13/15	14	1.5	394	667
16/18	17	1.9	311	526
18/20	19	2.1	281	476
20/22	21	2.3	257	435
24/28	26	2 89	204	346
28/32	30	3 33	177	300
36/40	38	4.22	140	237
40/44	42	4 67	126	214
90/110	100	11.1	53	90