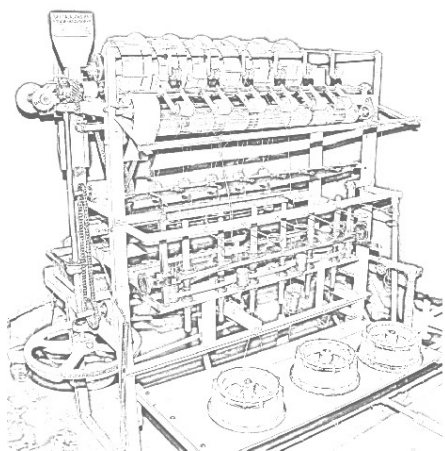




Manual of Catalytic Development Program

Post-cocoon Sector



CHAPTER IV

POST-COCOON SECTOR

Introduction

Sericulture. is not just restricted to the agricultural activities of mulberry cultivation, silkworm rearing and seed production, but opens up into the industrial sector covering the activities of silk reeling, twisting, weaving, dyeing, printing and garment manufacturing. These activities, in turn, support the ancillary enterprises of machine manufacture and by-product utilization including spun silk and dupion yarn manufacture, thus providing employment for the skilled and unskilled labour force and nurture the entrepreneurship right across the country.

The equipment used in the silk industry (post-cocoon sector) are primitive and less capital intensive. This leads to three important consequences, viz., low value addition, heavy dependence on manual skill and attention and negligible economy of scale and scope. These features create a situation where the industry becomes less competitive, very risky and inhabited by many small firms.

The research efforts in silk technology have focused on various dimensions of problems of the industry with due cognizance of the associated constraints so as to bring about the desired changes in the industry and addressed the process of standardization, design and development of appropriate machinery, process and quality control gadgets, energy conservation, water and effluent management and design development. The Catalytic Development Programme (CDP) has provided a unique opportunity for transferring the developed technologies to the field. The components implemented under CDP during IX, X and XI Plan periods for the post-cocoon sector focused on quality and productivity improvement, removal of drudgery and improving working conditions. The response for these components from the stakeholders was quite encouraging and the visible impact made by these components could be seen in the field. It is therefore, proposed to continue to extend the support to the sector during the XII Plan period also. The course of action proposed under CDP of XII Plan is based on the experiences gained during the previous plan periods and the feedback received from the industry. The post-cocoon components are categorized into three sub-sectors, viz., silk reeling and spinning, post-yarn and marketing support sectors.

I. Reeling and spinning

Reeling forms a vital link in converting the farm produce, the cocoons, into an industrial product, the yarn. Reeling involves a series of intricate processes while converting the cocoons into raw silk. The reeling sector in India is cottage based and highly decentralized, employing a variety of reeling devices (traditional to modern), viz., charkha, cottage or domestic basins, multi-end reeling and lately, automatic reeling machines.

Silk reeling is generally regarded as the weakest link in terms of returns or margin in the entire value-chain. The raw material, *i.e.*, silkworm cocoon constitutes around 80% of the cost of production resulting in low value addition. The reeling sector is not able to bring in any substantial investment in view of the fact that credits from financial institutions have been extremely low. Therefore, there is a need to provide a major thrust to the sector for better returns with increased value addition at the reeler level focusing on technology adoption through the following components:

A. Mulberry

1. Support for construction of reeling sheds.
2. Support for motorized charkhas to dissuade child labour.
3. Support for establishment of improved cottage basin reeling units.
4. Support for establishment of multi-end reeling units.
5. Support for establishment of automatic reeling units.
6. Support for establishment of automatic dupion reeling units (142 ends).
7. Support for establishment of twisting units (480 spindles).
8. Interest subsidy on working capital loan sanctioned by banks to reeling units.
9. Incentive for production of Bivoltine silk.

B. Vanya

10. Support for *Vanya* reeling and spinning
 - a) Reeling-cum-twisting machines.
 - b) Wet reeling machines (2 basins of 6 ends each).
 - c) Two- in- one reeling-cum-twisting machines.
 - d) Tasar cocoon sorting machines.
 - e) Motorized / pedal operated spinning machines.
 - f) Solar operated spinning machines.

C. General (Mulberry and Vanya)

11. Providing services of master reelers and technicians.

II. Post-yarn (Mulberry and Vanya)

Silk weaving is conducted on both hand looms and power looms in India. About 70% of raw silk is consumed by hand looms, while power looms consume the remaining 30% of raw silk produced in India. Indian silk fabrics are predominantly used for exquisite and rich in design saris. Weaving activities are mainly concentrated in the major weaving clusters of the country *viz.*, Kancheepuram, Kumbakonam and Arni in Tamil Nadu; Mysore, Bangalore, Guledagudda and Molkalamura in Karnataka; Dharmavaram, Hindupur, Pochampalli and Proddatur in Andhra Pradesh; Champa and Raigarh in Chhattisgarh; Varanasi and Mubarakpur in Uttar Pradesh; Chowk Islampur (Murshidabad), Shantipur (Nadia) and Gaganpur (Birbhum) in West Bengal; Nuapatna and Sonapur in Orissa; Chanderi and Maheshwari in Madhya Pradesh, Patan in Gujarat; Yeola and Paithan in Maharashtra and Sualkuchi in Assam.

Each of these clusters/regions is engaged in weaving distinct designs and textures of infinite variety but with small fabric lengths. The handlooms used in the silk industry are region specific in terms of technology and gadgets. The technology used for designing involves manual labour for design creation, card punching and card lacing. The power looms are usually plain looms with drop-box mechanism. A small portion of silk fabrics is being woven on shuttle-less looms, mainly for the export market. As of now, the strength of Indian silk weaving sector appears to lie in its decentralized nature and its ability to produce limitless varieties of fabrics, particularly saris, in small quantities with rich designs. This strength has helped to expand silk consumption amongst varied income groups in the country.

Processing activities of silk like degumming, bleaching and dyeing of yarns and fabric, printing and finishing of fabric, by and large are carried out adopting traditional technology. In contrast to most silk producing countries, nearly 75% of the silk fabrics produced in India are of yarn-dyed variety and only 25% are piece dyed. The operations are mostly manual and adoption of the technological developments is poor. The use of hard water, poor quality dye stuff and chemicals and incorrect work practices are prevalent in many places resulting in poor colour fastness properties. The effluents are discharged without any treatment. In order to address these problems, support was provided under the X and XI Plan CDP, which has brought visible changes in the sector.

For better returns with increased value addition at the weaving/ processing units, it is proposed to continue the support to the sector through the following components:

12. Support for handloom sector
 - a) Loom upgradation through jacquards and other equipment developed by CSTRI.
 - b) Pneumatic lifting mechanism for handlooms developed by CSTRI.
13. Support for setting up of CFC for yarn dyeing and fabric processing (special technology package developed by CSTRI)
14. Providing services of master weavers, designers, dyers and technicians.

III. Market support

There is no organized market system in most of the non-traditional states. The farmers in these states are often exploited by middlemen and are deprived of getting remunerative prices for their produce. Even in the traditional states, where cocoon markets/ silk exchanges are available, quality linked pricing system is not in operation. Such system is essential to ensure the remunerative prices to farmers and reelers for their produces. Marketing of *Vanya* silks in domestic and overseas markets also needs streamlining. It is, therefore, proposed to support the development of marketing sector through the components detailed below :

15. Support to states for creating / upgrading marketing infrastructure for cocoons and raw silk.
16. Support for setting up of hot air driers.
17. *Vanya* Silk Marketing Promotion (VSMP).

While the brief description of the above components is given below, the details of equipments / package of equipments, unit cost, technical norms etc, are given in the "Unit Cost Booklet". The general implementation / operational modalities for the components of reeling and spinning and post-yarn sectors are indicated under a separate heading "Operational Modalities", whereas the component specific implementation modalities are mentioned under the respective components.

Brief description of the components

1. Support for construction of reeling sheds

The reeling units are usually situated in a building, sometimes a part of the dwelling houses. This is not advisable from the working environment point of view. With a view to support establishment of reeling units in a separate building in an identified reeling park/industrial area to be created by the state government or as a unit separate from dwelling house, it is proposed to extend subsidy for construction of reeling sheds for establishment of cottage basin and multi-end reeling units. The reeling park/complex shall have all the common facilities like power, water, and common effluent treatment.

Support shall not be provided, if the reeling shed is constructed as an attachment to the dwelling unit. It is proposed to provide subsidy for construction of reeling sheds based on the standard area required for each unit, specifications and rate for construction of industrial sheds. Support for construction of reeling sheds in respect of *Vanya* reeling can also be considered, if the reeling units are set up as separate units from dwelling houses. The support shall be calculated on the basis of standard area required and construction cost of the reeling sheds under mulberry sector.

The sharing pattern, unit cost, physical targets and financial projections are given below :

| Sharing Pattern | State Category | CSB | State | Beneficiary |
|-----------------|------------------|-----|-------|-------------|
| | General Category | 25% | 25% | 50% |
| | Special Category | 80% | 10% | 10% |

| Unit Description | Unit Cost (Rs. in lakh) | Physical Target (No.) | Financial Projections (Rs. in crore) | | | |
|------------------------------------|-------------------------|-----------------------|--------------------------------------|-------------|-------------|--------------|
| | | | CSB | State | Beneficiary | Total |
| Improved Cottage Basin Unit | | | | | | |
| 36 ends | 5.40 | 35 | 0.92 | 0.35 | 0.62 | 1.89 |
| 48 ends | 5.40 | 15 | 0.29 | 0.18 | 0.34 | 0.81 |
| Multi-end Reeling Unit | | | | | | |
| 6 basins | 5.40 | 25 | 0.46 | 0.31 | 0.58 | 1.35 |
| 10 basins | 7.20 | 200 | 4.67 | 3.31 | 6.42 | 14.40 |
| Total | - | - | 6.34 | 4.15 | 7.96 | 18.45 |

Note: Unit cost is common for all the zones

2. Support for establishment of motorized charkhas to dissuade child labour

Charka reeling device is a crude contrivance for producing silk with minimum mechanization and practically there is no gadget for quality control. Generally in charkha, inferior cocoons are used to produce bulky silk yarn for a specific end use, mainly as weft in sarees. In these units, child labour is engaged for rotating charkha. In order to discourage employment of child labour and improve the working conditions of charkha units, this component which envisages support for establishment of motor driven twin charkha units with required driving arrangements, is proposed. Productivity in charkha is 1.00 kg per shift of 8 hours. To assist motorization of charkhas in the field, the component was implemented during XI Plan and is proposed to continue during the XII Plan also.

The sharing pattern, unit cost, physical targets and financial projections are given below :

| Sharing Pattern | State Category | CSB | State | Beneficiary |
|-----------------|------------------|-----|-------|-------------|
| | General Category | 50% | 25% | 25% |
| | Special Category | 80% | 10% | 10% |

| Zone | Unit Cost (Rs. in lakh) | | Physical Target (No.) | Financial Projections (Rs. in crore) | | | |
|---------------------|-------------------------|--------------|-----------------------|--------------------------------------|-------|-------------|-------|
| | Single Unit | Twin Charkha | | CSB | State | Beneficiary | Total |
| Southern | 0.13 | 0.26 | 1000 (single units) | 0.73 | 0.29 | 0.29 | 1.31 |
| Central and western | 0.13 | 0.26 | | | | | |
| North-western | 0.13 | 0.26 | | | | | |
| Eastern | 0.13 | 0.26 | | | | | |
| North-eastern | 0.14 | 0.27 | | | | | |

The subsidy shall be provided for twin charkha unit with common shaft run by a single 0.5 HP electric motor (single phase) as per unit cost mentioned above.

3. Support for establishment of improved cottage basin reeling units

Of the total raw silk produced in the country, a significant quantity of raw silk is produced on cottage basin reeling units spread across the country. The cottage basin system of reeling is an improved technology over charkha and provides better quality silk. But due to non-availability of required machineries, equipments and gadgets in the existing reeling units,

production of quality raw silk is not possible. CSB has developed cottage basin reeling technology package for achieving better quality silk and for improving the working conditions and extended support for setting up of this new cottage basin package in the field under X and XI Plans. Based on the feedback, it is proposed to continue the component during XII Plan also. The component envisages support for setting up of improved cottage basin reeling units in non-traditional states besides the non-traditional areas of traditional states. The component envisages support for setting up of 36 end (6 basins of 6 ends each) and 48 end units (6 basins of 8 ends each). The productivity of 36 end and 48 end units is about 4.8 kg and 9 kg per shift of 8 hours, respectively.

The sharing pattern, unit cost, physical targets and financial projections are given below :

| Sharing Pattern | State Category | CSB | State | Beneficiary |
|-----------------|------------------|-----|-------|-------------|
| | General Category | 50% | 25% | 25% |
| | Special Category | 80% | 10% | 10% |

| Unit Description / zone | Unit Cost (Rs. in lakh) | Physical Target (No.) | Financial Projections (Rs. in crore) | | | |
|-------------------------|-------------------------|-----------------------|--------------------------------------|-------------|-------------|-------------|
| | | | CSB | State | Beneficiary | Total |
| 36-end unit | | | | | | |
| Southern | 3.54 | 35 | 0.79 | 0.23 | 0.23 | 1.25 |
| Central and western | 3.57 | | | | | |
| North-western | 3.61 | | | | | |
| Eastern | 3.64 | | | | | |
| North-eastern | 3.68 | | | | | |
| 48-end unit | | | | | | |
| Southern | 3.93 | 15 | 0.34 | 0.13 | 0.13 | 0.60 |
| Central and western | 3.96 | | | | | |
| North-western | 4.00 | | | | | |
| Eastern | 4.04 | | | | | |
| North-eastern | 4.08 | | | | | |
| Total | | 50 | 1.13 | 0.36 | 0.36 | 1.85 |

4. Support for establishment of multi-end reeling units

CSB has developed a multi-end reeling machinery package for production of international grade raw silk using quality Multi-bi and Bivoltine cocoons available in the country. A component to assist the existing reelers and also new entrepreneurs to set up the multi-end reeling machinery package was implemented during the IX, X and XI Plans, with a view to encourage production of gradable raw silk. Based on the good response received during the previous Plan periods and in view of the thrust for Bivoltine cocoon production in the country, it is proposed to continue the component with modifications.

The component envisages support for setting up of 6 basin and 10 basin units. The units can be established by individual entrepreneurs or by a group in SPV mode. The productivity per basin is 1 kg per shift of 8 hours. The proposal for the establishment of multi-end reeling units shall be sent by the respective state sericulture department through the state level PMC. The proposal received from the state shall be placed before the AMC. The central share of subsidy is released to the state or CSTRl only after approval of AMC. A committee with representatives from state and CSTRl identifies and selects the beneficiaries. On selection, an agreement is executed in connection with establishment of the unit. The subsidy is released after the successful commissioning of the unit.

Wherever the existing beneficiaries of multi-end reeling units are going for creating additional capacity, the beneficiaries may be allowed to choose only those equipments of the package required for creating additional capacity,

subject to the condition that the concerned sub-unit of CSTRI/ CSTRI justifies the same. In such cases, central subsidy shall be limited to only that equipment.

Some of the existing multi-end units supported earlier are running without the equipment like boiler and generator, as these equipment was optional under IX and X Plan CDP component. As there is a demand for such multi-end units now, it is proposed to support procurement of this equipment as per the individual equipment unit cost and sharing pattern. Further, in order to improve the condition of the existing units, it is also proposed to support for re-conditioning of equipment with a lump sum of Rs.1.00 lakh, provided such requests are recommended by a technical committee comprising officials from CSB and DOS.

The sharing pattern, unit cost, physical targets and financial projections are given below :

| Sharing Pattern | State Category | CSB | State | Beneficiary |
|-----------------|------------------|-----|-------|-------------|
| | General Category | 50% | 25% | 25% |
| | Special Category | 80% | 10% | 10% |

| Unit Description / Zone | Unit cost (Rs. in lakh) | Physical Target (No.) | Financial Projections (Rs. in crore) | | | |
|---|----------------------------|--------------------------|--------------------------------------|-------------|-------------|--------------|
| | | | CSB | State | Beneficiary | Total |
| 6 basin units | | | | | | |
| Southern | 11.05 | 25 | 1.52 | 0.63 | 0.63 | 2.78 |
| Central and western | 11.16 | | | | | |
| North-western | 11.27 | | | | | |
| Eastern | 11.38 | | | | | |
| North-eastern | 11.49 | | | | | |
| 10 basin units | | | | | | |
| Southern | 14.05 | 200 | 15.27 | 6.47 | 6.47 | 28.21 |
| Central and western | 14.19 | | | | | |
| North-western | 14.33 | | | | | |
| Eastern | 14.47 | | | | | |
| North-eastern | 14.61 | | | | | |
| Support for existing multi-end units for procurement of additional equipment and re-conditioning | | | | | | |
| Southern | 3.64 | 50 | 0.97 | 0.43 | 0.43 | 1.83 |
| Central and western | 3.66 | | | | | |
| North-western | 3.69 | | | | | |
| Eastern | 3.71 | | | | | |
| North-eastern | 3.74 | | | | | |
| Total | - | - | 17.76 | 7.53 | 7.53 | 32.82 |

5. Support for establishment of automatic reeling units

With a view to produce international quality raw silk from Bivoltine cocoons produced in the country, support for establishment of automatic reeling units was introduced during the X and XI Plans. The component envisages establishment of 400 end capacity automatic reeling unit with latest technology for cocoon drying, cooking etc, with a capacity to produce around 34 MT of raw silk per annum. The units established have started commercial production and are consistently

producing raw silk of 2A grade and above. In view of the thrust for Bivoltine cocoon production in the country and due to the demand for gradable raw silk yarn in the domestic as well as overseas markets, it is proposed to continue the component during XII Plan also. As the investment for 400 end automatic reeling units is quite high, it is also proposed to support establishment of 200 end automatic reeling units also, in order to meet the demand of small and marginal reelers. 200 end automatic reeling unit shall have an option of procuring 2 units of 100 kg capacity drier. The units can be established by individual entrepreneurs or by a group in Special Purpose Vehicle (SPV) mode. The ARM units are working on an average two shifts per day to make them economically viable. The productivity of 200 end and 400 end automatic reeling unit is 56 kg and 112 kg per day of two shifts, respectively.

The sharing pattern, unit cost, physical targets and financial projections are given below :

| Sharing Pattern | State Category | CSB | State | Beneficiary |
|-----------------|------------------|-----|-------|-------------|
| | General Category | 50% | 25% | 25% |
| | Special Category | 80% | 10% | 10% |

| Unit Description | Unit Cost (Rs. in lakh) | Physical Target (No.) | Financial Projections (Rs. in crore) | | | |
|------------------|-------------------------|-----------------------|--------------------------------------|-------------|-------------|--------------|
| | | | CSB | State | Beneficiary | Total |
| 200 ends unit | 72.97 | 5 | 2.26 | 0.69 | 0.70 | 3.65 |
| 400 ends unit | 135.00 | 15 | 10.13 | 5.06 | 5.06 | 20.25 |
| Total | - | 20 | 12.39 | 5.75 | 5.76 | 23.90 |

Note: Unit cost is common for all the zones

Component specific implementation guidelines:

As the subsidy support provided towards establishment of automatic reeling unit is quite high, implementation guidelines need to be specific for this component. The individual entrepreneur/SPV shall have the technical and financial capability to establish and run the automatic reeling unit and the SPV shall preferably have sericulture farmers as members. The beneficiary shall have a clear tie-up with sericulture farmer group for supply of cocoons to the unit based on a quality linked pricing formula. In case of SPV, each member shall not have more than 10% of the equity. Interested individuals/SPVs shall apply for establishment of automatic reeling unit to the respective DOS, which in turn forwards the proposal to CSB with their comments. A committee constituted by CSB selects the beneficiary for establishment of automatic reeling unit by following the scoring criteria giving due weightage to reeling experience, financial capability, availability of land, building and other infrastructure, tie-up arrangement for cocoon supply etc. On selection by the committee, a detailed proposal shall be placed before AMC. Based on the approval of AMC, selection letter shall be issued to the selected beneficiary. On acceptance of the offer by the beneficiary, a tripartite agreement shall be executed among CSB, DOS and the beneficiary clearly defining the roles of parties concerned. The beneficiary shall be advised to open a Letter of Credit (LC) with a reliable machinery manufacturer for import of automatic reeling machinery. The central share of subsidy shall be routed through DOS or deposited directly with the bank as the case may be, and shall be utilized to meet the commitment of import LC. The beneficiary shall ensure commissioning of the unit within a reasonable time frame. The beneficiary shall purchase the cocoons from the identified farmer groups based on quality linked pricing formula. A technical committee shall assist the beneficiary in fixing the price of the cocoon supplied to the unit based on cocoon quality and prevailing market rate for raw silk. CSB and its units shall provide required technical support and closely monitor the whole process of establishment of these units.

6. Support for establishment of automatic dupion reeling units (142 ends)

The double cocoons and inferior quality cocoons are converted in to dupion silk yarn on a dupion reeling machine. The Indian dupion yarn, which is manufactured on charkha, is characterized by the presence of prominent slubs and is used for manufacturing of fabrics on handlooms for domestic and export markets. Good quality dupion yarn reeled on automatic dupion reeling machine is of great demand for export fabric production. With a view to provide better value addition to inferior quality cocoons, support was given for establishment of automatic dupion silk reeling units with imported machinery under

XI Plan and is proposed to continue the component during XII Plan also. The units can be established by individual entrepreneurs or by a group in SPV mode. The productivity of this unit is 190 kg per day working on two shift basis.

The sharing pattern, unit cost, physical targets and financial projections are given below :

| Sharing Pattern | State Category | CSB | State | Beneficiary |
|-----------------|------------------|-----|-------|-------------|
| | General Category | 50% | 25% | 25% |
| | Special Category | 80% | 10% | 10% |

| Unit Cost (Rs. In lakh) | Physical Target (No.) | Financial Projections (Rs. in crore) | | | |
|----------------------------|--------------------------|--------------------------------------|-------|-------------|-------|
| | | CSB | State | Beneficiary | Total |
| 85.00 | 3 | 1.28 | 0.64 | 0.63 | 2.55 |

Note: Unit cost is common for all the zones

Component specific implementation guidelines are same as mentioned in Scheme No.5.

7. Support for establishment of twisting units (480 spindles)

The reelers usually sell their produce *i.e.*, raw silk in the market. Subsequently, the raw silk gets twisted by the twister and then reaches the weaver. The objective of this component is to enhance profit margin of the multi-end reelers by adding a twisting unit so that the reeler 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. The productivity of such unit is 6.144 kg per shift of 8 hours. The component implemented during XI Plan was well received by a number of multi-end reeling units and quality twisted silk is being supplied to the weaving sector. Thus, it is proposed to continue the component during XII Plan also to support the existing and new multi-end reeling units. However, priority shall be given to those beneficiaries who have availed lesser support under CDP so far.

The sharing pattern, unit cost, physical targets and financial projections are given below :

| Sharing Pattern | State Category | CSB | State | Beneficiary |
|-----------------|------------------|-----|-------|-------------|
| | General Category | 75% | 0% | 25% |
| | Special Category | 80% | 10% | 10% |

| Zone | Unit Cost (Rs. in lakh) | Physical Target (No.) | Financial Projections (Rs. in crore) | | | |
|---------------------|----------------------------|--------------------------|--------------------------------------|-------|-------------|-------|
| | | | CSB | State | Beneficiary | Total |
| Southern | 7.86 | 125 | 7.45 | 0.09 | 2.33 | 9.87 |
| Central and western | 7.94 | | | | | |
| North-western | 8.02 | | | | | |
| Eastern | 8.10 | | | | | |
| North-eastern | 8.17 | | | | | |

8. Interest subsidy on working capital loan sanctioned by banks to reeling units

Reeling is the weakest link in the entire production process of silk finished goods. The cost of the raw material *i.e.*, cocoons constitutes around 80-90% of reeled silk making the working capital requirement, the most critical aspect in reeling activity. Added to this, there is relatively a poor credit flow from banks or financial institutions to the silk reeling sector. In order to meet the working capital requirement of the reelers and encourage credit flow to the reeling sector, it is proposed to provide a maximum of 5% interest subsidy on the working capital loan sanctioned to reeling units by the scheduled commercial banks. The interest subsidy shall be shared between centre and state. The balance interest shall be borne by the reelers. The reeling units proposed for support, their working capital requirement, working capital ceiling and eligible interest subvention are indicated below :

(Rs. in lakh)

| Unit Description | | Working Capital Requirement | Working Capital Ceiling for Interest Subsidy | Interest Subsidy @ 5% per annum |
|--|-----------|-----------------------------|--|---------------------------------|
| Multi-cropping states (All states except J&K, Uttarakhand and Himachal Pradesh) | | | | |
| Cottage basin units | 36 ends | 3.35 | 3.00 | 0.150 |
| | 48 ends | 4.23 | 4.00 | 0.200 |
| Multi-end reeling units | 6 basins | 4.96 | 4.50 | 0.225 |
| | 10 basins | 8.18 | 7.50 | 0.375 |
| | 20 basins | 16.36 | 15.00 | 0.750 |
| Automatic reeling units | 200 ends | 44.63 | 25.00 | 1.250 |
| | 400 ends | 89.27 | 50.00 | 2.500 |
| Automatic dupion reeling units | 92.60 | 50.00 | 2.500 | |
| Spun silk mills | | 9.66 | 7.50 | 0.375 |
| Bi-annual cropping (J&K, Uttarakhand and HP) / Vanya silk producing states | | | | |
| Cottage basin units | 36 ends | 14.04 | 10.00 | 0.500 |
| | 48 ends | 17.73 | 15.00 | 0.750 |
| Multi-end reeling units | 6 basins | 21.46 | 18.00 | 0.900 |
| | 10 basins | 35.33 | 25.00 | 1.250 |
| | 20 basins | 70.67 | 50.00 | 2.500 |
| Automatic reeling units - 200 ends | | 70.67 | 50.00 | 2.500 |
| Wet reeling units | | 3.56 | 3.00 | 0.150 |
| Two-in-one reeling-cum-twisting units | | 1.85 | 1.50 | 0.075 |

The quantum of interest subvention indicated above against each unit is common for all the sericulture zones.

The interest subvention shall be limited to the amount indicated above against each type/ capacity of reeling unit (interest on working capital ceiling at 5% per annum) or the interest amount actually paid on the working capital loan availed, whichever is lower.

The sharing pattern of interest subsidy, unit cost, physical targets and financial projections are given below :

| Sharing Pattern | State Category | CSB | State | Beneficiary |
|-----------------|------------------|-----|-------|-------------|
| | General Category | 50% | 50% | - |
| | Special Category | 90% | 10% | - |

| Reeling Units | Unit Cost for 2 years (Rs.in lakh) | Physical Target (No.) | Financial Projections (Rs.in crore) | | | |
|--------------------|------------------------------------|-----------------------|-------------------------------------|-------|-------------|-------|
| | | | CSB | State | Beneficiary | Total |
| As indicated above | 0.30 to 5.00 | 295 | 1.84 | 1.01 | - | 2.85 |

Note: Unit cost is common for all the zones

Component specific implementation guidelines:

1. Existing and new reeling units of following description are eligible for interest subsidy.
 - a) Improved cottage basins of 36 end and 48 end units and multi-end units of 6 basin, 10 basin and 20 basins.

- b) Automatic reeling, dupion reeling units and spun silk mills.
 - c) *Vanya* sector: Wet reeling machines and two-in-one reeling-cum-twisting machines.
2. Reeling units shall avail working capital loan from the scheduled commercial banks and state financial corporations.
 3. Reeling units functioning with the working capital support from the banks shall be eligible for interest subsidy.
 4. Reeling units which availed working capital loan from the banks/ financial Institutions prior to April 1, 2012 are also eligible for interest subvention. However, interest subvention shall be provided only for the interest payable by the reeling units of the above description from the financial year 2012-13.
 5. Reeling units shall claim interest subvention on yearly basis in a prescribed application format through DOS. On receipt of such claims from DOSs, the central share of interest subsidy shall be released to DOSs to facilitate them for releasing of interest subsidy along with their matching share to the respective banks with a request to credit the same to the working capital loan account of the reeler. Alternately, on receipt of the claims, DOS shall also release the eligible interest subsidy amount to the beneficiaries and seek reimbursement of central share later.
 6. CSB/DOS shall not be responsible for recovery of working capital loan sanctioned by the bank and loan recovery shall be the responsibility of the bank.

9. Incentive for production of Bivoltine silk

The component on incentive for production of Bivoltine silk was implemented during X Plan In order to provide a thrust to Bivoltine sericulture through better value realization for Bivoltine cocoons and encourage the farmers to produce quality Bivoltine cocoons. With the establishment of automatic reeling units there is an increasing demand for quality Bivoltine cocoons in the country. Thus, the component was continued during XI Plan and is proposed to continue during XII Plan also. The quality parameters of Bivoltine silk eligible for incentive and quantum of incentive proposed under the component are indicated below :

| Reeling unit | Basins | Quality of silk eligible for incentive | Quantity of Bivoltine silk restricted for incentive (kg/day) | Incentive per kg (Rs.) |
|-------------------------|-----------|--|--|------------------------|
| Multi-end reeling units | 6 basins | Gradable Bivoltine raw silk | 9 | 100.00 |
| | 10 basins | | 15 | |
| | 20 basins | | 30 | |
| Automatic reeling units | 200 ends | 2A grade and above Bivoltine raw silk | 56 | 150.00 |
| | 400 ends | | 112 | |

Automatic reeling units can produce quality Bivoltine raw silk of 2A grade and above. Therefore, incentive of Rs.150 per kg is proposed for 2A grade and above. In case, they produce below 2A grade, only A grade silk produced on these units shall be eligible for incentive of Rs.100 per kg and below A grade is not eligible for any incentive.

Quality of raw silk greatly depends on the quality of cocoons and ideally the Bivoltine incentive paid to the reelers is passed on to the farmers through better price for quality cocoons produced by them. This flow of benefit to the farmers shall encourage farmers to take up Bivoltine sericulture and motivate them to produce quality cocoons.

The sharing pattern, unit cost, physical targets and financial projections are given below :

| Sharing Pattern | State Category | CSB | State | Beneficiary |
|-----------------|------------------|-----|-------|-------------|
| | General Category | 50% | 50 % | - |
| | Special Category | 90% | 10% | - |

| Description | Incentive Amount (Rs. In lakh / MT) | Physical Target (MT) | Financial Projections (Rs. in crore) | | | |
|-------------------------|--|----------------------------|--------------------------------------|--------------|-------------|--------------|
| | | | CSB | State | Beneficiary | Total |
| Multi-end reeling units | 1.00 | 1,000 | 5.58 | 4.42 | - | 10.00 |
| Automatic reeling units | 1.50 | 1,000 | 7.80 | 7.20 | - | 15.00 |
| Total | - | 2,000 | 13.38 | 11.62 | - | 25.00 |

Note: The incentive amount indicated above is common for all zones.

Component specific implementation guidelines:

The reeling units shall submit their claims to DOS on quarterly basis indicating date-wise quantity of Bivoltine cocoons purchased and quantity of Bivoltine silk reeled. The claims shall be supported with necessary documents like copies of invoices, bills, bidding slip etc, towards purchase of Bivoltine cocoons and selling of raw silk as a proof towards production of Bivoltine silk in his/her unit.

In general, the concerned DOS shall implement this component at its level and claim CSB share subsequently. In cases, where the DOSs are unable to implement the component due to budgetary problems or other reasons, the units of CSTRI in the area, can implement the component and submit claims for release of CSB share. In such cases, CSB share shall be released directly to CSTRI to implement the component.

DOS/CSTRI shall submit a proposal seeking release of CSB share on quarterly basis in the prescribed format. Similarly, on receipt of claims from DOS/CSTRI, CSB share shall be released to DOS/CSTRI as the case may be. After disbursement of the eligible incentive to the reeling units, DOS/CSTRI shall furnish utilization certificate to the effect, as per GFR Format.

10. Support for Vanya reeling / spinning sector

(A) Reeling-cum-twisting machine

CSB has designed and developed a reeling-cum-twisting machine 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 generating better quality twisted yarn. The productivity of this unit is 350 g per shift of 8 hours. The concept of using twisted yarn in Vanya sector is new and in this device, yarn is twisted during reeling process simultaneously. Use of twisted yarn not only ensures better preparatory and weaving performance, but also better fabric quality associated with visual, tactual 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. The support provided during the IX, X and XI Plans for promoting this technology have made a good impact in the field. Therefore, it is proposed to continue the component during XII Plan also. Apart from CSTRI model, machines developed by different agencies shall 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.

The sharing pattern, unit cost, physical targets and financial projections are given below :

| Sharing Pattern | State Category | CSB | State | Beneficiary |
|-----------------|------------------|-----|-------|-------------|
| | General Category | 50% | 25% | 25% |
| | Special Category | 80% | 10% | 10% |

| Zone | Unit cost (Rs. in lakh) | Physical Target (No.) | Financial Projections (Rs. in crore) | | | |
|---------------------|----------------------------|--------------------------|--------------------------------------|-------|-------------|-------|
| | | | CSB | State | Beneficiary | Total |
| Southern | 0.45 | 3,000 | 9.71 | 2.10 | 2.10 | 13.91 |
| Central and western | 0.45 | | | | | |
| North-western | 0.46 | | | | | |
| Eastern | 0.46 | | | | | |
| North-eastern | 0.47 | | | | | |

B) Wet reeling machines (2 basins of 6 ends each)

Tasar reeling is predominantly a dry reeling activity. CSB has developed a wet reeling machine and technology package for production of better quality tasar yarn. The productivity of this unit for 60 denier yarn is 600 g per basin per shift of 8 hours (1.2 kg per unit). Wet reeling aims at producing superior quality tasar raw silk from good quality cocoons. It is proposed to promote this tasar reeling package as a component under the XII Plan period. Apart from CSTRl model, machines developed by different agencies shall 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 CSTRl.

The sharing pattern, unit cost, physical targets and financial projections are given below :

| Sharing Pattern | State Category | CSB | State | Beneficiary |
|-----------------|------------------|-----|-------|-------------|
| | General Category | 50% | 25% | 25% |
| | Special Category | 80% | 10% | 10% |

| Zone | Unit cost (Rs. in lakh) | Physical Target (No.) | Financial Projections (Rs. in crore) | | | |
|---------------------|----------------------------|--------------------------|--------------------------------------|-------|-------------|-------|
| | | | CSB | State | Beneficiary | Total |
| Southern | 0.46 | 100 | 0.36 | 0.06 | 0.06 | 0.48 |
| Central and western | 0.46 | | | | | |
| North-western | 0.47 | | | | | |
| Eastern | 0.47 | | | | | |
| North-eastern | 0.48 | | | | | |

C) Two-in-one reeling-cum-twisting machine

This machine provides facilities for both wet reeling and twisting on a single machine as independent activities. The productivity of this unit is 600 g for reeling and 250 g for twisting per shift of 8 hours. This component is proposed to be implemented during the XII Plan period.

The sharing pattern, unit cost, physical targets and financial projections are given below.

| Sharing Pattern | State Category | CSB | State | Beneficiary |
|-----------------|------------------|-----|-------|-------------|
| | General Category | 50% | 25% | 25% |
| | Special Category | 80% | 10% | 10% |

| Zone | Unit Cost (Rs. in lakh) | Physical Target (No.) | Financial Projections (Rs. in crore) | | | |
|---------------------|----------------------------|--------------------------|--------------------------------------|-------|-------------|-------|
| | | | CSB | State | Beneficiary | Total |
| Southern | 0.64 | 100 | 0.50 | 0.08 | 0.08 | 0.66 |
| Central and western | 0.65 | | | | | |
| North-western | 0.65 | | | | | |
| Eastern | 0.66 | | | | | |
| North-eastern | 0.67 | | | | | |

D) Tasar cocoon sorting machine

The manual sorting of tasar cocoon, which is being practiced in the field since long, is a cumbersome process. To overcome this, CSTRI has developed a mechanical device to separate the tasar cocoons based on the size. Two persons per machine are required to operate this device. In the traditional process, a person can manually sort around 10,000 cocoons per day, whereas with CSTRI device two persons can sort around 3.3 to 3.5 lakh cocoons per day. As this device is cost effective, it is proposed to promote this device in tasar producing state on a pilot basis during the XII Plan.

The sharing pattern, unit cost, physical targets and financial projections are given below.

| Sharing Pattern | State Category | CSB | State | Beneficiary |
|-----------------|------------------|-----|-------|-------------|
| | General Category | 50% | 25% | 25% |
| | Special Category | 80% | 10% | 10% |

| Zone | Unit cost (Rs. in lakh) | Physical Target (No.) | Financial Projections (Rs. in crore) | | | |
|---------------------|----------------------------|--------------------------|--------------------------------------|-------|-------------|-------|
| | | | CSB | State | Beneficiary | Total |
| Southern | 0.51 | 10 | 0.03 | 0.01 | 0.01 | 0.05 |
| Central and western | 0.51 | | | | | |
| North-western | 0.52 | | | | | |
| Eastern | 0.52 | | | | | |
| North-eastern | 0.53 | | | | | |

E) Motorized-cum-pedal operated spinning machine

The response to the development of motorized spinning wheel designed for spinning yarn from eri cocoon and silk waste was overwhelming. The productivity of this device is 200 g per day. The traditional spinners of major eri, tasar and muga silk producing states of the country use mostly takli for spinning of hand spun silk yarn from cocoon shell and silk waste. The productivity of the takli spinning is hardly 40 g per day. To improve the productivity and quality of hand spun silk yarn, CSTRI has developed motorized-cum-pedal operated spinning machine to enhance the earnings of the spinning artisans. This component has made a considerable impact in the field under earlier Plan periods. It is proposed to continue the said component under XII Plan period also. Apart from CSTRI model, machines developed by different agencies shall also be promoted under this component based on the acceptance of the machine by the reelers in the field subject to the condition that the same is recommended by the CSTRI.

The sharing pattern, unit cost, physical targets and financial projections are given below:

| Sharing Pattern | State Category | CSB | State | Beneficiary |
|-----------------|------------------|-----|-------|-------------|
| | General Category | 50% | 25% | 25% |
| | Special Category | 80% | 10% | 10% |

| Unit cost (Rs. in lakh) | Physical Target (No.) | Financial Projections (Rs. in crore) | | | |
|----------------------------|--------------------------|--------------------------------------|-------|-------------|-------|
| | | CSB | State | Beneficiary | Total |
| 0.07 | 4,500 | 2.13 | 0.51 | 0.51 | 3.15 |

Note: Unit cost is common for all the zones

F) Solar operated spinning machines

CSTRI has developed a spinning machine, which is driven by the solar energy, to address the requirement of artisan of remote villages where availability of electricity is scarce. The productivity of this device is around 200 g per day. This component is proposed to be implemented during the XII Plan period. The sharing pattern, unit cost, physical Targets and financial Projections are given below.

| Sharing Pattern | State Category | CSB | State | Beneficiary |
|-----------------|-------------------|-----|-------|-------------|
| | General Category | 50% | 25% | 25% |
| | Special Category` | 80% | 10% | 10% |

| Unit cost (Rs. in lakh) | Physical Target (No.) | Financial Projections (Rs. in crore) | | | |
|----------------------------|--------------------------|--------------------------------------|-------|-------------|-------|
| | | CSB | State | Beneficiary | Total |
| 0.19 | 100 | 0.14 | 0.02 | 0.03 | 0.19 |

Note: Unit cost is common for all the zones

11. Providing services of master reelers and technicians

One of the major constraints for sustaining silk reeling industry in non-traditional states and non-traditional areas of traditional states is the absence of skilled reelers. To overcome this problem, under X and XI Plans, master reelers were deputed to existing silk reeling units identified by the CSTRI sub-units and DOSs to train the workers engaged in the units and to develop confidence among reelers to manage and run the units satisfactorily. Considering the good feed back, demand and request from DOSs, it is proposed to continue the component during XII Plan also with a modification to provide services of master technicians to attend the repair and other maintenance work of reeling units, with unit cost of Rs.1.44 lakh as indicated below.

| # | Wages / allowances | Per Month(Rs.) | Per Year(Rs.) |
|---|--|----------------|-----------------|
| 1 | Wages at Rs.250 per day | 7,500 | 90,000 |
| 2 | House rent allowance (lump sum) | 2,000 | 24,000 |
| 3 | Medical allowance (lump sum) | 500 | 6,000 |
| 4 | Lump sum after completion of the tenure at Rs. 2,000 per month | 2,000 | 24,000 |
| | Total | 12,000 | 1,44,000 |

While the entire unit cost of Rs.1.44 lakh shall be borne by CSB (100%), the other expenditure like transportation and premium for insurance coverage shall be met out of the annual budget of CSTRI, based on the actual expenditure.

The sharing pattern, unit cost, physical targets and financial projections are given below.

| Sharing Pattern | State Category | CSB | State | Beneficiary |
|-----------------|------------------|------|-------|-------------|
| | General Category | 100% | - | - |
| | Special Category | 100% | - | - |

| Description | Unit Cost (Rs. in lakh) | Physical Target (No.) | Financial projection (CSB share Rs. in crore) |
|--------------------|----------------------------|--------------------------|--|
| Master reelers | 1.44 | 50 | 0.72 |
| Master technicians | 1.44 | 10 | 0.14 |
| Total | - | - | 0.86 |

Note: Unit cost is common for all the zones

Component specific operational guidelines:

The concept is aimed at increasing the skill level of operatives at work place by engaging field experts for a specific period. The master reelers or technicians shall be empanelled by CSB based on their experience in the particular field at least for 5 years. Based on request received from DOSs, societies and individuals, CSB shall deploy master reelers to the needy reeling units for a period of one year. The master technicians shall be deployed to the units of CSTRI for a period of one year and these units shall send the master technicians to the reeling units to attend the repair and other related works as and when such requests are received from the reeling units. Whenever, master technicians are available at the sub-units where they are

deployed, their services shall be utilized for the official work of the units so as to keep them engaged. Apart from the above unit cost, each master reeler or technician is entitled for the following:

1. The actual expenditure (TA and DA) towards travel from the place of residence to the place of deployment (one-time to and fro), as applicable for Group D employees.
2. TA and DA to master technicians shall be as per the rates applicable for Group D employees, whenever they travel from the units of CSTRI (Headquarters) to reeling units.
3. Actual premium for insurance coverage for a period of one year for an assured sum of Rs.1.00 lakh.
4. One day leave for every month, which may be taken every month or accumulated and taken in split basis as per their requirement during the tenure, apart from weekly off.

As mentioned above, the actual expenditure towards TA and DA to master reelers/ technicians and premium for insurance coverage (Sl.No.1 to 3 above) shall be met out of the annual budget of the CSTRI or the nested units of CSTRI, Bangalore. Therefore, necessary budget provision shall be made under their annual plan for this purpose.

The master reelers/technicians shall have to work for at least six months regularly to become eligible for lump sum of Rs.24,000 proposed to be paid after their tenure. The lump sum shall be worked out on the basis of number of months of working and no lump sum advance shall be paid for those master reelers/technicians working less than six months. For calculating number of months beyond six months, working for a period of 15 days and above shall be considered as one month of work and less than 15 days shall be ignored.

12. Support for handloom sector

A) Loom upgradation through jacquards 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 operation. In this direction, support would be provided for upgrading existing pit or frame or improved handlooms working on silk through installation of attachments like additional jacquards, doobby and by the way of providing pirn winding machine, Asu machine, winding machine etc.

The sharing pattern, unit cost, physical targets and financial projections are given below :

| Sharing Pattern | State Category | CSB | State | Beneficiary | |
|-----------------|------------------|-----|-------|-------------|--|
| | General Category | 50% | 25% | 25% | |
| | Special Category | 80% | 10% | 10% | |

| Unit Cost (Rs. in lakh) | Physical Target (No.) | Financial Projections (Rs. in crore) | | | |
|----------------------------|--------------------------|--------------------------------------|-------|-------------|-------|
| | | CSB | State | Beneficiary | Total |
| 0.15 | 5,000 | 3.86 | 1.82 | 1.82 | 7.50 |

B) Pneumatic lifting mechanism

This mechanism has been developed by CSTRI for silk handloom clusters. The use of three to four jacquards for weaving intricate designs is a common practice on silk handlooms. The manual effort required to lift these jacquards puts lot of strain on the weaver and it takes a heavy toll with severe joint ailments leading to arthritis. This is probably one of the main reasons for the younger generation to move away from traditional handloom weaving. The use of pneumatic lifting mechanism on handloom is a forward step in the right direction to reduce the drudgery/strain on the weaver.

Support has been provided for attaching pneumatic lifting mechanism on silk handlooms during the XI Plan period and it is proposed to continue this component during the XII Plan keeping in view the benefits of the component to silk handloom weavers.

The sharing pattern, unit cost, physical targets and financial projections are given below.

| Sharing Pattern | State Category | CSB | State | Beneficiary |
|-----------------|------------------|-----|-------|-------------|
| | General Category | 50% | 25% | 25% |
| | Special Category | 80% | 10% | 10% |

| Unit Description | Unit cost (Rs. in lakh) | Physical Target (No.) | Financial Projections (Rs. in crore) | | | |
|------------------|----------------------------|--------------------------|--------------------------------------|-------------|-------------|-------------|
| | | | CSB | State | Beneficiary | Total |
| 2 loom unit | 0.33 | 1,000 | 1.80 | 0.75 | 0.75 | 3.30 |
| 4 loom unit | 0.50 | 1,000 | 2.73 | 1.14 | 1.13 | 5.00 |
| Total | - | - | 4.53 | 1.89 | 1.88 | 8.30 |

Note: Unit cost is common for all the zones

13. Support for setting up of common facility centre for yarn dyeing and processing

A) Computer Aided Textile Designing (CATD) units

The component on special technology package developed by CSTRI was implemented during the XI Plan period and the response was overwhelming from the traditional silk handloom clusters. Therefore, it is proposed to continue the support during XII Plan. Design forms an integral and crucial part of textiles and offers an edge to the product in the market. The aesthetic design starts with a creative idea which goes through a period of detailed development before it is put on to the textiles. Much of the effort involved in the process of design development can be minimized with the use of computers with software for textile designing. CATD provides freedom to the textile designer to get the best out of his artistic ingenuity and better flexibility for his creativity and also facilitates the artist with ease and quickness in operations besides making available innumerable options. It also equips the textile designer with a tool to react to the changes in the market trend in a faster way. The components like computerized card punching machine eliminates the requirement of manual labour to a large extent.

Under the component, the beneficiaries can go for individual sub-components like, hardware, textile design software, card punching, card lacing etc. The central share of subsidy shall be limited to only those sub-components.

The sharing pattern, unit cost, physical targets and financial projections are given below.

| Sharing Pattern | State Category | CSB | State | Beneficiary |
|-----------------|------------------|-----|-------|-------------|
| | General Category | 50% | 25% | 25% |
| | Special Category | 80% | 10% | 10% |

| Unit Cost (Rs. in lakh) | Physical Target (No.) | Financial Projections (Rs. in crore) | | | |
|----------------------------|--------------------------|--------------------------------------|-------|-------------|-------|
| | | CSB | State | Beneficiary | Total |
| 3.96 | 50 | 1.23 | 0.38 | 0.37 | 1.98 |

Note: Unit cost is common for all the zones

B) CFC for yarn dyeing

Though silk is produced only in few states, almost all the states have at least one silk weaving cluster. Mainly the small time traditional dyers meet the dyeing requirements of these clusters, by dyeing small quantities of silk, employing low level of technology and equipment. This results in poor quality dyeing especially, poor colour fastness etc. CSB has studied the requirements of these dyeing clusters across the country and came out with certain measures to address the problems. Based on these, silk yarn dyeing units of varying capacity were introduced during the X and XI Plans. The dyeing units established under the component have a better working environment and are able to supply quality dyed yarn to weavers. Based on the response from the weavers, it is proposed to continue the support for establishment of tub dyeing and arm dyeing units for silk yarn with certain modifications like incorporating Effluent Treatment Plant as part of the package.

Tub dyeing unit: It is an equipment package used for degumming and dyeing of silk yarn. In this process, the yarn to be dyed is worked manually in a tub containing the dye solution. It is proposed to support establishment of 25 kg and 50 kg capacity units.

Arm dyeing unit: It is also an equipment package used for processing of silk yarn (degumming and dyeing). In this process, the yarn shall be rotated on the perforated arms of the machine automatically and dye solution is sprayed through these perforations resulting in uniform dyeing. Considering the viability of the unit, it is proposed to support establishment of 50 kg capacity units.

C) CFC for fabric processing

As most of the silk fabrics produced on powerlooms like soft silk, chiffon, crepe and georgette are piece dyed, fabric processing and finishing facility is required. As these facilities are capital intensive, the fabric processing is carried out in vessels in primitive manner resulting in poor quality. The finishing work is generally outsourced. Hence, creation of such fabric processing and finishing facility shall certainly help the silk processors in places like Serampore, Varanasi and Bangalore. Hence, it is proposed to continue the programme with certain modifications like incorporating ETP and calendering units as part of the package.

D) Effluent Treatment Plant (ETP)

The silk yarn dyeing and silk fabric processing facilities created under CDP during earlier Plan periods were not with ETP. The Pollution Control Board in the recent past has issued guidelines, for strict compliance, for treatment of effluent before discharge. With a view to equip these yarn dyeing and fabric processing units with ETP and to keep the environment free from pollution, it is proposed to provide support for ETP to these existing units as well as new units to be established under XII Plan.

The sharing pattern, unit cost, physical targets and financial projections are given below.

| Sharing Pattern | State Category | CSB | State | Beneficiary |
|-----------------|------------------|-----|-------|-------------|
| | General Category | 75% | 0% | 25% |
| | Special Category | 80% | 10% | 10% |

| Unit Description | Unit Cost (Rs. in lakh) | Physical Target (No.) | Financial Projections (Rs. in crore) | | | |
|--|----------------------------|--------------------------|--------------------------------------|-------------|-------------|--------------|
| | | | CSB | State | Beneficiary | Total |
| Tub dyeing - 25 kg capacity unit | 3.92 | 10 | 0.30 | 0.02 | 0.07 | 0.39 |
| Tub dyeing - 50 kg capacity unit | 6.37 | 25 | 1.22 | 0.05 | 0.32 | 1.59 |
| Arm dyeing - 50 kg capacity units | 17.12 | 10 | 1.33 | 0.09 | 0.29 | 1.71 |
| Fabric processing - 250 kg capacity unit | 27.15 | 10 | 2.10 | 0.14 | 0.48 | 2.72 |
| Effluent treatment plant - Zero discharge type | 7.00 | 25 | 1.32 | 0.02 | 0.41 | 1.75 |
| Effluent treatment plant - Discharge to ground type | 4.00 | 50 | 1.52 | 0.04 | 0.44 | 2.00 |
| Total | | - | 7.79 | 0.36 | 2.01 | 10.16 |

Note: Unit cost is common for all the zones

14. Providing services of master weavers, designers, dyers and technicians

Each handloom cluster is known for its unique product and there is very little effort to incorporate design changes to suit the changing market demands. The main reason could be the non-availability of skilled manpower to handle this task. Similarly, silk yarn dyeing is an integral part of silk weaving cluster and standard dyeing practices are the need of the hour. In order to address these issues, under XI Plan, master weavers/dyers were deputed to silk weaving/ dyeing clusters identified by DOSs to train the workers engaged in the cluster on various aspects of weaving/dyeing and to develop confidence among weavers/dyers to manage and run the units satisfactorily. Considering the good feed back, demand and request from the states, it is proposed to continue the component during XII Plan with a modification to provide services of master technicians to weaving/dyeing to attend the services, repair and other related work of weaving/ dyeing units.

The sharing pattern, unit cost, physical targets and financial projections are given below.

| Sharing Pattern | State Category | CSB | State | Beneficiary |
|-----------------|------------------|-------|-------|-------------|
| | General Category | 100 % | - | - |
| | Special Category | 100 % | - | - |

| Description | Unit Cost (Rs. in lakh) | Physical Target (No.) | Financial projection (Rs. in crore) |
|---------------------------|----------------------------|--------------------------|--|
| Master weavers/ designers | 1.44 | 25 | 0.36 |
| Master dyers | 1.44 | 25 | 0.36 |
| Master technicians | 1.44 | 10 | 0.14 |
| Total | - | - | 0.86 |

Note: Unit cost is common for all the zones

The component specific operational guidelines are as mentioned above under the component Providing services of Master reelers and Technicians under reeling and spinning sector.

15. Support to states for creating/upgrading marketing infrastructure for cocoons and raw silk

In order to establish an organized marketing system and to facilitate the farmers/ reelers for transacting their produce on quality linked pricing system, a component viz., Quality Linked Price Support System for cocoon and raw silk was implemented during the X and XI Plan periods. The component also envisaged creation of non-erodable revolving fund facilitating DOSs to purchase cocoons/raw silk from farmers/reelers on quality basis by making spot payment to farmers/reelers. Based on the request from DOSs, it is proposed to continue the component with modification during XII Plan. The component envisages support to states with the lumpsum of Rs.150.00 lakh for each traditional states and Rs.70.00 lakh for each non-traditional states, for various purposes indicated below.

A) Establishment of new cocoon markets/silk exchanges

Support is provided for construction of building and procurement of market related equipment like cocoon bins/baskets, electronic balance, computers with printers, kiosk (information desk), public audio system, trolleys, generator, hot air dryers, cocoon/raw silk testing equipment, furniture and fixtures, etc. The DOSs shall send a complete proposal indicating the number of cocoon markets/silk exchanges to be established, location, land availability, approved building plan and estimate, list of equipment to be procured with item-wise cost details etc.

C) Upgradation of existing cocoon markets/silk exchanges

Support is provided for renovation/expansion of building and procurement of market related equipment [as mentioned above under (a)]. The interested states shall send a complete and clear proposal indicating the number of cocoon markets/silk exchanges proposed to be upgraded, details of upgradation/ renovation, locations, list of equipments proposed to be procured with item-wise cost details etc.

C) Establishment of cocoon banks/ware houses

Support is provided for construction of building and procurement of market related equipment [as mentioned above under (a)]. DOSs shall send a complete proposal indicating the number of cocoon banks/ware houses to be established, location, land availability, approved building plan and estimate, list of equipment to be procured with item-wise cost, detailed operation modalities etc.

D) Organization of *Vanya* (muga and eri) cocoon marketing outlets

There is no organized marketing system in *Vanya* sector in general and muga and eri in particular. Cocoon growers in these sectors are being exploited by the middlemen and are deprived of getting their due share of value addition in spite of the high cost of realization for muga yarn and finished products. In muga and eri sectors, farmers lack bargaining power due to absence of storage and stifling facilities besides holding capacity to pass through market glut immediately after crop harvest

In order to mitigate this, *Vanya* market outlets in the production clusters shall be organized with following objectives:

- Channalise and organize the marketing of eri and muga cocoons.
- Prevent middlemen exploiting trade practices in cocoon marketing.
- Ensure the availability of quality cocoons for reelers and spinners.

Market outlets shall be organized in the following manner:

- The market outlets shall have facility for storage, stifling, grading of cocoons and sufficient non-erodable revolving fund for purchase of cocoons.
- The outlets shall be directly organized by DOS or NGOs, CBOs, SHGs having sufficient experience in sericulture to ensure efficient procurement, handling and marketing of the stock.
- A consultative committee with representation from all the concerned besides representatives of cocoon producers, reelers, spinners and weavers shall be in place to oversee the functioning of the market outlets and the committee is empowered to take all the decisions related to the functioning of the market outlets.
- To encourage individual yarn converters, ceiling shall be fixed on the quantum of cocoons to be purchased per person per transaction, which shall vary with the demand for the cocoons at a given time.
- The floor price fixed by Local Authorization Committee (LAC) of Muga Raw Material Bank (MRMB) or a consultative committee shall be followed to enable the farmers to get a remunerative price for their produce.
- Since, one time grant is provided to meet expenses on hiring and maintenance, the market outlets shall operate in such a way that it can sustain on its own with minimum profit.

DOSs shall send a complete proposal indicating the number of market outlets to be organized, locations, project cost of each outlet, list of equipments to be procured with item-wise cost, details of non-erodable revolving fund to be created with a clear modus operandi etc.

E) Development of information technology solutions

Support shall be provided for development of information technology (IT) solutions in quality linked price support system and other marketing aspects. DOSs shall send detailed proposal.

DOSs can apportion the above unit cost of Rs.150.00 and .70.00 lakh fixed for traditional states and non-traditional states, respectively among the above sub-components (a) to (e) depending upon their requirement. Accordingly, DOSs shall send their proposal for establishment of any of the sub-components, indicating the present cocoon/raw silk production in their state, existing marketing system, justification to establish the proposed system etc.

The details of assistance availed under the component Quality linked price support system for cocoons and raw silk and establishment of cocoon banks/market support to *Vanya* sector of the XI Plan CDP (if any), progress made,

present status of non-erodable revolving fund (if any) etc. shall be indicated in the state proposal mandatorily for considering further support under this component. The central assistance to DOSs under the component during XII Plan period is limited to a maximum of 75% and 90% of the unit cost for general states and special status states, respectively.

The sharing pattern, unit cost, physical targets and financial projections are given below.

| Sharing Pattern | State Category | CSB | State | Beneficiary |
|-----------------|------------------|-----|-------|-------------|
| | General Category | 75% | 25% | - |
| | Special Category | 90% | 10% | - |

| Category | Unit Cost (Rs. in lakh) | No. of States/ Agencies | Financial Projections (Rs. in crore) | | | |
|------------------------|-------------------------|-------------------------|--------------------------------------|-------------|-------------|--------------|
| | | | CSB | State | Beneficiary | Total |
| Traditional states | 150.00 | 5 | 5.85 | 1.65 | - | 7.50 |
| Non-traditional states | 70.00 | 10 | 6.09 | 0.91 | - | 7.00 |
| Total | - | 15 | 11.94 | 2.56 | - | 14.50 |

16. Support for setting up of hot air driers

This is an ongoing programme, which shall be continued during the XII Plan. In northern and north-eastern states, sericulture is practiced as a seasonal activity. During the favorable seasons, cocoons are harvested and these harvested cocoons are to be dried and stored for long for its use over a period of six months. In most of the non-traditional states proper cocoon drying facility is not available and the farmer/reelers are practicing sun drying / steam stifling, which is not advisable as it deteriorates the quality of cocoons and the cocoons becomes vulnerable to fungus attack. To overcome these problems, use of hot air dryers was supported.

This component encourages state/farmer/reelers to establish electrical/multi-fuel hot air drying units of 50 kg and 100 kg capacity. The establishment of hot air driers helps the reelers to dry and store the cocoons for later use. When established at the farmer level, it helps the farmer to dry and store the cocoons enabling him to dispose the cocoons during favourable market conditions thus avoiding distress sale. It is also proposed to support setting up of conveyor type hot air dryer of 2 MT capacity as a common facility as there is a demand to this type of hot air dryers especially in the bi-annual cropping states like HP, Uttarakhand, J&K etc.

The sharing pattern, unit cost, physical targets and financial projections are given below.

| Sharing pattern | State Category | CSB | State | Beneficiary |
|-----------------|------------------|-----|-------|-------------|
| | General Category | 50% | 25% | 25% |
| | Special Category | 80% | 10% | 10% |

| Zone | Unit Cost (Rs. in lakh) | Physical Target (No.) | Financial Projections (Rs. in crore) | | | |
|--|-------------------------|-----------------------|--------------------------------------|-------|-------------|-------|
| | | | CSB | State | Beneficiary | Total |
| Electricity operated - 50 kg capacity units | | | | | | |
| Southern | 1.32 | 300 | 2.53 | 0.75 | 0.75 | 4.03 |
| Central and western | 1.33 | | | | | |
| North-western | 1.34 | | | | | |
| Eastern | 1.36 | | | | | |
| North-eastern | 1.37 | | | | | |

| Zone | Unit Cost (Rs. in lakh) | Physical Target | Financial Projections (Rs. in crore) | | | |
|---|----------------------------|--------------------|--------------------------------------|-------------|-------------|--------------|
| | | | CSB | State | Beneficiary | Total |
| Electricity operated - 100 kg capacity units | | | | | | |
| Southern | 1.82 | 200 | 2.42 | 0.65 | 0.65 | 3.72 |
| Central and western | 1.84 | | | | | |
| North-western | 1.86 | | | | | |
| Eastern | 1.88 | | | | | |
| North-eastern | 1.89 | | | | | |
| Multi-fuel: 50 kg capacity units | | | | | | |
| Southern | 0.61 | 300 | 1.18 | 0.34 | 0.34 | 1.86 |
| Central and western | 0.62 | | | | | |
| North-western | 0.62 | | | | | |
| Eastern | 0.63 | | | | | |
| North-eastern | 0.63 | | | | | |
| Multi-fuel: 100 kg capacity units | | | | | | |
| Southern | 0.81 | 200 | 1.08 | 0.29 | 0.29 | 1.66 |
| Central and western | 0.82 | | | | | |
| North-western | 0.83 | | | | | |
| Eastern | 0.84 | | | | | |
| North-eastern | 0.84 | | | | | |
| Conveyor hot air dryer - 2 MT capacity (Imported) | 22.88 | 3 | 0.55 | 0.07 | 0.07 | 0.69 |
| Total | | 1003 | 7.76 | 2.10 | 2.10 | 11.96 |

17. Vanya silk marketing promotion

a) Brief description of the component:

In recent years, the Vanya silks or natural silks other than mulberry silk have recorded dramatic improvements in quality and productivity levels. The new initiatives made by CSB like popularization of new machines for reeling, spinning etc, facilitated the emergence of wide range of marketable products in these sectors. A host of initiatives were taken by CSB to promote these silks and their exports as well as local consumption by creating awareness in the public by various sources. The component was initiated during the X Plan and had made remarkable impact in the Vanya silk market development. Hence, it is proposed to continue the said component during the XII Plan also with a few modifications.

During XII Plan, the generic, brand and market promotion is the main focus area. Vanya silk marketing promotion (VSMP) shall provide required input support to Vanya sector in the areas of market promotion in domestic/overseas markets. Vanya silk market development has faced huge challenges on designs. Therefore, VSMP shall continue development of marketable designs and product diversification through research and development and collaborative projects. VSMP shall also focus on evaluation of existing infrastructure in silk weaving clusters and need based upgradation of looms and training of weavers in advanced production techniques. The VSMP shall also be involved in organizing exhibitions in major metros and non-metro cities and sponsoring manufacturers to participate in domestic

and overseas marketing events and exhibitions. Besides, the *Vanya* silk producing states shall be provided financial assistance to undertake programs for product development in their state/region.

The following activities are proposed under the component for promotion of *Vanya* silk:

- DOSs shall gather information on *Vanya* silk producers - organizational details, production, production capacity, product range, raw material details, current marketing arrangements etc.
- CSB shall gather information on domestic and export markets for *Vanya* silk products; outside experts shall be engaged for this purpose, if necessary.
- Financial assistance shall be extended to the artisans through DOSs for preparation of swatches and brochures along with technical details to support them in marketing.
- DOSs shall identify societies/groups of artisans for product development in association with any designers or design institutes.
- To facilitate participation of producers in major marketing events like fairs, expos, exhibitions etc, in the country and abroad.
- DOSs shall engage designers, merchandisers and other specialists on contract for specific periods.
- Support shall be extended to *Vanya* producing states to establish *Vanya* silk shoppes in major market potential areas for promotion of *Vanya* products.
- DOSs shall also assist individual artisans/NGOs/societies for the development of equipment/machinery required as per the cluster needs in association with private/government institutions and entrepreneurs.
- Assistance shall be extended for participation in exhibitions organized in major cities for promotion and creating awareness about *Vanya* silk.
- DOSs shall collaborate with textile and fashion technology institutes in developing the marketable, high value addition designer products.

b) Implementation guidelines

The *Vanya* producing states may propose fund requirement for implementation of *Vanya* silk promotion programs as per the said activities based on the actual requirement. The details given above are not exhaustive and DOS may propose additional activities to support the *Vanya* product marketing within and outside the country.

c) The details of sharing pattern and financial projections:

| | State Category | CSB | State | Beneficiary |
|-----------------|------------------|------|-------|-------------|
| Sharing pattern | General Category | 100% | - | - |
| | Special Category | 100% | - | - |

A total provision of Rs.1.00 crore is proposed for implementation of the programme during XII Plan by all *Vanya* producing states. The provision can also be utilized by CSB for the activities which are not state specific. Even though there is no unit cost, state may propose fund requirements based on the activities listed above or for additional programs as per their need.

General operational modalities

The general implementation/operational modalities applicable for most of the components of reeling and spinning sector and post-yarn sector are indicated below.

1. The existing and new entrepreneurs/NGOs/societies/SHGs are eligible.
2. Prescribed application form shall be made available through DOSs/CSTRI (CSB) units. from the CSB's website www.csb.gov.in or www.cstri.res.in.
3. The interested entrepreneurs/ beneficiaries shall apply for availing the benefit of the component in the prescribed application form and submit the duly filled-in application to the concerned field functionaries of CSB/state.

4. Applications shall be scrutinized by a joint committee comprising members from CSB and DOSs for selecting suitable beneficiaries.
5. CSB/DOS shall issue selection letter to the selected beneficiaries with an advice to place the supply order with the machine suppliers.
6. A list of machinery/equipment approved under each component with specifications and identified manufacturers/suppliers shall also be made available DOS and CSTRI units and also in CSB's website. www.csb.gov.in or www.cstri.res.in facilitating the selected beneficiaries to choose the machinery suppliers of their choice.
7. On receipt of selection letter, the beneficiaries shall place supply order with the suppliers of their choice by paying their share under intimation to CSB/DOS. The beneficiary shall be advised to commission machinery within the stipulated time as a condition in the purchase order with a provision to levy penalty in the event on non-compliance.
8. In order to control the quality of machinery and standard specifications, machinery inspection shall be done by the designated scientists/technocrats of CSTRI/DOS preferably at two levels, once at the premises of the manufacturer before dispatch of machinery and secondly at the premises of beneficiaries after erection and commissioning of machinery.
9. After satisfactory erection and commissioning of machinery, a certificate shall be issued to the suppliers by the designated scientists/technocrats of CSTRI/DOS who inspect the machinery/unit to facilitate the suppliers to claim subsidy from CSB/DOS.
10. The suppliers shall claim subsidy from CSB/DOS, by producing the original certificate issued by the designated scientists/technocrats of CSTRI/DOS along with other relevant documents like invoice/cash bill etc. The invoice/bill shall contain the serial No. of machine supplied by the manufacturer to facilitate verification by designated team and to avoid duplication.
11. In cases, where GOI share is more than Rs 10.00 lakh, it is desirable that the machinery procurement is done through banks preferably by opening LC. In these cases, subsidy shall be released before erection and commissioning as per terms of LC. In such cases, as a safeguard measure, the machinery manufacturer/supplier shall be asked to furnish a bank guarantee for an amount equivalent to 20% of machinery cost.
12. In case the beneficiaries intend to avail credit for taking up any activity/component from banks/financial institutions, DOSs/CSB shall extend necessary assistance to such beneficiaries for availing credit. In such cases, the subsidy (both DOS and CSB) along with beneficiary share shall be deposited with the financial institutions / banks which financed the project, after approval of the project and sanction of loan. The financial institutions/banks shall be advised to release the total amount payable to the suppliers on submission of relevant documents.
13. Wherever the subsidy is more than Rs 1.00 lakh, the selected beneficiary shall give an undertaking or enter in to an agreement with CSB/DOS in connection with putting in to use the infrastructure created with subsidy support for a period of five years from the date of commissioning for the purpose for which it is created. During this period, CSB/DOS shall have the right to inspect the infrastructure created at the beneficiary premises. In respect of components where the unit cost is more than Rs.10.00 lakh, it is desirable that the beneficiary takes the insurance cover for the machinery/equipment.
14. In case DOSs intend to establish reeling/spinning/drying chambers/weaving/wet processing units for commercial or training/demonstration purpose, DOSs shall send detailed proposals to CSB. In such cases, financial support shall be provided only for procuring machinery and such support shall be as per the approved unit cost of the respective components. For such components to be availed by DOSs, GOI share shall be the same as per the sharing pattern of the component and DOS shall have to bear the beneficiary share also, in addition to its share. The land, building and other required infrastructure shall have to be provided by the DOSs. The DOSs shall follow GFR procedure while procuring machinery/equipment.

15. All the unit costs mentioned are basically indicative. The beneficiary has a right to negotiate the price. In case the negotiated price is less than the indicative price, the subsidy component (both CSB and state share) shall be proportionately reduced. In other cases, the extent of GOI subsidy shall be limited to an amount calculated based on the indicative unit cost and sharing pattern.
16. Depending on the demand at field/cluster level, decision to re-appropriate allocation in respect of one component to another component can be taken at AMC level without exceeding the overall allocation made for the post-cocoon sector under the Plan and without changing the approved unit cost and sharing pattern.
17. The projects under CDP can be dovetailed as far as possible with other schemes like SGSY, RKVY, MGNREGS, BRSF etc, by the state governments, wherever such programs are being implemented/ proposed to be implemented.
18. The participating states shall have to make necessary provision in their annual budget for smooth and successful implementation of the components, which involve state subsidy.
19. Post-cocoon sector components where there is no state share shall be implemented by CSB/CSTRI sub-units. Other components can be implemented either by the DOS directly or by the sub-units of CSTRI. Accordingly, the GOI share shall be released to DOSs/CSTRI and the utilization certificates shall be furnished along with a list of beneficiaries indicating name and address, Category (General/SCSP/TSP) etc.
20. In cases where the beneficiaries do not comply with terms and conditions and/or not in a position to run the unit successfully, the assets shall be taken over by government of India and shall be handed over to some other beneficiary as a recourse action.
21. With regard to implementation of components under post-yarn sector, the following procedure shall be followed:
 - a) The components like handloom upgradation, pneumatic lifting mechanism, CATD etc, shall be given to beneficiaries who operate in traditional silk handloom clusters.
 - b) The common facility centres like dyeing and fabric processing shall be given to the beneficiaries who operate in traditional silk weaving/processing clusters.
 - c) An undertaking shall be taken from the post-yarn sector beneficiaries that they shall use the infrastructure only for silk for a minimum period of five years from the date of commissioning.
 - d) Periodical reporting on the performance of the unit shall be done by DOS/CSTRI.

Financial projection for the package

The financial projections for mulberry and *Vanya* sectors under this package are detailed below:

Sector-wise sharing

(Rs. in crore)

| Components and Sectors | | Financial Projections | | | |
|-------------------------------------|---------------------------|-----------------------|--------------|--------------|---------------|
| | | CSB | State | Beneficiary | Total |
| Reeling and spinning | Mulberry | 62.90 | 31.44 | 24.86 | 119.20 |
| | Vanya | 13.13 | 2.78 | 2.79 | 18.70 |
| | Mulberry and Vanya | 76.03 | 34.22 | 27.65 | 137.90 |
| Post-yarn | Mulberry | 12.79 | 3.12 | 4.26 | 20.17 |
| | Vanya | 5.48 | 1.33 | 1.82 | 8.63 |
| | Mulberry and Vanya | 18.27 | 4.45 | 6.08 | 28.80 |
| Marketing support | Mulberry | 13.79 | 3.26 | 1.47 | 18.52 |
| | Vanya | 6.91 | 1.40 | 0.63 | 8.94 |
| | Mulberry and Vanya | 20.70 | 4.66 | 2.10 | 27.46 |
| Total for post-cocoon Sector | Mulberry | 89.48 | 37.82 | 30.59 | 157.89 |
| | Vanya | 25.52 | 5.51 | 5.24 | 36.27 |
| | Mulberry and Vanya | 115.00 | 43.33 | 35.83 | 194.16 |

Head-wise sharing

(Rs.in crore)

| Objective head | CSB | State | Beneficiary | Total |
|--------------------------|--------|-------|-------------|--------|
| Revenue head (31) | 17.94 | 12.63 | - | 30.57 |
| Capital head (35) | 97.06 | 30.70 | 35.83 | 163.59 |
| Revenue and capital head | 115.00 | 43.33 | 35.83 | 194.16 |

North-eastern states sharing

(Rs.in crore)

| Objective Head | CSB | State | Beneficiary | Total |
|--------------------------|-------|-------|-------------|-------|
| Revenue head (31) | 0.48 | 0.01 | - | 0.49 |
| Capital head (35) | 15.57 | 1.90 | 1.55 | 19.02 |
| Revenue and capital Head | 16.05 | 1.91 | 1.55 | 19.51 |

Note: Central share for North-eastern states works out to 13.96%.

Expected outcome of the package

Implementation of the package of components shall ensure quantitative and qualitative growth of the post-cocoon sector, as the package envisages support for adoption of improved technologies in reeling and spinning sector and also post-yarn sector.

- Quantitative:** The implementation of package of post-cocoon components shall create an additional infrastructure like reeling units of different technologies and capacities, twisting units, wet-processing units, weaving units etc. By creating additional infrastructure, the following are expected:
 - Production of around 3,180 MT of quality raw silk per year, of which 2,210 MT of mulberry raw silk and 970 MT of *Vanya* raw silk. Out of 2,210 MT of mulberry raw silk, 590 MT of international grade silk (2A and above).
 - Direct employment to around 24,500 persons in the areas of reeling, twisting, yarn/fabric processing and weaving and indirect employment to a large number of workers in the related areas like machinery manufacture and other auxiliary activities.
- Qualitative:**
 - Implementation of the package is likely to result in production of quality raw silk *i.e.*, high-grade warp quality in more hygienic environment. This would result in replacement of imported silk yarn to certain extent.
 - The package is expected to build world-class state-of-art reeling/spinning technology.
 - High quality silk fabrics and garments shall be produced to meet the domestic demand and international market demand.
 - An organised marketing system for both cocoon and raw silk is likely to be established and stabilize the market in all sericultural states. The quality linked pricing and spot payment system shall encourage the farmers/ reelers to produce quality cocoons/raw silk.
 - Institutional finance to the sector shall be encouraged and more credit flow to the sector is expected, since the subsidy envisaged under the components is proposed to be routed through the financial institutions/banks, wherever applicable.
 - The package shall provide necessary support to the traditional reelers/weavers/dyers of both traditional and non-traditional silk clusters to refine their skills, learn new techniques and become more efficient and effective, resulting in improving the socio-economic conditions of the stakeholders, since additional income is expected to be generated.

Monitoring and evaluation

Most of the components under the post-cocoon sector are machinery package/equipment related, beneficiary specific and concentrated in clusters. Although the components shall be implemented in association with the states, the active involvement of sub-units of CSTRI is crucial in the selection of the right beneficiaries. Apart from the selection of beneficiaries, pre-inspection of the infrastructure, monitoring, erection and commissioning of the unit, training and technical guidance etc, are involved in implementation of post-cocoon components. Therefore, the successful implementation of the post-cocoon components requires qualified textile technocrats who are working with the main institute of CSTRI and its sub-units.

The post-cocoon sector components can be implemented either by the states directly or by the sub-units of CSB/CSTRI.

The following components shall be implemented by the states directly:

1. Support for construction of reeling sheds.
2. Support for existing charkha reeling units to dissuade child labour.
3. Support for establishment of improved cottage basin reeling units.
4. Support for *Vanya* reeling / spinning sector.
5. Interest subsidy on working capital loan availed by reeling units.
6. Incentive for production of Bivoltine raw silk.
7. Support for setting up of hot air driers
8. Support to states for creating / upgrading marketing infrastructure for cocoons and raw silk.

For implementing these components, central share shall be released directly to the states. A Project Monitoring Committee (PMC) at the headquarters of each state sericulture department shall be constituted by the respective state sericulture department.

While the Commissioner/ Director of Sericulture of the states shall be the chairperson of this committee, Zonal in-charge (CSB), the representatives from the sub-units of CSTRI looking after post-cocoon activities in the states, in-charge of the concerned RO of CSB and a representative from the concerned state sericulture department looking after the Post-cocoon sector shall be the members. Nodal officer nominated by CSB to the state shall also be a member of PMC. A senior officer, who is dealing with the post-cocoon sector in the state sericulture departments, shall be the member-convener. The responsibilities of this committee are:

- Selection of beneficiaries
- Formulation and submission of action plans/proposals, implementation/monitoring
- Furnishing of utilization certificates wherever necessary and
- Furnishing of progress report on quarterly basis.

The following components shall be implemented either by the DOSs directly or by CSTRI:

1. Support for establishment of multi-end reeling units.
2. Support for establishment of automatic reeling units.
3. Support for establishment of automatic dupion reeling units.
4. Support for establishment of twisting units.
5. Support for handloom sector.
6. Support for setting up of common facility centres for post-yarn and processing.
7. Providing services of master reelers/weavers/designers/dyers/technicians.

For implementing these components, central share of subsidy shall be released to the State or to CSTRI as the case may be. Wherever the components are being implemented by CSTRI sub units, a Zonal Post-Cocoon Committee (ZPCC) for each zone shall be constituted by CSB. While a senior officer from CSTRI / in-charge officer of respective Sub-unit of CSTRI shall be the chairperson of these Committees, the representative from Sub-units of CSTRI looking after post-cocoon activities in the states and a representative from the concerned State Sericulture Department and Department of Handlooms and Textiles looking after the post-cocoon sector shall be the members. An officer from concerned sub-unit of CSTRI shall be the member convener. This committee shall function in association with the State PMC.

The responsibilities of this committee are

- Selection of beneficiaries
- Formulation and submission of action plan/ proposals
- Implementation/ monitoring
- Furnishing utilization certificate wherever necessary and furnishing progress report on quarterly basis to CSB.

The component master reeler/weaver/designer/technician and *Vanya* silk marketing promotion shall be implemented by CSTRI/CSB unit.

