

IV: POST COCOON SECTOR

1. Support for motorized charka to dissuade child labour



1	Name of the scheme	Support for motorized charka to dissuade child labour			
2	Brief description of the scheme	<ul style="list-style-type: none"> • CSB/CSTRI has developed a motorized charka to dissuade child labour in the country • The machine operates on power using 0.5 HP single phase electric motor • Two motorized charka are provided under the scheme for each beneficiary 			
3	Benefits of the Scheme	<ul style="list-style-type: none"> • Replaces crude reeling practices • Produces 1Kg raw silk per shift of 8 hours per charka • Improves the quality of raw silk • Reduces the drudgery involved in crude charka reeling 			
4	Process in brief	<ul style="list-style-type: none"> • The reeling process involves production of raw silk using inferior quality cocoons • Cooking and reeling are done in the same basin • Reeling is carried out at high temperature and high speed in big size reels • The reeled silk is laced and removed from the reels for packing and marketing 			
5	Machinery Developed / Promoted by	CSTRI, Central Silk Board, Bengaluru			
6	Implementing agency	CSTRI & its Sub units in association with DOS of respective states			
7	Unit Cost of Package (Rs.)	25,000/-			
8	Components under the package with cost (in Rs)	No.	Particulars	Quantity	COST in Rs.
		1	Twin charka with common shaft run by ½ HP electric motor (Single phase).	1 Unit	25000

9	Sharing Pattern: General State Special Status State	CSB : State : Beneficiary 50:25:25 (Others); 65:25:10 (SC/ST) 80:10:10 (Special Status States)
10	Target under the project period (No. of Units)	72 units
11	Target Group	Individual/Company/Society/SPV/NGOs. Entrepreneurs preferably engaged in Silk Sector. New entrepreneurs can also be considered on certain fixed criteria.
12	Technical & Training Support	Provided by CSTRI or its sub units / Concerned State Dept.
13	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> • The beneficiaries details should be furnished as per DBT norms. - -

2. Support for existing cottage basin / domestic basin units for up-gradation



1	Name of the scheme	Support for existing cottage basin / domestic basin units for up-gradation			
2	Brief description of the scheme	<ul style="list-style-type: none"> • The cottage and domestic basin reeling units are not having any gadgets / accessories for the production of quality raw silk • Envisages equipping the units with some of the important gadgets / accessories viz., boiler, cooking basins, generator etc., for improving the productivity / quality of raw silk. 			
3	Benefits of the Scheme	<ul style="list-style-type: none"> • Produces 1Kg raw silk per shift of 8 hours per basin • Improves the quality of raw silk • Existing units can adopt any of the technologies / machineries as above for upgrading the working practices • Reduces the drudgery involved in existing reeling devices 			
4	Process in brief	<ul style="list-style-type: none"> • The reeling process involves production of raw silk using medium quality cocoons. The cocoons are cooked separately and reeled separately • In cottage basin, reeled silk is converted into standard sizes skeins in re-reeling process, whereas in Domestic basin, reeled silk is directly wound on to the bigger reels 			
5	Machinery Developed / Promoted by	CSTRI, Central Silk Board, Bengaluru			
6	Implementing agency	CSTRI & its Sub units in association with DOS of respective states			
7	Unit Cost of Package (Rs.)	1,99,000/-			
8	Components under the package with cost (in Rs)	#	Particulars	Quantity	COST in Rs.
		1	Two Pan Table for brushing	1	18075
		2	6 basin cottage basin Reeling machine (6 ends per basin)	1	199000
		3	6 basin Domestic basin Reeling machine (5 ends per basin)	1	199000
		4	Open type Re-reeling Machine 3 window (6 ends / window)	1	30000
		5	Small Reel Permeation Chamber	1	94800
		6	Generator (Capacity – 5 KVA)	1	85000
		7	Boiler of 50 Kg steam output per hour capacity with water softener (2 shell)	1	105000
		8	Solar operated UPS ½ Hp capacity	1	90000
		9	Epprouvette and Electronic balance of 600g capacity with 0.01g sensitivity	1 set	13000

9	Sharing Pattern: General State Special Status State	CSB : State : Beneficiary 50:25:25 (Others); 65:25:10 (SC/ST) 80:10:10 (Special Status States)
10	Target under the project period (No. of Units)	85 units
11	Target Group	Individual/Company/Society/SPV/NGOs. Entrepreneurs preferably engaged in Silk Sector. New entrepreneurs can also be considered on certain fixed criteria
12	Technical & Training Support	Provided by CSTRl or its sub units / Concerned State Dept.
13	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> Any of the above equipments can be procured by the beneficiary for the cottage basin or domestic basin reeling units. However, the cost of the total equipments shall not exceed Rs. 199,000/-. If the cost exceeds, it will be restricted to only Rs. 199,000/- and the balance to be paid by the beneficiary. All the existing cottage basin and domestic basin reeling unit persons are eligible. The beneficiaries details should be furnished as per DBT norms.

3. Support for establishing Multi-end Reeling Units – 10 Basins



1	Name of the scheme	Support for establishing Multi-end Reeling Units – 10 Basins			
2	Brief description of the scheme	<ul style="list-style-type: none"> • CSB/CSTRI has developed a Multi-end reeling machinery package for production of gradable raw silk using quality multi x bivoltine and bivoltine cocoons produced in the country • The component envisages support for setting up of 10-Basin unit 			
3	Benefits of the Scheme	<ul style="list-style-type: none"> • Replaces crude reeling practices • Produces 2A ~ 3A grade quality raw silk with a production of 10-12 kg/shift • The raw silk produced can be used on power looms • Semi-skilled work force can operate the machines • Ensures consistency in quality and productivity 			
4	Process in brief	<ul style="list-style-type: none"> • The reeling process involves cocoon drying, storing of cocoons • Cocoons are further cooked & reeled to produce desired quality raw silk • Produced raw silk is tested for its quality and made into a marketable package to sell either to the twistors/weavers/traders 			
5	Machinery Developed & Promoted by	CSTRI, Central Silk Board, Bengaluru			
6	Implementing agency	CSTRI & its Sub units in association with DOS of respective states			
7	Unit Cost of Package (Rs.)	17,09,000/-			
8	Components under the package with cost (in Rs)	No.	Particulars	Quantity	COST in Rs.
		1	Hot air drier 50 Kg capacity	1	150000
		2	Cocoon sorting table	1	13000
		3	Two Pan Table for brushing	4	72300

		4	Circular Pressurised cocoon cooking machine or Vacuum permeation pre treatment equipment for cooking	1	148200
		5	10 basin Multiend Reeling machine (10 ends per basin)	1	563500
		6	10 window closed type Re-reeling Machine (5 ends / window)	1	252800
		7	Small Reel Permeation Chamber	1	94800
		8	Epprouvette and Electronic balance of 600g capacity with 0.01g sensitivity	1 set	13000
		9	Generator (Capacity – 7.5 KVA)	1	98400
		10	Boiler of 100 Kg steam output per hour capacity (IBR quality)	1	270000
		11	Water softener with 100 Kg resin capacity	1	33000
			TOTAL		1709000
9	Sharing Pattern: General State Special Status State	CSB : State : Beneficiary 50:25:25 (Others); 65:25:10 (SC/ST) 80:10:10 (Special Status States)			
10	Target under the project period (No. of Units)	130 units			
11	Target Group	Individual/Company/Society/SPV/NGOs. Entrepreneurs preferably engaged in Silk Sector. New entrepreneurs can also be considered on certain fixed criteria			
12	Technical & Training Support	Provided by CSTRI or its sub units / Concerned State Dept.			
13	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> In this scheme, it is compulsory to procure main components viz., Two Pan cooking Table (4 Nos.), 10 basin Multiend Reeling machine (10 ends per basin), 10 window closed type Re-reeling Machine (5 ends / window), Small Reel Permeation Chamber, Generator (Capacity – 5 KVA), Boiler of 100 Kg steam output per hour capacity (IBR quality) and Water softener with 100 Kg resin capacity. However other equipments are optional. The beneficiaries details should be furnished as per DBT norms. 			

4. Support for establishment of Automatic Reeling Units – 200 ends (Indigenous)



1	Name of the scheme	Support for establishment of Automatic Reeling Units – 200 ends (Indigenous)
2	Brief description of the scheme	<ul style="list-style-type: none"> • CSB/CSTRI has developed a indigenous Automatic silk reeling machinery package for production of superior grade raw silk using quality bivoltine cocoons produced in the country • The component envisages support for setting up of 200 ends indigenous reeling unit
3	Benefits of the Scheme	<ul style="list-style-type: none"> • Produces quality raw silk of 3A / 4A grade of about 30 Kg/shift • The raw silk produced can be used on power looms • Semi-skilled work force can operate the machines • Ensures consistency in quality and productivity • The package is suitable for medium scale reelers also with moderate investment capacity
4	Process in brief	<ul style="list-style-type: none"> • The reeling process involves cocoon drying, storing of cocoons • The cocoons are pre treated in vacuum permeation pre treatment machine and cooked on conveyor cooking machine • Cocoons are reeled on automatic reeling machine with denier control mechanism to produce desired quality raw silk • Produced raw silk is tested for its quality and made into a marketable package to sell either to the twisters/weavers/traders
5	Machinery Developed / Promoted by	CSTRI, Central Silk Board, Bengaluru
6	Implementing	CSTRI & its Sub units in association with DOS of respective states

	agency																																																																									
7	Unit Cost of Package (Rs.)	79,83,000/-																																																																								
8	Components under the package with cost (in Rs)	<table border="1"> <thead> <tr> <th>No.</th> <th>Particulars</th> <th>Quantity</th> <th>Cost in Rs.</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Conveyor hot air drier with hot air generator 1000 Kg capacity</td> <td>1</td> <td>1525000</td> </tr> <tr> <td>2</td> <td>Cocoon Deflossing machine</td> <td>1</td> <td>56000</td> </tr> <tr> <td>3</td> <td>Vacuum permeation pre-treatment equipment for 200 ends ARM</td> <td>1</td> <td>350000</td> </tr> <tr> <td>4</td> <td>Conveyor cocoon cooking machine (40 Cages capacity)</td> <td>1</td> <td>510000</td> </tr> <tr> <td>5</td> <td>Automatic silk reeling machine 200 ends capacity with a mechanical brushing unit</td> <td>1</td> <td>2750000</td> </tr> <tr> <td>6</td> <td>Automatic reel permeation chamber for 60 reels</td> <td>1</td> <td>220000</td> </tr> <tr> <td>7</td> <td>Closed type re-reeling machine 10 window capacity for 200 ends ARM</td> <td>2</td> <td>506000</td> </tr> <tr> <td>8</td> <td>Accessories and tools & spare parts suitable for 200 ends ARM</td> <td>1 set each</td> <td>377500</td> </tr> <tr> <td>9</td> <td>Bale press</td> <td>1</td> <td>88000</td> </tr> <tr> <td>10</td> <td>Skein winder</td> <td>1</td> <td>8000</td> </tr> <tr> <td>11</td> <td>Reel carrier</td> <td>2</td> <td>27500</td> </tr> <tr> <td>12</td> <td>Generator (30 KVA capacity)</td> <td>1</td> <td>290000</td> </tr> <tr> <td>13</td> <td>Water softening plant 1500 litres / hour</td> <td>1</td> <td>200000</td> </tr> <tr> <td>14</td> <td>Pelade waste sheet making and pupae separation machine</td> <td>1</td> <td>200000</td> </tr> <tr> <td>15</td> <td>Hydro extractor (10 Kg capacity)</td> <td>1</td> <td>75000</td> </tr> <tr> <td>16</td> <td>IBR Boiler 500 Kg capacity</td> <td>1</td> <td>800000</td> </tr> <tr> <td></td> <td>TOTAL</td> <td></td> <td>7983000</td> </tr> </tbody> </table>	No.	Particulars	Quantity	Cost in Rs.	1	Conveyor hot air drier with hot air generator 1000 Kg capacity	1	1525000	2	Cocoon Deflossing machine	1	56000	3	Vacuum permeation pre-treatment equipment for 200 ends ARM	1	350000	4	Conveyor cocoon cooking machine (40 Cages capacity)	1	510000	5	Automatic silk reeling machine 200 ends capacity with a mechanical brushing unit	1	2750000	6	Automatic reel permeation chamber for 60 reels	1	220000	7	Closed type re-reeling machine 10 window capacity for 200 ends ARM	2	506000	8	Accessories and tools & spare parts suitable for 200 ends ARM	1 set each	377500	9	Bale press	1	88000	10	Skein winder	1	8000	11	Reel carrier	2	27500	12	Generator (30 KVA capacity)	1	290000	13	Water softening plant 1500 litres / hour	1	200000	14	Pelade waste sheet making and pupae separation machine	1	200000	15	Hydro extractor (10 Kg capacity)	1	75000	16	IBR Boiler 500 Kg capacity	1	800000		TOTAL		7983000
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10	Target under the project period	10 units																																																																								
11	Target Group	Individual/Company/Society/SPV/NGOs. Entrepreneurs preferably engaged in Silk Sector. New entrepreneurs can also be considered on certain fixed criteria.																																																																								
12	Technical & Training support	Provided by CSTRl or its sub units / Concerned State Dept.																																																																								
13	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> In the earlier scheme of Automatic silk reeling machinery package (200 ends), some essential equipments were not included and hence in the present package, the following additional equipments are included based on the feedback from the beneficiary viz., Conveyor hot air drier of 1000 Kg capacity with hot air generator, Bale press & Skein winder, Reel carrier, Pelade waste sheet making & pupae separation machine and Hydro extractor (10 Kg capacity), which are essential for the effective working of the unit profitably. In case beneficiary prefers to opt for imported 200 ends ARM unit, he may do so, but the assistance would be restricted to cost fixed for 200ends ARM unit. The beneficiaries details should be furnished as per DBT norms. 																																																																								

5. Support for establishment of Automatic Reeling Units – 200 ends (Imported)



1	Name of the scheme	Support for establishment of Automatic Reeling Units – 200 ends (Imported)
2	Brief description of the scheme	<ul style="list-style-type: none"> • The Imported Automatic silk reeling machinery package for production of gradable raw silk using quality bivoltine cocoons produced in the country. • The component envisages support for setting up of 200 ends indigenous reeling unit
3	Benefits of the Scheme	<ul style="list-style-type: none"> • Produces quality raw silk of 3A / 4A grade of about 30 Kg/shift • The raw silk produced can be used on power looms • Semi-skilled work force can operate the machines • Ensures consistency in quality and productivity • The package is suitable for medium scale reelers also with moderate investment capacity
4	Process in brief	<ul style="list-style-type: none"> • The reeling process involves cocoon drying, storing of cocoons • The cocoons are pre treated in vacuum permeation pre treatment machine and cooked on conveyor cooking machine • Cocoons are reeled on automatic reeling machine with denier control mechanism to produce desired quality raw silk • Produced raw silk is tested for its quality and made into a marketable package to sell either to the twistors/weavers/traders
5	Machinery Developed / Promoted by	Majority of the Machineries are imported from China
6	Implementing agency	CSTRI & its Sub units in association with DOS of respective states
7	Unit Cost of	79,83,000/-

	Package (Rs.)				
8	Components under the package with cost (in Rs)	No.	Particulars	Quantity	Cost in Rs.
		1	Conveyor hot air drier with hot air generator 1000 Kg capacity	1	1525000
		2	Cocoon Deflossing machine	1	56000
		3	Vacuum permeation pre-treatment equipment	1	350000
		4	Conveyor cocoon cooking machine	1	510000
		5	Automatic silk reeling machine 200 ends capacity with a mechanical brushing unit	1	2750000
		6	Automatic reel permeation chamber	1	220000
		7	Closed type re-reeling machine 20 window capacity	1	506000
		8	Accessories and tools, special tools & spare parts suitable for 200 ends ARM	1 set each	377500
		9	Bale press	1	88000
		10	Skein winder	1	8000
		11	Reel carrier	2	27500
		12	Generator (30 KVA capacity)	1	290000
		13	Water softening plant 1500 litres / hour	1	200000
		14	Pelade waste sheet making and pupae separation machine	1	200000
		15	Hydro extractor (10 Kg capacity)	1	75000
		16	IBR Boiler 500 Kg capacity	1	800000
		TOTAL		7983000	
9	Sharing Pattern: General State Special Status State	CSB : State : Beneficiary 50:25:25 (Others); 65:25:10 (SC/ST) 80:10:10 (Special Status States)			
10	Target under the project period	10 units			
11	Target Group	Individual/Company/Society/SPV/NGOs. Entrepreneurs preferably engaged in Silk Sector. New entrepreneurs can also be considered on certain fixed criteria.			
12	Technical & Training support	Provided by CSTRl or its sub units / Concerned State Dept.			
13	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> In the earlier scheme of Automatic silk reeling machinery package (200 ends), some essential equipments were not included and hence in the present package, the following additional equipments are included based on the feedback from the beneficiary viz., Conveyor hot air drier of 1200 Kg capacity with hot air generator, Bale press & Skein winder, Reel carrier, Pelade waste sheet making & pupae separation machine and Hydro extractor (10 Kg capacity), which are essential for the effective working of the unit profitably. The beneficiaries details should be furnished as per DBT norms. 			

6. Support for establishment of Automatic Reeling Units – 400 ends (Imported)



1	Name of the scheme	Support for establishment of Automatic Reeling Units – 400 ends (Imported)
2	Brief description of the scheme	<ul style="list-style-type: none"> • The Imported Automatic silk reeling machinery package for production of gradable raw silk using quality bivoltine cocoons produced in the country. • The component envisages support for setting up of 400 ends Automatic silk reeling unit
3	Benefits of the Scheme	<ul style="list-style-type: none"> • Produces 3A / 4A grade quality raw silk of about 60 Kg/shift and 100 ~ 120 Kg per 2 shift in a day (12 hours shift). • The raw silk produced can be used on power looms • Semi-skilled work force can operate the machines • Ensures consistency in quality and productivity
4	Process in brief	<ul style="list-style-type: none"> • The reeling process involves cocoon drying, storing of cocoons • The cocoons are pre treated in permeation pre treatment machine and cooked on conveyor cooking machine. • Cocoons are further reeled to produce desired quality raw silk. • Produced raw silk is tested for its quality and made into a marketable package to sell either to the twisters/weavers/traders.
5	Machinery Developed / Promoted by	Majority of the Machineries are imported from China.
6	Implementing agency	CSTRI & its Sub units in association with DOS of respective states
7	Unit Cost of Package (Rs.)	1,41,02,000/-

8	Components under the package with cost (in Rs)	No.	Particulars	Quantity	COST in Rs.
		1	Conveyor hot air drier with hot air generator 2000 Kg capacity	1	2517000
		2	Cocoon sorting machine	1	195000
		3	Cocoon Deflossing machine	1	56000
		4	Vacuum permeation pre-treatment equipment for 400 ends ARM	1	441000
		5	Conveyor cocoon cooking machine (80 Cages capacity)	1	900000
		6	Automatic silk reeling machine 400 ends capacity with two mechanical brushing units.	1	4963000
		7	Automatic reel permeation chamber for 120 reels	1	295000
		8	Closed type re-reeling machine 40 window capacity for 400 ends ARM	1	833000
		9	Accessories for 400 ends ARM	1 set	57000
		10	Tools for 400 ends ARM	1 set	103000
		11	Special tools for 400 ends ARM	1 set	394000
		12	Spare parts for 2 years for 400 ends ARM	1 set	372000
		13	Bale press	1	88000
		14	Skein winder		8000
		15	Generator (50 KVA capacity)	1	520000
		16	Water softening plant 2500 litres / hour	1	330000
		17	Pelade waste sheet making and pupae separation machine	1	200000
		18	Hydro extractor (45 Kg capacity)	1	166000
		19	IBR Boiler 1000 Kg capacity	1	1530000
		20	Reel carrier	4	55000
		21	Conditioning cabinet with denier testing	1	79000
	TOTAL		14102000		
9	Sharing Pattern: General State Special Status State	CSB : State : Beneficiary 50:25:25 (Others); 65:25:10 (SC/ST) 80:10:10 (Special Status States)			
10	Target under the project period (No. of Units)	12 units			
11	Target Group	Individual/Company/Society/SPV/NGOs. Entrepreneurs preferably engaged in Silk Sector. New entrepreneurs can also be considered on certain fixed criteria.			
12	Technical & Training Support	Provided by Chinese machinery manufacturers initially and later technical training by CSTRI or its sub units / Concerned State Dept.			
13	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> In the above package, if the beneficiary would like to procure the machineries viz., Conveyor hot air drier of 2000 Kg capacity with hot air generator, Closed type re-reeling machine 40 window capacity indigenously they can do so. However, the Generator (50 KVA capacity), IBR Boiler 1000 Kg capacity and Water softening plant 2500 litres / hour have to be procured indigenously only. The beneficiaries details should be furnished as per DBT norms. 			

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7. Support for establishment of Automatic Dupion Reeling Units – 142 ends (Imported)



1	Name of the scheme	Support for establishment of Automatic Dupion Reeling Units – 142 ends (Imported)
2	Brief description of the scheme	<ul style="list-style-type: none"> • The Imported Automatic dupion silk reeling machinery package for production of gradable dupion silk using double and inferior quality bivoltine cocoons produced in the country • The component envisages support for setting up of 142 ends Automatic dupion reeling unit
3	Benefits of the Scheme	<ul style="list-style-type: none"> • Produces 190 Kg of dupion silk of 100 ~ 120 denier in a day. • The dupion silk produced is of triple / double extra grade • The dupion silk produced can be used on power looms • Semi-skilled work force can operate the machines • Can maintain consistency in quality and productivity
4	Process in brief	<ul style="list-style-type: none"> • The reeling process involves cocoon drying, storing of cocoons • The cocoons are pre treated in permeation pre treatment machine and cooked on conveyor cooking machine • Cocoons are further reeled to produce desired quality dupion silk • The dupion silk produced is sold either to the twistors/weavers/traders
5	Machinery Developed / Promoted by	Machineries are imported from China
6	Implementing agency	CSTRI & its Sub units in association with DOS of respective states
7	Unit Cost of Package (Rs.)	45,76,000/-

8	Components under the package with cost (in Rs)	No.	Particulars	Quantity	COST in Rs.
		1	Automatic dupion silk reeling machine 142 ends capacity with two mechanical brushing units.	1	3644000
		2	Closed type re-reeling machine 40 window capacity	1	833000
		3	Tools for 142 ends Automatic dupion silk reeling machine	1 set	99000
		TOTAL		4576000	
9	Sharing Pattern: General State Special Status State	CSB : State : Beneficiary 50:25:25 (Others); 65:25:10 (SC/ST) 80:10:10 (Special Status States)			
10	Target under the project period (No. of Units)	7 units			
11	Target Group	Individual/Company/Society/SPV/NGOs. Entrepreneurs preferably engaged in Silk Sector. New entrepreneurs can also be considered on certain fixed criteria.			
12	Technical & Training Support	Provided by Chinese machinery manufacturers initially and later technical training by CSTRI or its sub units / Concerned State Dept.			
13	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> Preference will be given to the existing Automatic reeling units as they will have conveyor hot air drier, conveyor cooking, Boiler, generator etc., and hence under the scheme they can procure only Automatic dupion silk reeling machine and Closed type re-reeling machine along with required Tools. The beneficiaries details should be furnished as per DBT norms. 			

8. Assistance for twisting units (480 spindle capacity)



1	Name of the scheme	Assistance for twisting units (480 spindle capacity)
2	Brief description of the scheme	<ul style="list-style-type: none"> • CSTRI has established Multiend reeling units throughout the country. These reelers sometimes find it difficult to sell the raw silk as the weavers requests for ready warp or weft silk for weaving purpose. Hence CSTRI is equipping the multiend reelers with twisting machinery package to enable them to enhance profitability as well as sell their produce for the ready market • The component envisages support for setting up of 480 spindles twisting machinery package
3	Benefits of the Scheme	<ul style="list-style-type: none"> • Produces twisted silk (Warp quality) of 10 ~ 12 Kg or 45- 50 Kg (Weft quality) per day of 2 shifts. • The twisted silk produced can be used on Handlooms and power looms • Semi-skilled work force can operate the machines • Can maintain consistency in quality and productivity
4	Process in brief	<ul style="list-style-type: none"> • The raw silk received from reeling units is initially wound on to bobbins, then doubled and twisted depending on the requirement • The twisted silk is steamed and converted into warp or weft package • Produced twisted silk is sold either to the weavers/traders
5	Machinery Developed / Promoted by	Machineries are made in India and promoted by CSTRI, Central Silk Board, Bengaluru.
6	Implementing agency	CSTRI & its Sub units in association with DOS of respective states
7	Unit Cost of Package (Rs.)	10,04,000/-

8	Components under the package with cost (in Rs)	No.	Particulars	Quantity	COST in Rs.
		1	Winding machine (50 spindles capacity)	2	170200
		2	Doubling machine (50 spindles)	1	92000
		3	Twisting machine 480 spindle (240 spindle each)	2	441000
		4	Twist setting chamber	1	20700
		5	120 yards warping machine	1	70200
		6	Re-reeling machine	1	46800
		7	Spares	1 set	163100
			TOTAL		1004000
9	Sharing Pattern: General State Special Status State	CSB : State : Beneficiary 50:25:25 (Others); 65:25:10 (SC/ST) 80:10:10 (Special Status States)			
10	Target under the project period (No. of Units)	23 units			
11	Target Group	Individual/Company/Society/SPV/NGOs. Entrepreneurs preferably engaged in Silk Sector. New entrepreneurs can also be considered on certain fixed criteria.			
12	Technical & Training Support	Provided by CSTR I or its sub units / Concerned State Dept.			
13	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> The scheme is meant only for existing Multiend reelers. The beneficiaries details should be furnished as per DBT norms. 			

9. **Effective Byproduct Utilization - Support for establishing ECO-Degumming Machine -10 Kg**



1	Name of the scheme	Support for establishing ECO-Degumming Machine -10 Kg
2	Brief description of the scheme	<ul style="list-style-type: none"> • CSB/CSTRI is recommending CSTRI Eco-Degumming Machine (EDM) 10 Kg (capacity) for addressing the quality problems (exfoliation / white dusty appearance on the degummed and dyed silk yarn especially on darker shades) associated with the conventional degumming of silk yarn. • The component mentioned under the scheme is supportive to the existing yarn processing units.
3	Benefits of the Scheme	<ul style="list-style-type: none"> • No chemicals are required for degumming • No fibrillation (white dusty appearance), strength loss or chemical damage on degumming • Superior quality of the silk yarn with enhanced luster • The process is economical and environment friendly • Enhanced productivity (2-3 times that of conventional process) • Saving of water and energy • Value added sericin can be recovered in the pure form from the effluent.
4	Process in brief	Silk yarn in Hank form is degummed in a closed vessel by spraying hot water at 121°C and the degumming liquor is circulated. The degumming process is continued for 10-15 min and the total batch time is about 30 minutes.
5	Machinery Developed / Promoted by	Machinery developed and promoted by CSTRI,CSB, Bengaluru to suit chemical free degumming of silk yarn in the Hank form.

6	Implementing agency	CSTRI and its subunits in co-ordination with Department of Sericulture / Department of Hand Loom and Textiles of respective states.		
7	Unit Cost with package	Rs.10,00,000/-		
8.	Components under the package with cost (in Rs)	#	Components	Rate/ unit (Rs.)
		1	Eco- Degumming machine	1000000
9	Sharing Pattern: General State Special Status State	CSB: State: Beneficiary 50:25:25 (General), 65:25:10 (SC/ST) 80:10:10 (Special Status States)		
10	Target under the project period (No. of Units)	11 Units		
11	Target Group	Individual/Company/Society/SPV/NGOs. Entrepreneurs preferably engaged in Silk yarn processing.		
12	Technical & Training Support	Provided by CSTRI or its sub units/Concerned State Dept.		
13	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> • The Eco-Degumming Machine will be given to the existing units which are equipped with boiler and water softening facilities. • The beneficiaries details should be furnished as per DBT norms. 		

10. Effective Byproduct Utilization - Support for establishment of Pupae processing units



1	Name of the scheme	Support for establishment of Pupae processing units
2	Brief description of the scheme	<ul style="list-style-type: none"> • CSB/CSTRI has developed a Pupae processing machinery package for processing pelade waste and pupae generated in the reeling industry. • The component envisages support for setting up of Pupae processing machinery package.
3	Benefits of the Scheme	<ul style="list-style-type: none"> • The existing pupae processing technology is crude and unhygienic. The developed technology can process pelade waste and pupae effectively. • The unit process about 1.5 ~ 2 Tons pupae per day. • The pupae processed fetch very good price in the market. • The pollution and environmental problems are addressed. • Semi-skilled work force can operate the machines.
4	Process in brief	<ul style="list-style-type: none"> • The pelade wastes along with pupae are collected from the reeling industry. • The collected pelade waste is processed to separate pelade waste and pupae separately. • The pupae are dried using hot air drier developed by CSTRI. • The pupae and pelade waste are marketed separately.
5	Machinery Developed / Promoted by	CSTRI, Central Silk Board, Bengaluru
6	Implementing agency	CSTRI & its Sub units in association with DOS of respective states
7	Unit Cost of Package (Rs.)	20,82,000/-

		No.	Particulars	Quantity	COST in Rs.
8	Components under the package with cost (in Rs)	1	Two nos. of Pupae separation tub (20 Kg capacity each) with 8 nos. of Pupae separation SS crates (10 Kg capacity each) OR Pelade waste sheet making & pupae separation machine	1 set	200000
		2	Hydro extractor (10 Kg capacity)	1	75000
		3	Pupae hot air drier with hot air generator – 500 Kg capacity	1	658600
		4	IBR boiler - 200 Kg/ hr capacity	1	350000
		5	Generator – 7.5 KVA	1	98400
		6	Effluent treatment plant (ground discharge) – 5000 liters capacity	1	700000
			TOTAL		
9	Sharing Pattern: General State Special Status State	CSB : State : Beneficiary 50:25:25 (Others); 65:25:10 (SC/ST) 80:10:10 (Special Status States)			
10	Target under the project period (No. of Units)	8 units			
11	Target Group	Individual/Company/Society/SPV/NGOs. Entrepreneurs preferably engaged in Silk Sector. New entrepreneurs can also be considered on certain fixed criteria.			
12	Technical & Training Support	Provided by CSTRI or its sub units / Concerned State Dept.			
13	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> Beneficiary can purchase Conveyor hot air dryer (about 1 Ton) instead of the above Batch Type pupa dryer. However, additional cost has to be borne by the beneficiary. The beneficiaries details should be furnished as per DBT norms. 			

11. Support for improved Vanya Silk Reeling & Twisting - Motorized Reeling cum twisting machine



1	Name of the Scheme	Support for improved Vanya Silk Reeling & Twisting -Motorized Reeling cum twisting machine
2	Brief description of the Scheme	CSB has developed various region specific machineries for production of quality twisted Tasar Silk yarn facilitating Reelers to convert locally available / grown tasar cocoons in to Tasar twisted yarn .
3	Benefits of the Scheme	To introduce mechanization and to overcome drudgeries involved in the process of Tasar reeling.
4	Process in Brief	It involves process of sorting cocoons, cocoon cooking, deflossing and then reeling of targeted denier yarn. Ensures production of quality warp yarn [Twisted].
5	Machinery developed / Promoted by	CSTRI, CSB, Ministry of Textiles. Govt. Of India
6	Machine Name	Reeling cum Twisting Machine.
7	Implementing Agency	CSTRI and its sub units / DOS
8	Unit Cost (₹)	28,000 /-
9	Components Under the package & cost (₹)	
10	Sharing Pattern General States Special Status States	50:25:25 (Others); 65:25:10 (SC/ST) 80:10:10 (Special Status States)
11	Target Under the project period [No of units]	850 Nos.
12	Target Group	Individual reeler / Societies / NGO's
13	Technical & Training Support	Training support will be extended by CSTRI and its sub units in co-ordination with respective States.
14	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> The beneficiaries details should be furnished as per DBT norms.

12. Support for improved Vanya Silk Reeling & Twisting Machineries – Wet reeling machine



1	Name of the Scheme	Support for improved Vanya Silk Reeling & Twisting Machineries – Wet reeling machine
2	Brief description of the Scheme	CSB has developed various region specific machineries for production of quality Tasar Silk yarn facilitating Reelers to convert locally available / grown tasar cocoons into Tasar yarn .
3	Benefits of the Scheme	To introduce mechanization and to overcome drudgeries involved in the process of tasar reeling.
4	Process in Brief	It involves process of sorting cocoons, cocoon cooking, deflossing and then reeling of targeted denier yarn. Ensures production of quality warp yarn [Untwisted].
5	Machinery developed / Promoted by	CSTRI, CSB, Ministry of Textiles. Govt. Of India
6	Machine Name	Wet Reeling Machine.
7	Implementing Agency	CSTRI and its sub units / DOS
8	Unit Cost (₹)	30,000 /-
9	Components Under the package with cost (₹)	
10	Sharing Pattern General States Special Status States	50:25:25 (Others); 65:25:10 (SC/ST) 80:10:10 (Special Status States)
11	Target Under the project period [No of units]	850 Nos.
12	Target Group	Individual reeler / Societies / NGO's
13	Technical & Training Support	Training support will be extended by CSTRI and its sub units in co-ordination with respective States.
14	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> The beneficiaries details should be furnished as per DBT norms.

12. Motorized / pedal operated spinning machine



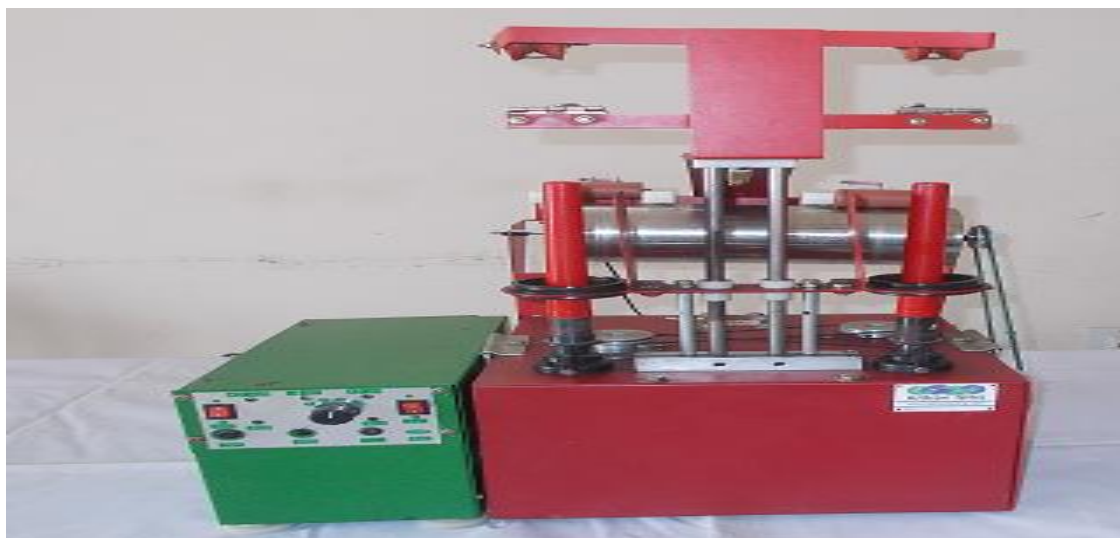
1	Name of the Scheme	Support for improved Vanya Silk Reeling & Twisting Machineries – Motorized / pedal operated spinning machine
2	Brief description of the Scheme	CSB has developed various region specific machineries for production of Eri Silk spun yarn facilitating Reelers to convert locally available / grown cocoons of all grades in to Eri yarn.
3	Benefits of the Scheme	To introduce mechanization and to overcome drudgeries involved in the process of Eri spinning.
4	Process in Brief	It involves process of sorting cocoons, degumming of cocoons, Opening of degummed silk and then spinning of targeted count yarn. Ensures production of uneven quality weft spun yarn.
5	Machinery developed / Promoted by	CSTRI, CSB, Ministry of Textiles. Govt. Of India
6	Machine Name	Motorized / Pedal Operated Spinning Machine
7	Implementing Agency	CSTRI and its sub units / DOS
8	Unit Cost (₹)	7,000 /-
9	Components Under the package with (₹)	
10	Sharing Pattern General States Special Status States	50:25:25(Others); 65:25:10 (SC/ST) 80:10:10 (Special Status States)
11	Target Under the project period [units]	696 Nos.
12	Target Group	Individual Spinners/ Societies / NGO's
13	Technical & Training Support	Training support will be extended by CSTRI and its sub units in co-ordination with respective States.
14	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> The beneficiaries details should be furnished as per DBT norms.

13. Solar operated spinning machine



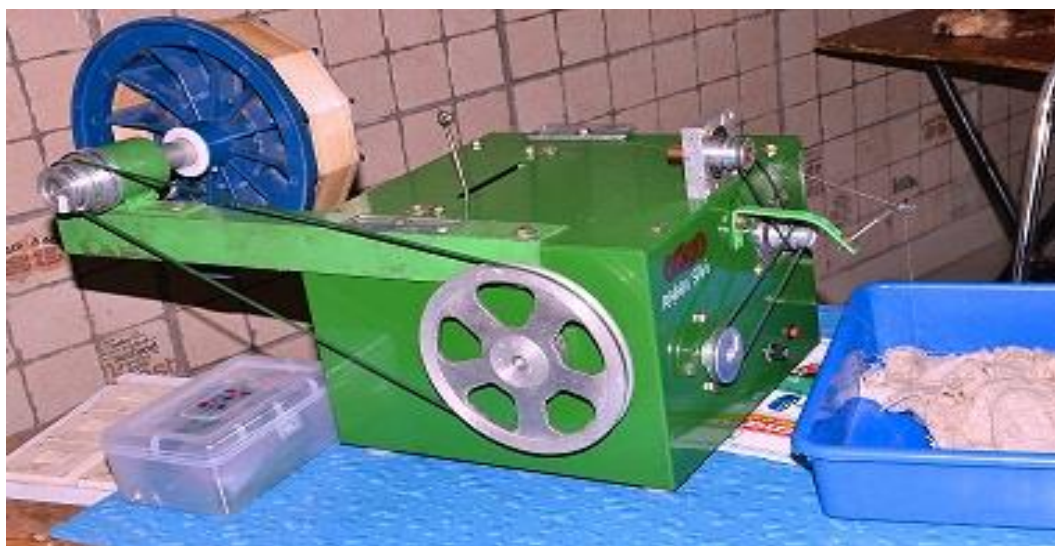
1	Name of the Scheme	Support for improved Vanya Silk Reeling & Twisting Machineries – Solar operated spinning machine
2	Brief description of the Scheme	CSB has developed various region specific machineries for production of Eri Silk spun yarn facilitating Reelers to convert locally available / grown cocoons in to Eri yarn .
3	Benefits of the Scheme	To introduce mechanization and to overcome drudgeries involved in the process of Eri spinning.
4	Process in Brief	It involves process of sorting cocoons, degumming of cocoons, Opening of degummed silk and then spinning of targeted count yarn. Ensures production of uneven quality weft spun yarn.
5	Machinery developed / Promoted by	CSTRI, CSB, Ministry of Textiles. Govt. Of India
6	Machine Name	Solar Operated Spinning Machine
7	Implementing Agency	CSTRI and its sub units / DOS
8	Unit Cost (₹)	21,000 /-
9	Components Under the package with (₹)	
10	Sharing Pattern General States Special Status States	50:25:25 (Others); 65:25:10 (SC/ST) 80:10:10 (Special Status States)
11	Target Under the project period [units]	1403 Nos.
12	Target Group	Individual spinners / Societies / NGO's
13	Technical & Training Support	Training support will be extended by CSTRI and its sub units in co-ordination with respective States.
14	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> The beneficiaries details should be furnished as per DBT norms.

14. Unnati Reeling machine



1	Name of the Scheme	Support for improved Vanya Silk Reeling & Twisting Machineries – Unnati Reeling machine
2	Brief description of the Scheme	CSB has developed various region specific machineries for production of quality twisted Tasar Silk yarn facilitating Reelers to convert locally available / grown Tasar cocoons in to Tasar twisted yarn .
3	Benefits of the Scheme	To introduce mechanization and to overcome drudgeries involved in the process of tasar reeling.
4	Process in Brief	It involves process of sorting cocoons, cocoon cooking, deflossing and then reeling of targeted denier yarn. Ensures production of twisted warp quality yarn.
5	Machinery developed / Promoted by	Jharcraft , Jharkhand.
6	Machine Name	Unnati Reeling Machine [Battery Back Up]
7	Implementing Agency	CSTRI and its sub units / DOS
8	Unit Cost (₹)	28,000 /-
9	Components Under the package with cost (₹)	
10	Sharing Pattern General States Special Status States	50:25:25(Others); 65:25:10 (SC/ST) 80:10:10 (Special Status States)
11	Target Under the project period [No of units]	67 Nos.
12	Target Group	Individual reeler / Societies / NGO's
13	Technical & Training Support	Training support will be extended by CSTRI and its sub units in co-ordination with respective States.
14	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> The beneficiaries details should be furnished as per DBT norms.

15. Buniyaad Reeling Machine



1	Name of the Scheme	Support for improved Vanya Silk Reeling & Twisting Machineries – Buniyaad Reeling Machine
2	Brief description of the Scheme	CSB has developed various region specific machineries for production of quality Tasar Silk yarn facilitating Reelers to convert locally available / grown tasar cocoons in to Tasar yarn .
3	Benefits of the Scheme	To introduce mechanization and to overcome drudgeries involved in the process of tasar reeling particularly to replace thigh reeling.
4	Process in Brief	It involves process of sorting cocoons, cocoon cooking, deflossing and then reeling of targeted denier yarn. Ensures production of bulky weft yarn.
5	Machinery developed / Promoted by	CSTRI , CSB, Ministry of Textiles. Govt. Of India in association with private entrepreneur.
6	Machine Name	Buniyaad Reeling Machine
7	Implementing Agency	CSTRI and its sub units / DOS
8	Unit Cost (₹)	11,000 /-
9	Components Under the package with cost (₹)	
10	Sharing Pattern General States Special Status States	50:25:25(Others); 65:25:10 (SC/ST) 80:10:10 (Special Status States)
11	Target Under the project period [No of units]	3890 Nos.
12	Target Group	Individual reeler / Societies / NGO's
13	Technical & Training Support	Training support will be extended by CSTRI and its sub units in co-ordination with respective States.
14	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> The beneficiaries details should be furnished as per DBT norms.

16. Kamadhenu Reeling machine



1	Name of the Scheme	Support for improved Vanya Silk Reeling & Twisting Machineries - Kamadhenu Reeling machine
2	Brief description of the Scheme	CSB has developed various region specific machineries for production of quality Tasar twisted Silk yarn facilitating Reelers to convert locally available / grown tasar cocoons in to Tasar twisted yarn .
3	Benefits of the Scheme	To introduce mechanization and to overcome drudgeries involved in the process of tasar reeling.
4	Process in Brief	It involves process of sorting cocoons, cocoon cooking, deflossing and then reeling of targeted denier yarn. Ensures production of twisted warp quality yarn.
5	Machinery developed / Promoted by	CTR&TI, Ranchi , CSB MoT. Govt. Of India
6	Machine Name	Kamadhenu Reeling Machine.
7	Implementing Agency	CSTRI and its sub units / DOS
8	Unit Cost (₹)	23,000 /-
9	Components Under the package with cost (₹)	
10	Sharing Pattern General States Special Status States	50:25:25 (Others); 65:25:10 (SC/ST) 80:10:10 (Special Status States)
11	Target Under the project period [No of units]	78 Nos.
12	Target Group	Individual reeler / Societies / NGO's
13	Technical & Training Support	Training support will be extended by CSTRI and its sub units in co-ordination with respective States.
14	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> The beneficiaries details should be furnished as per DBT norms.

17. Re-reeling machine



1	Name of the Scheme	Support for improved Vanya Silk Reeling & Twisting Machineries- Two window Re-reeling machine
2	Brief description of the Scheme	CSB has developed various region specific machineries for production of quality Tasar /muga Silk yarn facilitating Reelers to convert locally available / grown cocoons of all grades in to Tasar/muga yarn
3	Benefits of the Scheme	To introduce mechanization and to overcome drudgeries involved in the process of re -reeling of reeled tasar /muga /eri yarn to make standard skeins.
4	Process in Brief	It is the process of converting the reeled tasar/muga/eri silk to a standard size hanks of 1.5 mts., remove defects in yarn and make it to standard quantity of continuous thread.
5	Machinery developed / Promoted by	CSTRI, CSB, Ministry of Textiles. Govt. Of India
6	Machine Name	Re-reeling machine
7	Implementing Agency	CSTRI and its sub units / DOS
8	Unit Cost (Rs.)	21,000 /-
9	Components Under the package with (Rs.)	
10	Sharing Pattern (percentage) General States Special Status States	50:25:25 (Others); 65:25:10 (SC/ST) 80:10:10 (Special Status States)
11	Target Under the project period [units]	78
12	Target Group	Individual Spinners/ Societies / NGO's
13	Technical & Training Support	Training support will be extended by CSTRI and its sub units in co-ordination with respective States.
14	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> The beneficiaries details should be furnished as per DBT norms.

18. **Charkha reeling machine**



1	Name of the Scheme	Support for improved Vanya Silk Reeling & Twisting Machineries - charkha reeling machine
2	Brief description of the Scheme	CSB has developed various region specific machineries for production of quality Tasar Silk yarn facilitating Reelers to convert locally available / grown tasar cocoons in to Tasar yarn .
3	Benefits of the Scheme	To introduce mechanization and to overcome drudgeries involved in the process of tasar reeling.
4	Process in Brief	It involves process of sorting cocoons, cocoon cooking, deflossing and then reeling of targeted denier yarn. Ensures production of weft quality yarn.
5	Machinery developed / Promoted by	CTR&TI, Ranchi, CSB MOT. Govt. Of India
6	Machine Name	Charkha Reeling Machine.
7	Implementing Agency	CSTRI and its sub units / DOS
8	Unit Cost (₹)	28,000 /-
9	Components Under the package with cost (₹)	
10	Sharing Pattern General States Special Status States	50:25:25 (Others); 65:25:10 (SC/ST) 80:10:10 (Special Status States)
11	Target Under the project period [No of units]	Covered under Unnathi reeling machine
12	Target Group	Individual reeler / Societies / NGO's
13	Technical & Training Support	Training support will be extended by CSTRI and its sub units in co-ordination with respective States.
14	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> The beneficiaries details should be furnished as per DBT norms.

19. Two step reeling cum twisting machine



1	Name of the Scheme	Support for improved Vanya Silk Reeling & Twisting Machineries- 2 step reeling cum twisting machine
2	Brief description of the Scheme	CSB has developed various region specific machineries for production of quality twisted Tasar Silk yarn facilitating Reelers to convert locally available / grown tasar cocoons in to Tasar yarn.
3	Benefits of the Scheme	To introduce mechanization and to overcome drudgeries involved in the process of tasar reeling.
4	Process in Brief	It involves process of sorting cocoons, cocoon cooking, deflossing and then reeling of targeted denier yarn. Ensures production of twisted / Untwisted quality yarn.
5	Machinery developed / Promoted by	CSTRI, CSB MoT. Govt. Of India
6	Machine Name	2 Step Reeling cum Twisting Machine.
7	Implementing Agency	CSTRI and its sub units / DOS
8	Unit Cost (₹)	25,000 /-
9	Components Under the package with cost (₹)	
10	Sharing Pattern General States Special Status States	50:25:25 (Others); 65:25:10 (SC/ST) 80:10:10
11	Target Under the project period [No of units]	652 Nos.
12	Target Group	Individual reeler / Societies / NGO's
13	Technical & Training Support	Training support will be extended by CSTRI and its sub units in co-ordination with respective States.
14	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> The beneficiaries details should be furnished as per DBT norms.

20. **Tasar reeling machineries package**



1	Name of the Scheme	Support for improved Vanya Silk Reeling & Twisting Machineries- Tasar reeling machineries package
2	Brief description of the Scheme	CSB has developed various region specific machineries for production of quality Tasar Silk yarn facilitating Reelers to convert locally available / grown tasar cocoons in to Tasar yarn
3	Benefits of the Scheme	To introduce mechanization and to overcome drudgeries involved in the process of tasar reeling
4	Process in Brief	Package consists of different machineries and involves process of sorting of cocoons, cocoon cooking in bulk, deflossing and then reeling of targeted denier yarn based on the specific quality requirement. Ensures production of minimum of 5-6 Kgs of quality warp [Twisted and Un Twisted] and 3-4 kgs of weft quality yarn / day.
5	Machinery developed / Promoted by	CSTRI / CSB, Ministry of Textiles. Govt. Of India
6	Machine Name	Tasar Reeling Machineries Package.
7	Implementing Agency	CSTRI and its sub units / DOS
8	Unit Cost (₹)	11,50,000 /-

9	Components Under the package with (₹)	Machinery		Unit cost	Total cost (Lakhs)
			Nos		
		Wet Reeling Machine	13	30,000	3.90
		Buniyaad Reeling Machine	12	11,000	1.32
		Dry reeling Machine[MRTM]	12	28,000	3.36
		Boiler Non IBR - 50 Kg	1	1,05,000	1.05
		Re-reeling Machine - single window	3	8000	0.24
		Permeation chamber (Small)	1	46,000	0.46
		Two pan cooking device	1	18,075	0.18
		S. Steel Cooking Vessel	1	10,000	0.10
		5 KVA Generator	1	85,000	0.85
		Accessories [Set]	1	4000	0.04
		Total	11.50		
10	Sharing Pattern General States Special Status States	80:10:10 (Others); 65:25:10 (SC/ST)			
11	Target Under the project period [units]	6 Nos.			
12	Target Group	Individual Spinners/ Societies / NGO's			
13	Technical & Training Support	Training support will be extended by CSTRI and its sub units in co-ordination with respective States.			
14	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> The beneficiaries details should be furnished as per DBT norms. 			

21. Services of Master Reelers / Technicians



1	Name of the scheme	Support for Providing services of Master Reelers / Technicians as Twister / Weaver / Dyer / Mechanincs for silk industry
2	Brief description of the scheme	<ul style="list-style-type: none"> • To augment shortage of skilled manpower in silk industry sectors like reeling, twisting, weaving, dyeing and machinery maintenance in non traditional states and non traditional areas of traditional states.. • Master Reelers / Technicians as twister/dyer/weaver/mechanics will be deployed to individual enterprises for long duration (specific to individual units) like reeling, twisting, dyeing and weaving to train the workers engaged in the units for skill transfer in phased manner. • Deputing Master technicians / Mechanics periodically for short period (Not specific to any unit) for attending the repair and other maintenance of reeling machineries on routine, preventive & breakdown maintenance aspects, who will be monitored and paid by sub units of CSTRI.
3	Benefits of the Scheme	<ul style="list-style-type: none"> • Master reeler / technicians as twister/weaver/dyer/mechanics to help the silk industry to run at high machine & process efficiency and less wastage. • Imparting training to the workers to maintain quality production. • Training the workers for operation of all the equipments and its importance in producing the quality and quantity of silk. • Generate skilled manpower for silk industry.
4	Process in brief	<ul style="list-style-type: none"> • Selection and empanelling of experienced master reeler/technician as twister/ weaver/ dyer / mechanics. • Orientation of selected master reeler/technician on latest technologies at

		<p>CSTRI and its subunits.</p> <ul style="list-style-type: none"> • Master Reeler/Technician as listed above will be engaged for one year on contract basis as per the terms and conditions in the legal agreement to be made as per CSS/CDP norms. • Transportation and premium insurance coverage of Master reeler/Technicians will be met by CSTRI annual budget / GIA. 												
5	Developed / Promoted by	CSTRI, Central Silk Board, Bengaluru												
6	Implementing agency	CSTRI & its Sub units in association with DOS of respective states												
7	Unit Cost of Package (Rs.)	252000/- per year												
8	Components under the package with cost (in Rs)	<table border="1"> <thead> <tr> <th>#</th> <th>Wages / allowances</th> <th>Per Year (Rs.)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Wages @ Rs.18000/- per month</td> <td>216000</td> </tr> <tr> <td>2</td> <td>Lump sum after completion of the tenure</td> <td>36,000</td> </tr> <tr> <td></td> <td>TOTAL</td> <td>252,000</td> </tr> </tbody> </table>	#	Wages / allowances	Per Year (Rs.)	1	Wages @ Rs.18000/- per month	216000	2	Lump sum after completion of the tenure	36,000		TOTAL	252,000
#	Wages / allowances	Per Year (Rs.)												
1	Wages @ Rs.18000/- per month	216000												
2	Lump sum after completion of the tenure	36,000												
	TOTAL	252,000												
9	Sharing Pattern: General State Special Status State	<p>CSB : State : Beneficiary</p> <p>100 %payment from Central silk Board</p>												
10	Target under the project period (No. of Units)	Requirement of Master Reeler/Technician will be based on PMC recommendations of the concerned states.												
11	Target Group	Individual/Company/Society/SPV/NGOs/ Entrepreneurs preferably engaged in Silk Sector. New / first generation entrepreneurs will be given top priority.												
12	Technical & Training Support	Provided by CSTRI or its sub units / Concerned State Dept.												
13	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> • Rs. 216000/- will be paid annually @Rs.18000/- per month. • Rs.36000/- will be paid on completion of one year assignment as Lump Sum. • No Lump Sum amount will be paid for the Master Reeler/Technician working less than six months • The Master Reelers / Technicians will have to work for at least six months regularly to become eligible for lump sum of Rs.36,000/- to be paid after their tenure. The lump sum will be worked out on the basis of number of months of working and no lump sum will 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 & above will be considered as one month of work and less than 15 days will be ignored. • The beneficiaries details should be furnished as per DBT norms. 												

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22. Electrical hot air drier (50 Kg Capacity)



1	Name of the scheme	Support for establishment of Electrical hot air drier (50 Kg Capacity)
2	Brief description of the scheme	<ul style="list-style-type: none"> • CSB/CSTRI has developed a electrical hot air drier (50 Kg capacity) to dry the cocoons effectively in the silk reeling industry • The component envisages support for setting up of electrical hot air drier (50 Kg capacity)
3	Benefits of the Scheme	<ul style="list-style-type: none"> • The electrical hot air drier (50 Kg capacity) helps the reelers and farmers to dry and store the cocoons for reeling • The unit can dry the cocoons to the optimum level / partial level depending on the requirement • The dried cocoons can be stored effectively for longer period without fear of emergence of moth • The dried cocoons are quite suitable for the production of gradable raw silk, apart from addressing the pollution and environmental problems • Semi-skilled work force can operate the machines
4	Process in brief	<ul style="list-style-type: none"> • The cocoons are dried in electrical hot air drier for about 5 hours with higher initial temperature of 110 ~ 100°C and gradually lowering the same by 10°C per hour • The cocoons which are used immediately for reeling can be dried for 2 hours only
5	Machinery Developed / Promoted by	CSTRI, Central Silk Board, Bengaluru
6	Implementing agency	CSTRI & its Sub units in association with DOS of respective states
7	Unit Cost of Package (Rs.)	150000/-

8	Components under the package with cost (in Rs)	No.	Particulars	Quantity	COST in Rs.
		1	Electrical hot air drier (50 Kg capacity).	1	15000
9	Sharing Pattern: General State Special Status State	CSB : State : Beneficiary 50:25:25 (Others); 65:25:10 (SC/ST) 80:10:10			
10	Target under the project period (No. of Units)	45 units			
11	Target Group	Individual/Company/Society/SPV/NGOs. Entrepreneurs preferably engaged in Silk Sector. New entrepreneurs can also be considered on certain fixed criteria.			
12	Technical & Training Support	Provided by CSTRl or its sub units / Concerned State Dept.			
13	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> The beneficiaries details should be furnished as per DBT norms. 			

23. Multi-fuel hot air drier (50 Kg Capacity)



1	Name of the scheme	Support for establishment of Multifuel hot air drier (50 Kg Capacity)
2	Brief description of the scheme	<ul style="list-style-type: none"> • CSB/CSTRI has developed a multifuel hot air drier (50 Kg capacity) to dry the cocoons effectively in the silk reeling industry. • The component envisages support for setting up of multifuel hot air drier (50 Kg capacity).
3	Benefits of the Scheme	<ul style="list-style-type: none"> • The multifuel hot air drier (50 Kg capacity) helps the reelers and farmers to dry and store the cocoons for reeling. • The unit can dry the cocoons to the optimum level / partial level depending on the requirement • The dried cocoons can be stored effectively for longer period without fear of emergence of moth. • The dried cocoons are quite suitable for the production of gradable raw silk, apart from addressing the pollution and environmental problems. • Semi-skilled work force can operate the machines.
4	Process in brief	<ul style="list-style-type: none"> • The cocoons are dried in multifuel hot air drier for about 5 hours with higher initial temperature of 100 ~ 90°C and gradually lowering the same by 10°C per hour. • The cocoons which are used immediately for reeling can be dried for 2 hours only.
5	Machinery Developed / Promoted by	CSTRI, Central Silk Board, Bengaluru
6	Implementing agency	CSTRI & its Sub units in association with DOS of respective states

7	Unit Cost of Package (Rs.)	69000/-			
8	Components under the package with cost (in Rs)	No.	Particulars	Quantity	COST in Rs.
		1	Multifuel hot air drier (50 Kg capacity).	1	69000
9	Sharing Pattern: General State Special Status State	CSB : State : Beneficiary 50:25:25 (Others); 65:25:10 (SC/ST) 80:10:10			
10	Target under the project period (No. of Units)	29 units			
11	Target Group	Individual/Company/Society/SPV/NGOs. Entrepreneurs preferably engaged in Silk Sector. New entrepreneurs can also be considered on certain fixed criteria.			
12	Technical & Training Support	Provided by CSTRl or its sub units / Concerned State Dept.			
13	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> The beneficiaries details should be furnished as per DBT norms. 			

24. Conveyor hot air drier (2000 Kg Capacity)



1	Name of the scheme	Support for establishment of Conveyor hot air drier (2000 Kg Capacity)
2	Brief description of the scheme	<ul style="list-style-type: none"> • CSB/CSTRI has developed a conveyor hot air drier to dry the cocoons effectively in the silk reeling industry • The component envisages support for setting up of conveyor hot air drier (2000 Kg capacity)
3	Benefits of the Scheme	<ul style="list-style-type: none"> • The conveyor hot air drier helps the reelers and farmers to dry and store the cocoons for reeling as well as to procure and store the cocoons during more supply • The unit process about 2000 Kg per day for optimum drying • The dried cocoons can be stored effectively for longer period without fear of emergence of moth • The dried cocoons are quite suitable for the production of gradable raw silk, apart from addressing the pollution and environmental problems • Semi-skilled work force can operate the machines
4	Process in brief	<ul style="list-style-type: none"> • The cocoons are dried in conveyor hot air drier for about 5 hours with higher initial temperature of 120 ~ 110°C followed by 100 ~ 90°C in the second band and 70 ~ 60°C in the lower band
5	Machinery Developed / Promoted by	CSTRI, Central Silk Board, Bengaluru
6	Implementing agency	CSTRI & its Sub units in association with DOS of respective states
7	Unit Cost of Package (Rs.)	25,17,000/-

8	Components under the package with cost (in Rs)	No.	Particulars	Quantity	COST in Rs.
		1	Conveyor hot air drier (2000 Kg capacity) with accessories and civil & electrical installations and Electronic platform balance 100 Kg capacity.	1	2517000
9	Sharing Pattern: General State Special Status State	CSB : State : Beneficiary 50:25:25 (Others); 65:25:10 (SC/ST) 80:10:10			
10	Target under the project period (No. of Units)	7 units			
11	Target Group	Individual/Company/Society/SPV/NGOs. Entrepreneurs preferably engaged in Silk Sector. New entrepreneurs can also be considered on certain fixed criteria.			
12	Technical & Training Support	Provided by CSTRl or its sub units / Concerned State Dept.			
13	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> The beneficiaries details should be furnished as per DBT norms. 			

IV: Post-Yarn sector-

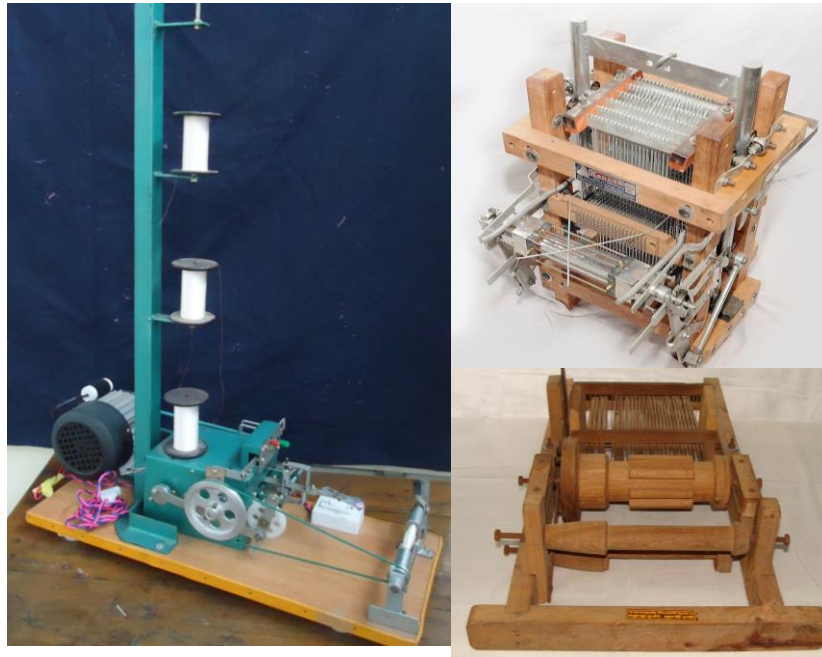
1. Modified Region Specific Silk Handlooms



1	Name of the scheme	Modified Region Specific Silk Handlooms		
2	Brief description of the scheme	<ul style="list-style-type: none"> • Major portion of the raw silk production (60 - 70%) is consumed by the Silk handlooms. • These looms are traditional, without modern gadgets resulting in low productivity and quality, more drudgery. • Introduction of regional specific handlooms with improved gadgets shall result in better productivity & quality and significantly reduces the drudgery. 		
3	Benefits of the Scheme	<ul style="list-style-type: none"> • Reduces drudgery. • Quality fabric is woven. • Better productivity of fabric. • Improves wages and life style of weaver 		
4	Process in brief	<ul style="list-style-type: none"> • The improved handlooms with modern gadgets like take-up and let-off mechanisms, jacquards enable the weaver to perform his activity continuously with ease. 		
5	Machinery Developed / Promoted by	<ul style="list-style-type: none"> • Central Silk Technological Research Institute and its sub-units in association with Private Entrepreneurs • Private Entrepreneurs 		
6	Implementing agency	<ul style="list-style-type: none"> • Central Silk Technological Research Institute (CSTRI) and its sub-units in association with Department of Sericulture / Department of Handlooms & Textiles of concerned state. 		
7	Unit Cost of Package (₹)	Rs. 33,000/-		
8	Components under the package with cost (in ₹)	#	Components	Indicative Unit Cost (₹)
		i.	Complete set of handloom comprising Teak wood Sley, M.S. Loom frame , Warp beam roller, Cloth roller, Steel / Bamboo reed, Heald shafts, Shuttles, Pirns, Lease rods, Temples, Treadles, Comber board, Worm and worm wheel take up and Let off fittings and other accessories	24,000.00

		ii.	1 no. of 240 hooks Jacquard with Lingoos, Harness thread, safety pins OR 1 no. of 48 lever Dobby with 2500 nos pegs (Erected and commissioned)	9,000.00
			TOTAL(₹)	33,000.00
9	Sharing Pattern (Percentage) General State Special Status States	CSB : State : Beneficiary 50:25:25 (General) ; 65:25:10 (SC/ST- category) 80:10:10		
10	Target under the project period (No. of Units)	850 Units		
11	Target Group	Individual/Company/Society/SPV/NGOs. Entrepreneurs preferably engaged in Sericulture Sector. New entrepreneurs can also be considered on certain fixed criteria		
12	Technical & Training Support	Provided by CSTRI or its sub units/Concerned State Dept.		
13	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> ❖ Weaver having experience in operating the handloom is eligible for the scheme. ❖ The Region specific silk handlooms are allowed under the scheme depending on the cluster or state requirement subjected to the evaluation of specification and approval of unit cost. ❖ The beneficiaries details should be furnished as per DBT norms. 		

2. Loom up-gradation through Jacquards, Pirn winding and other equipments.



1	Name of the scheme	Loom up-gradation through Jacquards, Pirn winding and other equipments.
2	Brief description of the scheme	<ul style="list-style-type: none"> • Most of silk handlooms are very old and primitive without any modern gadgets resulting in low productivity, poor quality and drudgery. • Hence, the gadgets like jacquard, pirn winding, dobby, Winding machine for Asu machine etc., are introduced which shall help the weavers for improving productivity & quality and reducing the drudgery.
3	Benefits of the Scheme	<ul style="list-style-type: none"> • Reduces drudgery. • Produces Quality fabric with improved designs. • Better productivity. • Improves the wages and life style of weaver
4	Process in brief	<ul style="list-style-type: none"> • Warp preparation, Weft preparation, Design weaving, Extra weft designs, Solid border weaving etc.,
5	Machinery Developed / Promoted by	<ul style="list-style-type: none"> • Central Silk Technological Research Institute & its the sub-units in co-ordination with Private entrepreneurs • Private entrepreneur
6	Implementing agency	<ul style="list-style-type: none"> • Central Silk Technological Research Institute (CSTRI) and its sub-units in association with Department of Sericulture / Department of Handlooms & Textiles of concerned state.
7	Unit Cost of each component (₹)	Rs. 17,500/- (Maximum)

8	Cost of the each component (in ₹)	#	Components	Indicative Cost (₹)
		i.	2 nos 240 Hooks Jacquard, Nylon heald wires with lingoos, Harness thread, Comber board, Safety pins etc,	17,500.00 (Each Component)
		ii.	48 Lever Dobby Teak wood with frames, Lattice, Comber board, Nylon heald wires with lingoos, 2500 nos pegs etc.	
		iii.	Ball to beam warping machine (Ball winding unit, Conversion unit and Beaming unit with Motor, Metal reed etc.,)	
		iv.	Motorized Pirn winding machine (1/2/6 ends)	
		v	Hank to bobbin winding machine (6 / 8 ends single side)	
		vi	2 in 1 winding machine (4 ends - single side)	
		vii	Winding machine for Asu winding (4 ends - single side)	
		vii	Butta Mechanism kit (6-10 buttas)	
		viii	Solid border mechanism (Korvai kit)- 120 to 240 hooks capacity	
ix	Asu machine			
9	Sharing Pattern (Percentage) General State Special Status States	CSB : State : Beneficiary 50:25:25 (General) ; 65:25:10 (SC/ST- category) 80:10:10		
10	Target under the project period (No. of Units)	2700 Units		
11	Target Group	Individual/Company/Society/SPV/NGOs. Entrepreneurs preferably engaged in Sericulture Sector. New entrepreneurs can also be considered on certain fixed criteria		
12	Technical & Training Support	Provided by CSTRI or its sub units/Concerned State Dept.		
13	Scheme specific guidelines (If any)	Silk weaver having handloom is eligible for the scheme. <ul style="list-style-type: none"> • For a beneficiary, a maximum of Rs. 17,500.00 is allowed to procure one or many items as mentioned in Sl.No.8 (i-ix). • The beneficiaries details should be furnished as per DBT norms. 		

3. Pneumatic Lifting mechanism (PLM) – 2 loom unit or 4 loom unit



1	Name of the scheme	Pneumatic Lifting mechanism (PLM) – 2 loom unit <u>or</u> 4 loom unit
2	Brief description of the scheme	<ul style="list-style-type: none"> • Use of 3-4 jacquards for weaving intricate designs is a common practice on silk handlooms. • Lot of drudgery and manual efforts are required to operate the jacquards. • Extreme strain on the weavers takes heavy toll on the knee joints leading to poor health. • This PLM mechanism was developed by CSTRI to address the above issue. • The use of PLM on handloom which helps to reduce the drudgery of weavers and enhance the productivity,
3	Benefits of the Scheme	<ul style="list-style-type: none"> • Reduces drudgery. • Produces intricate designs, Quality fabric and enhances productivity. • Attracts women and younger generation to weaving activity. • Improves the wages and life style of weaver.
4	Process in brief	Larger, intricate designs need higher capacity jacquards and for operating it, a handloom weaver has to lift anywhere between 30 to 50 kgs of weight for each weft insertion. The weaver has to lift this load roughly 4800 to 6000 times in a day by using his foot. This causes severe strain to the knee joints, ankle joints and spinal cord. Hence, to address this issue “Pneumatic Lifting Mechanism (PLM)” has been developed.
5	Machinery Developed / Promoted by	Central Silk Technological Research Institute in co-ordination with the sub-units

6	Implementing agency	Central Silk Technological Research Institute (CSTRI) and its sub-units in association with Department of Sericulture / Department of Handlooms & Textiles of concerned state.		
7	Indicative Unit Cost of Package (₹)		Component	Indicative Unit cost of package (₹)
			PLM (2 loom unit)	38,000.00
			PLM (4 loom unit)	58,000.00
8	Components under the package with cost (in ₹)	#	Components	Indicative Unit cost (₹)
		i.	For 2 looms PLM: 1HP Model single stage single cylinder top block on 110 Ltrs. tank with 1HP single phase electric motor, Pressure switch and all other standard electric accessories. Working Pressure 9Kg/cm2, (Pneumatic cylinder, Regulator valve, Quick Exhaust valve, connectors, pipes, Foot pedal valve – 2 nos each) and other accessories	38,000.00
		ii.	For 4 looms PLM: 2HP Model single stage single cylinder top block on 160 Ltrs. tank with 2HP single phase electric motor, Pressure switch and all other standard electric accessories, Working Pressure 9Kg/cm2, Air cylinder, Regulator valve, Quick Exhaust valve, connectors, pipes, Foot pedal valve-4Nos each) and other accessories.	58,000.00
9	Sharing Pattern (Percentage) General State Special Status States	CSB : State : Beneficiary 50:25:25 (General) ; 65:25:10 (SC/ST- category) 80:10:10		
10	Target under the project period (No. of Units)		PLM 2 loom unit 300 units	PLM for 4 loom unit 95 units
11	Target Group	Individual/Company/Society/SPV/NGOs. Entrepreneurs preferably engaged in Sericulture Sector. New entrepreneurs can also be considered on certain fixed criteria		
12	Technical & Training Support	Provided by CSTRI or its sub units/Concerned State Dept.		
13	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> • Silk weaver having at least 2 to 4 handlooms is eligible for the scheme. • The beneficiaries details should be furnished as per DBT norms. 		

4. Electronic Jacquard (480 hooks) with Pneumatic Lifting mechanism



1	Name of the scheme	Electronic Jacquard (480 hooks) with Pneumatic Lifting mechanism
2	Brief description of the scheme	<ul style="list-style-type: none"> • Silk fabrics / sarees are well known for their exquisite, intricate designs. • These designs are made possible with 3-4 jacquards each working with 500 to 1000 nos of punched cards. It involves huge expenditure increasing the cost of silk saree / fabric. • As the customers demand newer designs, the cards have to be changed frequently incurring huge cost.
3	Benefits of the Scheme	<ul style="list-style-type: none"> • Introduction of Electronic Jacquard in place of mechanical jacquard reduces the cost of designs as it works on software, without any punched card. • Avoids loom down time and deforestation by elimination of punched cards. • Newer designs can be experimented and incorporated without fear of huge expenditure and design rejection.
4	Process in brief	<ul style="list-style-type: none"> • Development of design concept and creation of designs using Designing software (CATD). • The designs created are transferred to Pen drive/SD card which in turn operates the Electronic Jacquard to create the intricate designs on fabric / sarees without any punched cards.
5	Machinery Developed / Promoted by	<ul style="list-style-type: none"> • Central Silk Technological Research Institute and its sub-units in association with Private Entrepreneur • Private Entrepreneur
6	Implementing agency	Central Silk Technological Research Institute (CSTRI) and its sub-units in association with Department of Sericulture / Department of Handlooms & Textiles of concerned state.
7	Unit Cost of Package (₹)	Rs.1,75,000/-

8	Components under the package with cost (in ₹)	<table border="1"> <thead> <tr> <th>#</th> <th>Components</th> <th>Indicative Cost (₹)</th> </tr> </thead> <tbody> <tr> <td>i.</td> <td>Electronic Jacquard with 480 hooks</td> <td>1,45,000.00</td> </tr> <tr> <td>ii</td> <td>Air Compressor</td> <td>18,500.00</td> </tr> <tr> <td>iii</td> <td>Pneumatic Cylinder with all accessories</td> <td>11,500.00</td> </tr> <tr> <td></td> <td style="text-align: right;">TOTAL(₹)</td> <td>1,75,000.00</td> </tr> </tbody> </table>	#	Components	Indicative Cost (₹)	i.	Electronic Jacquard with 480 hooks	1,45,000.00	ii	Air Compressor	18,500.00	iii	Pneumatic Cylinder with all accessories	11,500.00		TOTAL(₹)	1,75,000.00
		#	Components	Indicative Cost (₹)													
		i.	Electronic Jacquard with 480 hooks	1,45,000.00													
		ii	Air Compressor	18,500.00													
		iii	Pneumatic Cylinder with all accessories	11,500.00													
	TOTAL(₹)	1,75,000.00															
9	Sharing Pattern (Percentage) General State Special Status States	CSB : State : Beneficiary 50:25:25 (General) ; 65:25:10 (SC/ST- category) 80:10:11															
10	Target under the project period (No. of Units)	325 units															
11	Target Group	Individual/Company/Society/SPV/NGOs. Entrepreneurs preferably engaged in Sericulture Sector. New entrepreneurs can also be considered on certain fixed criteria															
12	Technical & Training Support	Provided by CSTR I or its sub units/Concerned State Dept.															
13	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> • Silk weaver having at least 1 to 2 handlooms, producing sarees/ fabrics with intricate designs is eligible for the scheme. • Beneficiary can opt for Pneumatic lifting mechanism <u>or</u> motorized mechanism for operating electronic jacquard subject to the approval. • The beneficiaries details should be furnished as per DBT norms. 															

5. Computer Aided Textile Designing Unit (CATD)



1	Name of the scheme	Computer Aided Textile Designing Unit (CATD)
2	Brief description of the scheme	<ul style="list-style-type: none"> • • Designing is an integral part of textiles, it offers an edge to the product in the market. • Creative idea is essential to develop aesthetic design. • The entire process of design creation to card punching and lacing manually involves drudgery and time consuming. • This effort of design development is totally minimized by the use of CATD.
3	Benefits of the Scheme	<ul style="list-style-type: none"> • • CATD provides freedom to designer to get the best out of his artistic ingenuity and better flexibility for his creativity. • Facilitates the artist with ease and quickness in operations besides making available innumerable options. • Equips the textile designer with a tool to react to the changes in the market trend in faster way. • Computer card punching and card lacing machines eliminate the requirement of manual labour to a large extent. • It reduces drudgery, cost of designing and ensures quick delivery of designs. • It enables the manual designer to become an entrepreneur and increases the wages due to shortening of design conversion cycle.
4	Process in brief	<ul style="list-style-type: none"> • Development of design concept and creation of designs using Designing software. • Automatic punching of jacquard cards as per the designs. • Automatic lacing of the punched cards.

5	Machinery Developed / Promoted by	<ul style="list-style-type: none"> ❖ Central Silk Technological Research Institute and its sub-units in association with Private Entrepreneurs ❖ Private Entrepreneurs 																											
6	Implementing agency	Central Silk Technological Research Institute (CSTRI) and its sub-units in association with Department of Sericulture / Department of Handlooms & Textiles of concerned state.																											
7	Unit Cost of Package (₹)	Rs. 5,75,000/-																											
8	Components under the package with cost (in ₹)	<table border="1"> <thead> <tr> <th>#</th> <th>Components</th> <th>Indicative Unit Cost (₹)</th> </tr> </thead> <tbody> <tr> <td>i.</td> <td>Desktop Computer (Optional)</td> <td>50025.00</td> </tr> <tr> <td>ii</td> <td>Colour Lazer Printer (Optional)</td> <td>21160.00</td> </tr> <tr> <td>iii</td> <td>Scanner (Optional)</td> <td>5750.00</td> </tr> <tr> <td>iv</td> <td>UPS with battery</td> <td>18400.00</td> </tr> <tr> <td>v</td> <td>Computerized card punching machine</td> <td>241960.00</td> </tr> <tr> <td>vi</td> <td>Card lacing machine(Optional)</td> <td>204930.00</td> </tr> <tr> <td>vii</td> <td>Textile Designing Software (Optional)</td> <td>32775.00</td> </tr> <tr> <td></td> <td>TOTAL (₹)</td> <td>575000.00</td> </tr> </tbody> </table>	#	Components	Indicative Unit Cost (₹)	i.	Desktop Computer (Optional)	50025.00	ii	Colour Lazer Printer (Optional)	21160.00	iii	Scanner (Optional)	5750.00	iv	UPS with battery	18400.00	v	Computerized card punching machine	241960.00	vi	Card lacing machine(Optional)	204930.00	vii	Textile Designing Software (Optional)	32775.00		TOTAL (₹)	575000.00
#	Components	Indicative Unit Cost (₹)																											
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vi	Card lacing machine(Optional)	204930.00																											
vii	Textile Designing Software (Optional)	32775.00																											
	TOTAL (₹)	575000.00																											
9	Sharing Pattern (Percentage) General State Special Status States	<p>CSB : State : Beneficiary</p> <p>50:25:25 (General) ; 65:25:10 (SC/ST- category)</p> <p>80:10:10</p>																											
10	Target under the project period (No. of Units)	70 units																											
11	Target Group	Individual/Company/Society/SPV/NGOs. Entrepreneurs preferably engaged in Sericulture Sector. New entrepreneurs can also be considered on certain fixed criteria																											
12	Technical & Training Support	Provided by CSTRI or its sub units/Concerned State Dept.																											
13	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> • The applicant should be a freelance designer with experience of designing in silk industry. • The beneficiaries details should be furnished as per DBT norms. 																											

6. Common Facility Center(CFC) for silk yarn dyeing and fabric processing

6.1 Tub dyeing -25 kg unit



1	Name of the scheme	Support for establishing tub dyeing -25 kg unit
2	Brief description of the scheme	CSB/CSTRI is recommending Tub dyeing unit -25 Kg (capacity) package for improved and uniform quality degumming and dyeing of raw silk yarn.
3	Benefits of the Scheme	<ul style="list-style-type: none"> - Processing in tub dyeing unit ensures improved quality of degumming and dyeing of silk yarn. - Creates hygienic conditions in work place. - Ensures uniformity and repeatability in production. - Replaces the traditional equipments.
4	Process in brief	<p>Silk yarn of different races and varieties (warp and weft) are subjected to degumming to remove sericin from silk yarn as per the end user requirement.</p> <p>-Degummed silk is further subjected to bleaching and optical brightening treatment.</p> <p>-Degummed/undegummed silk yarns are then subjected to dyeing process with different classes of dyes for imparting different colours (shades) as per the end user requirement.</p>
5	Machinery Developed / Promoted by	Traditional & crude equipments/machines are modified by CSTRI,CSB,Bengaluru to address the issues such as proper maintenance of liquor ratio and temperature during the processes by direct and indirect steam supply system.
6	Implementing agency	CSTRI and its subunits in co-ordination with Department of Sericulture / Department of Handloom and Textiles of respective state governments.
7	Unit Cost of Package (Rs.)	Rs.5,70,000/-

		#	Components	Rate/ unit (Rs.)
8	Components under the package	1	Stainless Steel Tubs - 2 Kg. (1 No.), 5Kg (1 No.), 10 kg. (1 No.) or as per the requirement	140000
		2	Water Softening Plant – 2500 litres /hour	33000
		3	Water Tank - 2500 litres. capacity	22000
		4	Hydro Extractor - 5 Kg capacity	54000
		5	Electronic Balance - 2 Kg. capacity	9000
		6	Platform Balance - 25 Kg. capacity	16000
		7	Boiler - 100 Kg. capacity (IBR)	270000
		8	Colour Matching Cabinet / Washing cum Rinsing machine	26000
			TOTAL	570000
		9	Sharing Pattern: General State Special Status State	CSB: State: Beneficiary 50:25:25 (General), 65:25:10 (SC/ST) 80:10:10
10	Target under the project period (No. of Units)	8 Units		
11	Target Group	Individual/ Company/ Society/ SPV/ NGO's, Entrepreneurs preferably engaged in Silk and Sericulture Sector. New entrepreneurs can also be considered on certain fixed criteria		
12	Technical & Training Support	Provided by CSTRI or its sub units/Concerned State Dept.		
13	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> The beneficiaries details should be furnished as per DBT norms. 		

6.2 Tub dyeing - 50 kg unit



1	Name of the scheme	Support for establishing tub dyeing -50 kg unit
2	Brief description of the scheme	CSB/CSTRI is recommending Tub dyeing unit -50 Kg (capacity) package for improved and uniform quality degumming and dyeing of raw silk yarn.
3	Benefits of the Scheme	<ul style="list-style-type: none"> - Processing in tub dyeing unit ensures improved quality of degumming and dyeing of silk yarn. - Creates hygienic conditions in work place. - Ensures uniformity and repeatability in production. - Replaces the traditional equipments.
4	Process in brief	<ul style="list-style-type: none"> -Raw silk of different races and varieties (warp and weft) are subjected to degumming to remove the sericin from silk yarn as per the end user requirement. -Degummed silk is further subjected to bleaching and optical brightening treatment. -Degummed/ un-degummed silk yarns are then subjected to dyeing process with different classes of dyes for imparting different colours (shades) as per the end user requirement.
5	Machinery Developed / Promoted by	Traditional & crude equipments/machines are modified by CSTRI,CSB, Bengaluru to address the issues such as proper maintenance of liquor ratio and temperature during the processes by direct and indirect steam supply system.
6	Implementing agency	CSTRI and its subunits in co-ordination with Department of Sericulture / Department of Handloom and Textiles of respective state governments.
7	Unit Cost of Package (Rs.)	Rs.8,50,000/-

		#	Components	Rate/ unit (Rs.)
8	Components under the package	1	Stainless Steel Tubs - 2 Kg. (2 No.), 5Kg (2 No.), 10 kg. (1 No.) & 20 Kg. (1 No.) or as per the requirement	262000
		2	Water Softening Plant – 2500 litres / hour	33000
		3	Water Tank - 2500 litres capacity (2 Nos.)	44000
		4	Hydro Extractor - 5 Kg capacity	54000
		5	Electronic Balance - 2 Kg. capacity	9000
		6	Generator 3 KVA capacity	72000
		7	Boiler - 200 Kg. capacity (IBR)	350000
		8	Colour Matching Cabinet / Washing cum Rinsing machine	26000
			TOTAL	850000
9	Sharing Pattern: General State Special Status State	CSB: State: Beneficiary 50:25:25 (General), 65:25:10 (SC/ST) 80:10:10		
10	Target under the project period (No. of Units)	21 Units		
11	Target Group	Individual/ Company/ Society/ SPV/ NGO's, Entrepreneurs preferably engaged in Silk and Sericulture Sector. New entrepreneurs can also be considered on certain fixed criteria		
12	Technical & Training Support	Provided by CSTRl or its sub units/ concerned State Dept.		
13	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> The beneficiaries details should be furnished as per DBT norms. 		

6.3 Support for establishing Arm dyeing -50 kg unit



1	Name of the scheme	Support for establishing Arm dyeing -50 kg unit
2	Brief description of the scheme	CSB/CSTRI is recommending Arm (Spray) dyeing unit -50 Kg (capacity) package for improved and uniform quality degumming and dyeing of raw silk yarn.
3	Benefits of the Scheme	<ul style="list-style-type: none"> - Processing in this unit ensures improved quality of degumming and dyeing of silk yarn. - Significantly saves water and conserves energy. - Creates hygienic conditions in work place. - Ensures uniformity and repeatability in production. - Replaces the traditional equipments.
4	Process in brief	<ul style="list-style-type: none"> -Silk yarn of different races and varieties (warp and weft) are subjected to degumming to remove the sericin from silk yarn as per the end user requirement. -Degummed silk is further subjected to bleaching and optical brightening treatment. -Degummed/ un-degummed silk yarns are then subjected to dyeing process with different of classes of dyes for imparting different colours (shades) as per the end user requirement.
5	Machinery Developed / Promoted by	<ul style="list-style-type: none"> -Existing arm dyeing machines were modified by CSTRI to suit silk processing. -Arm dyeing machine parameters for processing of silk are standardized by CSTRI. -Arm dyeing package for silk degumming and dyeing is promoted by CSTRI, CSB, Bengaluru.
6	Implementing agency	CSTRI and its subunits in co-ordination with Department of Sericulture /Department of Handloom and Textiles of respective state governments.

7	Unit Cost of Package (Rs.)	Rs.21,00,000/-		
8.	Components under the package with cost (in Rs)	#	Components	Rate/ unit (Rs.)
		1	Two Arm dyeing machine - 2 No.s or as per the requirement	1294000
		2	Water Softening Plant – 2500 liters / hour	33000
		3	Water Tank - 2500 litres. capacity (2 Nos.)	44000
		4	Hydro Extractor - 5 Kg capacity	54000
		5	Electronic Balance - 2 Kg. Capacity	9000
		6	Silent Generator - 10 KVA capacity	290000
		7	Boiler - 200 Kg. capacity (IBR)	350000
		8	Colour Matching Cabinet	26000
			TOTAL	2100000
9	Sharing Pattern: General State Special Status State	CSB: State: Beneficiary 50:25:25 (General), 65:25:10 (SC/ST) 80:10:10		
10	Target under the project period (No. of Units)	5 Units		
11	Target Group	Individual/ Company/ Society/ SPV/ NGO's, Entrepreneurs preferably engaged in Silk and Sericulture Sector. New entrepreneurs can also be considered on certain fixed criteria		
12	Technical & Training Support	Provided by CSTRl or its sub units/Concerned State Dept.		
13	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> The beneficiaries details should be furnished as per DBT norms. 		

7. Fabric Processing Unit -250 kg



1	Name of the scheme	Support for establishing Fabric Processing Unit -250 kg
2	Brief description of the scheme	Kora (Un-degummed) Silk fabrics such as soft silk, chiffon, crepe and georgette are piece dyed which require suitable fabric processing and finishing facilities in mulberry and vanya silk clusters. As these facilities are capital intensive, most of the fabric processing is carried in vessels in primitive manner resulting in poor quality. Hence, creation of silk fabric processing unit helps silk processors in both mulberry and vanya silk clusters to improve their quality for domestic and export markets. Hence, it is proposed to continue the scheme.
3	Benefits of the Scheme	<ul style="list-style-type: none"> - Processing in this unit ensures improved quality of degumming and dyeing of silk fabrics. - Creates hygienic conditions in work place. - Ensures uniformity and repeatability in production. - Replaces the traditional equipments.
4	Process in brief	<ul style="list-style-type: none"> -Raw silk fabrics of different races and varieties are subjected to degumming to remove the sericin as per the end user requirement. -Degummed silk fabrics are further subjected to bleaching and optical brightening treatment. -Degummed silk fabrics are then subjected to dyeing process with different of class of dyes for imparting different colours (shades) as per the end user requirement. -Dyed silk fabrics are subjected to treatments such as calendering (polishing), felt calendering (softness, polishing) and decatizing (soft fluffy feel) to impart desired finishing effects.

5	Machinery Developed / Promoted by	Silk fabric processing machines developed by private firms are promoted by CSTRI, CSB, Bengaluru to ensure improved quality in silk fabric processing and to achieve consistency. Silk processing units in mulberry and vanya silk clusters are provided with standard dyeing and finishing machines such as winch, jiggers, calendering and decatizing machines to upgrade the silk fabric processing facilities. Hence, it is proposed to continue the scheme.																																				
6	Implementing agency	CSTRI and its subunits in co-ordination with Department of Sericulture / Department of Handloom and Textiles of respective state governments.																																				
7	Unit Cost of Package (Rs.)	Rs.31,50,000/-																																				
8.	Components under the package with cost (in Rs)	<table border="1"> <thead> <tr> <th>#</th> <th>Components</th> <th>Rate/ unit (Rs.)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Winch / Jigger Dyeing machine-25 kg</td> <td>226000</td> </tr> <tr> <td>2</td> <td>Winch / Jigger Dyeing Machine-50 kg</td> <td>300000</td> </tr> <tr> <td>3</td> <td>Calendering Machine/ Mini Felt Calendering Machine</td> <td>599000</td> </tr> <tr> <td>4</td> <td>Water Softening Plant –2500 litres/day</td> <td>33000</td> </tr> <tr> <td>5</td> <td>Water Tank - 2500 litres capacity (2 no.)</td> <td>44000</td> </tr> <tr> <td>6</td> <td>Hydro Extractor - 25 Kg. capacity</td> <td>105000</td> </tr> <tr> <td>7</td> <td>Computerized Colour Matching system(CCM)</td> <td>494000</td> </tr> <tr> <td>8</td> <td>Electronic Balance - 2 Kg capacity</td> <td>9000</td> </tr> <tr> <td>9</td> <td>Boiler - 750 Kg. capacity (IBR)</td> <td>1050000</td> </tr> <tr> <td>10</td> <td>Silent Generator - 10 KVA capacity</td> <td>290000</td> </tr> <tr> <td colspan="2" style="text-align: center;">TOTAL</td> <td>3150000</td> </tr> </tbody> </table>	#	Components	Rate/ unit (Rs.)	1	Winch / Jigger Dyeing machine-25 kg	226000	2	Winch / Jigger Dyeing Machine-50 kg	300000	3	Calendering Machine/ Mini Felt Calendering Machine	599000	4	Water Softening Plant –2500 litres/day	33000	5	Water Tank - 2500 litres capacity (2 no.)	44000	6	Hydro Extractor - 25 Kg. capacity	105000	7	Computerized Colour Matching system(CCM)	494000	8	Electronic Balance - 2 Kg capacity	9000	9	Boiler - 750 Kg. capacity (IBR)	1050000	10	Silent Generator - 10 KVA capacity	290000	TOTAL		3150000
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9	Sharing Pattern: General State Special Status State	CSB: State: Beneficiary 50:25:25 (General), 65:25:10 (SC/ST) 80:10:10																																				
10	Target under the project period (No. of Units)	04 Units																																				
11	Target Group	Individual/ Company/ Society/ SPV/ NGO's, Entrepreneurs preferably engaged in Silk and Sericulture Sector. New entrepreneurs can also be considered on certain fixed criteria																																				
12	Technical & Training Support	Provided by CSTRI or its sub units/Concerned State Dept.																																				
13	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> The beneficiaries details should be furnished as per DBT norms. 																																				

8. Effluent Treatment Plant (ETP) –

8.1 Zero discharge Type



1	Name of the scheme	Support for establishing Effluent Treatment Plant (ETP) -Zero discharge
2	Brief description of the scheme	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 silk 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 is very popular among the silk processing units and it is proposed to be continued.
3	Benefits of the Scheme	Zero pollution from discharge of silk processing effluent.
4	Process in brief	- Entire water, chemicals and auxiliaries released from processing unit will be collected in a collecting tank subjected to addition of active chemicals for flocculation to remove the suspended particles, colour, etc. The secondary treated water will be passed through RO unit. 100 % clean and reusable water will be obtained at the end of the process. Solid waste generated would be disposed off effectively as per the PCB norms.
5	Machinery Developed / Promoted by	Effluent treatment plants (ETP) developed by private firms are promoted by CSTRI,CSB, Bengaluru as effluent treatment process is very useful in recovery of major amount of water (80%) used in the process.
6	Implementing agency	CSTRI and its sub units in co-ordination with Department of Sericulture or Department of Handloom and Textiles of respective state governments.

7	Unit Cost of Package (Rs.)	Rs.12,50,000/-		
8	Components under the package with cost (in Rs)	#	Components	Rate/ unit (Rs.)
		1	Effluent Treatment Plant – Primary, Secondary and Tertiary treatment for the silk dyeing raw effluent (COD-7500) without civil work	1250000
9	Sharing Pattern: General State Special Status State	CSB: State: Beneficiary 50:25:25 (General), 65:25:10 (SC/ST) 80:10:10		
10	Target under the project period (No. of Units)	04 Units		
11	Target Group	Individual/ Company/ Society/ SPV/ NGO's, Entrepreneurs preferably engaged in Silk and Sericulture Sector. New entrepreneurs can also be considered on certain fixed criteria		
12	Technical & Training Support	Provided by CSTRI or its sub units/Concerned State Dept along with the supplier of the unit.		
13	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> • Supplier should ensure the final treatment to meet the norms of PCB. • The beneficiaries details should be furnished as per DBT norms. 		

8.2 Effluent Treatment Plant (ETP) - Ground Discharge



1	Name of the scheme	Support for establishing Effluent Treatment Plant (ETP) - Ground Discharge
2	Brief description of the scheme	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 silk 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 is very popular among the silk processing units and it is proposed to be continued.
3	Benefits of the Scheme	Zero pollution from discharge of silk processing effluent.
4	Process in brief	Entire water, chemicals and auxiliaries released from processing unit will be collected in a collecting tank subjected to addition of active chemicals for flocculation to remove the suspended particles, colour, etc. Further clearance will be ensured through effective secondary treatment. Remaining colour will be removed and discharged to ground complying to the norms prescribed by the PCB.
5	Machinery Developed / Promoted by	Effluent treatment plants (ETP) developed by private firms are promoted by CSTRI, CSB, Bengaluru as effluent treatment process is very useful in recovery of major amount of water (80%) used in the process.
6	Implementing agency	CSTRI and its subunits in co-ordination with Department of Sericulture or Department of Handloom and Textiles of respective state governments.
7	Unit Cost of Package (Rs.)	Rs.7,00,000/-

		#	Components	Rate/ unit (Rs.)
8	Components under the package with cost (in Rs)	1	Effluent Treatment Plant – Primary and Secondary treatment for the silk dyeing raw effluent (COD-7500) without civil work	700000
9	Sharing Pattern: General State Special Status State	CSB: State: Beneficiary 50:25:25 (General), 65:25:10 (SC/ST) 80:10:10		
10	Target under the project period (No. of Units)	13 Units		
11	Target Group	Individual/ Company/ Society/ SPV/ NGO's, Entrepreneurs preferably engaged in Silk and Sericulture Sector. New entrepreneurs can also be considered on certain fixed criteria		
12	Technical & Training Support	Provided by CSTRl or its sub units/ Concerned State Dept along with the supplier of the unit.		
13	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> • Supplier should ensure the final treatment to meet the norms of PCB. • The beneficiaries details should be furnished as per DBT norms. 		

9. Fabric Finishing Units



1	Name of the scheme	Support for establishing fabric Finishing Units
2	Brief description of the scheme	The silk clusters like Serampore, Bhagalpur, Champa, Varanasi, Bengaluru, Molkalmuru, Pochampally, Yeola and Kanchipuram have many dyeing and printing units which are working without any finishing equipments. Further, some of the clusters are still practicing traditional kundhi finish which is unscientific and primitive. Many clusters in North-Eastern States also require better finishing facilities so as to enhance the aesthetic feel, fabric appearance, improved quality and provide value addition to the silk fabrics. Hence, introducing modern finishing equipments is crucial which will add value & improve aesthetics of the silk fabrics.
3	Benefits of the Scheme	<ul style="list-style-type: none"> - Replaces the traditional finishing methods. - Reduces the drudgery. - Creates hygienic conditions at work place. - Ensures repeatability in production. - Process will ensure quality end products.
4	Process in brief	- Dyed fabric will be subject to finish by means of mechanical treatment. Sometimes chemical treatment is also given to get requisite finish and feel on the fabric surface.
5	Machinery Developed / Promoted by	Silk finishing machines developed by private firms are promoted by CSTRI, CSB, Bengaluru as silk fabric finishing is very useful for imparting desired feel to the silk fabrics in both mulberry and vanya silk clusters.
6	Implementing agency	CSTRI and its subunits in co-ordination with Department of Sericulture or Department of Handloom and Textiles of respective state governments.

7	Unit Cost of Package (Rs.)	Rs.9,00,000/-		
8.	Components under the package with cost (in Rs)	#	Components	Rate/ unit (Rs.)
		1	Three Bowl Calendering Machine	809000
		2	Five Bowl Calendering Machine	809000
		3	Felt Calendaring Machine	900000
		4	Decatizing Machine	900000
		5	Boiler - 50 Kg (Non IBR)	91000
9	Sharing Pattern: General State Special Status State	CSB: State: Beneficiary 50:25:25 (General), 65:25:10 (SC/ST) 80:10:10		
10	Target under the project period (No. of Units)	8 Units		
11	Target Group	Individual/ Company/ Society/ SPV/ NGO's, Entrepreneurs preferably engaged in Silk and Sericulture Sector. New entrepreneurs can also be considered on certain fixed criteria		
12	Technical & Training Support	Provided by CSTRI or its sub units/Concerned State Dept.		
13	Scheme specific guidelines (If any)	<ul style="list-style-type: none"> • Any one or more machines can be purchased up to Rs. 9 lakhs. • • The beneficiaries details should be furnished as per DBT norms. 		