CRITICAL REVIEW OF SERICULTURAL ACTIVITIES IN KERALA
Study Report

Working Towards Goal

Central Silk Board, Bangalore

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Acknowledgement

CSB had constituted a team comprising S/S K.S.Menon, Deputy Director, Central Silk Board, Bangalore, P.Gopalakrishnan, Deputy Director, Silkworm Seed Production Centre, Central Silk Board, Palakkad and K.K.Shetty, Assistant Secretary (Technical), Central Silk Board, Bangalore to undertake the study to review the sericultural activities in Kerala and the functioning of Serifed. The team visited the office of the State Planning Board, Thiruvananthapuram, Head Quarters of Serifed, interacted closely with the District Sericulture Officers, Assistant Sericulture Officers, Field Assistants, and Helpers from Serifed. The team also held interactive meetings with farmers who are the main stakeholders of the industry. The team is grateful to the above organizations and individuals for the support and assistance provided during the course of the study. The team would like to place on record its appreciation and gratitude for all the hospitality extended by Serifed during the visit.

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Executive Summary

The study team comprising three senior officers of Central Silk Board visited Kerala in two splits. During the first visit in September 2002, the team visited sericultural areas in Thrissur, Ernakulam, Alappuzha and Trivandrum. The team interacted closely with Farmers, Officials of Serifed, Silk Reeling Units and State Planning Board. During the second spell in December 2002 the team interacted closely with the farmers and extension staff of the Serifed in Palakkad and Idukki followed by a wrap-up meeting with the Chairman and other senior officers of Serifed at Trivandrum.

The team undertook critical review of the following:

a. Sericulture as an important income generating activity in Kerala
b. Implementation of Sericulture development schemes in Kerala during VIII and IX plan
c. Effectiveness of the existing organizational structure

Sericulture in Kerala is of recent origin and is still in infancy stage. Individual farmers presently practice sericulture in isolated pockets as an intercrop with other traditional cash crops like coconut, areca nut and it is mainly considered as a subsidiary occupation. The Govt. of Kerala promoted sericulture initially under Western Ghat Development Programme during sixth plan, which was further expanded through the Khadi and Village Industries Board during seventh plan. The industry received further support for intensive development of sericulture in Palakkad and Iddukki districts with the implementation of World Bank and Swiss Agency for Development and Cooperation (SDC) assisted National Sericulture Project (NSP) during the period between 1989 and 1996. Till 1994, the sericulture was considered as an important developmental activity and the funds received as grants were utilized towards establishment of infrastructural facilities and support to farmers to take-up sericulture.

The Serifed was formed as separate body during 1994 and the entire responsibility of developing sericultural activities was entrusted to them. SERIFED was established as an apex body of the taluk level primary cooperative society. The Federation Concept of SERIFED to take-up sericulture as a commercial activity is not clear as it is entrusted with the overall development of sericulture in the state, which includes both developmental programmes taken over from the KVIB and commercial programmes mainly the cocoon marketing and silk reeling by the Silk Reeling Units (SRU) established by the Serifed.

The Serifed has drawn ambitious programmes for sericulture development during VIII and IX plan, but could not succeed in organizing sericulture as expected because of the following reasons:

- The taluk level primary cooperative societies have not functioned effectively for the implementation of sericulture development programmes
- The selection of area and farmers has been irregular and the subsidy provided to the farmer was high and unsustainable in the longer run
- The dissemination loss in technology transfer was very high
- The procurement price of the cocoons fixed by Serifed was not in line with market rates. The prices were very high which, resulted in heavy losses to the Silk Reeling Units functioning under Serifed.
- Lack of an integrated planning for value addition within the State.
- Improper expansion of mulberry acreage in all the 14 districts without looking into the viability and potential of the districts
- Unplanned recruitment and utilization of manpower.
- Lack of motivation among staff mainly because of the job insecurity.
- Lack of managerial and technical training and exposure to the extension staff.
- Unrealistic and over ambitious plan programmes drawn-up by Serifed

The team after a detailed study recommends following alternate approaches for the sustainable growth of silk industry in Kerala

- Propagate sericulture only in selected clusters based on suitability and viability of operation.

- Ensure the participation of Panchayat Raj bodies in the promotion of sericulture
- Bring out clear-cut demarcation between developmental and commercial activities with developmental activities taken up only on the basis of MOU with State Government.
- Deploy the staff based on cluster approach depending on the concentration of the activity and develop a strategy for right sizing the organization.
- Streamline the organization structure of Serifed as per the proposed organogram
- Impart managerial and technical training to the required staff and make them accountable and responsible for executing the task entrusted to them.
- Amend the byelaws of Serifed to make it more flexible and include technical and managerial experts in the Board of Directors of Serifed.
- Make the Govt. Silk Reeling Units (SRUs) economically viable.
- Establish a Post Cocoon and Market Facilitating Team in Serifed to establish both backward and forward linkages.

REPORT ON THE CRITICAL REVIEW OF SERICULTURAL ACTIVITIES IN KERALA

1. Background

As per the request made by the State planning Board, Govt. of Kerala, the Central Silk Board has constituted a study team comprising three senior officers from Central Silk Board to undertake a critical review of sericultural activities implemented in the state of Kerala. The tasks entrusted to the team are:

a. Undertake critical review of sericultural activities in Kerala
b. Study the effectiveness of the existing organization set up and make suggestions for improvement
c. Make suggestions / recommendations for the effective functioning of Serifed

2. Methodology

The team undertook detailed field visits to selected pockets where sericulture is being practiced, held discussions with the concerned field extension officers of Serifed, concerned units of CSB functioning in Kerala. Extensive reporting formats were designed to collect both primary and secondary data. The team had detailed interaction with the District Sericulture Officers as well as farmers. A number of focused studies involving rearers and Govt. Reeling Units were carried-out. The team also had a detailed wrap-up meeting with the senior officers of Serifed and State Planning Board and SERIFED. On the basis of the data collected, interaction held with the cross section of agencies involved in the development of sericulture in Kerala, desk review of the activities of Serifed based on the documents submitted by Serifed, the report has been prepared.

3. Part – 1 - Silk Industry – Critical review

3.1 Sericulture in Kerala is of recent origin and is still in infancy stage. Individual farmers presently practice sericulture in isolated pockets as an intercrop with other traditional cash crops like coconut, areca nut and it is considered as a subsidiary occupation. The SERIFED was entrusted by the State Government to provide support for the development of sericulture industry.

The table below indicates the growth of the industry over years

#	Year	Milestones of Sericulture Development
1	1983-84	Sericulture activities started in few pockets of Kanthlloor, Marayoor in Idukki district. The state encourages the activity under the Western Ghat Development Programme through Cooperative Societies and NGOs
2	1987 -88	Sericulture activity extended to Palakkad district
3	1988-89	The Govt. of Kerala declared sericulture as Village Industry and budget provision was made for the development of sericulture through Khadi and Village Industries Board. The state prepared plans for sericulture development in Kasaragod, Wayanad, Palakkad, Iduki, Alleppey and Trivandrum. The results were encouraging
4	1989-90	Sericulture was further intensified in Palakkad and Iddukki districts with the implementation of World Bank and SDC assisted National Sericulture Project (NSP) during the period between 1989-90 and 1996-97. The infrastructural facilities required for the overall development of the industry have been established in these two districts under the NSP.
5	1990-94	The state initiated planned approach for the systematic development of sericulture. A task force on sericulture prepared a plan for sericulture development during VIII plan. The sericulture has shown some improvement only upto 1993-94 and the state attained cocoon production to the level of 100 MTs in 1993-94 and there was drastic fall in the sector thereafter mainly because of serious marketing problem.
6	1994-97	The state has decided to constitute a separate body for the development of sericulture. SERIFED was formed in 1994 and the sericultural developmental activities transferred from KKVIB to SERIFED. 14 District Level Offices and 2 Silk Reeling Units were established under SERIFED. The transitional period severely affected sericulture thereby reducing the cocoon production to a minimum level of 27 Mts during 1995-96.
7	1997-2002	Sericulture was spread to all the districts. A strong base was created to produce exclusive bivoltine silk through cluster approach. A Common Facility Centre was established at Kanjirode Weavers Cooperative Society at Kannur. A twisting unit was installed at Silk reeling unit Uduma and Pudussery. Efforts were made to produce silk fabric and finished goods under the brand name "Serisilk and "Keralsilk" and Silk Fests were organized to popularize the silk products.

3.2 SWOT ANALYSIS:-

The strength of the industry in Kerala is the high productivity of cocoons per unit dfls because of the adoption of better silkworm rearing techniques by the farmers. The literate farmers are aware of the intricacies of silkworm rearing and the need to keep the rearing houses in clean and hygienic conditions. Rearers have the potential to take up bivoltine rearing as they can absorb and adopt improved rearing techniques. The state has an organized sericulture structure and extension network spread into districts and block levels. Both CSB and the State have established required infrastructural facilities for the overall development of sericulture. CSB has established a full-fledged well-equipped Silkworm Seed Production Centre, which can meet the entire seed requirements of the state, Demonstration cum Technical Service Centre for post cocoon technology and Research Extension Centre for the transfer of technology suited to Kerala conditions. SERIFED provides assured market for cocoon following a quality linked pricing system. The market for silk product itself is quite large in Kerala, which is an added advantage to give adequate strength to Kerala sericulture.

The weakness of the sector is poor organization of mulberry farms, wastage of mulberry foliage due to poor farm management, under utilization of infrastructure, inactive sericulture co-operatives, lack of technical expertise mainly in post cocoon sector, improper cropping pattern followed by the farmers, poor quality cocoons, lack of value addition processing, poor marketing network, over staffing and under utilization of existing manpower, lack of market orientation etc..

The opportunity for sericulture sector includes active involvement of rural women in sericultural activities, highly literate farmers capable of absorbing latest technological packages, high demand for silk goods in Kerala, potentiality for the development of bivoltine seed zone in certain high altitude areas, eco friendly nature of sericulture industry. The success of bivoltine sericulture in Kerala can form a base for the production of international grade high quality silk. Kerala has reputed traditional handloom weaving enclaves, with unique product and designs. Introduction of silk weaving with high value products in these clusters can lead to value addition and the much needed product diversification.

The threat faced by the industry is the multi crop pattern followed by the farmers and option for easily manageable crops like coconut, rubber, banana etc; high cost of labour, expectation of very high income from sericulture, anticipation of high subsidy from Government sector, migration of farming community to urban areas, low land holding capacity of the farmers and high cost of land. Majority of the farmers practicing sericulture as a subsidiary crop on small scale will not be able to realize the full benefit of sericulture, resulting in low investment and poor management of sericultural practices. Vanilla, Cardamom and other spices have become competitive crops for sericulture. High rainfall and humidity prevailing during the major parts of the year in Kerala adversely affects sericulture mainly the cocoon quality.

3.3 Growth of industry:

3.3.1 Production analysis

Though massive plans were drawn for the development of sericulture during VIII and IX plan, the results were not encouraging. Against the ambitious target of developing 50,000 acres under mulberry to produce 29,600 MTs of cocoons during VIII plan, the standing acreage at the end of the plan was only 7413 acres and the terminal year production was only 31.8 MTs of cocoons. The position did not improve during IX plan, in-spite of having a target to cover 7000 acres under mulberry to produce 552 Mts of cocoon. The productive mulberry acreage at the end of IX plan is reported to be 555 acres only and the cocoon production during the terminal year of IX plan was only 30 MTs. ***Graph -1*** indicates the stagnated growth of the industry after the year 1993-94. Though there is no improvement in quantity of cocoon production, there is improvement in the quality of cocoon produced, which has resulted in modest improvement in the production of raw silk during IX plan. The graph clearly indicates that the growth achieved by the industry during the year 1993-94 could not be sustained further. The table below indicates the progress through plans

#	Key indicators	Unit	VIII Plan			IX Plan			X Plan
			Trg	Ach	%	Trg	Ach	%	Target
1	Mulberry acreage	Acres	50000	7413	14.83	7000	555	7.93	3000
2	Cocoon production	MT	29600	31.8	0.11	552	30	5.43	1373
3	Raw Silk Production	MT	2960	1.34	0.05	50	2.5	5	145

Disparity between the achievement of mulberry cultivation target and raw silk production target indicates that either the figures relating to mulberry cultivation are unreliable or majority of the mulberry plantations are unproductive / yet to reach bearing stage. Even the target planned for X plan is also on higher side. A realistic target to produce around 50 M.Ts of raw silk would be ideal at this stage.

3.3.2 District wise performance

Out of the total productive acreage of 555 acres of mulberry plantation at the end of IX plan, 93 acres are in Idukki district, 72 acres are in Mallapuram, 57 acres are in Kannur, 46 acres are in Palakkad, 45 acres are in Wayanad and 37 acres are in Trissur. These 6 districts contribute to more than 63% of total mulberry acreage. The same districts also tops in average dfls consumption, cocoon production and productivity parameters. Majority of these districts are located in the northern part of Kerala and the major sericultural areas are concentrated in the east away from sea and are bordering the sericulturally traditional states of Karnataka and Tamilnadu. It is a proven fact that the sericulture does not perform well in the coastal areas because of salinity, sandy soil and high humidity. ***Graph – 2*** indicating the district wise performance of the industry viz Number of farmers practicing sericulture, mulberry acreage, uptake dfls and cocoon production in different districts appended for reference. The graph clearly *justify the need for consolidation of sericulture activities only in the selected clusters of potential districts based on suitability and viability of the operations instead of diluting the sericulture activities in all 14 districts.*

3.3.3 Market analysis

There is no open market system for the transaction of cocoons or yarn in Kerala since there are hardly any units producing silk yarn or fabrics. The entire quantities of cocoons produced by the farmers are purchased by the Serifed. Cocoon procurement

center established at 14 DSO offices procure the cocoons received from the farmers. The cocoons are assessed for their quality and payment is made to the farmers on spot. The entire quantities of cocoons purchased by Serifed are reeled in the Govt. reeling units of Serifed at Alappuzha and Kasargod and a unit run by the Cooperative Society at Palakkad. The silk yarn so produced is sold in Bangalore Silk Exchange. Though Serifed has twisting units for value addition, there is hardly any utilization of the same. Kerala has a good tradition of weaving and there are potential weaving clusters producing traditional products. There are many local designers who can produce good designs to meet the market demands. Serifed has not made serious efforts to study the market demand for finished products

What is surprising is that the Federation does not seem to have any awareness regarding the market focus required. An organization especially with development and commercial focus has to function to meet a given demand or requirement. While funds (grants provided by CSB and State) are utilized in development of the sector, the reeling units which consume the entire cocoons are run very poorly without being aware of the markets requirement either about quality or products. The utilization and efficiency levels are very low and high cost of production. The cost of production is indicated to be around Rs 1500 – 3000 per kg of raw silk and the yarn is sold at Bangalore market at a low price of about Rs 650 – 1200 per kg resulting in heavy loss and the major portion of grants released by the State Govt. is being utilized for this particular activity.

Networking with weaver's society, design development / product developments to meet the local market needs and sales promotion are the important critical areas of intervention to make the industry viable and long term sustainable. Absence of any market linkages and no serious attempts made to develop the same is a concern and handicap for sericulture industry in Kerala. It is also pertinent to note that Kerala is one of the largest consumer of silk fabrics in the Country with sarees and fabrics coming mainly from Karnataka and Tamilnadu. Moreover Serifed should be able to develop a well thought marketing strategy to produce the desired yarn and also manufacture value added products to make the entire activity viable.

3.3.4 Economics

Serifed purchases the cocoons from the farmers at higher rate as compared to the open market prices prevailed in the neighboring states of Karnataka and Tamilnadu. Besides high material cost, the production and processing cost appears to be on higher side, Serifed is not able sell the yarn even at break-even cost thereby resulting in heavy losses. The team studied the detailed operations of Silk Reeling Unit, Pattamakkad. Important factors contributing to the loss are old unproductive machinery, low capacity utilization, high material and processing cost, low quality and productivity, excess labour, more transportation cost, poor management practices, improper working capital management, poor marketing linkages, lack of flexibility in operation and no decision making power to the in-charge of the unit.

3.3.5 Techno economics

Techno economic analysis of the saree manufacturing endeavor clearly indicate the need for procuring the raw material at reasonable rates and value addition for the same based on market needs for better profitability. The tables below indicate the production cost of the saree using dobby and jacquard designs and the variance in net profit with variation in raw material price

Techno economic analysis (Serifed – Kerala)

No. of Dobby looms	No.	50
No. of Jacquard looms	No.	25
Raw silk consumption	Kg. / Year	5065
Raw Silk Price including processing cost	Rs./ Kg.	1500
Expenses on twisting & dyeing	Rs./ Kg.	200
Zari Price (Half fine)	Rs./ Kg.	4500
Zari Content (Dobby)	Gm./Saree	50
Zari Content (Jacquard)	Gm./Saree	150
Wages (Dobby)	Rs./Saree	400
Wages (Jacquard)	Rs./Saree	500

Cost of production (Dobby Saree)	Rs./Saree	1738
Cost of production (Jacquard Saree)	Rs./Saree	2288
Selling Price (Dobby Saree)	Rs./Saree	1800
Selling Price (Jacquard Saree)	Rs./Saree	2300
Net Profit	Rs.in lakh	**3.55**

The above table clearly indicates that for Kerala market conditions the production cost of raw silk at Silk Reeling Unit (including establishment cost) should not exceed Rs 1500 per kg. The procurement price of cocoons has to be reduced drastically and it is necessary to take into account the transportation cost of cocoons from cocoon procurement center to Silk Reeling Unit.

3.4 Present status:

3.4.1 Current status of Sericulture: At the end of IX plan period mulberry acreage of 7191 acres covering 10615 farmers has been reported. However the actual productive acreage is 555 acres covering 979 farmers spread all over 14 districts. The cocoon production at the terminal year of IX plan was 30 MTs and the raw silk production was 2.6 MTs. The situation is alarming and it does not give any rationalization to the support system presently provided by the Govt. for the sustained development of sericulture in the state.

3.4.2 Productivity

The table below indicates the present status of productivity in Kerala against the standard norms.

#	Particulars	Unit	Present status in Kerala		Standard norms	
			CB	BV	CB	BV
1	Leaf yield/acre/year	Kg	7500	7500	12000	16000
2	DFl uptake/acre/year	No	450	450	1200	1200
3	Cocoon yield/100 dfls	Kg	35	30	45	55
4	Renditta		16.84	9.4	8.25	7

The above data reveals that the farmers have not taken-up sericulture seriously and could not realize the economic importance of sericulture because of low productivity. There are gaps between planning and execution. There are problems in technology transfer and extension communication resulting in high dissemination loss. Proper technical support backed with systematic planning and demonstration through lead farmers is essential to propagate sericulture as a main income activity.

3.5 Infrastructure available:

The table below indicates the details of the support systems available in the state:

#	Details	Unit	Location	Remarks
1	Nurseries	3	Agali, Ernakulam	Govt. sector
2	Farms	2	Kollam, Kasaragod	Govt. sector
3	District Sericulture Offices	14	All 14 districts covering 40 clusters spread over to 125 Gram Panchayats	Govt. sector
4	Market	14	Cocoon collection centres with stifling facilities attached to district offices	Govt. sector
5	Reeling Units	3	Alappuzha, Kasaragod and Palakkad	Two under Govt. sector and One under Pvt. sector
6	Looms	150	Trivandrum, Kottayam, Ernakulam, Trissur, Palakkad, Kannur and Kasargod	Pvt. sector
7	Dyeing printing unit	1	Kannur	Pvt. sector
8	Common Facility Centre	1	Kannur	Pvt. sector

Besides this the Central Silk Board has one Grainage, one DCTSC, one REC and one sub unit of REC. The data reveals that the above infrastructural facilities are not being utilized optimally by the industry.

3.6 Financial

Graph – 3 indicates sector wise expenditure incurred by Serifed during IX plan period. The table below indicates the details of expenditure incurred during the year 2001-02

#	Details	Expenditure (L.Rs)	% To total
1	Mulberry cultivation	1.40	0.46
2	Silkworm rearing	41.00	13.52
3	Post cocoon	17.00	5.61
4	Support services	1.65	0.54
5	Administrative expenses	242.21	79.87
	Total	303.26	100

Around 80% of the total fund is being utilized towards the administrative expenses, which includes mainly the staff salary and wages. This is an alarming situation.

4. Part – II - SERIFED - Kerala State Sericulture Cooperative Federation - OD Analysis

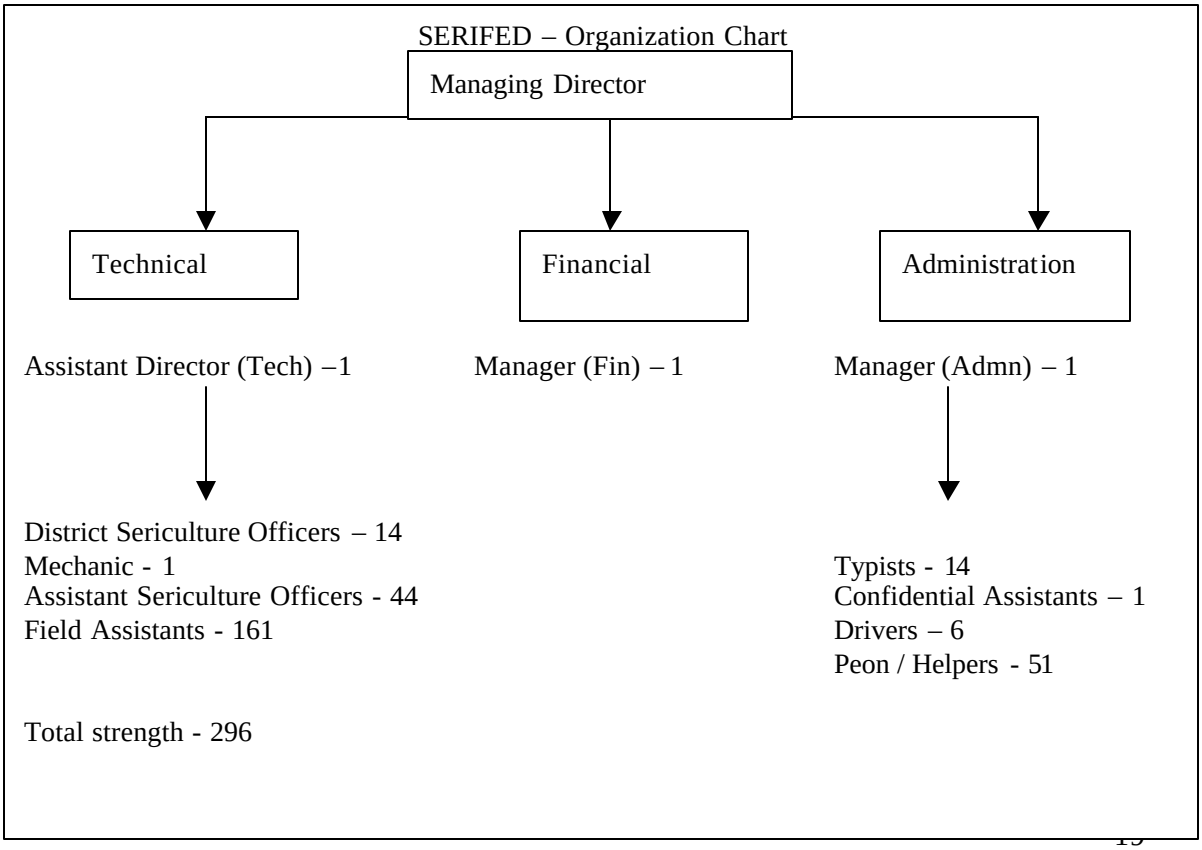
4.1 Corporate profile: As per the byelaws, Serifed is a registered cooperative society under the Kerala state cooperatives societies act. Serifed is an apex body of the taluk level primary cooperatives. At present Serifed has only 4 taluk sericulture cooperative societies functioning only in two districts ie Mallapuram and Trivandrum. These societies are not functioning actively. The administrative organ of Serifed is the Board of Directors elected from the representatives of Cooperatives and Govt. nominees. But since inception, the Federation didn't have democratically elected administrative setup. This was done very recently ie September 2002. Serifed has to work through its members and the byelaw does not permit Serifed to extend assistance directly to the farmers who are not the members of the taluk level primary sericulture cooperative societies. Many of the Board of Directors of Serifed do not have experience and

expertise in sericulture to take appropriate policy decision. Serifed has no flexibility to work like any other federation.

4.2 Objectives: The objectives of Serifed are too general and are not clearly focused. Many of the developmental and commercial activities are mixed together and it is difficult to know as to whether Serifed works for increasing the income of the stakeholders of industry viz Rearers, reelers, weavers etc. or for increasing the income of the Federation.

4.3 Organization structure: Serifed has headquarter at Trivandrum and 14 District Sericulture Offices headed by the DSO who monitors implementation of sericulture in 40 clusters spread over 125 Grama Panchayats. The Assistant Sericulture Officer heads each cluster and the Field Assistants work at Panchayat level. While majority of the FAs work within the cluster, few of them work outside the cluster also. Serifed has 296 staff mainly from technical background. This includes 18 Officers taken on deputation from CSB and Agriculture Department and the rest 278 staff (working as Assistant Sericulture Officers, Field Assistants, Typists, Drivers, Peon / Helpers) appointed directly by the Serifed.

The table below indicates the present organization structure.



4.4 Monitoring system: The Field Assistants working at the Panchayat level reports to the ASOs of the concerned clusters, who in turn report to the DSOs of the concerned district. The DSOs of different districts report to the Head Quarter. The SERIFED has fixed action plans for each cluster and monthly / weekly review meetings at DSO and ASO levels are organized to closely monitor the field performance. The Management Information System of Serifed has prescribed the following:

a. Job description for Field Assistant
b. Job description for Assistant Sericulture Officers
c. Performance assessment for ASO and FA
d. Reward and Punishment System
e. Work diary for FA, ASO and DSO
f. Monthly / weekly performance report

Close interaction with the field staff reveal that the monitoring system is not working up-to the expectation because of lack coordination at the level of DSO, ASO and the Field Assistants. As a result the work of the FAs who are considered as a grass root level workers are not closely monitored. The ASOs (except few) and the FAs does not have any office in the field and they do not sign the daily attendance registers. Serifed is not reimbursing the travel expenses of the field staff and the facilities provided for the mobility of the staff is inadequate for extensive field visit.

4.5 Human and Institutional Development: Serifed as a Federation is supposed to work on commercial lines. The excess staff employed and unplanned deployment of staff has resulted in huge maintenance expenditure. All the districts are filled with staff without considering the performance and concentration of sericulture. The offices are located mainly in the city and away from the sericulture clusters. The **graph - 3** clearly indicates the imbalance between production and manpower deployment. This has resulted in under utilization of available manpower. One of the most important factors contributed to the retarded growth of the sector is inappropriate deployment of available manpower. Detailed Personnel Information System maintained by the Serifed clearly reveals that the majority of the technical staff are well qualified and technically trained to handle sericulture (mainly on farm activities). However they are not exposed to latest technology

practices. The staff lacks motivation, commitment, dedication, and responsibility. Job insecurity has mainly attributed towards de-motivating the existing staff.

4.6 Resource Planning: Serifed gets funds mainly from State's budget, Central Silk Board and now efforts are made to get funds from local Panchayats and Rural Development department. More than 80% of the allocated amount is utilized to meet the administrative expenses, which includes mainly the staff salary, wages and office maintenance expenses. The amount realized by of sale of silk accounts to only around 12% of the total expenditure and the balance amount comes from grant in aid. The ***Graph – 4*** clearly indicate the year wise expenditure incurred towards mulberry cultivation, silkworm rearing, post cocoon activities and administrative expenses. The table below indicates the details of funds released by the State Govt. and CSB for the development sericulture in Kerala during last five years

Unit Lakh Rs

#	Year	State	CSB	Realization by sale of silk	Total
1	1998-99	75.00	7.10	18.32	100.42
2	1999-00	125.00	11.93	23.14	160.07
3	2000-01	187.50	25.49	26.65	239.64
4	2001-02	231.66	4.65	12.01	248.32
5	2002-03 (Sept)	173	10.84	-	183.84

5. Factors attributed to poor growth of Sericulture

- The sericulture activities are not concentrated in potential areas. Practicing sericulture in all districts irrespective of potentiality and viability of operations leads to lack of focus, poor deployment of funds to the required potential areas and dilution of efforts. The potential districts will have to be identified after a careful feasibility study and funds and technical efforts should focus more on selected clusters in these districts. There does not seem to a strategic approach on this point.
- The silk industry by its nature is a cluster of many non-farm and on farm activities. The sericulture industry in Kerala lacks many forward and backward linkages. The

industry lacks input support in the areas of advanced training, information support, market tie-up, generation of skilled personnel etc..

- There is no market-oriented strategy. There are many weak market linkages.
- The system of working of Serifed has certain limitations; the activity of the staff gets bogged down with various problems like motivation, other responsibilities or added items of work that have nothing to do with their work get tagged on thereby diluting the core areas of attention.
- Responsibility sharing, accountability among staff are not visible
- The farmers have not taken up sericulture seriously and could not realize the economic importance of sericulture
- The extension staff does not have required technical skill, knowledge and competency. As a result the latest technology packages have not reached the farmers in the field though the farmers are capable of absorbing the latest technology practices.
- The extension machinery could not properly demonstrate and popularization of improved technology packages, as there are no role model farms and farmers in the state.
- The extension staff has no orientation towards cluster approach and group dynamics and therefore could not successfully organize farmers into group, as a result almost all the farmers presently practicing sericulture are scattered and work in isolation.
- There is no coordination among staff working at different levels. There is no skill improvement on team building, leadership, motivation, empowerment, attitudinal changes etc..
- At present there is no focus on mulberry farm management to improve the quality and leaf yield per unit area.
- The subsidy system presently on practice is on higher side and the expectations of the farmers are very high. Sericulture is being popularized as a subsidy oriented governmental programme.
- Wrong identification of beneficiaries, inadequate extension support to the farmers. Sericulture remains as a very low income generating activity among majority of the farmers.
- There is no cropping pattern for each of the district based on the agro-climatic condition and the irrigation facilities available with the farmer. Eg: Idukki and

Waynad districts have different agro climatic conditions as compared places like Palakkad. There is no established crop schedule for each of the district.

- Up-take of layings per unit area is very low and there is lot of leaf wastage
- There is no effort to promote sericulture as monoculture in place of the existing practice of inter-cropping which gives only subsidiary income and the farmers do not show much interest on reinvestment.
- Selection of farmers and the choice of area have not been done carefully. This has resulted in unfruitful expansion of area under mulberry. The farmers have been selected based on certain political interference and compulsion
- Procurement of cocoons by Serifed at very high prices without looking into the cost of production and market conditions. This has resulted in huge loss to the Govt. reeling units, as the raw material cost itself is higher than the cost of silk itself in the open market.
- Very poor development of forward linkages leading to a situation where the product is hardly consumed in the State. This is in spite of the fact that the Kerala has many traditional waving clusters and the state is a good consumer of silk products.

6. Part – III – Alternate Strategy

Considering the above, the team recommends following strategic approaches for the overall development of silk industry in Kerala and the organizational development of Serifed for its effective functioning:

6.1 The Farm Sector

6.1.1 Identification of sericulture potential districts:

The graph indicating the district wise performance of sericulture in Kerala clearly justify the need for consolidation of sericultural activities in selected clusters of the following potential districts:

1. Idukki
2. Palakkad
3. Mallapuram
4. Kannur
5. Wyanad
6. Trissur

Map – 1 indicates the present status of isolated and scattered nature of sericulture industry in Kerala and the ***Map – 2*** indicate the proposed cluster based zonal approach for the development and sustained growth of on farm sector. It is necessary to concentrate all sericulture development activities in the proposed sericulture zone rather than diluting the activities all over the state. Serifed can support sericulture development in potential clusters outside the proposed sericulture zone if found feasible. However the emphasis should be to develop sericulture mainly in the proposed zone.

6.1.2 Focus on potential districts and Cluster based sericulture development

The developmental programmes should concentrate mainly in the potential districts. There is a need for concerted effort towards sericulture development in selected clusters. Each Panchayat or more than one Panchayats having a minimum 10 - 15 acres of mulberry plantation with 15 - 20 farmers within 10 Kms radius may be

formed into a Sericulture Quality Club (SQC). Around 5 such SQCs may be networked under one Sericulture Cluster Group (SCG). About 3 such SCGs may work under the control of Cluster Development Center (CDC) and the existing District Sericulture Office may relocated in the vicinity of the cluster and work as Cluster Development Center.(CDC) Therefore each CDC will have minimum of 150 acres covering a maximum of 300 farmers. The above system of networking requires careful planning and proper ground realities should be taken into consideration while putting the system in place.

6.1.3 Sericulture Quality Clubs (SQCs): The SQCs or Self Help Groups can be a viable system of promoting sericulture. SQCs have the following advantages:

- Effective delivery channels for adoption and transfer of technologies aiming towards improving quality and productivity.
- Complement local extension network
- Effective source of micro-finance and mobilization of plan funds under various schemes
- Forum to debate on technical, economical and social aspects of sericulture
- Potential to develop into income generation centers.

6.1.4 Sericulture Cluster Group: Sericulture Cluster Group (SCG) is basically a network of Sericulture Quality Clubs, which coordinate the activities of the SQCs and assist them to exchange the experience among farmers and motivate the SQCs to decide and take common beneficial activities. The SCG will ensure that the latest technology practices percolate from the better performing SQCs to the low performing SQCs, provide common facilities like Chawki rearing, planting of improved mulberry varieties, cocoon collection, supply of disinfecting materials, mass disinfection of rearing houses, organizing supply of rearing appliances like trays, chadrikes, nets etc..

6.1.5 Cluster Development Center: The Cluster Development Centre (CDC) will work as a center promoting group concepts and work towards associating different Sericulture Cluster Groups comprising Sericulture Quality Clubs. The Cluster Development Center will address to the problems faced by the farmers in marketing of cocoons and providing necessary inputs required for the farmers. The Cluster Development Center will facilitate

supply of silkworm seed to the farmers, provide facility for storing of cocoons with hot air drying facility, coordinate supply of planting materials, disinfectants, sericulture appliances to farmers. This will be a nodal point for training and extension services. The Cluster Development Center will also provide facilities for cocoon testing and grading and organize technical awareness workshop, farmers study tour etc. for effective transfer of technology. The CDC will coordinate implementation of various sericulture development programmes of State and Central government. The CDC will organize experience sharing seminars and take steps to invite experts from traditional states and organize exposure visit of farmers to traditional sericultural areas in Karnataka and Tamilnadu. The CDC will draw action plan for sericulture development in their respective areas by involving the SCGs, SQCs and local bodies. The CDC will coordinate with cocoon production team and Market Facilitating Team to ensure that the farmers get remunerative price for their cocoons at the earliest.

6.1.6 Orientation training: It is necessary to orient the extension staff of Serifed to the group concepts so as to enable them to work as facilitators for the development of clusters and organize the farmers into groups. Basic training on community organization, SHG concept, PRA technique followed by exposure visit to SQCs functioning in Tamilnadu and Karnataka is necessary. The Cluster Development Centers (CDC) may work on the lines of NPRI clusters promoted by CSB in Nilambur (Mallapuram), Chengannur (Alappuzha dist) and proposed to be implemented at Agali (Palakkad dist) and Anakkara (Idukki dist). The CDC should work towards consolidating the efforts of the existing clusters and promote formation of new clusters in the potential sericulture zone. The CDC should have Moriculture and Sericulture experts to provide technical inputs on both mulberry plantation and silkworm rearing.

6.1.7 Peoples participation to promote sericulture: Local Panchayat Raj bodies may be encouraged to promote sericulture under the developmental programmes like Swarnajayanthi Gram Swarozgar Yojana (SGSY) and similar other programmes. The representatives of the Gram Panchayats may be exposed to sericulture familiarization programme so that they are convinced on the economic importance of sericulture. The FAs and ASOs of Serifed working at Panchayat level (SQC) and cluster level (SCG) respectively should coordinate with the local bodies for the effective implementation of sericulture. Care should be taken to select only those Panchayats located in the potential sericulture districts within the concentrated sericulture zone.

6.1.8 Choice of the farmers: The farmers needs to be classified as a) those who take up sericulture in less than half acre along with other cash crops since the income they get would be an additional income to their family and b) the farmers who raise larger area under mulberry, and who depend exclusively on sericulture and require adequate credit and subsidy to handle their operations. While majority of farmers in Kerala belong to the first category, the SERIFED should focus on second category of farmers as demonstrative farmers for the sustainable development of sericulture. Financial assistance may be extended based on result oriented approach. Clear-cut norms on productivity parameters should be laid down for the farmers to become eligible for availing subsidy. Choice of the area and farmer has to be done carefully. These can be areas where the competition from other crops is not intense and where the farmer with some irrigation is likely to find sericulture as a viable crop compared to other crops. A careful feasibility study is required to be undertaken for the selection of farmer and the area.

6.1.9 Promote sericulture as mono-crop: Efforts should be made to promote sericulture as mono-crop in well-irrigated area exclusively for bivoltine backed with latest technology packages. The farmers should be motivated to provide all the required inputs and the productivity levels should match the standard norms. Neither the extension agency nor the farmers should compromise on any quality parameters and ensure providing all support under the developmental programmes.

6.1.10 Technology support: Extension appears to be a weak link in Serifed's promotional activities. Serifed should be able to demonstrate the latest technology packages through role model farms to be developed at Govt. farms as well as at farmers level. Cropping pattern should be developed for each ecological zone, which should include both farm management and rearing schedule. The extension staff needs to be properly trained in latest technology packages and effective transfer of technology to minimize the dissemination loss.

6.2 II - Non farm sector

6.2.1 The non farm sector is critical for transforming Serifed into a vibrant viable structure since it ensures proper linkages to be developed apart from the much needed value addition. Being a non-traditional state in sericulture the disposal of yarn is crucial for rotation of capital and fund flow to sector. There is an urgent need for Serifed to

develop a post cocoon and marketing strategy that is radically different from what is being done now. Some of the marketing issues can only be addressed if at least a part of the yarn is internally consumed instead of selling at distress prices in Bangalore market. Kerala has a tradition of cotton handloom weaving. The main centres are Kannur, Palakkad (Kallanchira), Trivandrum (Balaramapuram), Ernakulam (Chendamangalam) and Trissur (Thiruvilvamala). While Kasaragod and Alapuzza have two Government Silk Reeling Units, there is another reeling unit in cooperative sector at Palakkad. Serifed in collaboration with the Central Silk Board has trained interested weavers of Kannur and Palakkad clusters to take-up silk weaving and many weavers have been exposed to other silk weaving clusters in Karnataka and Tamilnadu. Some of the societies in Kannur and Palakkad have been remarkably successful in manufacturing and marketing of silk fabrics in Kerala. More and more weavers will be interested to take up silk weaving provided Serifed is able to facilitate and synchronize a proper production and marketing strategy by interlinking the yarn production units with weaving clusters. In-order to sustain and carry forward the development, the missing links in the post cocoon sector like twisting, dyeing and weaving needs to be supported as commercial activities in private sector in selected districts. **Map - 3** indicates the strategic approach for the concentration of post cocoon activities in Kerala.

6.2.2 Self-sustainability of Sericulture Reeling Units (SRU):

The team visited Silk Reeling Unit, Pattanakad and the table below indicates the performance :

Year	Cocoons reeled (Kgs)	Silk Produced (Kg)	Average Renditta	Stock of raw silk (Kg)
1992-93	1923.89	135.96	14.15	135.96
1993-94	7165.60	480.22	14.92	702.93
1994-95	5038.38	327.52	15.38	1046.99
1995-96	5871.43	412.92	14.21	1140.54
1996-97	9478.10	546.55	17.34	34.94
1997-98	8752.78	617.52	14.17	253.37
1998-99	7664.34	501.08	15.29	141.62
1999-00	11531.72	765.25	15.06	47.28

2000-01	10966.87	1014.12	10.81	528.306
2001-02	8816.12	815.07	10.81	766.21
2002-03 (Sept)	3306.65	334.30	9.89	1055.40
Average	6862.08	540.96	12.68	

The 10 basin multi end unit has a capacity to consume a minimum of 24000 kgs of cocoons to produce 2400 kgs of raw silk per annum. (8 kg raw silk production per day for 300 days at 10 renditta) The data reveals that only 28.59% of the capacity is being utilized. The entire quantity of cocoons presently produced in Kerala is sufficient to feed only one Silk Reeling Unit. The unit presently has large cocoon stocks, which are not being stored properly. There is no proper system for grading and sorting of cocoons. The cocoons should be stifled, sorted out systematically and should be utilized on first in first out basis to avoid accumulation of old stock of cocoons. Unsystematic storage of cocoons in the high humid areas of Kerala affects the reelability. The above unit has a stock of 1055 kgs of raw silk at present. Huge inventory of this kind blocks the working capital and improper usage of working capital affects the profitability. The unit should be able to sell the raw silk immediately and keep minimum stock.

The table below indicates the cost of production of one kg of silk in different months at SRU, Pattanakad.

Unit : Rs

#	Month	With establishment cost		Without Establishment cost	
		CB	BV	CB	BV
1	April 2000	2834.90	1896.45	2391.05	1689.55
2	May 2000	2850.80	1745.40	2475.45	1637.00
3	June 2000	2592.65	2357.40	2309.40	2148.30
4	July 2000	3243.65	1700.35	2850.20	1557.55
5	August 2000	3897.00	1489.00	3180.65	1365
6	September 2000	3326.00	1715.00	2787.00	1567.00
7	October 2000	4547.00	1726.00	3735.00	1563.00
8	November 2000	4124.00	1609.00	3400.00	1459.00
9	December 2000	3128.00	1799.00	2782.00	1625.00
10	January 2001	2523.85	1325.35	2300.45	1226.75
11	February 2001	2228.00	1538.00	1744.00	1377.00

12	March 2003	2374.00	2018.00	1572.00	1444.00
	Average	3139.15	1743.25	2627.26	1554.93

This is an alarming situation and no reeling unit can sustain such high cost of production at the present market situation. The data clearly justify the need for quality bivoltine silk production and the necessity for drastically reducing the establishment cost of the SRU. Serifed should develop clear strategic approaches to run the SRUs as commercially viable units on long-term sustainable basis. Senior Research Officers from Central Silk Technological Research Institute (CSTRI) visited the reeling units during 1997-98 and after studying the units have submitted to Serifed, a clear-cut technical guidelines for running the units. It is important to improve the capacity utilization, productivity, quality and efficiency of reeling units. The Serifed may provide support in the areas of machinery up-gradation, working capital, equipments for quality testing, byproduct utilization etc. Qualified managers should be posted in SRU to run it on commercial basis. The officers who run the unit should be either Textiles Graduates or Diploma Holders in Textile technology with training at CSTRI. The staff working at the SRUs may be rationalized to minimize the administrative expenses. The SRUs may be made as independent economic units and Serifed may also plan for handing over these units to private agencies on long-term lease basis.

The table below indicates the profile of a model multi end reeling unit of 10-basin capacity (100 ends) as compared to the Silk Reeling Unit, functioning under Serifed at Pattanakkad (Allapuzha)

#	Details	Unit	Standard ME Unit	Serifed Unit (SRU–Pattanakkad)
1	Installed capacity (Raw silk)	Kg	3000	3000
2	Capacity utilization	%	80	**34%**
3	Actual production per year (300 days)			
	- Raw silk	kg	2400	**1014**
	- Defective cocoons	kg	1080	1245
	- Silk waste	kg	600	323 (Jute)
	- Pupae	Kg	10800	586 (jelly)
4	Selling price			
	Raw silk @ Rs 1000/kg	Rs	24,00,000	12,75,200
	Defective cocoons @ Rs 60/kg	Rs	64,800	(Rs 1250/kg)

	Silk waste @ Rs 600/kg Pupae @ Re 1/kg	Rs Rs	60,000 10,800	34,725 62,614 19,630 (Jelly)
5	Total sales realization	RS	2535600	13,92,168
6	Raw material cost (21,600 kg cocoons @ Rs 100 per kg)	Rs	2160000	**13,39,966** (10,967 kg @ Rs 122 per kg)
7	Supplies, Fuel and consumables	Rs	49,600	**1,17,333**
9	Power and Water	Rs	12015	61,404
10	Repair and maintenance	Rs	2210	18,431
11	Salary and Wages (1 Manager, 10 reelers, 2 re-reelers, 3 Cookers and 3 Helpers)	Rs	137250	**5,16,813**
12	Packing expenses	Rs	2400	-
13	Total expenses	Rs	2412877	20,53,947
16	Net profit / loss	Rs	1,22,723	(-) 6,61,779

The table above indicates that the major problems of the SRU are low capacity utilization, high cocoon cost, low productivity, more wastage, high fuel and electricity cost and very high salary and wages. The silk rates shown here are the rates fixed by the Serifed, whereas the silk is actually sold at Silk Exchange, Bangalore at still lower rates. The Silk Reeling Units should bring down the material cost, processing cost, administrative cost and improve quality, productivity and capacity utilization to bring down the cost of production of one kg of silk with establishment cost to a level of atleast Rs 1500/- to make it viable and sustainable commercially independent unit.

6.2.3 Market system:

There are cocoon procurement centers at 14 District offices. The cocoons received at the cocoon procurement centers are assessed for quality and payment is made to the farmers on the spot. No other private agencies procure the cocoons

Pricing system

The formula adopted by Serifed for cocoon price fixation at present is

$$\frac{\text{Market rate of raw silk} - \text{cost of silk production}}{\text{Estimated Renditta (ER)}}$$

$$ER = \frac{1}{GC \times SR \times RSR}.$$

The conversion cost of raw silk production is taken as Rs 225 per kg of yarn produced. Minimum price of raw silk is taken as Rs 1250 and a production incentive of Rs 50 per kg is paid to quality cocoons, which is determined on the basis on good cocoon percentage.

Serifed may take into consideration the cost of transportation of cocoons and charge the same to the farmers. Serifed is presently adopting a floor price of Rs 1250 per kg of raw silk to arrive at the cocoon price. This system may be stopped immediately and the daily market price of raw silk prevailed in Karnataka may be considered to fix the cocoon price. Production incentive of Rs 50 per kg of cocoons may be reduced gradually on sliding scale of Rs 10 per year. The production cost per kg of silk may be taken as Rs 150 during favorable season and Rs 175 during unfavorable season. Cocoon testing procedure suggested by CSTRI may be adopted for quality testing and the cocoon price may be fixed for different grades based on quality parameters. There does not seem to have any other alternatives since the cocoon prices are generally decided in the markets on the basis of probable realization of yarn prices.

6.2.4 **Market oriented approach**: Serifed should initially work towards developing niche market both in domestic and international fronts. Serifed needs to work in the areas of market research, sales promotion taking into consideration both domestic and international market demands, design development and product diversification, support local fabric designers to develop market oriented designs and promote private weaving clusters to develop the designs. Networking these activities in the right direction would help to develop sustainable silk industry in Kerala. A market driven approach is essential to make the sericulture activity sustainable and viable. A Market Facilitating Team (MFT) should be created who can workout as an interface between pre cocoon and post cocoon activity. The team will be the fulcrum where the production and marketing activities of the Federation will rotate. The Market facilitating teams will workout a long-term strategy in coordination with the pre-cocoon team keeping in view the goals and objectives of the Federation.

6.3 III - SERIFED - Organizational Development

6.3.1 Demarcation between developmental and commercial activities: There should be clear-cut demarcation between developmental activity and commercial activity. The small and marginal holdings in Kerala where sericulture is practiced as an

alternate crop can be a good source of income through self employed family labour due short gestation period, frequent returns at quick intervals, low initial investment and a ready market offered by Serifed. They are also a source of gainful employment for both men and women. For an agrarian and rural economy a strong sericulture base can be a firm indices for development. Therefore the approach for development of sericulture should be focused in arriving a strategy wherein the farm sector that needs careful nurturing due to various socio economic reasons should be primarily a **developmental activity**. Serifed should be in a position mobilize resources available in various schemes of CSB, State and other developmental agencies. In other words Serifed should cater to the farm requirement by

i Organizing supply of quality seed and planting material to the farmers in required quantity at appropriate time with proper planning
ii Introduce the best technologies suitable to the region
iii Close interaction with farmers and provide best extension support
iv Providing adequate and in-depth training to the farmers and field staff

While the on farm activities may be treated as developmental activities, the non farm activities from silk reeling to silk weaving should be treated as **commercial activity**. Serifed should have a clear cut market driven strategic approach to develop and market the end products in coordination with the on-farm team. The Market facilitating team should work towards market research, sales promotion, design development, value addition, and export promotion. Serifed should arrange supply of yarn to the weavers as per the requirement and get the products developed through the network of weavers and also arrange marketing of end products as per the market oriented strategy suggested above.

The present Liberalization, Privatization and Globalization (LPG) policy underscores the need for shifting the focus of the Govt. department from “provider” to “facilitator”. Therefore future plans of Serifed on commercial activities should focus more on building a strategy to work as a facilitator instead of directly involving themselves in major commercial activities.

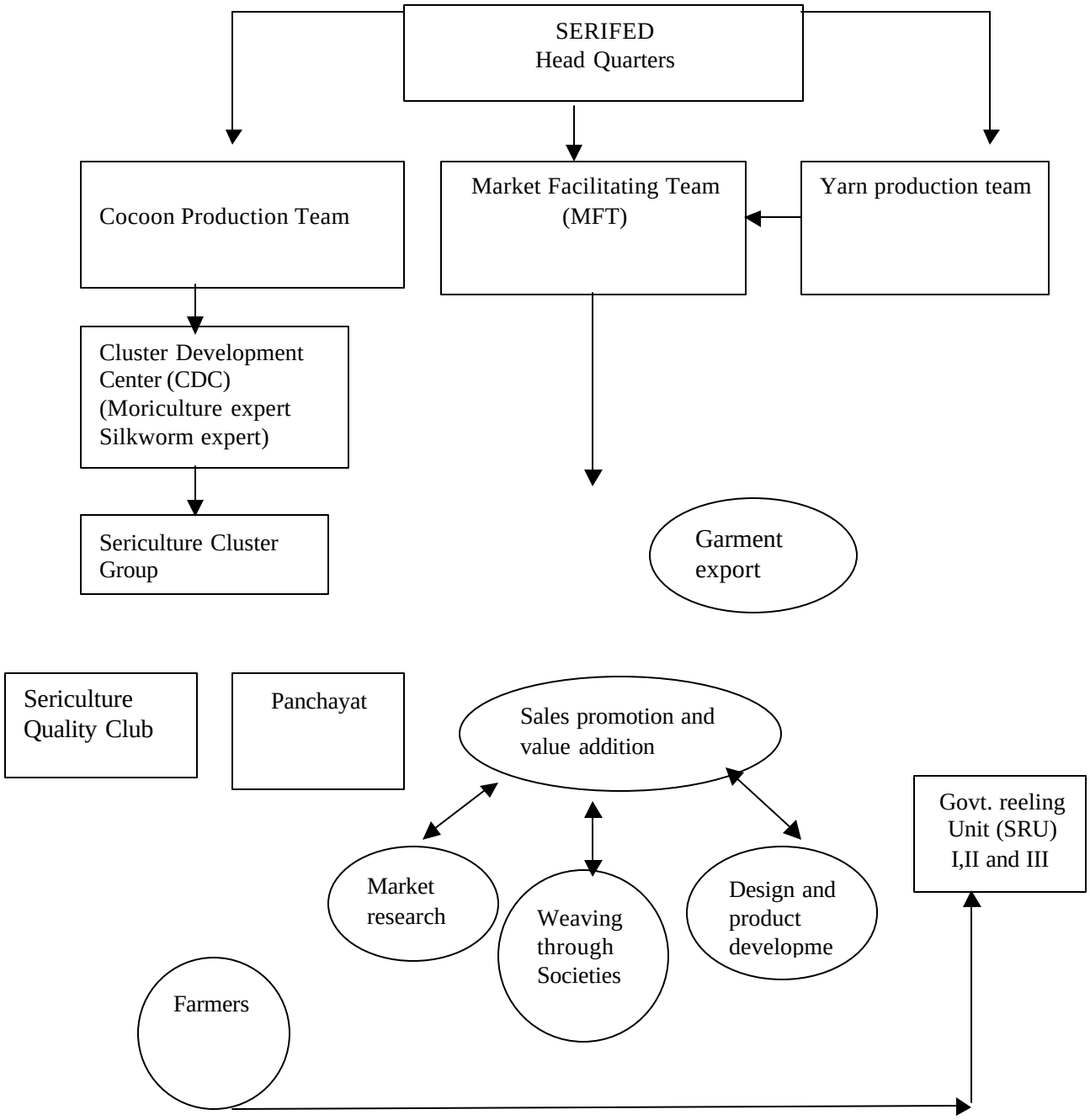
6.3.2 Corporate profile: The corporate profile of the Serifed may be suitably modified with revised by-laws to make the system more flexible. The objective of Serifed should

be fine tuned and clearly focused accordingly. The board of Directors of Serifed may comprise Farmers, Reelers and Weavers representatives as also Technical experts in the field of Moriculture, Sericulture and Management experts in the field of corporate finance, marketing, organizational development etc.. The Board of Directors of Serifed should be in a position to take policy decisions based on field realities and provide necessary guidelines/directions to the Managing Director, Serifed for the effective functioning of the Federation.

6.3.3 Products: The market system of Serifed should aim at popularizing identified marketable products based on diagnostic market study by a professional agency. Serifed should develop a brand image for these products taking into consideration the change in buyers preference as also domestic and export market potential.

6.3.4 **Organization structure**: The proposed organogram of Serifed is indicated below:

SERIFED PROPOSED ORGANOGRAM



The emphasis should be mainly on market-oriented approach. The Serifed may be restructured as per above approach and the staff may be redeployed accordingly

6.3.5 Human and Institutional Development: The Graph – 4 indicates the details of staff deployed in different districts and the present status of production each of the district. The graph clearly points out imbalance in deployment of staff. Deployment of staff should be based on concentration of sericultural activities. The staff may be posted only in the potential districts separately for on farm and non-farm activities.

6.3.6 On farm sector: One FA may monitor the activities of each SQC having a minimum of 10 - 15 acres under mulberry with 15 - 20 farmers. 5 such clubs having a minimum of 50 acres with a maximum of 100 farmers may be networked as one Sericulture Cluster Group (SCG). One Assistant Sericulture Officer with 3 supporting staff (2 FA and 1 Helper) may monitor the activities of each SCG. There may be one District Level Sericulture Officer with 4 supporting staff (1ASO, 2TA and 1 Helper) to monitor the activities of a minimum of 3 SCGs. The DSO may be re-designated as Cluster Development Officer and the office of the DSO may be termed as Cluster Development Centre and relocated in the cluster. Therefore the Cluster Development Officer will be the in-charge for sericulture development in a minimum of 150 acres in 3 Sericulture Cluster groups comprising a minimum of 15 Sericulture Quality Clubs.

6.3.7 Non-farm sector: Under reeling sector the staffing pattern should be linked to the performance of the individual Silk Reeling Unit so as to make it an independent commercial unit. Serifed should have a strong marketing department which should function as a market facilitating team (MFT) headed by a result oriented Marketing professional who should be made responsible for all market promotional activities viz Market research, sales promotion, value addition, design development, export promotion so as provide necessary market support to the Weavers Societies taking into consideration the both domestic and international market needs.

6.3.8 Redeployment of Staff: A committee comprising representatives from Industries Department, State Planning Board, Central Silk Board and Serifed may review the present staff deployment and decide on the deployment of existing staff to different functional areas on the lines suggested above taking into consideration the qualification and experience. The state Govt. may either deploy the excess staff to other departments or introduce an attractive VRS

6.3.9 Skill up-gradation: While the staff working at on farm sector needs orientation latest technology practices, group formation, cluster approach, effective extension communication, motivation, the staff working at PC sector needs to be properly trained both in technical and managerial aspects to deal with market tie-up, financial management including working capital management, financial viability etc…

6.3.10 Monitoring System: The monitoring system needs to be strengthened. Each employee should be made responsible and accountable for implementing the task entrusted to him. The staff should be properly trained to improve their technical and managerial skills. Serifed head quarter should have (a) cocoon production team comprising subject matter specialists in the areas of Moriculture, Sericulture and Extension (b) Post cocoon team comprising technical experts in post cocoon technology and (c) Market Facilitating Team comprising market specialists. All these three teams together appraise, monitor and evaluate the overall activities, establish proper linkages between on farm and non farm activities, draw strategic plans accordingly and congregate the entire Serifed activities based on market needs.

7 Part – III Summary of the observations / recommendations

A. Silk Industry in Kerala

1. Silk industry in Kerala is still in infancy stage and needs support for further development
2. The farmers in Kerala have not taken up sericulture as an important livelihood occupation and could not realize the economic importance of the venture. The extension wing of Serifed needs to be reoriented to project sericulture as an important economic activity.
3. Serifed should promote cluster based approach for sericulture development (SQCs – SCG - CDC).
4. Local Panchayat Raj bodies may be encouraged to promote sericulture in concentrated areas and coordination between Serifed and Panchayats should be strengthened so as to ensure peoples participation to promote sericulture. Scattering sericultural activities to different Panchayats for the sake of covering different Panchayats on political consideration should be stopped.
5. Serifed should take utmost care while selecting the area and farmers for sericulture development. A careful feasibility is essential for the selection of farmers and the area.
6. Priority should be given promote sericulture as a mono-crop in well irrigated area exclusively for bivoltine backed with latest technology packages. There should be different approach for those farmers practicing sericulture as subsidiary activity in smaller area along with other crops.
7. Serifed should promote sericulture only in the potential zones. However the genuine sericulture clubs coming up out side the potential sericulture cluster / zone with its own financial resources need not be discouraged.
8. Serifed should be able to demonstrate latest technologies packages through role model farms and lead farmers in the field.
9. The state owned Silk Reeling Units (SRU) should be operated as an independent commercial activity. Reeling units should function under the revolving capital system to ensure better financial discipline. Disposal of silk on weekly / fortnightly basis has to be ensured. Huge inventory of

cocoon and silk yarn stock blocks the working capital. It is ideal to encourage private sector in reeling and withdraw Govt. involvement in a phased manner.

10. Kerala is largest consumer of silk. The existing traditional cottage handloom weaving clusters under private sector with unique product and designs working mainly on cotton can be exploited well for silk weaving to ensure much desired value addition. Serifed should develop proper forward linkages by organizing silk weaving centres under private sector.
11. Serifed should develop a well thought marketing strategy to produce desired yarn and produce value added products to make the entire activities more viable. A Market Facilitating Team should be created at Serifed headquarters to work on this direction. This team with qualified personnel should be able to coordinate with cocoon production team and Yarn production team.
12. In order to sustain and carry forward the development, the missing links in post cocoon sector like twisting, dyeing, design development, weaving should be supported as commercial activities in private sector mainly in the identified post cocoon zone.
13. The market system of Serifed should aim at popularizing identified marketable products based on diagnostic market study by a professional agency. Serifed should develop brand image for these products taking into consideration the change in buyer's preference as also domestic and export market potential.

B. SERIFED – OD Analysis

14. There should be clear-cut demarcation between developmental activities and commercial activities. While the on farm activities to be treated as developmental activities, the non-farm activities may be treated as commercial activities.
15. The mandates and objectives of the Serifed should be clearly defined and focused.
16. The corporate profile of SERIFED should be made more flexible and commercial oriented.

17. The composition of the Board of Directors of Serifed needs a re-look. Serifed should have competent technical and management experts in its Board to take policy decisions and give suitable guidelines to the Managing Director of Serifed.
18. The organization structure of the Serifed should be revised and deployment of staff should be based on the concentration of sericulture.
19. At present Serifed is overstaffed. The cluster based approach should be adopted for deployment of staff. Attractive VRS mat be implemented to retrench the excess staff.
20. Serifed should have a strong Market Facilitating Team (MFT) which will workout a long-term strategy in coordination with pre-cocoon and post cocoon team keeping in view the goals and objectives of the Federation.
21. The monitoring system should be strengthened. Each employee should be made responsible and accountable for executing the entrusted task.
22. The staff should be trained to improve their technical and managerial skills. The extension staff should trained in latest technology packages and effective transfer of technologies to minimize the dissemination loss.
23. Role of Govt. has to be that of facilitator in the state for sericulture development.

8. Road Map for Sericulture Development in Kerala

DOs

1. Reorganize the existing sericulture setup to concentrate sericulture development in 6 potential districts
2. Organize the farmers into Sericulture Quality Clubs at Panchayat level and post the Field Assistants to provide necessary support to SQC
3. Network the SQC into Sericulture Cluster Groups and post the Assistant Sericulture Officer to coordinate the sericulture activities in SCG
4. Organize the SCGs in each zone and post DSOs to coordinate the sericulture activities in each Zone. Relocate the office of the DSO in the center of the identified zone and convert the office of the DSO as Cluster Development Center. (CDC)
5. Assign duties and responsibilities to FA, ASO and DSO at SQC, SCG and CDC levels, fix targets for each group and make them responsible and accountable
6. Reorganize the SRUs into independent commercial units. Post suitable qualified personnel (Diploma in Textile Technology) to manage the functioning of SRU.
7. Establish Market Facilitating Team (MFT) at Serifed head quarter and draw strategic approaches to provide forward linkages through value addition, sales promotion, and market research by involving Weavers Societies. The MFT should also coordinate with cocoon production and yarn production team.
8. Establish networking as proposed in the organogram
9. Restructure the functioning of Serifed and revise its mandates to to make it more flexible.
10. Reconstitute the Board of Serifed to include technical and managerial experts who can help the board to take policy decisions and guide the MD, Serifed on the functioning of the federation.

11 Reorient the staff to undertake the activities on result oriented approach and reduce the unproductive excess staff through VRS.

12 Improve the managerial and technical skills of the existing staff through training and exposure..

DONTs

13 Propagate sericulture as subsidy oriented Governmental programme

14 Dilute sericulture activities by spreading it all over the state

15 Allow low cocoon yield and crop failure as it discourages the farmers.

16 Delay payment towards the cost of cocoons purchased by Serifed.

17 Promote sericulture in very small land holding as mixed crop

18 De-motivate the staff by creating a fear of job insecurity, delayed payment of salary, non payment of TA etc..

19 Mix the commercial and developmental activities of Serifed.

20 Procure cocoon and produce yarn without any production and marketing plan.

21 Pay higher price to the cocoons and induce high expectations to farmers.

9 List of officers / persons visited

The team had detailed interaction with the following:

1. Farmers
2. Officers from the State Planning Board
3. Officers from Serifed Head Quarter
4. Officials of Central Silk Board
5. Officials of the Govt. Silk Reeling Units
6. District Sericulture Officers
7. Assistant Sericulture Officers
8. Field Assistants
9. Helpers