

BY SPEED POST

No 25019/3/2016-Silk  
Government of India  
Ministry of Textiles

Udyog Bhavan, New Delhi,  
Dated the 4<sup>th</sup> July, 2018.

To

The Member Secretary,  
Central Silk Board,  
CSB Complex, B.T.M. Layout,  
Bengaluru-560068.

Subject:- Guidelines for implementation of "Samagra" for development of Silk Industry for 3 years from 2017-18 to 2019-20.

Sir,

I am directed to refer to your letter No. CSB/38/1/Ministry/2017-20/TS dated 25<sup>th</sup> June, 2018 on the subject mentioned above and to convey that the competent authority has approved implementation guidelines for implementation of "Silk Samagra" for development of Silk Industry for 3 years from 2017-18 to 2019-20.

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Yours faithfully,



( Anil Kumar )  
Under Secretary to the Government of India  
Tel: 2306 1009



Guidelines for implementation of Central Sector Scheme “Silk Samagra” - Integrated Scheme for Development of Silk Industry (ISDSI) for 3 years from 2017-18 to 2019-20 with a focus on Beneficiary Oriented Components

**I. Introduction:**

The Central Silk Board carries out R & D, Basic Seed and Commercial Seed Production, Extension & Technology dissemination, Capacity Building, Quality Certification and facilitating implementation of developmental programmes through its nested units located in different States in close coordination with State Sericulture Departments, with emphasis on “SILK SAMAGRA”.

The Scheme: “SILK SAMAGRA” is an Integrated Scheme for Development of Silk Industry has been able to sustain and strengthen the Sericulture activities in the country. The ongoing Central Sector Scheme “SILK SAMAGRA” has been approved by the Government of India for continuation beyond XII Plan for three years from 2017-18 to 2019-20 at a total allocation of Rs.2161.68 crore with the following four components:

1. **Research & Development, Training, Transfer of Technology and I.T. Initiatives,**
2. **Seed Organizations,**
3. **Coordination and Market Development and**
4. **Quality Certification Systems (QCS) / Export Brand Promotion and Technology Up-gradation.**

The component-wise details with year-wise break of allocation approved by Govt of India, are given in the Table below:

(Rs. in crore)

#	Scheme Components	Fund Allocation (Central Share)			
		2017-18	2018-19	2019-20	Total
1	Research & Development, Training, Transfer of Technology & IT Initiatives	309.37	394.05	378.49	1081.91
2	Seed Organization	178.16	245.47	217.07	640.70
3	Co-ordination & Market Development	139.96	156.64	132.27	428.87
4	Quality Certification System and Export/Brand promotion & Tech. up-gradation	2.50	3.60	4.10	10.20
	<b>Total</b>	<b>629.99</b>	<b>799.76</b>	<b>731.93</b>	<b>2,161.68</b>
	<i>Of which provision for Beneficiary oriented Components implemented by States (Including SCSP, TSP and NE) (Provisional)</i>	<b>93.22</b>	<b>155.68</b>	<b>174.10</b>	<b>423.00</b>

Note : The Scheme outlay of Rs.2161.68 crores includes a provision of Rs.1400.00 crore towards administrative / establishment expenditure like payment of salaries & allowances, wages, pension & retirement benefits etc. for CSB employees and pensioners and balance Rs 761.68 crores is towards development of Silk industry. This encompasses Rs.423.00 crores for releasing to States for implementation of Beneficiary oriented interventions.

All the four (4) major Components of Silk Samagra are interlinked and aimed at a common goal. While the R&D units develop technology packages, impart training on improved technology programmes to stake holders and transfer the technology to the field through front line demonstration, the seed production units produce basic and commercial seed of the improved Silkworm breeds developed by the Research Institutes. The Board Secretariat and Regional Offices of the Central Silk Board conceive and implement the developmental schemes to ensure that the output generated from these programmes are disseminated to the stake holders in coordination with the State Govt. for the development of Silk industry. The units under the Quality Certification System support to maintain and certify the quality standards set by the R&D units for Silkworm seed, cocoon, raw Silk and Silk products covering the entire Silk value chain.

The Silk Samagra (ISDSI) also comprises various beneficiary oriented components under Mulberry, Vanya and Post Cocoon Sectors. The programme catalyzes the efforts of State Governments to improve the quality, productivity and production of Raw Silk besides, generating employment opportunities particularly in the rural areas.

## **II. Silk Samagra Highlights:**

1. Emphasis on Collaborative research to strengthen genetic base and hybrid vigour
2. Promote R&D to increase crop cycles, increase systematic plantation of Vanya Silks for controlled rearing.
3. Promote horizontal expansion of Sericulture in non traditional areas including North East through Cluster approach.
4. Promote Soil testing and issue of Soil Health Card to beneficiaries.
5. Promote organic farming and eco friendly Silk – Vanya Silk.
6. Provide Critical input support to the beneficiaries from Kissan Nursery to Fabric production for productivity and quality improvement.
7. Use of Silkworm by-products (pupa) for poultry feed, Sericin for cosmetic applications and product diversification into non-woven fabrics, Silk denim, Silk knit etc for added value realisation.
8. Upgrade State Seed Multiplication facilities and encourage Private Participation in Seed production to match the raw Silk production target.
9. Strengthening Seed Act through registration and reporting by seed production centres, basic seed farms and extension centres automated by developing web based software.
10. Upgrade Reeling Technology and promote indigenously developed ARM & Improved Vanya reeling devices under “Make in India” Programme.
11. Promote credit flow to Sericulture - promote SHG / Cluster approach.
12. Brand promotion – Generic promotion of Indian Silk & Create global image for Indian Silk products.

13. Extension of single window based SILKS (Sericulture Information Linked Knowledge System) portal to cover more districts for Sericulture expansion.
14. Ensure Development of Sericulture Database for better planning. Free SMS Service on Cocoon & Raw Silk Price to all Registered Farmers & Reelers, and State functionaries.
15. Mobile apps, audio, video spots, Institute Village Linked Programme and Cluster Promotion Programme to farmers

**Outcome expected from the Scheme are as follows:**

1. To increase the Silk production from the level of 30,348 MTs during 2016-17 to 38,500 MTs by end of 2019-20.
2. Production of mulberry (Multivoltine and Bivoltine) Silk to increase from 20,478 MTs to 27,000 MTs including Bivoltine Silk from 5,266 MTs to 8,500 MTs.
3. Vanya (Muga, Eri and Tasar) Silk to increase from 9,075 MTs to 11,500 MTs.
4. To Increase the production level up to 4A grade mulberry (Bivoltine) Silk from about 15 % to 25%.
5. The productivity of mulberry raw Silk to increase from 100 kg/ha to 111 kg/ha.
6. Employment generation from 85 lakh to 100 lakh persons by 2019-20.
7. To develop 453 Kissan nurseries for raising saplings of improved varieties of mulberry to cover new plantation.
8. For enhancing the quality and quantity of cocoon, 131 new Chawki Rearing Centres (CRCs) will be established for scientific handling of Silkworm eggs and rearing of young age Silkworm larvae under controlled conditions.
9. To facilitate improved reeling, 81 Hot air driers will be established for cocoon drying.
10. To facilitate efficient and quality Silk production and improving the working conditions in the reeling segment, 162 motorized charkha / reeling devices and 130 Multi-end reeling machines will replace traditional reeling machinery.
11. In order to give more thrust on production of Bivoltine Silk, 29 units of Automatic Reeling Machine, developed indigenously by the CSB, will be established.
12. 17 Basic Seed Farms and 18 Silkworm Seed Production Centres will be strengthened to enhance the Silkworm seed production from 500 lakh disease free layings (dfls) in 2016-17 to 595 lakh dfls by 2020.

**III. Scheme Objectives:**

**(a) Research & Development, Transfer of Technology, Training & IT Initiatives**

1. Ongoing Research and development in 9 main Research Institutes (core research) and its nested 22 Regional Sericulture Research Stations so as to fine tune the technology for local needs and front line demonstration of technologies in the field.
2. Undertake Research and Development (R&D) activities through developing improved food plants, Silkworm breeds, standardization of Silkworm seed production techniques, improved package of practices for Silkworm rearing.

3. Developing post cocoon technologies and machineries in post cocoon operations, by-product utilization, product development & diversification
4. Technology dissemination to identified clusters through Cluster Promotion Programme (CPP), Institute Village Linked Programme (IVLP)
5. Conduction of Beneficiary Empowerment Programme (BEP), Study Tour/Exposure visits, Training and demonstration through Sericulture Resource Centres (SRC), Trainer's Training Programme (TTP), Resource Development Programme (RDP), Technology Upgradation Programme (TUP), Farmers Skill Training (FST), Technology Oriented Programme (TOP) for State officials/NGOs and Extension agents for skilling and refining the skill levels of industry Human Resource and Stakeholders.
6. Conduction of a variety of need-based training for CSB's in-house Human Resources as well as organizing Entrepreneurship Development Programme (EDP), Bankers Sensitization Programme (BSP) and PG Diploma Course in Sericulture (PGDS) for encouraging and promoting creation of Micro-enterprises in the sector.
7. Trainers training, technology up-gradation Programme, Resource Development Programme, Beneficiary Empowerment, Capsule Training for farmers / reelers, Krishi Mela, etc.
8. To utilize IT applications in disseminating technologies, exchanging information, dissemination through SILKS (Sericulture Information Linked Knowledge System) portal, Farmers Reelers Data Base (FRDB), price details through SMS.

**(b) Seed Organization:**

1. Maintain the four tier seed Multiplication network, supply of nucleus and basic seeds to own units and State seed production units
2. Leadership role in Bivoltine commercial seed production and private participation for enhanced seed production.
3. Promotion of private graineurs in Vanya Silks
4. Technical support to the State seed production units, Private Graineurs
5. Institutionalization of quality certification to own units and facilitate the same for State and private units.
6. Holistic implementation of Silkworm Seed Act for instilling quality parameters in the seed production network.

**(c) Co-ordination & Market Development:**

1. Conceiving, implementing and monitoring of Plan Programmes through CSB HQ and Regional Offices.
2. Forging effective synergies in dovetailing assistance from schemes of other Ministries through convergence
3. Statistical analysis of Silk production, import and export
4. Publicity, accounts management, internal audit, Official language implementation
5. Coordination with Ministry and State Sericulture Departments.
6. Price Stabilization of Tasar and Muga cocoons through Raw Material Banks, administrative and financial managements of CSB units.

**(d) Quality Certification System and Export / Brand Promotion & Technology Upgradation:**

1. Institution and promotion of quality in Silkworm Seed, cocoon and Raw Silk
2. Ensuring quality and purity of Silk in the traded end products by way of promotion of pure Silk products through Silk Mark
3. Cocoon Testing Centres to promote quality based pricing to fetch better price for the primary producers
4. Raw Silk Testing Centres to promote value based product thereby creating an impetus towards quality improvement of raw Silk The testing of raw Silk will benefit reelers/ twisters/weavers in producing quality products

**IV. Scheme Interventions:**

**(a) Research & Development:**

1. The proposed R & D interventions include race improvement through development of improved host plant varieties and improved disease resistant Silkworm breeds by having collaborative research with reputed National Research organizations like IITs, CSIR, IISc and International research institutes on Sericulture in Japan, China, Bulgaria, etc.
2. Thrust will be given on technology Upgradation and making mechanisation affordable.
3. To increase the international 4A grade quality with higher Silk content (25%) and Silk productivity from 100 to 111 kg / ha. by 2020.
4. Technological advancements with respect to pre-cocoon and post-cocoon will continue to be disseminated by CSB among the beneficiaries at field level through effective delivery mechanisms of the State Governments.
5. Services of Krishi Vigyan Kendras (KVKs) will be utilised for extension activities in Sericulture in line with similar efforts of M/o Agriculture.
6. Silk by-product utilisation, e.g. Sericin extraction for cosmetics and pharmaceutical industries, pupae dyeing etc. will be developed further with industry partnership by way of Technology Transfer.
7. Farmers training under BEP by respective States and organizing exposure visits up to 50% of the trained farmers to sericulturally advance clusters/areas.
8. Identification of elite farmers/experienced Sericulturists to setup Sericulture Resource Centres (rural forums) in Clusters for effecting 'farmer to farmer transfer of knowledge & skill' through sharing of experience and to conduct demonstrations for productivity improvement.

**(b) Seed Organisations:**

1. Seed production units will be equipped and strengthened to bring in quality standards in production network, besides increasing the production capacity to cater to the increased Silk production target.

2. Promote adopted seed rearers to generate quality seed cocoons, Private Graineurs to produce quality seed and Chawki Rearing Centres (CRCs) with Incubation facilities to produce and supply chawki worms.
3. Registration process and reporting under Seed Act will be automated by developing web based software.
4. State shall place timely indent for Silkworm seed to CSB for supply with right combinations besides, sending progress of Silkworm Seed Production by the State, Grainages / other sources.

**(c) Coordination and Market Development:**

- 1) CSB will be carrying out implementation and monitoring of various programmes under the scheme through its Regional Offices, forging effective synergies in dovetailing assistance from schemes of other Ministries (e.g. MGNREGS, MKSP, NLRM, NAP, RKVY etc.) through convergence.
- 2) Price stabilisation of Tasar and Muga cocoons through Raw Material Banks with the objective of minimising exploitation by middlemen and ensure remunerative price to primary producers who are mainly tribal rearers and facilitating States to develop such marketing systems.

**(d) Quality Certification and Brand Promotion:**

The QCS will put in place a system to assure the availability of pure Silk products to Silk consumers with the assurance of purity through Silk Mark Labels affixed on it. The scheme also ensures quality assurance to the buyers / consumers and increases the demand for Indian Silk both in domestic and International markets.

1. Under Quality Certification and Brand Promotion component, Indian Silk will be encouraged through quality certification by Silk Mark not only in the domestic market but in the Export market as well.
2. High quality standards in Silkworm seed, cocoon and raw Silk will be promoted by setting up of 21 Cocoon Testing Centres (CTCs), 8 Silk Testing Centres (STCs) in PPP mode and a Design Development Bank.
3. Collaborating with NIFT and National Institute of Design (NID) on design and product development to the weavers and industry.

**(e) Beneficiary Oriented Schemes under R &D and Seed Organisation:**

Under R & D and Seed Organization components of Silk Samagra, certain beneficiary oriented critical interventions for promotion of mulberry, vanya and post cocoon sectors are implemented. These interventions are important tools for transfer and adoption of improved technology packages developed by the Research Institutes of CSB. The beneficiary oriented interventions cover the major areas viz. (a) Development and expansion of host plant, (b) Strengthening and creation of Silkworm seed Multiplication infrastructure, (c) Development of farm and post-cocoon infrastructure, (d) Up-gradation of reeling and processing technologies in Silk, and (e) Capacity Building through Skill development / Enterprise Development Programme.

**(f) Highlights of Beneficiary oriented components:**

Extend assistance to stakeholders and States for raising of Kissan Nursery, Plantation with improved Mulberry varieties, Irrigation, Chawki Rearing Centres with incubation facility, Construction of rearing houses, Rearing equipments, Door to door service agents for disinfection and input supply, Support for Improved reeling units like Automatic Reeling units, Multiend Reeling machines, Improved Vanya Reeling & Twisting machines and support for post yarn facilities for quality Silk and fabric production.

Use of Silkworm by-products (pupa) for poultry feed and Eri pupae for human consumption, Sericin for cosmetic applications and product diversification into non-woven fabrics, Silk denim, Silk knit etc., for added value realisation.

Seed Production Units shall be strengthened to bring in quality standards in production network, besides increasing the production capacity to cater to the increased Silk production target. Support for Adopted Seed Rearers to generate quality seed cocoons, encourage private graineurs to produce quality seed to meet the growing demand of Silkworm seed. Other efforts will include setting up of new Cold storage plant, providing mobile disinfection units and equipment support for mechanization.

The components which are common for all the sectors are:

#	Components	Sector
1	Kissan Nurseries	Mulberry & Tasar
2	Plantation Development	All sectors
3	Rearing House / Cocoon Storage	All Sector
4	Prophylactic Measures	All Sector
5	Door to Door Service Agents / Seri Polyclinics	All Sector
6	Mobile Disinfection unit	All Sector

The details of the beneficiary oriented interventions indicating Unit cost, Physical units to be covered etc. are given in **Appendix- I**.

**V. Scheme output / impact:**

1. R & D intervention in Silkworm & Host plant race improvement through Collaboration with National & International agency for improved disease resistant, climate resilient silk worm breeds to increase production, productivity and quality.
2. Push for mechanisation adopting the modern technology - ARM & Buniyaad Reeling Machines for international quality silk production.
3. Support for post-yarn Schemes e.g. loom up-gradation, Pirn Winding, Pneumatic Lifting Mechanism, Electronic Jacquard for creation of State-of-the-art technology like high end Shuttle-less looms, Arm dyeing, Digital printing machines etc. to create demand of Indian silk goods in foreign markets & meet the export requirements.
4. Diversification of Silk produce for value addition - By-products (pupa) for poultry feed, Sericin for cosmetic applications. Silk in Biomaterial research in the medical field for value addition.
5. Increase in Raw silk productivity from 100 kg to 111 kg.



6. Improvement in renditta from 6.8 to 6.2 kg for production of 1 kg of raw silk.
7. Skill Development through Training – about 50,000 stakeholders targeted by 2020.

### **Transfer of Technology:**

1. Self-reliant in silk production & bring Import of silk to bare minimum with production of 8500 MTs.
2. Empowering States Sericulture Extension, promote Lead farmers & farmers producers company for stability
3. Transform Sericulture as a major instrument of poverty eradication and employment generation particularly in the rural and tribal areas of the country.
4. Generate additional employment of 15 lakh.

### **Seed Production:**

1. Empower States for self-sufficiency in seed production through 100% capacity utilization.
2. Encourage large scale Private participation in Seed Production to meet the growing demand of seed production.

### **Quality Control System:**

1. Enforcing Quality check in all stages of production base from Seed, Chawki, Cocoon & Raw Silk Testing for quality linked pricing to the farmers.
2. Creating Silk quality awareness through distributing 30.00 lakhs label per annum

## **VI. Implementation Guidelines:**

### **Activities to be implemented by Central Silk Board:**

1. Central Silk Board has created a well organized network of units in the areas of R&D, seed production, project implementation & monitoring, vanya price stabilization and promotion of Silk in Indian and outside markets. The Board's activities are administrated by the Member Secretary as the Chief Executive Officer, supported by Research Directors, technocrats, field functionaries and other administrative and financial experts. Various R&D units of CSB are functioning in almost all parts of the country, equipped with material and manpower. Thus, the Board has the logistical and functional capability to execute the projects envisioned in the schemes as per the set guidelines of Govt. of India. CSB has been successfully undertaking these activities since 1<sup>st</sup> Plan period.
2. The scheme components would be jointly implemented with the existing administrative structure of Central Silk Board and the Dept. of Sericulture in States wherever required.
3. Yearly Action Plan in respect of all the Institutes / activities under the Central Sector schemes of CSB, covering Institute / component, with financial and physical targets as per Plan allocation for the financial year, shall be prepared by the Institutes concerned and furnished to CSB during April.

4. Details of construction / renovation activities to be carried out, procurement of stores / equipments / machineries as well as other Head-wise expenditure proposed in the financial year shall be discussed and finalized in the Action Plan meeting.
5. Annual Action Plan meeting will be held during April and decisions of Action Plan meeting will be communicated along with administrative approval for the stores / purchases / procurement and constructions / renovations to all concerned so as to initiate necessary action for submission of proposals with estimates & supporting documents.

**(a) Review of purchase proposals:**

1. As per yearly Action Plan and administrative approval, the Institutes / Units of CSB have to send proposals in respect of stores / equipment, construction / renovation activities etc. before end of 2<sup>nd</sup> quarter, with all formalities. No proposals shall be approved if provision has not been earmarked for the same in the particular financial year and not included in the Annual Action Plan..
2. After receipt of proposals at Board's Secretariat, it is scrutinized by Purchase Committees. Nevertheless, the proposals received from Institutes / Units, are cleared as per the schedule below:
3. Proposals which are complete in all respects and within the powers of Member Secretary, shall be cleared in 1 (one) month time.
4. Proposals which require clarifications and within the powers of Member Secretary, shall be cleared in 2 (two) months time, including the period of obtaining clarifications.
5. For the proposals which require Chairman / Standing Committee's approval, decision / approval shall be communicated in a period of 3 (three) months from receipt of proposals
6. Details of proposals, seeking clarifications, according approval, implementation progress, etc. is monitored by a single window system both in respect of purchase / stores as well as for construction / maintenance.
7. In case of shortage of funds for carrying out any of the activities approved in the Action Plan, such activities are included in subsequent financial year as committed liability with necessary budgeting exercise. The Action Plan *interalia* contain quarterly financial and physical targets of all the components and activities of the scheme pertaining to the Institute / Unit, as the case may be.
8. Monthly financial and physical progress reports on implementation of various components under the schemes will be furnished to CSB by the concerned units, which will be reviewed with reference to the targets, on a monthly / quarterly / half yearly and yearly basis. This is applicable for all the SILK SAMAGRA components, including Quality Certification System.

## **(b) Review of Financial progress**

1. The funds are released to the delegated units of CSB and SMOI as per the mandates assigned to them. Financial sanctions and accounting thereof shall be as per the **delegation of financial powers and accounting procedure specified in CSB Act and Rules.**
2. The fund utilization is regulated as per the various provisions contained under the General Financial Rules (GFR). Funds are released to the subsidiary units based on the approved Annual Budget and Action Plan.
3. Besides, **Public Finance Management System (PFMS)** would be implemented for direct transfer of funds to the beneficiaries and easy tracking and monitoring. In order to bring transparency and eliminate pilferage from distribution of funds, CSB would adopt implementation of DBT (Digital mode) in all components including beneficiary oriented interventions to transfer cash directly to beneficiary's accounts. CSB will also provide subsidy to farmers /stakeholders for adoption of Technologies developed by CSB R & D Institutes and for setting up of indigenous machineries developed by CSB Institutes wherever required.
4. Auditing of the accounts is undertaken by the Offices of the CAG, Govt. of India, at CSB Head Quarters and Institutions in the respective States for all the relevant Silk Samagra Components.
5. CSB has Internal Audit Teams to internally check and verify the office procedure followed by the delegated units

## **(c) Review of R & D activities:**

1. Research projects are prepared by Scientists based on feedback received from farmers / stake holders, requirement of respective State Directorate of Sericulture and suggestions / recommendations, as environmental and ecological friendly activities. These project(s) are placed to Research Council of the institute.
2. **Research Council (RC)** is an in-house Review Committee to review and monitor the progress of all on-going research projects in the main institute and nested units and act as a peer review for the new projects formulated at the Institutes. The meeting is held once in 3 months. The Concept research projects are sent by institute to Central Silk Board. At CSB, concept note is reviewed to ensure that the projects fall under priority area decided by CSB and avoid repetition. Assent or otherwise is sent to respective institute. Project is sent by institute to referees. Referees' comments are intimated to Scientists who will attend to it in views of referees comment and submit the project to institute for further consideration at RC. RC will consider the project and, if deemed fit, may recommend it for placing before Research Advisory Committee.
3. National level **Research Coordination Committee (RCC)** headed by a reputed Scientist of National Standing, Members from different Scientific organizations, eminent scientists, CSB R&D Units and DoSs review, evaluate and approve the research projects on a continuous basis, monitor the progress of projects as per milestones, out come and output of the projects.

4. Each of 9 main Research Institutes undertakes review of R & D Projects at Institute Level through **Research Advisory Committee (RAC)** having representatives of Department of Sericulture. Race Authorization Committees consisting of experts, would recommend release of new mulberry varieties and Silkworm breeds to the field.
5. An inter-ministerial Task Force headed by Secretary (Textiles) will be constituted to review progress of R & D projects and convergence of services under KVKs on a quarterly basis.

**(d) Review of Seed Sector:**

**Seed Action Plan Committee (SAC)** comprising members from CSB, State and Private Stakeholders to assess, produce and supply the entire seed production requirements of the country. As per the provision made under Seed Act incorporated in CSB Act, Central Silkworm Seed Committee and Registration Committee review the seed production and seed quality by the Registered Seed Producers (RSP) as per the quality standard norms laid down in the Act. Seed Analysts and Seed Officers from CSB and DOS have been nominated to periodically check the quality of seed produced.

**(d) Review of SMOI:**

Silk Mark Organization of India (SMOI) has its own governing body - Committee of Administration (CoA) comprising representatives of Central Silk Board, ISEPC, State/Central Govt. Apex Societies, Ministry of Textiles and industry stakeholders review the activities and provide necessary guidelines on policy related issues and regulatory framework so as to ensure smooth implementation of the components on quality assurance.

**(e) Review of Silk Samagra progress through RFD:**

CSB has adopted **RFD mechanism** for reviewing the progress on implementation of Silk Samagra by delegated field units. Progress of the units is also reviewed through monthly, quarterly, annual reports at the CSB HQs.

**Guidelines for Beneficiary Oriented Components for implementation by States and other agencies:**

**(i) Implementing Agencies (Central Silk Board in association with States)**

The Central Silk Board will support the respective State Governments for implementation of beneficiary oriented components under Silk Samagra. The beneficiaries are identified by respective State Sericulture Departments, and CSB will extend required assistance for this, wherever necessary, through a simple process after taking into consideration details like land holding, suitability for Sericulture, experience, infrastructure facility available etc.

While the basis of project location is primarily depending on the potentiality, land availability and other supporting facilities, selection of beneficiaries is done through a transparent procedure involving CSB Field units, Local Bodies, Gram Sabhas, Village Councils etc. The Nodal technical agency for implementation of the programme will be the Central Silk Board, but executed by State Sericulture Departments and other agencies..

**(ii) Financial:**

1. The SILK SAMAGRA is implemented by Central Silk Board (CSB) out of the Grant-in-Aid received from Govt. of India. Once the grants are received from Govt. of India, the funds are released to the delegated units of CSB and SMOI as per the mandates assigned to them.
2. Based on the year-wise BE approved by Govt. of India and availability of funds, Central Silk Board shall make State-wise tentative allocation which will essentially depend on the past fund utilisation, physical performance and other parameters, as also the proposal to be vetted by the Project Monitoring Committee of concerned State.
3. The funds will be released to the concerned States / implementing agencies through Single Window Release System, based on Grant-in-Aid received from Govt. of India.
4. Public Finance Management System (PFMS) and Direct Benefit Transfer (DBT) would be adopted for release of funds to States and Beneficiaries.

**(iii) Project Proposals:**

1. In order to seek the assistance from CSB, the States / implementing agencies shall have to prepare a DPR for project period till 2019-20, clearly stating the years-wise Action Plan with fund requirement details (Gol : State : Beneficiary), along with year-wise output / outcome, in a prescribed format.
2. The projects must be prepared and submitted with clear goals, measurable targets, resources and time schedule as per format. In case of any shortfall in financial or physical targets for a particular year as per the project due to shortage of funds or any other reasons, such targets will be added to the next year by suitably modifying the Action Plan for relevant year.
3. The project shall be prepared on cluster approach in project mode. Each cluster can have around 500 farmers in case of Mulberry sector and 300 farmers in case of non-mulberry sector and hilly areas (The figures are indicative). Emphasis shall be given to organize stand alone cluster covering soil to Silk project with well defined backward and forward linkages
4. States should ensure proper backward and forward linkages such as supply of planting materials, Silkworm seed, other inputs and marketing support etc. to be taken care of while preparing the projects, to match the raw Silk production targets proposed for the State (Bivoltine, Improved Cross Breed, Tasar, Eri and Muga) in the value chain for a balanced growth of the industry, while formulating the projects.

5. The project should specify the details of components / interventions required from GOI, cost of each component, sharing by GoI, State and Beneficiary, year-wise and cluster-wise output, expected outcome etc; at the end of project period.
6. Focus is for optimum utilization of the Infrastructure created during earlier Plan periods like Plantations, Rearing Houses, Rearing Equipment, Seed production units, CRCs, reeling, storage and processing capabilities indicating the installed capacities and capacity utilization and other facilities like cocoon storage and marketing.
7. The critical components shall be implemented directly by the States with technical guidance of CSB's Institutes / nested units.
8. The Implementing agency may involve reputed NGOs, Voluntary Service Organizations, Self Help Groups, Panchayat Raj Institutions (PRIs), wherever they exist, in identification of stakeholders in consultation with the State functionaries or even for project implementation. Beneficiaries may be identified through extant transparent procedure so as to ensure that there is no duplication of assistance to same stakeholder.
9. The State shall ensure at least 30% involvement of women in case of beneficiary oriented components.
10. The State shall cover SC/ST stakeholders (SCSP/TSP) based on Govt. of India guidelines.
11. States shall explore possibility to converge with SGSY, RKVY, MGNREGS, SRLM, TRIFED, Backward Regions Grant Fund (BRGF), Panchayat Raj Institutions (PRIs), Border Area Development Programme (BADP) etc., wherever such programmes are being implemented / proposed to be implemented, especially for the nursery / plantation development, etc., to reduce resource burden as funds are limited under Central Sector Scheme.
12. Majority of the plantation activities, especially in case of Vanya, will be taken up in close coordination with the State Forest Departments, State Sericulture Departments, Rural Development Departments etc. wherever required.
13. The implementing agency shall encourage Public Private Participation, for development of clusters, especially in areas of Seed, CRC and post-cocoon development.
14. Maintenance / recurring cost of infrastructure developed with support from earlier Plan periods and present programmes shall be the responsibility of entrepreneurs / stake holders / States, as the case may be.
15. As regard, setting up of SRCs following should be kept in mind – i). it should be established by a carefully selected elite Seri-farmer with at least 4-5 years of experience, ii). Identified farmer should be able to spare one decent size room/shed for running the training & demonstration, iii). he/she can be provided with training /demo equipments, basic furniture, black board etc. worth Rs.1.25 lakh procured by state following laid down procurement procedures, the SRC owner will be entitled to Rs.1500/- per training /demo batch as honorarium and Rs.6000/- per batch for working lunch, tea/snack and meeting other operational cost, iv) Each SRC has to conduct at least 10 training batches per year.

16. States can propose Training of Trainers/ Resource Development Programmes or Entrepreneurship Development Programmes for their respective States project implementing teams under the component Skill Training & Entrepreneurship Development Programme (STEP) for which training will be organized by CSB with GOI funds.
17. **Procurement – Process to be adhered:**
  - a. ***The Unit cost shown for the components under “Silk SAMAGRA” are indicative and maximum for calculation of GOI share. States are advised to follow the prescribed Govt. procurement process. As a result of valid procurement process, States may accordingly revise the unit cost of the machinery. In case, the unit cost revised and adopted by a State is less than the indicative cost, GOI share shall be reduced on pro-rata basis as per the sharing pattern applicable to State.***
  - b. ***In case, the higher unit cost is adopted by a State over and above the GOI approved unit cost, State has to meet the extra cost from State Plan budget / beneficiary contribution as the case may be.***
  - c. ***In order to facilitate the beneficiaries for purchase of equipments / machineries, the DOS shall procure the same by following the procurement process of the respective State. Invariably, the purchases should be from the GEM Portal, if available.***
18. Components like Door to Door Service Agents, Prophylactic measures, Nurseries, Plantation, Rearing House, Rearing equipments, Private Grainerus etc., which are common both for mulberry and vanya pre cocoon activities, can be implemented within approved unit cost for extending support to Mulberry, Tasar, Eri & Muga sectors.
19. GOI approved SCSP / TSP components for implementation of Mulberry & Vanya sectors can also be included based on the field requirement.
20. North Eastern States can avail the components for implementation in outside NERTPS area, preferably in Aspirational districts, to avoid duplication of efforts.
21. 5% of the total project cost is earmarked for IEC and 3% for project implementation / Monitoring which shall be fully funded by GoI. Activities to be carried out under IEC to be explicitly included in the proposal.
22. The State shall submit the proposals duly approved by the State Project Monitoring Committee with commitment to meet the applicable State share. Besides, the progress of the project shall be reviewed in State PMC on quarterly basis.
23. To facilitate States to earmark matching State Share in their budget CSB shall communicate the tentative allocation of funds within the BE 2018-19 / 2019-20. However, States can propose the components and physical targets as per their requirement and subject to availability of State Matching Share. Ministry shall consider providing additional funds within the overall approval of CCEA and subject to availability of funds.
24. After CSB communicates approval for the proposal, States should begin the process of identification of beneficiaries so that whenever the funds are released by CSB, can be disbursed to them without any time lag, through DBT following procedural formalities.
25. The beneficiary list should have the details of Name, address, Gender, SC/ST/Women, Aadhaar & Bank Account Number & IFSC code, color photograph etc; as per DBT norms based on the base-line survey. Maximization of benefits from the existing infrastructure available in the clusters should be ensured before proposing new interventions in the project.

#### **(iv) Sharing pattern:**

The funding pattern (%) for individual beneficiary oriented Silk Samagra components is as follows:

<b>Category</b>	<b>GOI (CSB)</b>	<b>State</b>	<b>Beneficiary</b>
General States	50	25	25
General States – For SCSP & TSP	65	25	10
Special Status States & NE	80	10	10
SCSP / TSP	80	10	10
Group Activity	100%	--	--

However, 100 % funding (CSB) is eligible for the group activities as these activities are very limited and proposed to be carried out / implemented by CSB Institutes. The group activities are mainly meant for demonstration of latest technologies for adoption by farmers / stakeholders as a model, like CRC, CFC etc. The group activity can also be taken up by State Departments in their farms.

#### **(v) Project appraisal / approval and release of funds:**

1. The States' project proposals would be first discussed and approved by the concerned State Level Project Monitoring Committee and make recommendations for approval by CSB.
2. Project proposals to be submitted by States before 30<sup>th</sup> June, every year.
3. Project proposals having all the required documents and fulfilling the criteria of the scheme, submitted by the States/CSB shall be scrutinized at CSB and recommend to Member Secretary, CSB for release.
4. Member Secretary, Central Silk Board is empowered to approve the project and release the funds through PFMS / DBT.
5. CSB will release funds to States through Public Finance Management System (PFMS) and Direct Benefit Transfer (DBT)

#### **(vi) Monitoring of beneficiary oriented Schemes:**

1. The progress will be monitored on monthly basis by the Regional Offices, R&D Institutes / Field Implementing Agencies and will be reviewed at CSB Head Quarters, on quarterly basis.
2. CSB will review the progress on quarterly basis with the Commissioners / Directors from States associated with Silk Sector to review physical and financial progress through Video Conference.



3. The State will conduct review on the progress achieved on CSS programmes through State PMCs and State Level Sericulture Coordination Committee.
4. Nodal officers / Zonal In charges have been nominated for all States for effective monitoring of the scheme. In addition to monitoring implementation of the scheme, the nodal officers shall participate in Project Monitoring Committee Meeting and help the States in formulation of project proposals as per State's requirement.
5. Overall performance of the SILK SAMAGRA will be reviewed half yearly basis by an **Apex Committee** under the Chairpersonship of Secretary (Textiles) with Member Secretary, Senior Officers of CSB HQs and the Directors of CSB Institutes as members. Senior Officers from States shall also be invited for the meeting.

**(vii) Submission of Utilization Certificate**

1. The State should ensure timely utilisation of funds and submit UCs as per GFR 12 C within stipulated time together with the detailed beneficiary list and supported by component-wise financial and physical progress.
2. Govt. of India share shall be released to States, based on receipt of UCs up to 2016-17 with beneficiary list as per DBT norms. Besides, States can enter the details of beneficiary list in DBT MIS as and when funds released to the beneficiaries in cash or kind. 100 % UCs till 2016-17 is required for release of funds for 2018-19 as per extant procedure. Considering the balance fund available with the State till 2016-17, proportionate amount from 2018-19 shall be retained by CSB while releasing to States and balance will be released on receipt of 100% UCs till 2016-17.
3. The progress report and UCs should be given as per stipulated time / period. Shortfall in achieving progress / delay in furnishing of Utilization Certificates will adversely affect subsequent release of funds as per project action plan.

**(viii) General procedure for SILK SAMAGRA:**

The general guidelines to be followed for implementation of field level beneficiary interventions in the project mode, irrespective of the sector whether it belongs to Mulberry, Vanya or Post Cocoon sectors, are as below:

- 1) The implementation of scheme components should be region-specific, as different areas are suited for different types of Silkworms / breeds or different practices.
- 2) All States shall operate separate accounts at the Directorate of Sericulture and enrolled under PFMS for managing the funds received for implementation of Scheme components so that fund release to stakeholders and implementing agencies could be done without loss of time keeping in view the season based activities of Sericulture sector. The States, which do not have separate account, shall have to immediately open current account.

- 3) Matching share of State Govt. shall also be deposited in the account where Central share is maintained.
- 4) The States should bridge the existing gaps in the Silkworm seed, cocoon and post-cocoon sectors to reach their full potential by identifying critical areas.
- 5) Preference may be given to cover more small and marginal farmers (While furnishing the periodical progress report, a separate list of SC / ST / Women / BPL benefited as well as the list of other stakeholders under the project shall be furnished).
- 6) The State Govts. shall take the responsibility of arranging credit facilities from banks / financial institutions wherever applicable. For this purpose, if the beneficiaries are organized into SHGs, then the banks / financial institutions may come forward for providing credit facilities.
- 7) One beneficiary can avail the assistance for up to one acre as a unit for plantation development with supporting essential components. Marginal and Small farmers can also be supported on prorata basis. Large Scale entrepreneurs under Sericulture sector can be promoted for sizable impact. CSB can extent necessary financial, technological and seed support, subject to availability of funds and after meeting the requirement of small and marginal farmers.
- 8) The farmers shall be organized into groups/clusters to neutralize the variations in the fragmented production bases.
- 9) Components proposed under Mulberry cocoon Sector are mainly to support production of Bivoltine and Improved Cross Breed Silk (ICB) only.
- 10) Components proposed under Post yarn Sector in respect of Handlooms and Common Facility Centres for Yarn dyeing and Fabric Processing, are meant to promote equipment and technologies developed by CSTRl for Silk clusters only.
- 11) Post Yarn sector components can be implemented by Offices of Development Commissioner (HL) in respective States along with DCHL components, when the support is mean for Silk stake holders.
- 12) After approval of the project and release of funds by CSB, as far as possible, re-appropriation of funds from one component to another to be avoided. Nevertheless, re-appropriation is not permitted from 'Capital Head' components to 'Revenue Head' components and SCSP/TSP to General.
- 13) Wherever any registered NGOs/SHGs are able to get loans from banks / financial institutions for their individual beneficiaries for Sericulture developments, CSB and State Governments could consider depositing their share in accounts of such beneficiaries with eligible subsidy amounts.
- 14) NGOs will be assisted as per the Scheme norms and project appraisal and approval mechanism is applicable to NGOs, as in case of other implementing States.
- 15) Wherever possible, efforts should be made for development of Sericulture in such States, which share borders with other countries, through integration of schemes under Panchayat Raj Ministry and BADP.

- 16) States shall give priority for implementation of the Sericulture programme with funding from this scheme in the Aspirational districts identified by Govt. of India as a part of overall development of the district.
- 17) The allocation of Scheme assistance to States shall be based on the progress made in the previous year and also target in the Action Plan of project period (2018-19 & 2019-20).
- 18) States shall encourage Public Private Participation, for development of clusters, Seed production and post-cocoon development.
- 19) Implementing agencies should ensure proper backward and forward linkages in the value chain for a balanced growth of the industry, while formulating the projects.
- 20) States desiring to implement any components which are basically meant for beneficiaries, in State farms / units of States, may do so by meeting beneficiary share also, in addition to State share.
- 21) In order to reduce the financial burden on the part of beneficiaries, especially in general category States, State Sericulture Departments can increase their share of subsidy, by earmarking necessary matching provision. However, the Gol share shall remain unchanged.
- 22) Maintenance / recurring cost of infrastructure developed with support from Scheme shall be the responsibility of entrepreneurs / stake holders / States, as the case may be.
- 23) To put in place, if not already there, systems of data collection with the help of specialized agencies wherever necessary, for the purpose of (i) developing measurable indices of performance to measure and assess quality of implementation, (ii) developing norms of standard unit cost of delivery of service, (iii) quantification / factoring in of environmental outcomes, (iv) quantification of community and empowerment outcomes through social capital formation, and (v) quantification of impact of funds earmarked for publicity / awareness generation. This will not only involve collection of data on past trends but also on present development in markets and technology.
- 24) The Scheme components of involving higher capital subsidy, especially under post cocoon sector, can be implemented on SPV / CBO / SHG / Cooperative mode also.
- 25) NGOs availing support under the Scheme will have the responsibility of implementing the project components as per scheme guidelines and achieve the target envisaged under the project, failing which they are liable to refund the administrative cost.
- 26) The beneficiaries receiving assistance under any Scheme component should be issued a Pass Book for proving their identity as a Sericulture farmer along with other details such as, Aadhaar number, Bank Account number, education level, family members, size of holding and other infrastructure, Sericulture activities performed, manpower engaged, benefits / subsidy availed at different stages and their utilization, production details, assistance availed from other departments / schemes for Sericulture, etc.

- 27) Revolving capital fund provided to States and Stakeholders (RSPs) in Seed production shall essentially be flowed back after completion of each cycle of the activity to the account of States / Stakeholders. States shall institute a monitoring mechanism to verify the flow of revolving capital and its maintenance for the purpose it is intended in the scheme on half yearly / annual basis as deem fit and maintain records of their progress with them.
- 28) The beneficiary who is availing support for any one or more components together with a subsidy element of Rs.1,00,000/- and above shall be required to enter into a legal agreement with Implementing agency. Failure on the part of beneficiary to utilize the funds for the purpose for which it is intended will attract penal action as per the legal binding.
- 29) Any State or Implementing agencies desire to implement the components meant for beneficiaries/Technology demonstrations, can do so by bearing beneficiary share also along with their matching share.
- 30) The stakeholders availing support under the Scheme will have to continue specified Sericulture activity for a minimum period of 5 years, failing which Govt. will have right to recover the element of subsidy disbursed to them.
- 31) If any of the Stake holders fail to implement the scheme component(s) as per the scheme modalities or fail to utilize the funds provided by the Central and State Govt. for the purpose for which is intended, the Govt. will have the right to recover the subsidy / grant provided to them. States shall develop suitable recourse mechanism through legally valid agreements / MoUs to deal with such instances and make them essential part of the Scheme implementation. States shall maintain these valid agreements along with valid documents, without fail.
- 32) States may support the stake holders to avail loan from MUDRA to reduce the financial burden towards beneficiary share.

## **VII. Evaluation:**

- 1) Yearly and concurrent evaluation on implementation of the Central Sector scheme shall be carried out by CSB in association with States, to assess its level of implementation and progress.
- 2) The members of State PMC shall undertake field visits prior to PMC meetings in Sericulture areas and discuss / review field level progress.
- 3) Third party evaluation shall be carried out during 2019-20 to assess the impact of the scheme at field level, State level and at CSB level as per the components approved under the scheme.
- 4) Continuation of the scheme beyond project period will be based on the success of field level implementation and Third Party evaluation.

## VIII. Silk Samagra Helpline:

A helpline and exclusive e-mail Id, Face book account & Twitter handles have been created to address the grievances of the Stakeholders and to create awareness and sharing of information. These are:

Help line No : 080-26684431

Facebook : <https://www.facebook.com/central.Silkboard>

Twitter : <http://twitter.com/csbmot/> -

Website : <http://www.csb.gov.in/>

E.mail Id : [isdsi.csb@gov.in](mailto:isdsi.csb@gov.in)

## IX. Brief Component details:

### (A) RESEARCH & DEVELOPMENT, TRAINING, TRANSFER OF TECHNOLOGY AND IT INITIATIVES

#### Pre-cocoon sector

#### 1. Support for development of Kissan nurseries

For effective plantation and survivability, raising of nurseries is very much useful than plantation through cuttings. Hence, support is given to Kissan Nurseries for vertical growth of the industry during the project period. A unit cost of Rs.1.50 lakh per Kissan Nursery is proposed. 1 acre of Kissan nursery can cover about 20 acre of plantation. State may replicate this model by availing funds from other sources, to achieve the plantation targets.

#### 2. Support for mulberry plantation development – Raising high yielding mulberry varieties

This component extend support for area expansion through high yielding mulberry varieties evolved by CSB Institutes and quick replacement of old and low yielding mulberry varieties at farmers' level for increasing the production and productivity. This includes cost of saplings, land development, inputs and manpower. The unit cost per acre is fixed at Rs.50000/-.

#### 3. Assistance for irrigation and other water conservation / usage techniques

This component is for conservation and efficient management of water for effective utilization towards higher production per unit area of mulberry garden by adopting appropriate water management and usage techniques / measures. The subsidy is based on the nature of irrigation system and the area proposed to be covered by the farmers. The unit cost ranging from Rs.30,000 to Rs.50,000 per acre based on the nature of irrigation proposed.

#### **4. Assistance for construction of Rearing Houses**

The component supports the rearers for construction of a separate silkworm rearing house (Mulberry & Eri) with mounting hall to conduct the silkworm rearing and mounting in a conducive condition for increased cocoon production and productivity. Assistance will be provided to the new sericulturists for two models of rearing houses, viz., 1,000 sqft (250 dfls rearing capacity), 600 sqft (150 dfls rearing capacity), with unit costs of Rs.4.00 lakh and Rs.3.00 lakh, respectively. Cocoon Storage House is also covered for Tasar beneficiaries.

#### **5. Supply of rearing appliances including improved mountages (Rotary mountages) for quality cocoon production**

New sericulturists are supported with appropriate technologies to begin the silkworm rearing activity for the production of quality Bivoltine cocoons. They are provided with a set of rearing and farm appliances including Rotary Mountages. A unit cost of Rs.75,000 per acre is fixed taking into consideration the cost of rotary mountages, other rearing equipment and farm implements.

#### **6. Prophylactic measures (includes quality disinfectant, inputs supply for productivity improvement), support to CBOs**

For ensuring productivity improvement, support for supply of quality disinfectants, input supply to the field is covered under Prophylactic Measures. The unit cost per acre is Rs.5,000 and it is applicable for all sectors.

#### **7. Popularization of Chawki Rearing Centres with Incubation Chamber**

CRCs with incubation chamber are essential for scientific handling of silkworm eggs and rearing of young age silkworms for quality cocoon harvest along with increase in the production of quality chawki leaves (of recommended mulberry variety) required for rearing of chawki worms. The unit cost is Rs.12.00 lakh covering construction of CRC building, procurement of equipment, incubation chamber and maintenance of chawki gardens.

#### **8. Production units for Biological inputs / Door-to-Door Service Agents, disinfection & inputs supply and Assistance for Sericulture poly clinics**

Production units for Biological inputs/Door-to-Door Service Agents for Disinfection and inputs supply & Assistance for Sericulture Poly-Clinics are planned for assured and better crop harvest. Un employed youths will be engaged. The unit cost is Rs.1.75 lakh. The component is applicable to all the sectors.

## **Post-cocoon Sector**

### **a) Mulberry Sector**

#### **1. Support for motorized charkha to dissuade child labour**

In order to discourage employment of child labour and improve the working conditions of Charkha units, this component envisages support for establishment of motor driven twin Charkha units with required driving arrangements. The unit cost for double unit of Charkha with Common shaft run by single ½ HP Electric Motor (single phase) is Rs.25000.

#### **2. Support for existing Cottage basin/Domestic basin units for procurement of additional equipment / up-gradation**

Around 50% of the raw silk production comes from cottage basin reeling units. These units are more or less three-decade old and running without productivity improvement. In order to upgrade the existing units to improve quality and productivity, it is proposed to strengthen and upgrade them by providing additional equipment such as 50 kg capacity Boiler, Reel permeation device etc. The unit cost is Rs.1.99 lakh.

#### **3. Support for establishment of Multi-end reeling units**

CSB has developed a Multi-end reeling technology package for production of international grade raw silk using quality Multi x Bivoltine and Bivoltine cocoons produced in the country. The component envisages support for setting up 10-basin Multi-end reeling units. Both CSTRI & CSB identifies and selects the beneficiaries. On selection, an agreement is executed in connection with establishment of the unit. The unit cost is Rs.17.09 lakh.

#### **4. Support for establishment of Automatic Reeling Units**

With a view to produce international quality raw silk from Bivoltine cocoons produced in the country, support is provided for establishment of Automatic Reeling Machines (ARM). The component envisages support for establishment of Imported ARM of 400-ends units and Imported / Indigenous ARM of 200-ends units with latest technology for cocoon drying, cooking, reeling, re-reeling etc. The unit costs approved for these two types of ARMs are Rs.79.83 lakh and Rs.141.02 lakh respectively.

#### **5. Support for establishment of Automatic Dupion reeling units**

The double cocoons and inferior quality cocoons are converted in to dupion silk yarn on a dupion reeling machine. With a view to provide better value addition to inferior quality cocoons and produce international quality dupion yarn, support is given for establishment of Automatic Dupion Silk Reeling units with imported machinery. Unit cost approved for this component is Rs.45.76 lakh.

## **6. Assistance for twisting units**

To enhance the profit margin of the Multi-end reeling unit by adding a twisting unit so that the unit can go for value addition by way of selling their produce in the form of twisted silk. This component provides support for establishment of twisting units of 480 spindles along with winding and doubling machines. Unit cost approved by GOI is Rs.10.04 lakh per unit.

## **7. Support for establishment of eco de-gumming machine for production of Sericin powder**

During the process of manufacture of silk, different types of bye-products are generated which can be effectively utilised for better value addition leading to more profitability. One such bye-product is Sericin. Sericin is a protein that forms the globular glue in raw silk. About 20-26% of raw silk is Sericin and the rest is fibroin, which forms the silk fibre. Presently the Sericin generated is not used effectively because of traditional degumming process using chemicals. CSTRI has developed eco-degumming machine, which is a novel method of extracting Sericin in the pure form from the silk yarn without any chemicals. Such pure Sericin has cell-protective properties such as water-binding, antibiotic, antioxidant, UV-protective, proliferative and cryo-protective properties. Sericin is used in hair and skin care products and enough scope is there to enhance its use in the food, pharmaceutical and cosmetic industries. Hence, it is proposed to establish few CSTRI Eco-degumming machines for demonstration and popularization in the field. Unit cost available for this component is Rs.10.00 lakh.

## **8. Support for establishment pupae processing units**

Silkworm pupa is the bye-product of silk reeling used for various purposes. Separation of pupa and its treatment is important for better value realization through bye-products and addressing environmental issues associated with traditional pupa processing. The technology package developed by CSTRI aids separation of pelade waste from pupa, hot air drying of pupae with optimum drying conditions aiding storage of pupa for longer period without fungal attack. It is proposed to support for the package with Ground discharge type Effluent Treatment Plant (ETP). Unit cost approved is Rs.20.82 lakh per unit.

### **b) Support for Vanya Reeling / Spinning sector**

#### **1. Reeling-cum-twisting machines**

CSTRI has developed a reeling-cum-twisting machine with 4-spindles, which is suitable for both tasar and muga reeling. The mechanization of reeling and twisting in one single operation has some definite advantages viz., higher productivity, reduced labour, removal of drudgery and importantly producing better quality twisted yarn. Use of twisted yarn not only ensures better preparatory and weaving performance, but also better fabric quality associated with visual, textural and comfort characteristics. The silk reeled on the machine is now being used as warp. Similarly, the demand base for the machine reeled muga yarn is gaining momentum. Unit cost is Rs.28,000.



## **2. Wet reeling machines**

Tasar reeling is predominantly a dry reeling activity. CSTRI has developed a wet reeling machine with 2 basins of 6-ends for production of warp quality tasar yarn. Wet reeling aims at producing superior quality tasar raw silk from good quality cocoons. It is proposed to promote this tasar reeling package and apart from CSTRI model, machines developed by different agencies will also be promoted under this component based on the acceptance of the machine model by the reelers in the field, subject to the condition that the same is recommended by the CSTRI. Unit cost is Rs.30,000.

## **3. Motorized / Pedal-operated spinning machines**

To improve the productivity and quality of hand spun silk yarn, CSTRI has developed motorized/pedal-operated spinning machine to enhance the earnings of the spinning artisans. This component has made a considerable impact in the field under earlier five-year plan periods. Apart from CSTRI model, machines developed by different agencies will also be promoted under this component based on the acceptance of the machine model by the reelers in the field subject to the condition that the same is recommended by the CSTRI. Unit cost approved for this machine is Rs.7,000 per unit.

## **4. Solar operated spinning machines**

CSTRI has developed a spinning machine driven by solar energy to address the requirement of artisans of remote villages where availability of electricity is scarce. The productivity of this device is around 200 gm per day. A unit cost of Rs.21,000 is approved for this machine.

## **5. Improved Vanya reeling machines**

### **a) Unnathi reeling Machines**

Jharcraft, which is a Govt. of Jharkhand undertaking has designed and developed a two end reeling-cum-twisting machine which is time tested & suitable for tasar silk yarn reeling and twisting. These machines are well suited for operation on individual basis.

### **b) Charkha reeling machines**

There is requirement of weft quality tasar yarn in tasar weaving clusters. In order to make available the required weft quality yarn, the CTRTI, Ranchi of CSB has developed an improved Charkha. The above machine is time tested & suitable for weft tasar yarn production.

Unit cost of Rs.28,000 per machine approved for the above two machines.

### **c) Two step reeling-cum-twisting machines**

This is a region specific tasar reeling-cum-twisting machine. The above machine has been developed by CSTRI as a region specific machine which can be used effectively for production of both warp as well as weft quality tasar silk yarn. Unit cost of Rs.25,000 per machine is approved for this machine.

### **d) Buniyaad reeling machines**

Traditionally, tasar yarn is reeled manually by the women folk, using thigh for reeling and twisting. This manual process is unhygienic and cumbersome. In order to replace thigh reeling, the reelers' community in Champa has developed a machine called Buniyaad reeling machine. This machine is time tested and gives better quality yarn. Unit cost of Rs.11,000 per machine is approved.

### **e) Kamadhenu reeling machines**

Kamadhenu is the Vertical Reeling-cum-Spinning machine developed to reel and spin the tasar cocoons. The tasar cocoon reeling by dry reeling technique could be carried-out on this machine. The degummed/cooked tasar cocoons could also be reeled. Unit cost of Rs.23,000 per machine is approved for this machine.

### **f) Re-reeling machines**

In the tasar reeling industry, the tasar yarn is produced on various machineries in the form of raw silk or twisted yarn bobbins and spindles. These yarns have to be re-reeled in order to utilize the same for further processing. Also, the re-reeling of tasar yarns improves the quality and productivity and reduces the yarn defects. Since the tasar reeling industry is very tiny sector, the reelers employ various crude devices to re-reel the silk. To strengthen these reelers and to eliminate the drudgery, it is proposed to supply re-reeling machine so that the productivity and quality of tasar raw silk could be improved. A unit cost of Rs.21,000 is approved for this machine.

### **g) Tasar reeling machinery package**

Presently, most of the tasar silk produced in the country is used for weft yarn and Chinese/Korean tasar silk is used for warp yarn. Further, the quantity of yarn produced by individual reelers is very small. Integrating the cooking technologies along with tasar reeling machineries, a package has been formulated for production of good quality tasar yarn in sizeable quantity. This yarn can be used as a substitute for imported tasar yarn for warp. It fetches significantly better price compared to tasar silk produced with conventional methods. Therefore, it is proposed to support for setting up of tasar reeling machinery package in the field. A unit cost of Rs.11.50 lakh is approved for this component.

## **6. Providing services of Master Reelers / technicians**

One of the major constraints for sustaining silk reeling industry in non-traditional states and non-traditional areas of traditional states is the shortage of skilled reelers. To overcome this problem, the concept of deputing Master Reelers to existing silk reeling units to train the workers engaged in the units was introduced. It is proposed to continue the component with services of Master Technicians to attend the repair and other maintenance work of reeling units. The unit cost fixed per master reeler / technician is Rs.2.52 lakh which includes Wages, House Rent Allowance (lump sum), Medical Allowance (lump sum), Lump sum after completion of the tenure. While the entire unit cost of Rs.2.52 lakh will be borne by CSB (100%), the other expenses like transportation and premium for insurance coverage will be met out of the annual Grants in Aid (GIA)/Budget of CSTRI, based on the actual expenditure.

## **7. Support for setting up of Hot Air Driers**

In northern and North-eastern states, sericulture is practiced as a seasonal activity. During the favourable seasons, cocoons are harvested and these harvested cocoons are to be dried and stored for long for their use over a period of six months. In most of the non-traditional states, proper cocoon drying facility is not available. In order to create cocoon-drying facility, it is proposed to support for setting up of Electrical and Multi-Fuel Hot Air Dryers of 50 kg capacity. Also proposed to support for setting up of Conveyor type of 2 MT Capacity as a Common Facility as there is a demand for this type of hot air dryers especially in the biannual cropping states like Himachal Pradesh, Uttarakhand, J&K etc. The unit costs approved is Rs.1.50 lakh, Rs.69,000 and Rs.25.17 lakh respectively for this component.

## **9. Support for Handloom sector**

### **i. Modified region specific silk handlooms**

A major portion of the raw silk (60-70%) is consumed by the Handlooms. Silk handloom sector is the mainstay of the Indian sericulture. Most of the handlooms have outlived their utility and results in low productivity, poor quality and drudgery. The region-specific handlooms shall address these issues for better productivity, quality of fabrics and reduce the drudgery of the weavers. Therefore, it is proposed to support for Modified Region specific silk handlooms. Unit cost of Rs.33,000 is approved for this component.

### **ii. Loom up-gradation - Loom up-gradation through Jacquards, Pirn winding and other equipment**

The existing silk handloom units are not having financial capacity to upgrade their handlooms for producing diversified products and for adopting small interventions required for better operations. Most of silk handlooms are very old and primitive without any modern gadgets, resulting in low productivity, poor quality and drudgery. The gadgets like jacquard, pirn winding, dobby, Asu machine, winding machine etc., envisaged under this scheme shall help the weavers for creation of good designs, improving productivity & quality and reducing the drudgery of the weavers. Unit cost of Rs.17,500 is approved for this component.

### **iii. Pneumatic lifting Mechanism - 2 looms unit & pneumatic lifting Mechanism - 4 looms unit**

This mechanism was developed by CSTRl for silk handloom clusters. Use of 3 - 4 jacquards for weaving intricate designs is a common practice on silk handlooms. The manual efforts required to lift these jacquards put lot of strain on the weavers and it takes heavy toll on the knee joints leading to arthritis. This is one of the main reasons for younger generation to move away from traditional handloom weaving. The use of pneumatic lifting mechanism on handloom is a right step, which helps to reduce the drudgery of weavers and enhance the productivity. Unit cost of Rs.38,000 and Rs.58,000, respectively are approved for this component.

### **iv. Electronic Jacquard (480 hooks) with Pneumatic Lifting Mechanism**

Silk fabrics / Sarees are known for their exquisite designs created by 3-4 jacquards using the punched cards. As the customers demand newer designs, the cards have to be changed frequently involving huge cost of Rs.5000 to Rs.30000. Introducing electronic jacquard in place of mechanical jacquards reduces cost of designs, avoids deforestation due to elimination of cards and loom down time. A unit cost of Rs.1.75 lakh is approved for this component.

### **v. Computer Aided Textile Designing (CATD) units**

Design forms an integral part of textiles and offers an edge to the product in the market. The aesthetic design starts with creative idea which goes through a period of detailed development before it is put on to the textiles. Much of the efforts involved in process of design development can be minimized with use of Computer and Software for Textile Design. CATD provides freedom to designers to get best out of these artistic ingenuity and better flexibility for their creativity. It also facilitates the artists to make available innumerable options with ease and quickness in operations. It also equips the textile designer with a tool to react to the changes in the market trend in a faster way. The component like computer card punching machine eliminates the requirement of manual labour to a large extent. The component of special technology package developed by CSTRl was implemented during previous plans. As the response was overwhelming from traditional handloom clusters, it is proposed to continue the support. A unit cost of Rs.5.75 lakh is approved for this component.

## **9. Common Facility Centre (CFC) for silk yarn dyeing and fabric processing**

### **i. Tub dyeing unit- 25 Kg capacity & Tub dyeing unit - 50 kg capacity**

It is an equipment package used for degumming and dyeing of silk yarn in small quantities from 1.0 kg to 20 kg and here, all operations are carried out manually. This tub dyeing technology is quite useful to carry out the dyeing process systematically by the small-scale entrepreneurs of different weaving clusters of the country. This technology reduces water consumption, energy consumption and reduces manpower requirement. Apart from improving the quality of dyeing, it also helps to provide conducive working environment to the workers. It is proposed to support establishment of 25 kg - 50 kg capacity units. The unit costs approved is Rs.5.70 lakh per unit and Rs.8.50 lakh respectively these two units.

## **ii. Arm dyeing unit – 50 kg capacity**

It is an equipment package used for processing of silk yarn (degumming and dyeing). In this process, yarn shall be rotated on the perforated arms of the machine automatically and dye solution is sprayed through these perforated holes resulting in uniform dyeing. This technology reduces the consumption of water and energy and demands less manpower. Apart from improving the quality of dyeing, it also helps to provide conducive working environment to the workers. It also addresses the requirement of the export markets. A unit cost of Rs.21.00 lakh is approved for this component.

## **iii. Fabric Processing unit – 250 kg capacity**

As most of the silk fabric produced on power loom like soft silk, chiffon, crepe, and georgette are piece-dyed, fabric processing and finishing facility is required in clusters. As these facilities are capital intensive, fabric processing is carried in vessels in primitive manner resulting in poor quality. The finishing work is generally out sourced. Hence, creation of fabric processing unit shall certainly help the silk processors of Serampore, Varanasi, Bengaluru and other clusters to improve their quality. This technology also addresses the requirement of the export markets. The unit cost approved for this component is Rs.31.50 lakh per unit.

## **iv. Effluent Treatment Plant- Zero discharge type & Effluent Treatment Plant- Discharge to Ground type**

The silk yarn dyeing and silk fabric processing facilities created under earlier plans were not provided with ETP. The Pollution Control Board, in recent past has issued guidelines, for strict compliance, for treatment of effluent before discharge. With a view to equip these processing units with ETP and encourage pollution free processing units, it is proposed to provide support to establish ETP plants in existing as well as new units. The scheme was popular during XII plan and it is proposed to be continued during 2017-18 to 2019-20. Unit costs approved for this component is Rs.12.50 lakh and Rs.7.00 lakh respectively for this component.

## **v. Fabric Finishing units**

The clusters like Serampore, Bhagalpur and Varanasi have dyeing and printing units, which are working without any finishing equipments. Further, some of the clusters are still practicing traditional *kundhifinish* which is unscientific and primitive. Many clusters in North-eastern states also require better finishing facilities so as to enhance the quality and value addition. Hence, introducing modern finishing equipments is crucial which will add value and improve the aesthetics of silk fabrics. Unit cost approved is Rs.9.00 lakh per unit.

## **(B) Seed Organizations:**

### **Mulberry Seed sector**

#### **1. Revolving Capital fund support for State Grainages and RSPs**

Working capital plays an important role in deciding the economic performance of a grainage. The Silkworm Seed Production Centres in Departments of Sericulture and Private sectors often face difficulty in procuring quality seed cocoons due to shortage of Working Capital Fund. The new and first generation entrepreneurs were not interested to take up the business with the existing levels of assistance as the raw material price and the prices of chemicals used in the process of producing silkworm eggs has increased in the recent past. Accordingly, the need is felt for increasing the assistance for producing the Commercial Bivoltine Silkworm Seed.

Hence, it is proposed to provide one time Working Capital support to the Grainages of State Govts., and Private Registered Seed Producers (RSPs). The silkworm seed production cycle even though lasts for 7 to 10 days in normal conditions, it will take 4 to 6 months once it is cold stored for want of demand due to variations in rearing conditions. Hence, the storage of silkworm seed up to six months along with the business cycle of 7-10 days, which means a total of about 7 months, will be the difference from procuring of raw material and encashing the same in the form of dfis. Unit cost of Rs.18.00 lakh is approved for this component.

#### **2. Assistance for purchasing seed testing equipments for State and Private RSPs**

Production of quality Silkworm Seed is the key for success of the silk industry. The production of quality silkworm seed demands some specific equipment such as moth preservation chamber and incubation chamber of high order. The Private RSPs and the State Govt., Seed Production Centres with limited financial resources apart from lack of support from bankers to lend more funds for the purchase of such quality enhancing equipment, which resulted in lack of proper response from private RSPs to carry out the activities. It is proposed to assist the State and Private RSPs for procurement of Seed Testing equipment during the next three years with a unit cost of Rs.16.00 lakh per Grainage.

#### **3. Support to upgrade State and Private large scale industrial seed production units and Cold storage facilities**

In order to meet the requirement of P1 dfis of all the stakeholders for the generation of quality seed cocoons and production of hybrid seed, it is proposed to support the Grainages of State Govt., and RSPs including Cold storage for upgrading to produce quality Bivoltine seed with a unit cost of Rs.4.476 crore per grainage.

## **VANYA SEED SECTOR**

### **1. Assistance to Adopted Private Tasar Graineurs**

The focus of Basic Tasar Silkworm Seed Organization units has now been shifted towards supply of nucleus seed and basic seed to a limited extent. With increased demand of Basic seed during the period (2017-18 to 2019-20), it is desirable to train and build capacities of the Private Graineurs to produce basic seed under organic linkages and supervision of BSMTCS/PPCs. This approach will help to narrow down the gaps for availability of basic seed. Hence, it is proposed to promote Private Graineurs at a unit cost of Rs.5.00 lakh towards construction of Grainage building, procurement of grainage equipment, consumables and working capital for purchase of seed cocoons, insurance coverage, etc.

### **2. Assistance for strengthening of Tasar seed Multiplication infrastructure (Tropical Tasar) - Establishment of Basic Seed Production Unit**

Some of the tasar producing States are yet to attain their capabilities to produce tasar basic seed despite support extended to strengthen their PPCs during earlier plan periods. It may be practically difficult for the states like West Bengal, Telangana, Madhya Pradesh, Uttar Pradesh and Odisha to meet the entire basic seed demand in view of the insufficient infrastructure and resources. Hence, it is proposed to promote establishment of Basic Seed Production Unit at a unit cost of Rs 60.00 lakh each towards construction of building and supply of grainage equipment, working capital and consumables with a capacity to preserve 1.5 lakh seed cocoons and produce 25,000 Tasar basic seed with handholding from BSMTCS under Central Sector Scheme.

### **3. Assistance for Tasar Tropical and Oak Seed Rearers for development of Chawki garden, maintenance of existing tasar plantation and disinfectant support**

#### **a) Assistance to Adopted Rearers for development of chawki garden**

It is proposed to assist Tasar rearers to establish chawki gardens @ 0.1 ha. per rearer with 1.8 m x 1.8 m spacing suitable for young age silkworm rearing under nylon nets for improving production and productivity of seed cocoons. This will facilitate young age rearing in chawki gardens followed by late age rearing in grown up trees. BTSSO units shall support the beneficiary with supply of seedlings, cost for chawki plantation development, inputs, etc. with a unit cost of Rs.7,400 under this component.

#### **b) Assistance to Adopted Rearers for maintenance of existing Tasar plantation**

In order to improve the foliage quality and productivity of existing tasar plantation, it is proposed to support the seed rearers with a unit cost of Rs.20,000 per rearer for maintenance of plantation, soil & moisture conservation, intercultural operations, supply of insecticides/fungicides for managing pest and diseases of host plants, organic and inorganic inputs and other technology inputs as recommended by CTR&TI, Ranchi. BSM&TCs will extend assistance to tasar rearers subject to undertaking from them that they will take up seed crop rearing and supply the seed cocoons to BSMTCS and the Private Graineurs adopted by BSMTCS/PPCs for production of seed.

### **c) Assistance for Tropical Tasar Rearers**

In order to improve the seed cocoon productivity of existing tasar seed rearers who are willing to take up rearing of nucleus and basic seed of 200 to 250 dfls for supply of seed cocoons to PPCs/BSM&TCs/Basic Seed Production Units, assistance for equipment and appliances is proposed with a unit cost of Rs.25,000 per rearer for ensuring successful seed crops.

### **d) Disinfectants support to Adopted Seed Rearers**

Disinfection is an integral part of healthy and successful silkworm rearing. It aims at total elimination of disease causing pathogens. Silkworms are infected by several diseases caused by bacteria, virus, fungi and protozoa. The component is proposed to be implemented for Adopted Seed Farmers at a unit cost of Rs.2,500 per farmer. The component will help to improve the hygienic conditions in the rearing houses for better quality and productivity.

## **(C) CAPACITY BUILDING**

### **Beneficiary Empowerment Programme**

Beneficiary Empowerment Programme is designed for empowering the sericulture farmers. It aims at 'skill seeding' and 'skill enhancement' through practical oriented training. The state Sericulture/Handlooms/Handicrafts/Textiles Directorates will organize training under this component in different seri - clusters. The coverage includes all aspects/activities in silk value chain – nursery raising, chawki rearing, late-age rearing, disease management, disinfection technique, silkworm seed preparation and post-cocoon technologies.

### **Skill Training and Enterprise Development Programme**

Under this category, a variety of short-term training modules focusing on entrepreneurship development, in-house Resource Development, Specialized Overseas Training, popularization of sericulture technologies, lab to land technology demonstration programmes, Faculty Development Programme (for in-house resource persons), training impact assessment surveys etc., have been planned to be taken up. These training impact assessment initiatives are expected to improve the quality of training in silk sector and at the same time, it would increase the employment linkage in the sector.

### **Establishment of Sericulture Resource Centre (SRC)**

These training-cum-facilitation Centres would be established in select Mulberry Bivoltine & Vanya clusters with a unit cost of Rs.4.00 lakh to act as an important link between Extension Centres of R&D labs and the beneficiaries. The purpose of these SRCs is - technology demonstration, skill enhancement, one-stop shop for seri-inputs, doubt clarification and problem resolution at cluster level itself. SRCs are managed by handpicked lead/elite farmers or any 'not for profit' organizations, Seri-Societies etc., for the benefit of cluster farmers / sericulturists.



## **Capacity Building & Training by R&D Institutes of CSB**

In addition to conducting structured long-term training programme (Post Graduate Diploma in Sericulture), the R&D institutes of CSB will also conduct variety of technology-based training both for farmers and other stakeholders covering all sub-sectors of silk, besides organizing Krishi Melas, Farmer's Day, Farmer's Interaction Workshops etc., for empowering the farmers and other industry stakeholders.

### **Capacity Building in Seed Sector**

Silkworm seed is the most critical sector that drives the entire silk value chain. The quality of seed determines the quality of industry output. Therefore, addressing the capacity building and training needs of this sector is of paramount importance. Different organizations of CSB managing different seed sub-sectors viz., Mulberry, Eri, Tasar & Muga are also responsible for Capacity Building and Training in seed sector. It is proposed to conduct a variety of training programmes to cover industry stakeholders like – Private Silkworm Seed Producers, Adopted Seed Rearers, Managers and work force attached to Government owned Grainages. Depending upon the training need, the duration of the envisaged training programme will vary from 1-4 weeks.

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## Scheme: SILK SAMAGRA - An Integrated Scheme for Development of Silk Industry (ISDSI)

Scheme-wise and component-wise details of financial and physical projections for 2017-18 to 2019-20

Rs. in crores

#	Scheme & Components	Unit	Unit Cost (Amt. in Rupees)	Project period (2017-20)		Sharing Pattern	
				Physical Targets	Total cost (Rs. in crores)	General	SCSP/TSP/ Special States
						(50:25:25 by CSB:St:Ben and 65:25:10 for SC/ST)	(80:10:10 by CSB:State: Ben)
<b>Critical Interventions under Transfer of Technology for dissemination at Beneficiary Level through States</b>							
<b>I Research &amp; Development / Transfer of Technology / Training &amp; IT Initiatives</b>							
<b>I Training initiatives at 9 Main Research &amp; Training Institute and Information, Education and Communication (IEC)</b>							
a)	Beneficiary Empowerment Programme (BEP)	No.	7,000	6,000	4.20	7000 <i>(100%)</i>	7000 <i>(100%)</i>
b)	Sericulture Resource Centres (SRC)	No.	400,000	120	4.80	400000 <i>(100%)</i>	400000 <i>(100%)</i>
c)	Skill Training & Enterprise Development Programmes (STEP)	No.	10,000	1,500	1.50	10000 <i>(100%)</i>	10000 <i>(100%)</i>
<b>II Mulberry Pre Cocoon Sector</b>							
1 Support for propagation of improved mulberry varieties, area expansion and adoption of water saving techniques							
a)	Support for development of Kissan Nurseries	Acre	150,000	453	6.80	75000 <i>(50%)</i>	120000 <i>(80%)</i>
b)	Support for Mulberry Plantation Development Raising high yielding mulberry varieties	Acre	50,000	5,800	29.00	25000 <i>(50%)</i>	40000 <i>(80%)</i>
c)	Assistance for Irrigation and other water Conservation and usage Techniques	Acre	50,000	5,800	29.00	25000 <i>(50%)</i>	40000 <i>(80%)</i>
2 Assistance for Construction of Rearing Houses							
a)	Model - I (1000 Sq. Ft)	No.	400,000	4,482	179.28	200000 <i>(50%)</i>	320000 <i>(80%)</i>
b)	Model - I (600 Sq. Ft)	No.	300,000	2,536	76.08	150000 <i>(50%)</i>	240000 <i>(80%)</i>
3 Supply of Rearing Appliances including Improved Mountages (Rotary Mountages) for quality cocoon production.							
		Acre	75,000	7,297	54.73	37500 <i>(50%)</i>	60000 <i>(80%)</i>

#	Scheme & Components	Unit	Unit Cost (Amt. in Rupees)	Project period (2017-20)		Sharing Pattern	
				Physical Targets	Tota cost (Rs. in crores)	General	SCSP/TSP/ Special States
						(50:25:25 by CSB:St:Ben and 65:25:10 for SC/ST)	(80:10:10 by CSB:State: Ben)
4	Support for Prophylactic Measures for assured cocoon yield	Acre	5,000	42,587	21.29	2500 <b>(50%)</b>	4000 <b>(80%)</b>
a)	Production units for Biological inputs / Door to Door Service Agents for Disinfection and inputs supply & Assistance for Sericulture Poly-Clinics	No.	175,000	84	1.47	87500 <b>(50%)</b>	140000 <b>(80%)</b>
5	Popularisation of Chawki Rearing Centres with Incubation Chamber	No.	1,200,000	131	15.72	600000 <b>(50%)</b>	960000 <b>(80%)</b>
III	Post Cocoon Sector					<b>(50%)</b>	<b>(80%)</b>
A	Mulberry Sector						
6	Support for improved reeling machinery to replace tradional Charaka and cottage basin						
a)	Support for motorized charkha to dissuade child labour	No.	25,000	72	0.18	12500 <b>(50%)</b>	20000 <b>(80%)</b>
b)	Support for existing cottage basin / domestic basin units for upgradation	No.	199,000	85	1.69	99500 <b>(50%)</b>	159200 <b>(80%)</b>
c)	Support for establishment of Multiend reeling units :10 basins unit ( 10 ends per basin )	No.	1,709,000	130	22.22	854500 <b>(50%)</b>	1367200 <b>(80%)</b>
7	Support for establishment of Automatic reeling units						
a)	200 ends unit - Indegenous	No.	7,983,000	10	7.98	3991500 <b>(50%)</b>	6386400 <b>(80%)</b>
b)	400 ends unit	No.	14,102,000	12	16.92	7051000 <b>(50%)</b>	11281600 <b>(80%)</b>
8	Support for establishment of Automatic Dupion reeling units (142 ends )	No.	4,576,000	7	3.20	2288000 <b>(50%)</b>	3660800 <b>(80%)</b>
9	Assistance for Twisting units (480 ends)	No.	1,004,000	23	2.31	502000 <b>(50%)</b>	803200 <b>(80%)</b>
10	Support for effective byproduct utilization						
a)	Support for establishment of eco degumming machine for sericin powder	No.	1,000,000	11	1.10	500000 <b>(50%)</b>	800000 <b>(80%)</b>
b)	Support for establishment pupae processing units	No.	2,082,000	8	1.67	1041000 <b>(50%)</b>	1665600 <b>(80%)</b>

#	Scheme & Components	Unit	Unit Cost (Amt. in Rupees)	Project period (2017-20)		Sharing Pattern	
				Physical Targets	Tota cost (Rs. in crores)	General	SCSP/TSP/ Special States
						(50:25:25 by CSB:St:Ben and 65:25:10 for SC/ST)	(80:10:10 by CSB:State: Ben)
<b>B</b>	<b>Vanya Sector</b>						
11	Support for improved reeling, weaving & twisting machinery in Vanya sector						
a)	Support for Vanya reeling / spinning sector Reeling cum twisting machines	No.	28,000	850	2.38	14000 <b>(50%)</b>	22400 <b>(80%)</b>
b)	Wet reeling machine (2 basins of 6 ends each)	No.	30,000	850	2.55	15000 <b>(50%)</b>	24000 <b>(80%)</b>
c)	Motorised / Pedal operated spinning machine	No.	7,000	696	0.49	3500 <b>(50%)</b>	5600 <b>(80%)</b>
d)	Solar operated spinning machine	No.	21,000	1,403	2.95	10500 <b>(50%)</b>	16800 <b>(80%)</b>
e)	Inmproved Vanya Reeling Machines (Unnathi-Jharcraft, Charkha, Two step, Improved(Nos)	No.	28,000	67	0.19	14000 <b>(50%)</b>	22400 <b>(80%)</b>
f)	Buniyaad reeling machine	No.	11,000	3,890	4.28	5500 <b>(50%)</b>	8800 <b>(80%)</b>
g)	Kamadhenu reeling machine	No.	23,000	78	0.18	11500 <b>(50%)</b>	18400 <b>(80%)</b>
h)	Re-reeling machine (2 window open)	No.	21,000	78	0.16	10500 <b>(50%)</b>	16800 <b>(80%)</b>
a)	Two step reeling-cum-twisting machine	No.	25,000	652	1.63	12500 <b>(50%)</b>	20000 <b>(80%)</b>
b)	Tasar reeling machinery package	No.	1,150,000	6	0.69	575000 <b>(50%)</b>	920000 <b>(80%)</b>
12	Services of Master reelers/technicians	No.	252,000	80	2.02	252000 <b>(100%)</b>	252000 <b>(100%)</b>
13	Support for Post Yarn Sector (Handloom sector) Hot Air Driers						
a)	Electrical - 50 kg. capacity units	No.	150,000	45	0.68	75000 <b>(50%)</b>	120000 <b>(80%)</b>
b)	50 kg. capacity units (Multifuel)	No.	69,000	29	0.20	34500 <b>(50%)</b>	55200 <b>(80%)</b>
c)	2000 kg. capacity conveyor Hot air dryer	No.	2,517,000	7	1.76	1258500 <b>(50%)</b>	2013600 <b>(80%)</b>

#	Scheme & Components	Unit	Unit Cost (Amt. in Rupees)	Project period (2017-20)		Sharing Pattern	
				Physical Targets	Tota cost (Rs. in crores)	General	SCSP/TSP/ Special States
						(50:25:25 by CSB:St:Ben and 65:25:10 for SC/ST	(80:10:10 by CSB:State: Ben
14	Support for Handloom sector - Modified Region specific silk hand looms	No.	33,000	850	2.81	16500 <i>(50%)</i>	26400 <i>(80%)</i>

#	Scheme & Components	Unit	Unit Cost (Amt. in Rupees)	Project period (2017-20)		Sharing Pattern	
				Physical Targets	Tota cost (Rs. in crores)	General	SCSP/TSP/ Special States
						(50:25:25 by CSB:St:Ben and 65:25:10 for SC/ST	(80:10:10 by CSB:State: Ben
15	Loom upgradation						
a)	Loom upgradation through Jacquards, Pirn winding and other	No.	17,500	2,700	4.73	8750 <b>(50%)</b>	14000 <b>(80%)</b>
b)	Pneumatic lifting mechanisim - 2 looms unit	No.	38,000	300	1.14	19000 <b>(50%)</b>	30400 <b>(80%)</b>
c)	Pneumatic lifting mechanisim - 4 looms unit	No.	58,000	95	0.55	29000 <b>(50%)</b>	46400 <b>(80%)</b>
d)	Eelctronic Jacquard (480 hooks) with Pneumatic lifting mechanisim	No.	175,000	325	5.69	87500 <b>(50%)</b>	140000 <b>(80%)</b>
e)	Computer Aided Textile Designing (CATD) units	No.	575,000	70	4.03	287500 <b>(50%)</b>	460000 <b>(80%)</b>
16	Commen Facility Center (CFC) for silk yarn dyeing and fabric processing						
a)	Tub dyeing unit- 25 kgs capacity	No.	570,000	8	0.46	285000 <b>(50%)</b>	456000 <b>(80%)</b>
b)	Tub dyeing unit- 50kgs capacity	No.	850,000	21	1.79	425000 <b>(50%)</b>	680000 <b>(80%)</b>
c)	Arm dyeing unit - 50kgs capacity	No.	2,100,000	5	1.05	1050000 <b>(50%)</b>	1680000 <b>(80%)</b>
d)	Fabric Procesing unit - 250kgs capacity	No.	3,150,000	4	1.26	1575000 <b>(50%)</b>	2520000 <b>(80%)</b>
e)	Effluent Treatment Plant- Zero discharge type	No.	1,250,000	4	0.50	625000 <b>(50%)</b>	1000000 <b>(80%)</b>
f)	Effluent Treatment Plant- Discharge to Ground type	No.	700,000	13	0.91	350000 <b>(50%)</b>	560000 <b>(80%)</b>
g)	Fabric Finishing units	No.	900,000	8	0.72	450000 <b>(50%)</b>	720000 <b>(80%)</b>
36	Special Initiatives (flexi fund)		Lumpsum				

#	Scheme & Components	Unit	Unit Cost (Amt. in Rupees)	Project period (2017-20)		Sharing Pattern	
				Physical Targets	Tota cost (Rs. in crores)	General	SCSP/TSP/ Special States
						(50:25:25 by CSB:St:Ben and 65:25:10 for SC/ST)	(80:10:10 by CSB:State: Ben)
<b>II</b>	<b>SEED ORGANIZATIONS</b>						
1	Mobile disinfection unit comprising of motor cycle (100 CC) & 1 HP power sprayer with accessories	No.	150,000	50	0.75	75000 <i>(50%)</i>	120000 <i>(80%)</i>
2	Strengthening of Mulberry Silkworm seed Rearers (ASRs) for quality seed cocoon genertaion	No.	100,000	800	8.00	50000 <i>(50%)</i>	80000 <i>(80%)</i>
3	Revolving Capital fund support for State grainages and RSPs	No.	1,800,000	167	30.06	900000 <i>(50%)</i>	1440000 <i>(80%)</i>
4	Assistance for purchasing Seed Testing equipments for State grainages and private RSPs	No.	1,600,000	125	20.00	800000 <i>(50%)</i>	1280000 <i>(80%)</i>
5	Support to upgrade State and Private large scale Industrial seed production units and Cold Storage facilities	No.	44,760,000	13	58.19	22380000 <i>(50%)</i>	35808000 <i>(80%)</i>
	b) Assistance to Private Tasar Graineurs	No.	500,000	919	45.95	250000 <i>(50%)</i>	400000 <i>(80%)</i>
	c) Assistance for strengthening of tasar seed multiplication infrastructure (Tropical Tasar)	No.	6,000,000	38	22.80	3000000 <i>(50%)</i>	4800000 <i>(80%)</i>
9	d) Assistance for Tasar Tropical and Oak) Seed Rearers for development of chawki garden, maintanance of existing tasar plantation and disinfectant support	No.	55,000	804	4.42	27500 <i>(50%)</i>	44000 <i>(80%)</i>
	<b>GRAND TOTAL</b>				<b>717.07</b>		

**Note:** The amount and percentage indicated under the "General" and SCSP / TSP Special Status States relates to GOI Share.