DETAILED PROJECT REPORT

PROMOTION OF LARGE SCALE TASAR SERICULTURE BASED LIVELIHOODS IN JHARKHAND

Under

MAHILA KISAN SASHAKTIKARAN PARIYOJANA (MKSP)

(A sub-component of NRLM)

CO-ORDINATING AGENCY

CENTRAL SILK BOARD

PROJECT IMPLEMENTING AGENCY (PIA):

PROFESSIONAL ASSISTANCE FOR DEVELOPMENT ACTION (PRADAN)

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Project at a Glance

1	Title	**Promotion of Large Scale Tasar Sericulture Based Livelihoods in Jharkhand**			
2	Project area	Districts	Blocks		
		Godda	Sunderpahari, Poraiyahaat and Boarijore		
		Pakur	Littipara		
		Dumka	Shikaripara, Kathikund, Raneswar and Masaliya		
		Saraikella	Kuchai		
		W Singhbhum	Chakradharpur, Khutpani and Hatgamharia		
		E Singhbhum	Dalbhumgarh, gurabandha, Musabani & Dumaria		
		Deoghar	Devipur, Madhupur, Deoghar Sadar		
		Giridih	Deori		
3	Coordinating Agency	Central Silk Board, Min.of Textiles, Govt. of India			
4	Project Implementing Agency	PRADAN			
5	Total Project Cost (Rs. In Lakhs)	**2,782.665**			
6	Funding Pattern (Rs. in lakhs)	CREDIT & BENEFICIARY (Rs. in lakhs)		MORD (Rs. in lakhs)	CSB (Rs. in lakhs)
		388.718		1,795.461	598.486
	Sharing pattern (%)	13.97		64.52	21.51
		Cost/beneficiary (Rs)		%	
	Investment per Family	20,053.2		100.0	
	Cost of capacity building per Family	2,951.4		14.7	
	Cost of program cost per Family	13,859.2		69.1	
	Cost of Program support cost per Family	3,242.6		16.2	
7	Project Period	2013-14 to 2015-16 (Three years)			
8	Beneficiaries to be covered (Direct)				
	Nursery farmers	110			
	Nucleus Seed rearer's	80			
	Basic Seed rearer's	695			
	Commercial rearer's	5,367			
	Private Graineurs	175			
	Community Resource Persons	161			
	BSPU members (15 per unit)	15			
	Improved agriculture	6,457			
	Vegetable cultivation	1,291			
	Women SHG members	3,229			
	Indirect beneficiaries	2,142			
	Total Project Beneficiaries	11,938			
9	Infrastructure to be created				
a	Block plantation (Forest/ private/ revenue lands) (ha.)	607			
b	Regeneration of block plantation (ha.)	3,150			
c	Basic Seed Production Units (No.)	4			
d	Rearer's' Collective (No.)	6			
10	Project Output (during the Project period):				
	Tasar basic seed (Lakh dfls)	2.25			
	Tasar commercial seed (Lakh dfls)	21.39			
	Tasar Reeling Cocoons (Lakh Nos.)	1,161.41			
11	Value of the Project output (Lakh Rs.)	3,175.68			

Abbreviations

ASR	Adopted Seed Rearer's
ATMA	Agricultural Technology Management Agency
BPL	Below Poverty Line
BSM&TC	Basic Seed Multiplication & Training Centre
BSPU	Basic Seed Production Unit
BSR	Basic Seed Rearer
BTSSO	Basic Tasar Silkworm Seed Organization
BV	Bivoltine
CBO	Community Based Organizations
CDP	Catalytic Development Programme
CEO	Chief Executive Officer
CF	Cluster Federation
CIF	Community Investment Fund
CPT	Cattle proof trench
CR	Commercial Rearer
CRP	Community Resource Person
CRRI	Central Rice Research Institute
CSB	Central Silk Board
CTR&TI	Central Tasar Research & Training Institute
CTSSS	Central Tasar Silkworm Seed Station
DFL	Disease Free Laying
DOS	Department of Sericulture
DOT&H	Department of Textiles & Handlooms
DRDA	District Rural Development Agency
EA	Executing Agency
EMT	Entrepreneurial Motivational Training

FIU	Field Implementation Units
GOI	Government of India
GP	Gram Panchayat
HDI	Human Development Index
HDR	District Human Development Report
HR	Human Resource
IMR	Infant Mortality Rate
INRM	Integrated Natural Resource Management
ISDS	Integrated Skill Development Scheme
ISTP	Inter State Tasar Project
ITDA	Information Technology Development Agency
KCC	Kisan Credit Card
LWE	Left Wing Extremism
MACS	Mutually Aided Cooperatives Societies
MFI	Micro Finance Institution
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
MIS	Management Information System
MKSP	Mahila Kisan Sashaktikaran Pariyojana
MoRD	Ministry of Rural Development
MOT	Ministry of Textiles
MoU	Memorandum of Understanding
MT	Metric Tonne
NABARD	National Bank for Agriculture and Rural Development
NFSM	National Food Security Mission
NGO	Non-Governmental Organization
NHM	National Horticulture Mission

NIRD	National Institute of Rural Development
NRHM	National Rural Health Mission
NRLM	National Rural Livelihoods Mission
NSR	Nucleus Seed Rearer
NSSO	National Sample Survey Organization
NTFP	Non Timber Forest produces
PCC	Project Coordination Committee
PDS	Public Distribution System
PEC	Project Execution Committee
PIA	Project Implementing Agency
PMB	Project Management Board
PRADAN	Professional Assistance for Development Action
PRFU	Project Resource and Facilitation Unit
PRI	Panchayat Raj Institutions
PS	Panchayat Samiti
QPR	Quarterly Progress Report
REC	Research Extension Center
RKVY	Rasthriya Krishi Vikas Yojana
RO	Regional Office
SC	Scheduled Caste
SGSY	Swarnajayanthi Gram Swarozgar Yojana
SHG	Self Help Group
SLMC	State Level Monitoring Committee
SLSCC	State Level Sericulture Coordination Committee
SLTPSG	State Level Technical Project Support Group
SMC	State Management Committee
SMS	Subject Matter Specialist

SRI	System of Rice Intensification
SRLM	State Rural Livelihood Mission
ST	Scheduled Tribe
TDF	Tribal Development Fund
ToR	Terms of Reference
TOT	Transfer of Technology
TSP	Tribal Sub-Plan
TTP	Trainers Training Programmes
TV	Trivoltine
TVS	Tasar Vikas Samity
UC	Utilization Certificate
UNDP	United Nations Development Programme
VLC	Village Level Committee

Summary of the proposal

A	**Title of the Project**	**Promotion of Large Scale Tasar Sericulture Based Livelihoods in Jharkhand**
B	**Project Duration**	Duration: 3 years (2013-16)
C	**Total Budget (Approved)**	• Rs. Lakh 2,782.665 – Total Budget • Rs. Lakh 1,795.461 – Govt. of India, MoRD • Rs. Lakh 598.486 – Central Silk Board • Rs. Lakh 388.718 – Community and Other Sources
D	**Name of the Coordinating Agency**	Central Silk Board, Min.of Textiles, Govt. of India
E	**Name of the Field Implementing Agency**	Professional Assistance for Development Action (PRADAN)
F	**Coverage of the Project**	The project areas have been carefully chosen to include selected BRGF / IAP districts of the State of Jharkhand to reach out to a large number of marginalized families who have for generations, suffered from isolation and social exclusion. • No. of Districts: 8 • No. of Blocks: 20 • Direct Beneficiaries: 6,567 • Women SHG members: 3,229 • Indirect beneficiaries: 2,142 • Total project beneficiaries: 11,938
G	**Infrastructure to be created**	• Block plantation (Forest/ private/ revenue lands) (ha.)-607 • Regeneration of block plantation (ha.)- 3,150 • Basic Seed Production Units (No.)- 4 • Rearer's' Collective (No.)- 6
H	**Key Outputs of the Project**	Enhanced family incomes by Rs.10,000-18,700 for 60% of participant women through Tasar Sericulture by • Building capacities of all participating families in adopting skills to effectively and profitably engage in livelihood activities based on Tasar sericulture, • Introduction of improved technologies and practices to push the productivity frontiers for accelerated growth in Tasar Sector, • Strengthening seed sector to eliminate the key supply constraint in Tasar sericulture. • Investment to create alternative market mechanisms to ensure fair prices for cocoons. • Promote Producers' collective to provide sustainable systems of services to producers. • Design development and dissemination
I	**Value of the Project output (Lakh Rs.)**	3,175.68

Chapter 1: Project background, context and rationale

The State of Jharkhand was created in November, 2,000 through reorganization of erstwhile Bihar as the 28th state of India. Comprising of the Chhotanagpur, Santhal Pargana and Hazaribag Divisions of undivided Bihar, it has a geographical area of 79,714 square kilometres. Jharkhand has a population of 32.96 Million[1], having 75.95% of it living in villages. The State is home to nearly a tenth of the country's Scheduled Tribes[2], who constitute 26.2% of Jharkhand's population (compared to all India average of 8.6 percent). Another 12% of the population is from Scheduled Castes. The State has 24 districts, 260 blocks, 3979[3] Panchayat and 32,394 villages. For safeguarding and protecting the interest of the Scheduled Tribes and for ensuring equity and social justice in the planning process of development, the State is following Tribal Sub-Plan (TSP) approach in 12 districts fully and 2 districts partly, covering 112 blocks.

The state is nestled with five states- Bihar, Uttar Pradesh, Orissa, West Bengal and Chhattisgarh in contiguity to its border. By virtue of its geographical location, the state has got a heterogeneous culture thriving within it. The proximity of the neighbouring states influencing the norms, values, tradition and the cultural system has led to the significant inter-regional variation within the state; the prevalence of 14 different languages within the state speaks a lot to validate the statement. The state has got a significant proportion of tribal population; out of these tribes some of them are still adhering to their primitive culture and abstaining the shadows of modernization.

Carved out of southern Bihar as a new state of India in November 2000, Jharkhand was plagued by adverse initial conditions — low average income, very high incidence of poverty, and little social development. Its nominal per capita income (INR 31,982 in 2011/12[4]) is low (only 52 percent of the all-India average), though not the lowest among the major Indian states. The average per capita income is also associated with a high degree of income inequality and a rural-urban gap within the state as is evident from the high incidence of poverty in rural areas. The initial level of rural poverty, assessed at 49 percent by the National Sample Survey (NSS) 55th round in 1999/2000, was the highest among all Indian states. This suggests a potential distributional issue, as relatively better per capita income ranking adversely translates into a lower ranking on the rural poverty scale. The divide is sharper when the rural and urban areas are compared. The incidence of urban poverty is, however, only 23 percent, which is similar to or better than Andhra Pradesh (AP) and Maharashtra (27 percent).

Context of the area: The proposed project is to be implemented 8 districts and 20 blocks of Jharkhand states. The state has a rolling topography with intermittent hillock formations. The region has nearly 30%-

[1] Census 2011.
[2] The main tribes in Jharkhand are *Asur*, *Birhor*, *Birjia*, *Chik Baraik*, *Korba*, *Lohara*, *Mahali*, *Mal Paharia*, *Kumarbhag Paharia*, *Souriya Paharia*, *Savar*, *Santal*, *Oraon*, *Munda*, *Ho* and *Kharia*.
[3] Ministryof Panchayati Raj, GoI (2007-08)
[4] *As per report given by planning commision*

35% lands in the upper ridges that remain mostly fallow or poorly cultivated with minor pulses or millets. The medium uplands (about 45%-55%) are bunded and terraced and are cultivated only once in a year with paddy or maize. Porous soil with shallow depth in these lands does not allow prolonged moisture retention. Cropping in these lands often suffers setback due to the irregularities of monsoon. Lowlands in the valley areas have good soil depth and quality. Due to higher moisture retention, the lowlands can support long duration crops such as paddy. The annual rain fall ranges between 1300 to 1400 mm. The irrigation facility available with respect to total cultivable area is nearly 5-7%. The extent of un-irrigated land is more than 90% and cultivation is restricted to only in Kharif season growing only Paddy crop.

The identified area is overwhelmingly rural. The ST and SC communities constitute more than 55% of the population of the selected blocks. Livelihood is predominantly rain fed agriculture. Fragile farming with low and uncertain production, lack of gainful employment opportunities locally and poor state of institutions (mainly banks and markets) result into large-scale food insecurity, indebtedness. The young people migrate to distant places in search of menial jobs. Low public investment, poor penetration of technology and lack of services for credit and marketing have contributed to the overall weakening of farming sector.

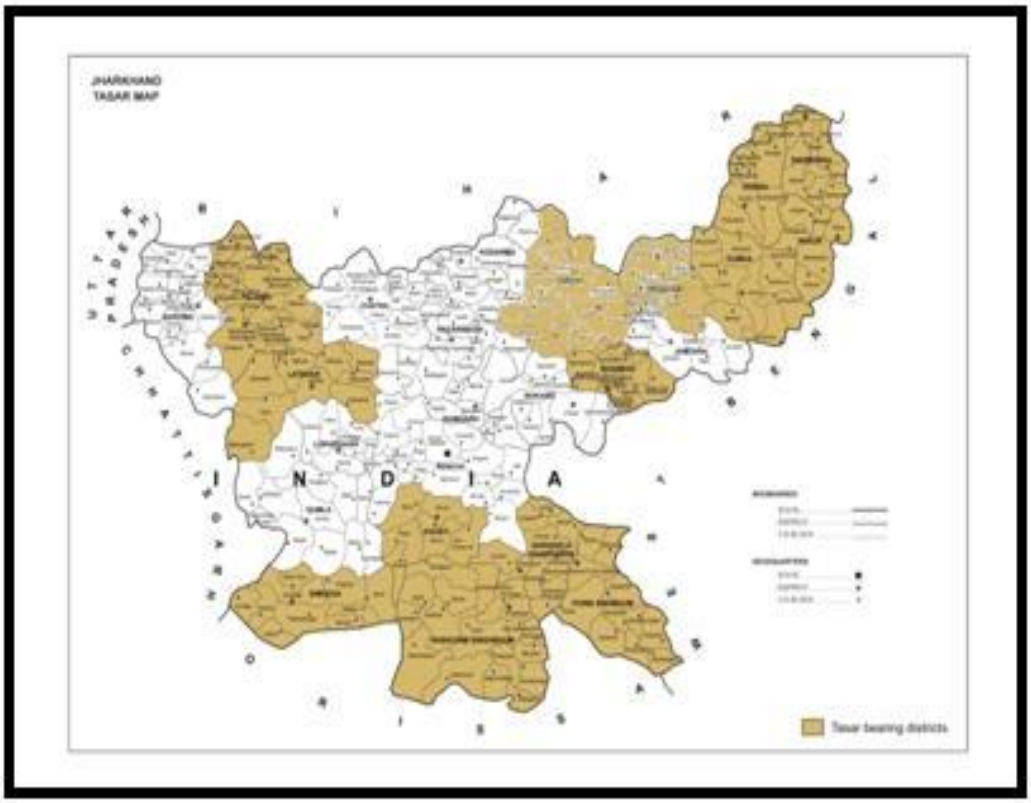
About 35% to 40% of the villages in the identified project districts are located in forest and forest fringe areas. Forests continue to be an important supplemental source of livelihoods mainly for the Scheduled Tribe communities. Tasar silk and shellac rearing, collection and trade of firewood and bamboo and a variety of fruits, nuts and leaves are the sources of cash and non-cash income from forests. However, declining forests, lack of investment and absence of institutions have considerably marginalized this once important source of livelihoods for the Scheduled Tribes.

Low productivity of agriculture, declining source of sustenance from the forest and lack of employment opportunities locally, drives hordes of rural people to migrate to other states mainly as unskilled labourers. People take up menial jobs in every sector and often live and work under poor and hazardous conditions.

The condition of the rural women in Jharkhand is appalling. While the sex ratio does not indicate alarming figures, yet this does not tell the entire tale of deprivation and vulnerabilities of women. Social exclusion, food scarcity, economic poverty and indebtedness affect women most severely. They are saddled with the additional burden of supplementing family incomes and looking after the household as men leave home for long periods. The women, belonging to backward communities bear the perils of marriage at childhood and early motherhood and are restricted to take part in economic activities. Domestic violence is common and occurrence of dowry deaths is not unusual. Tribal women, as a matter of course, are not restricted in social and economic domains and even remarriage is allowed (following divorce or death of husband) as per tribal customs. Yet, the woman in tribal communities is not allowed to inherit lands either from father or from husband. The diabolical practice of ostracizing (and even killing) single women / widows as *Dain* continues as part of the nexus to alienate her from land assets.

Sector Context: The selected districts are characterized by hilly and undulating terrain with good coverage of forests (25%-40%) and high concentration of tribal people. Farming continues to be the primary source of livelihoods for majority of the families. Farming is chiefly rain fed and about 85% of the net sown area is under mono cropping with paddy. This crop ensures barely six months of food security to an average farming household. In such a situation people look for additional livelihood opportunities.

Tasar silkworm rearing is an age-old practice in the selected districts, especially among the tribal families. Tribal people have been traditionally rearing Tasar worms in the natural forests. The activity is carried out mainly after the rainy season when the opportunity cost of labour remains very low. The rearer's spend an average of 80-90 days for this practice every year. The entire family participates in various activities like collection of seed cocoons, preparation of laying, protection of worms and finally harvesting and sales of cocoons. The returns from silkworm rearing often go to meet the basic consumption needs of the families. Low level of economy, the suitability of Tasar for utilizing family labour, favorable weather conditions and low investment and low economic gestation of the business sustains interest of nearly 60,000 families in the selected districts in silkworm rearing.



However, at the level of producers, Tasar silkworm rearing is fraught with risks. The rearing of silkworms is carried out in the outdoors. Silkworms are subjected to weather vagaries, prone to the attacks of various pest and predators and are vulnerable to diseases caused by microbes that inflict heavy mortality.

The traditional rearer's are constrained by lack of know-how and technology to face the above challenges. While low productivity is certainly the biggest challenge in Tasar sericulture, the problem gets compounded at the level of the producers owing to their lack of access to fairer markets. Low productivity and poor price realization for cocoons rendered the traditional practice of Tasar rearing non- remunerative. Consequently, a large number of rearer's, mainly the youth, have either become `passive' or altogether left the sector.

As per statistics of the Department of Sericulture, the sector has grown manifolds in the last five years but still in context of livelihood it's yet to get stability. Being a state subject, the State Sericulture departments are expected to take initiatives to improve the performance of the sector. Huge shortfall in seed supply, lack of investments in supporting technology adoption, constrains the livelihood potential of the sector.

With youth leaving Tasar sector, the families would hardly take interest to preserve their plant stock in the forest areas or in private lands. Consequently, in many places, rapid deforestation has been observed leaving negative impact on environment.

Rationale for Support under MKSP: With this construct in mind, PRADAN has conceived this project proposal for consideration under MKSP. This project proposes to build on the foundations of a) large scale social mobilization of women facilitated by PRADAN for nearly two decades in Jharkhand and b) an array of livelihood propositions for the marginalized, based on Tasar sericulture that have been made standardized through decades of meticulous efforts by PRADAN with support from the Central Silk Board (CSB).

The project proposes to create over 6,000 sustainable livelihoods for the marginalized households, specially seeking involvement of Scheduled tribe communities and women in 8- selected districts of Jharkhand such as Godda, Dumka, Pakur, Deoghar, Giridih, East Singhbhum, Saraikela-Kharsawa and West Singhbhum. A majority of the districts come under Tribal Sub-Plan Areas.

As mentioned earlier, the mainstay of livelihood interventions would be around Tasar Sericulture, a forest based activity, traditionally undertaken by communities living in forest villages. The proposed project would exploit the benefits of recent advancements in the sector to extend the livelihood opportunities to newer clusters, covering families with no prior experience to facilitate adoption of improved technologies of Tasar sericulture and enabling them to access mainstream markets and sustain economic gains.

This project is designed to capitalize on the revival and growth attained in Tasar sericulture in recent years in Jharkhand through intensive efforts of PRADAN in collaboration with Central Silk Board to implement a Special SGSY Project for development of Tasar Sericulture. The idea here is to broad base the best practices of the above-mentioned project within Jharkhand to benefit a large number of poorer households. The proposed Special project would take 4 years for complete implementation of all the activities.

While selecting the area of intervention, we have taken into consideration two major factor conditions such as (i) presence of active Women Self help Groups (ii) existence of Tasar-host tree resources within the access of the local communities.

Another associated factor condition that would favor the project is the availability of fallow / wastelands owned by the SHG-member families. These lands are proposed to be utilized for raising host tree plantations in isolated patches. The project would promote, from among the participants, a group of rearer's who would be involved in seed stock multiplication in these isolated plantations under aseptic conditions. The seed stock would be processed to prepare Disease Free Laying (DFLs) or high quality Tasar seeds. Isolated plantations would thus be a unique feature of the project that would create capacities for large scale seed production in the next 4-5 years. Beyond the project period, this facility would serve at least double the number of families, who would be directly covered during the project period.

Besides enhancing the stake and involvement of the women in the income activities like Tasar sericulture, the project would work for strengthening their position at household. Although women play a central role in agriculture, yet low productivity of rain fed farming hardly supports the family to meet year-round food requirement. Food shortages affect women most, both physically as well as emotionally. As homemakers and rearer's of small children, they bear the emotional trauma of coping with hungry children, and are most likely to receive less or go without food in times of shortages. The project proposes to support at least 50% of the participating families to overcome food shortage by ways of increasing their paddy production. This effort would be further supplemented by SHGs and Cluster associations, who will support their members to claim food grains from PDSs.

By way of activities, the project would:

- Strengthen the existing SHGs and clusters and orienting them to livelihood activities,
- Promote functional groups of Tasar silkworm rearer's comprising of women and men,
- Promote District / Block level aggregations (formal or informal) of the primary groups. These organizations would enable the producers to sustain their initiatives,
- Implement a variety of activities pertaining to Tasar sericulture to build capacity of producers, equipping them with implements and accessories, create assets such as seed production units, host tree plantations, reeling units, sorting-grading centre's,
- Set up Tasar Cocoon and silk Yarn banks as alternative marketing mechanisms,
- Support at least 50% of the participating families to adopt improved technologies and methods (such as SRI) of food grain production. The SHGs and Clusters would support the remaining families to claim their entitlements for food grains from PDS.
- Promote a cadre of community based service providers to provide hand holding assistance and linkages for credit and market for the participating Project families.
- Promote and nurture suitable producer organizations (cooperatives or producer companies as per the new Act) to provide sustainable systems for services to the project participants,
- Undertake activities pertaining to documentation of processes, impacts and for wider dissemination of experience.

1.1 Demographic Profile of the area

The Project is being implemented in the 8 districts of Jharkhand. Even in the districts focus is on twenty blocks. The demographic profiles of the districts as well as state based on some primary parameters are shown in the following table:

Demographic Indicators	State	Singhbhum Cluster			Santhal Pargana Cluster				
	Jharkhand	East Singhbhum	West Singhbhum	Saraikela Kharsawan	Pakur	Giridih	Godda	Dumka	Deoghar
Rural Population (%)	75.95%	44.44%	85.49%	75.71%	92.50%	91.49%	95.10%	93.18%	82.68%
Rural Population (Million)	25.05	1.01	1.28	0.80	0.83	2.23	1.25	1.23	1.23
Sex Ratio (Rural)	961	981	1014	972	991	946	940	983	933
Child Sex Ratio (0-6) (Rural)	957	952	986	950	974	944	962	968	959
Child Percentage (0-6) (Rural)	17.43%	14.47%	18.23%	15.21%	19.96%	19.15%	18.60%	16.88%	18.94%
Average Literacy (Rural)	61.11%	62.86%	54.31%	63.53%	47.33%	61.55%	55.01%	59.28%	60.49%
Density/km^2	414	644	208	401	497	493	580	351	602
Area (km^2)	79,716	3,562	7,224	2,657	1,811	7,962	2,296	3,761	2,477
Proportion to Jharkhand Population (Rural to Rural)	100.00%	4.03%	5.11%	3.19%	3.31%	8.90%	4.99%	4.91%	4.91%

Source: census2011.co.in

Major part of the population of the eight districts except the industrial areas of East Singhbhum and Saraikella Kharsawa are having more than 80% population rural. The Project blocks are even more rural having more than 90% population rural. The sex ratio is an important parameter and there is a steady decrease and the child sex ratio is even more alarming. The districts altogether covers almost 40% of the rural population and the project blocks considered poorest patches of the state. There is also a steady decrease in forest cover, which has been evident from the table below which may be interpreted as peoples leaving away forest based activities.

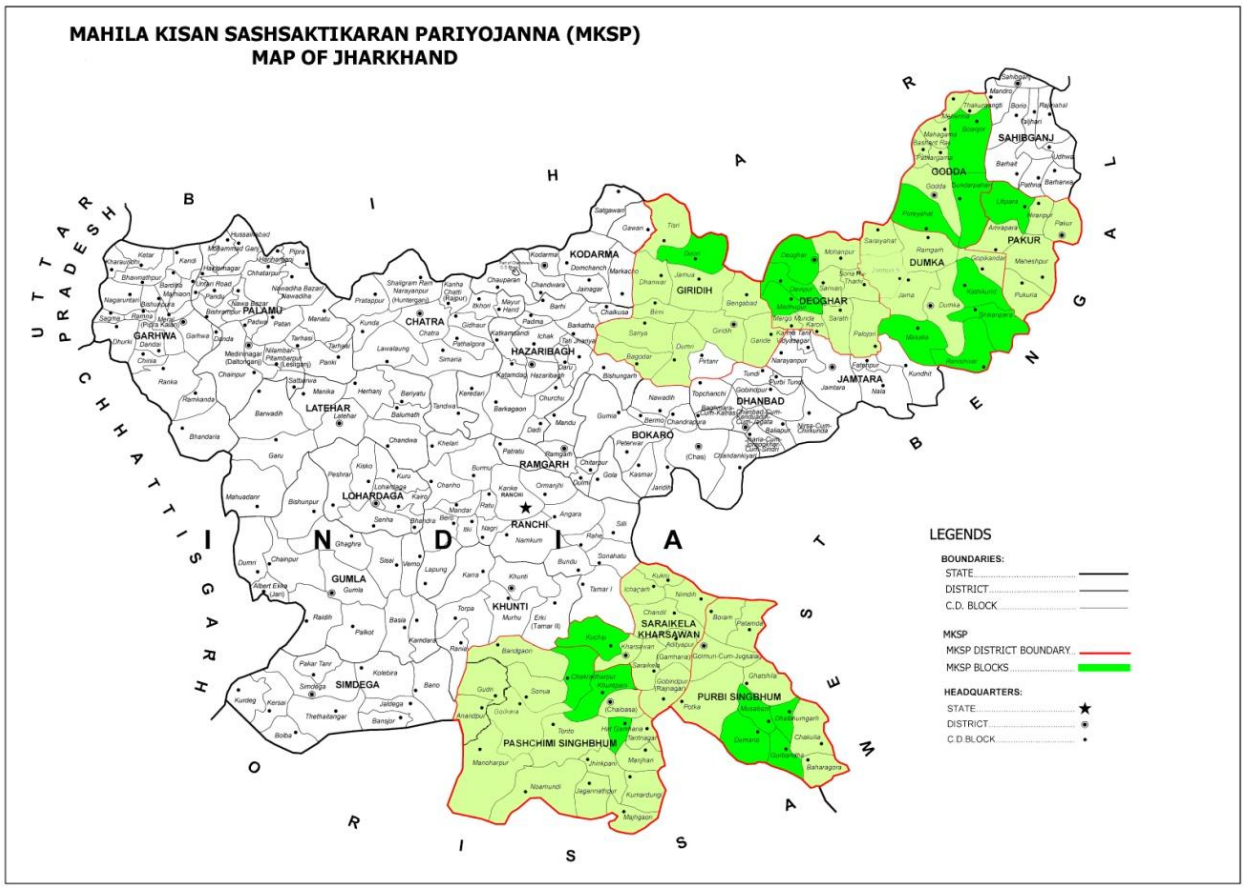
LAND USE STATEMENT OF JHARKHAND

(In 000 Hectare)

Sl. No.	Name of District	Geographical Area	Forest Area	Forest (%)	Barren land	Cultivable Waste Land	Current Fallow
1	Dumka	379.03	42.71	11.27	24.00	22.72	59.32
2	Deoghar	248.15	34.63	13.96	13.45	14.91	53.87
3	Godda	231.84	31.32	13.51	8.71	6.37	44.32
4	Pakur	181.70	20.79	11.44	12.51	7.46	36.93
5	Giridih	493.22	158.42	32.12	30.42	17.98	96.79
6	E. Singhbhum	556.69	122.82	22.06	42.15	21.49	99.01
7	W. Singhbhum	562.70	227.54	40.44	50.01	24.42	41.95
8	Saraikela-Kharsawa	237.23	95.96	40.45	22.10	10.90	17.70
Jharkhand		**7,970.08**	**2,333.55**	**29.28**	**575.78**	**283.62**	**1,363.05**

Source:- (Directorate of Statistics & Evaluation, Jharkhand, Ranchi, 2004-05)

Project Area



1.2 Rural poverty context in the area

a. Poverty and Human Development:

Jharkhand being one of the rich state in terms of resources, a mineral rich state, it accounts for 35.5 percent of the country's known coal reserves, 90 percent of its cooking coal deposits, 40 percent of its copper, 22 percent of its iron ore, 90 percent of its mica and huge deposits of bauxite, quartz and ceramics as per the India Brand Equity Foundation Report, 'Indian States- Economy and Business-Jharkhand'. But the state also constitutes more than 75% of its population living in rural areas whereas the in case of S.C & S.T, the rural population percentage is more than 90% (S.C-91% & S.T-95%) as per census 2011.

Tribal constituting almost 28% of the state's total population and a home of every tenth tribal in India are historically a disadvantaged community. Irrespective of states 22.3% growth in population over the past decade, population of tribal has decreased over time. This can be attributed to a number of factors such as rising industrialization, urbanization, low birth rate and high death rate among tribal, immigration of non-tribal communities in the region and emigration of tribal people to other places.

Ranked 19 out of 23 states, the state has a dismal human development value of 0.376 as per census of India 2011 (Provisional tables). Jharkhand's literacy rate of 67.6 percent is much below the national average of 74.04 percent. Female literacy at 56.21 percent in contrast to the male literacy rate of 78.45 percent is also amongst the lowest in the country[5]. According to the India State Hunger Index (ISHI) 2009, Jharkhand falls into the 'alarming' category, that is, a state with high levels of hunger. With an ISHI score of 28.67, it is ranked just above Madhya Pradesh, which, according to the report, has an 'extremely alarming' hunger problem. The India State Hunger Index scores are closely aligned with poverty. At 45.3 percent, the poverty ratio of the state is much above the national average of 37.2 percent. However, if factors beyond income are considered, i.e. the Multidimensional Poverty Index, this ratio goes up further to about 74.8 percent as per the MPI (Multidimensional Poverty Index) data and updates for 2011, OPHI (Oxford Poverty and Human Development Initiative). The urgent need for the state to address health challenges is evident in its performance on key health indicators. For example, nearly 43 percent of the women in Jharkhand have a Body Mass Index below normal; 56.5 percent of children are underweight and the under-five mortality rate is as high as 93 percent as per India Human Development Report 2011. These high values of health indicators point to the urgent need for the state to strengthen its public health system. Further, access to basic amenities such as safe drinking water, access to toilet, sanitation facilities remains limited. Only two-thirds of the population has access to improved sources of drinking water, and only one out of four households in the state has access to toilet facilities. Although the sex ratio of Jharkhand at 947 females per 1,000 men, as per the 2011 census, is above the national average, it still ranks 17th out of the 35 states and union territories of India. With regard to the child sex ratio, Jharkhand (943) is again better than the all-India average (914), but still marginally lower than the overall sex ratio of the state as per census of India 2011 (Provisional tables).

Status of Women: There are gender disparities in Jharkhand in respect of several human development indicators. As per the Gender Development Index (GDI) ranking, Jharkhand stands 29th out of 35 states and union territories together. Jharkhand is a state where 72% women suffer from anemia and 41%

[5] *http://www.in.undp.org/content/india/en/home/operations/about_undp/undp-in-Jharkhand/about-Jharkhand/#5*

suffer from malnutrition. This in itself is a testimony to the pitiable condition of the health care system in the state.

Illiteracy is the greatest patron of all social evils. The abysmally low literacy level of women in the state and the resultant lack of awareness of their rights have made them all the more vulnerable to atrocities. One of the most inhuman and shameful forms of atrocity prevalent in the state, declaring a woman as a witch and then throwing her out of the society, essentially thrives on illiteracy and ignorance. Participation of women in the formal, organized sector is extremely poor, as most of them are compelled to work in the unorganized sector where they are ruthlessly exploited.

Infant Mortality for the state ranks 8th and child mortality ranked 14th in all State comparisons according to NFHS II. Jharkhand shows high infant and child (under 5) mortality, which is strongly associated with high fertility of women and specifically frequent pregnancy. There are substantial variations in the infant and child mortality location specific. Children born to women of rural low income, illiterate adolescent mother are at a disadvantage than the privileged one. Neonatal death is directly related to mother's health, which continues to account for two thirds of infant mortality. Expressed differently, 1 in 19 children die in the first year of life, and 1 in 13 die before reaching age five.

Existing laws permit female marriage at the age of 18 years, but generally in Jharkhand, it is performed at lower age. Women in Jharkhand tend to marry at an early age. Thirty-eight percent of women age 15 to19 are already married, including 3 percent who are married but for whom *gauna* (leaving her parental home to stay with husband/in-laws) as per gender profile of Jharkhand. Early marriage of girls is one of the factors contributing not only to high fertility, high maternal, infant and child morbidity but mortality, pregnancy loss, still births and abortions. Further, early age at marriage associated with young age of mother increases reproductive loss.

Women Awareness and Empowerment		
Area of Awareness	Yes	No
Can you Sign name?	29	71
Do you know the legal age of marriage?	41	59
Do you know what a BPL list is?	34	66
Do you know what minimum wage rate is?	18	82
Do you know how to reduce risk of AIDS?	5	95
Do you know the reasons of immunizing children?	40	61
Do you know who the Chief Minister of your State is?	9	91
Do you know who the MP of your constituency is?	5	95
Do you have a personal/ saving bank account outside SHG?	14	86
Do you believe your family saves enough for future?	12	88

The condition of the rural women in Jharkhand needs attention. While the sex ratio does not indicate alarming figures, yet this does not tell the entire tale of deprivation and vulnerabilities of women. Social exclusion, food scarcity, economic poverty and indebtedness affect women most severely. They are saddled with the additional burden of supplementing family incomes and looking after the household as men leave home for long periods. A longitudinal study[6] conducted in 2009 on the status of women in Jharkhand by Prof. Rohini Somanathan[7], and Prof. Jean Marie Baland[8] in 8 districts of Jharkhand. The responses of women respondent around major awareness themes presented in the table depict very poor awareness of the women in villages.

[6] *A sample of 1041 adult (18 years or above) women from 8 district were interviewed for the "Awareness and Empowerment " section in the study*

[7] *Delhi School of Economics, University of Delhi*

It is hoped that with the various schemes put in place by the Government for educating the girls would achieve desired results. However, the implementation of these schemes needs close monitoring.

b. Vulnerabilities:

a. Household level vulnerabilities

The context of household is very different in Jharkhand across state and within the districts also. The states as well as the project districts are having 5.6 persons per household as per Census 2001 data. The project blocks are mainly dominated by tribal. A household in the project blocks are more vulnerable as almost about 60% of schedule caste and schedule tribes are still below poverty line. It may be said that agro-ecological and social factors are the main causes for rural poverty in Jharkhand. Poor infrastructure, difficult terrains, high population pressure on arable land, low coverage of irrigation, limited in-situ employment opportunities, social customs and traditions, natural calamities like drought are some of the factors that inflict poverty in the state. Agriculture in this part is mostly rain fed as a result most of the lands are monocrop. Out of a total geographical area of 7.9 million ha, nearly 2.6 million ha are cultivated, while 2.3 million ha (29% of total area) are under forests[9]. The area under assured irrigation is less than 10 percent. As stated before, agriculture is the main source of livelihood for most of the rural people. About 70% of farm households own less than 1 hectare of farm land. However, average size of land holding in Jharkhand is comparatively higher (0.56 ha) than neighbouring states, but only 66% of land owned by farmers is under cultivation in sample villages as per the paper by K.M Singh and M.S Meena, indicating abundance of culturable waste land.

Per capita income of people living in this part is much lower in comparison to the district average. As a result, other indicators of human development like literacy rate, women literacy rate are poor and IMR, MMR are also high. To explain this disparity, the poverty statuses as well as the situation around development indicators are shown in the tables below.

Status of Poverty

BPL (%)	Districts
80% and above	West Singhbhum
70-80%	Seraikela-Kharsawan
60-70%	Dumka
50-60%	Deoghar, Pakur
40-50%	Giridih, Godda, Giridih
Below 40%	Deoghar

Source: Annual Report 2004-05, Department of Food, Civil Supplies and Commerce, Government of Jharkhand pp.50.

The project districts are behind national and state average in most of the development indicators as below.

[8] *University of Namur, Belgium*

[9] *MPRA Paper No. 45258, posted 20. March 2013 08:38 UTC*

Development Indicators	MKSP Districts	Jharkhand	India	Data Source
Literacy rate (%)	63.49	67.6	74.04	*Census, 2011*
Female literacy rate (%)	30.36	38.9	65.46	*Census, 2001*
Retention rate in primary education	Not known	71.35	74.92	*NUEPA, 2008-09*
Yield rate of Paddy (MT/hectare)	Not known	2.02	2.24	*Source: Dept of Agri & Cane Development, Govt of Jharkhand 2009-10*

Health Parameter at a glance in Jharkhand and Project Districts

Sr. No.	District	Parameters , Rural					
		Crude Birth Rate (CBR)	Crude Death Rate (CDR)	Infant Mortality Rate (IMR)	Neo- natal Mortality Rate (NnMR)	Under Five Mortality Rate (U5MR)	Maternal Mortality Rate (MMR)
1	Deoghar	23.1	5.1	39	22	53	325
2	Dumka	26.3	6.9	46	34	59	325
3	Giridih	22.7	4.6	36	22	50	208
4	Godda	23.8	7.3	65	35	95	325
5	Pakur	30.3	7.4	59	37	85	325
6	W Singhbhum including Saraikela- Kharsawa	26.9	8.4	59	38	101	291
7	Purbi Singhbhum	24.6	6.6	31	22	48	291
8	**Jharkhand**	**25.0**	**6.5**	**45**	**29**	**66**	**278**

Source: Annual Health Survey bulletin 2010-11, http://data.gov.in/dataset/annual-health-survey

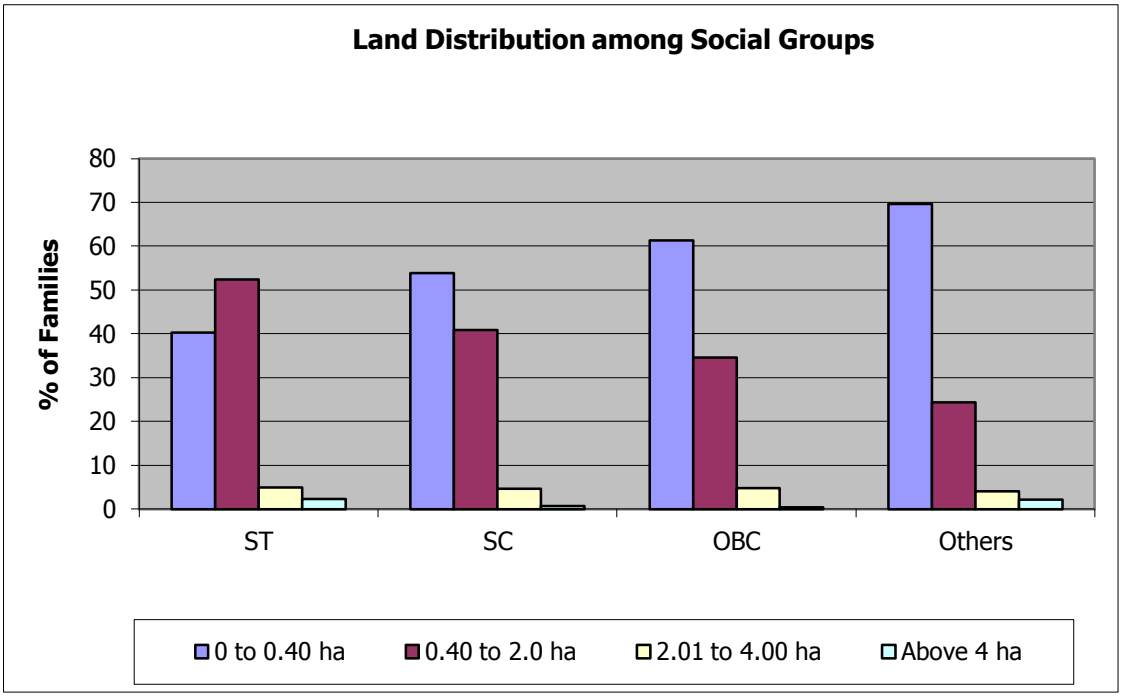
The break-up of land utilisation in the project districts as well as in the state is as below:

(In 000 Hectare)

Sl. No.	Name of District	Geogra-phical Area	Forest Area	Barren & Utilised land	Permanent Posture & Other Grazing Land	Cultivable Waste Land	Land Under Miscell-aneous Trees	Other than Current Fallow (upto2-5years)	Current Fallow	Net Area Sown	Area Sown More Than Once
1	Dumka	379.03	42.71	24.00	18.59	22.72	8.17	42.43	59.32	119.10	6.05
2	Deoghar	248.15	34.63	13.45	10.03	14.91	3.61	34.71	53.87	63.68	4.04
3	Godda	231.84	31.32	8.71	6.33	6.37	3.34	35.16	44.32	78.21	6.31
4	Pakur	181.70	20.79	12.51	5.67	7.46	5.34	20.50	36.93	57.84	5.21
5	Giridih	493.22	158.42	30.42	9.96	17.98	13.47	54.97	96.79	77.59	16.60
6	E. Singhbhum	556.69	122.82	42.15	2.68	21.49	9.16	20.65	99.01	83.28	63.60
7	W.Singhbhum	562.70	227.54	50.01	3.15	24.42	7.53	32.58	41.95	145.99	14.20
8	Saraikela-Kharsawa	237.23	95.96	22.10	1.33	10.90	3.05	12.74	17.70	60.42	4.86
	Jharkhand	7,970.08	2333.55	575.78	87.46	283.62	124.27	751.61	1363.05	1762.47	263.04

Source: - (Directorate of Statistics & Evaluation, Jharkhand, Ranch yr 2004-05i.)

The land distribution in Jharkhand is egalitarian. The following chart depicts the land distribution among social groups in the state:



Source: Jharkhand Development Report 2006 (Pub: Indicus Analytics, N Delhi -02 for Prabhat Khabar)

The chart clearly shows that 40% families from ST, 52% families from SC, 61% families from OBC and 70% families from other community fall under the category of families having land holding between 0 to 0.4 ha. It reflects that the families falling under this category have an upward trend from ST to SC to OBC and to others. Overall, 56.27 % of the total families in the state owns less than 0.40 ha of land. This reinforces the prevalence of mass poverty in Jharkhand across social composition. The landless constitutes 9.36% of the total families.

The distribution of households under different categories of land holding is depicted in the following:

Sl.	Classification based on landholding size	% of households
1.	Marginal Landholder < 1 hectare	62.60
2.	Small Land Holder (1-2 Hectare)	17.50
3.	Medium Land Holder (2-10 Hectare)	18.80
4.	Big Land Holder >10 hectare	01.10

Source: Bihar Agriculture Census Report 1990-91

The households inhabited in the project blocks are part of the hilly and forest parts of the district are relatively poorer than people from rest of the district. In these areas, majority of the families still depend on forest. Woodcutting is a major source of livelihood. Some families have moved from pure forest dependence to a mix of small farming and migration based wage labour in recent past. In considerable areas of project blocks, the youngsters prefer to work in mines and transports related to it, but there is not much improvement in family well being. Communities living in hilly & forest areas are generally Scheduled Tribes including a few hamlets of Primitive Tribal groups such as *Mal Paharias*. Each household has a reasonable amount of homestead land, used to grow maize, mustard (with residual moisture) and Pigeon pea. The upland and medium land are placed under traditional varieties of paddy with low yields.

Small parcels of lowland, if available with the household, are also placed under traditional varieties of paddy. Manure in the form of cow-dung or compost is used in limited quantity, inorganic fertilizers are not used. In majority of the areas people are into *Tasar* sericulture. Cattle are maintained essentially for draught purposes. A few goats and hens comprise the rest of the livestock which are often used as buffer. In some pockets, food insecurity, absence of basic amenities and employment opportunities has brought the inhabitants under the influence of extremists. Some of the specific issues of the area are as below

(a) Degradation natural resources and poor agriculture productivity

In spite of favorable climatic conditions, the production from agriculture and related activities are low. Lack of irrigation facilities, low adoption of improved crop practices and land development measures, and low investment because of poor economic situations lead to degradation of natural resources. Degraded resources in turn reduce the productivity. This way it forms the vicious cycle of poverty.
Although the poorer people don't leave agriculture, as survival mechanism they depend upon other sources of livelihoods like wood cutting from forest, wage labour, migration etc. Wood cutting from the forest as well as shifting cultivation and soil erosion from unbunded uplands further contributes to the land degradation.

Irrigation has been considered as a major input for enhancing the agricultural production. All the extension programmes for increasing production is focused upon demonstration of input use rather than practices, that too with limited number of families.

(b) Skewed distribution of benefits out of mining

Because of low productivity from land, the families near mines depend upon the unskilled work as their source of livelihood. Although the families are able to survive, there is not much change in their wellbeing status. The earning from mines is only for survival. There is rare investment on human and natural resources. On the other hand, a few people are getting benefited from this large business, while a large mass is getting affected due to environmental pollution and road detoriation due to heavy traffic e.g Hatgamharia block of West Singbhum.

(c) Poor connectivity in hilly areas

There are a number of villages in forest fringe areas, not connected with suitable all weather roads affecting the reach of poor to mainstream for education, health and other services. The marketing of produces is also affected.

Although there are programmes for increasing rural connectivity, there is lacking in concentrated effort to connect all the habitations.

(d) Poor status of health, education and other basic services

The health and education status in the interior parts are very poor. Awareness among people, poor livelihood status and connectivity are the major reasons. The literacy rate is low as compared to state and national average. Although there are primary schools in each one or two villages, the people are not satisfied with quality as there is inadequate number of teachers. Teachers also don't prefer to stay in the interior parts, affecting the quality of education.

Although according to the official sources, almost all the habitations have drinking water facility; people have expectations to have the facility nearer to the house. In some habitations, there are no facilities at all. In spite of the government programme, very few rural families have toilets. The infant mortality, maternal mortality and malarial death are high in the area.

b. District/state level vulnerabilities

Food Security in Jharkhand: In spite of abundant natural resources, among all Indian states, Jharkhand lies lowest on the ladder of development indicators. Around 2 percent of its population suffers from chronic hunger and 10 percent experience seasonal food insecurity. Agriculture is the main source of livelihood, and although agricultural production has grown impressively in recent years at 4 percent (higher than the all-India average of 2.2 percent), the state has a long way to go before it can meet the food security needs of its people.

In order to measure the attainment of the food security of the districts of Jharkhand, two indicators have been used in human development report of Pakur district; firstly, child mortality rate and secondly, underweight children. The first indicator, that is the child mortality rate, indicates the probability of dying between birth and five years of age, expressed per thousand live births. The second indicator, that is, underweight children has been chosen as in developing countries the rural population, particularly children, is vulnerable to malnutrition because of low dietary intake, lack of appropriate care and inequitable distribution of food within the household. Malnutrition in children weakens their immune system, making them more susceptible to diseases and less able to fight off infection. It has been estimated that a child is almost ten times more likely to die from key diseases if they are severely underweight, and two and a half times more likely to die if they are moderately underweight, as compared to an average weight child. Child under-nutrition and mortality are an overall outcome of nutritional and food insecurity.

Thus, these two indicators have been combined to compute an indicative index of food security outcome in Jharkhand, particularly Project districts. The districts have been divided into five groups on the basis of this index secure, moderately secure, insecure and very insecure - each category representing the relative severity of the outcome of food insecurity.

Food Security Outcome (FSO) Status

Secure	Moderately Secure	Insecure	Very Insecure
E. Singhbhum	Deoghar	Godda	W. Singhbhum
		Pakur	Saraikella- Kharsawan
		Dumka	
		Giridih	

Source: HDR Pakur P-3

Indicators used to compute Food Security Outcome (FSO) Index

District	Child Mortality Rate		Under Wight Children		FSO index	
	Value	Rank	Value	Rank	Value	Rank
Deoghar	84.2	3	48.4	5	0.601	5
Dumka	85.8	4	62	16	0.491	11
Giridih	87	7	62.9	18	0.48	12
Godda	99.5	10	50.4	8	0.534	7
Pakur	107.7	12	50.7	11	0.505	9
West Singhbhum (including S- Kharsawa)	113	14	55.6	14	0.449	15
East Singhbhum	88	8	44.4	1	0.619	3

Source: HDR Pakur P-3

Districts like East Singhbhum have a better status in the food security outcome than the other districts perhaps because of their being industrial mining and urbanized districts. Another noticeable fact is that there exists a high inter district disparity in under five mortality but the disparity is not so high in the incidence of underweight children. Even the best performing districts like East Singhbhum have 45 percent children underweight. There are six districts where the number of children dying before the age of five is 100 or more per 1000 live births.

Jharkhand is one of the most food-insecure and malnourished states in the country, NSSO (55th round) data reveal that 10.46% of all households in Jharkhand face seasonal food insecurity. Around 2.5% of households face chronic food shortages. Of the families facing food insecurity, 64% face food shortages for two to three months while as many as 28% do not have sufficient food for four to five months. Almost 6% of the food-deficient households have to go hungry for more than half the year. The incidence of food insecurity is higher among ST and SC families.

Assured food supplies exist for only three to four months of the year, after the harvest in late October-early November. Food supplies tend to run short by the end of winter. The starvation period begins by mid-summer (June) and in many cases, continues till the end of October. Seasonal under-nutrition among food-insecure households is normal. People belonging to scheduled castes and primitive tribal groups are worst-affected as they are generally landless and depend on migratory employment for an income. When earning members of a family are unable to migrate due to ill health or other reasons, the entire family faces starvation.

Irrigation Extent- The extent of irrigation is very low, less than 10 percent which has resulted in low cropping intensity. The state is by and large mono-cropped. Although the state has an average rainfall (more than 140 cms), which is above the national average (110 cms), the rainfall is quite erratic and unevenly distributed leading to crop failures, which in the absence of adequate state intervention result in frequent famine or famine like situations. This, coupled with low irrigation coverage has resulted in a highly unstable growth of food grain production in the state over the last one and a half decade.

Access to Safe Drinking Water- Polluted and contaminated water undermines the safety and nutritional well-being of individuals. The availability and quality of potable water is a big factor that affects food insecurity.

Access to Safe Drinking Water by Districts (in percent of households)

District	Value	Rank
Deoghar	35.7	10
Dumka	50.73	4
Giridih	11.76	18
Godda	40.14	8
Pakur	66.58	1
West Singhbhum (including Saraikella- Kharsawa)	51.81	3
East Singhbhum	45.04	6

Source: Calculated from Census of India, 2001

Unemployment: Employment opportunities have not expanded enough to reduce poverty. The backlog of employment is rising steadily. Some of the salient features of unemployment in Jharkhand are higher

incidence of unemployment in rural areas, under-employment among women and higher incidence of unemployment among the educated.

The dissatisfaction of the tribal's arising out of their exploitation and oppression has also forced them to take up arms in many parts of the state. Forest and forest produce have traditionally been the major source of livelihood for tribal communities but their depletion has put the tribal communities to great stress. Many of them have been displaced by the industries, mines, dams, etc. They provide readymade recruiting ground for extremists.

Left Wing Extremism or Naxalism: The state is divided into 24 districts with nearly 32,620 villages. Nearly 19 out of the 24 districts are suffering on account of Naxalite problems. Since, almost all the mineral rich areas have come to Jharkhand after bifurcation of erstwhile Bihar, the centres of Naxalite activities have also shifted to Jharkhand. Ever since its inception the killing of people which includes innocent people, the Naxalite, the police have continued every year. It becomes obvious from the table given below:

Years	Civilians	Security Force Personnel	LWEs	Total
2005	49	27	20	96
2006	18	47	29	94
2007	69	6	45	120
2008	74	39	50	163
2009	74	67	76	217
2010	71	27	49	147
2011	79	30	48	157
2012	3	0	1	4
2012 data is till January 16, 2012				
Source: SATP (South Asia Terrorism Portal) ***www.satp.org***				

An analysis by SATP of Maoist violence as well as of over ground and underground activities, through 2011, indicates that 16 Districts including 7 out 8 project districts in the State remain in the highly affected category.

Droughts: Drought is a recurrent phenomenon in Jharkhand. It affects the livelihoods of the majority of its people, particularly tribal's and dalits living in rural areas. Twelve of the 22 districts of the state, covering 43% of the total land area, are covered under the Drought Prone Areas Programme (DPAP). Hunger and starvation deaths are reported almost every year.

Jharkhand receives almost 1200-1300 mm of rainfall every year but the rains are erratic in many areas. The probability of rainfall failures and coefficient of variations is quite high in the last weeks of June-July and in the last weeks of September-October. Hence, drought in the state primarily occurs at the start or end of the kharif season. In July, upland crops grow to maturity and seedlings for transplanted rice are established. If there is deficient rain, the upland crop—mainly paddy and maize, which provides food security in August-September— is affected. Seedlings for the transplanted paddy start to wilt or become over-mature. As most of the land is monocropped, the lowland paddy is crucial for employment and food security. A delay in rainfall affects the transplantation of *agahani* paddy, the major crops in the area.

October (*Hathia*) rains are required for paddy and provide the necessary residual moisture for the *rabi* crop.

The entire state is not generally affected by drought. However, there are areas which are affected frequently. Over a period of time, new areas become affected by drought, and we see that drought has been officially declared in areas outside the DPAP. When the rains fail, agriculture is usually the first to be affected because of its critical dependence on stored soil water. First, soil water in the uplands starts to deplete. Then shortage of water starts to affect people collectively and individually. The socio-economic impact of drought occurs sooner in Jharkhand than in other states as frequent droughts have weakened the capacity of the people to bear shock. While drought is basically caused by erratic and deficient rain, the problem has been aggravated by large-scale open-cast mining; deforestation as people dependency is decreasing; irregular and non-scientific mining and quarrying; inefficient management of resources, particularly water resources; and decline in traditional systems of water management particularly in the villages.

1.3 Context of Social Inclusion and Social Mobilization

The Self Help Group (SHG) in India has come a long way, since its inception in 1992. The spread of SHGs in India has been phenomenal. It has made dramatic progress from 500 groups in 1992 (Titus 2002) till 8 million groups a year ago. Self-Help Group is an informal association of 10 to 20 poor women belonging to the same village and sharing a common socio-economic background. The group enables its members to gain their identity as individuals, while realizing – and utilizing – the immense power of mutual aid. It provides them with a platform from where they can access banks and public services, and spearhead changes that affect them as poor women.

With respect to financial assets, rural Jharkhand is characterized by the lack of access to credit rather than inequity. This may be partly explained by the persistence of low demand for credit given the aspect of largely unirrigated agriculture and little rural diversification with low returns to assets. But, low access may well be due to the lack of financial institutions. According to the 2002 survey carried out by the NSSO, self help groups (SHGs) are present in only 5 percent of villages in Jharkhand, as compared to 11 percent in Orissa, 23 percent in West Bengal, 28 percent in Chhattisgarh, and 80 percent in Kerala, with the all-India average at 24 percent.

Regarding the present status of SHG's as per the report published by NABARD as on 31.03.2008 more than 62,000 SHGs of Jharkhand have around Rs 3,466.57 lakhs as savings in various banks. Rs.5,140.04 lakhs were distributed as loan to about 11,284 SHG during 2007-08 and the loan outstanding against 57,250 SHGs was Rs.16218.19 lakhs. Commercial Public sector banks are way ahead of other financial institutions in SHG-bank linkage with more than 40,000 SHGs having savings of Rs.2,947.35 lakhs with them. However Co-operative banks are a non-starter in such linkage in Jharkhand, 22036 numbers of exclusive women SHGs had loan amount of Rs.7,076.04 lakhs outstanding against them with PSU banks as on 31.03.2008 while the loan disbursed to 7,723 exclusive women SHGs was Rs.2537.51 lakhs. The number of linkage with private bank stood at 10. It is very much in tune with NABARD and Government policies that more and more number of women SHGs are coming forward for such linkage and thus the movement is gaining Strength over the years.

Number of Women SHGs and their Saving Amount, Loan Disbursed by Bank and Loan Outstanding in Jharkhand

(As on 31st March, 2010) (Rs. in Lakh)

State	Saving of SHGs		Bank Loans Disbursement to SHGs		Bank Loans Outstanding Against SHGs	
	Women SHGs		Women SHGs		Women SHGs	
	No. of SHGs	Saving Amount	No. of SHGs	Loan Amount	No. of SHGs	Loans O/s
Jharkhand	53661	4861.07	8716	8013.8	38330	19054.95
India	5310436	449865.8	1294476	1242936.8	3897797	2303036

SHGs: Self Help Groups. *Source: Rajya Sabha Unstarred Question No. 1008, dated on 09.08.2011.*

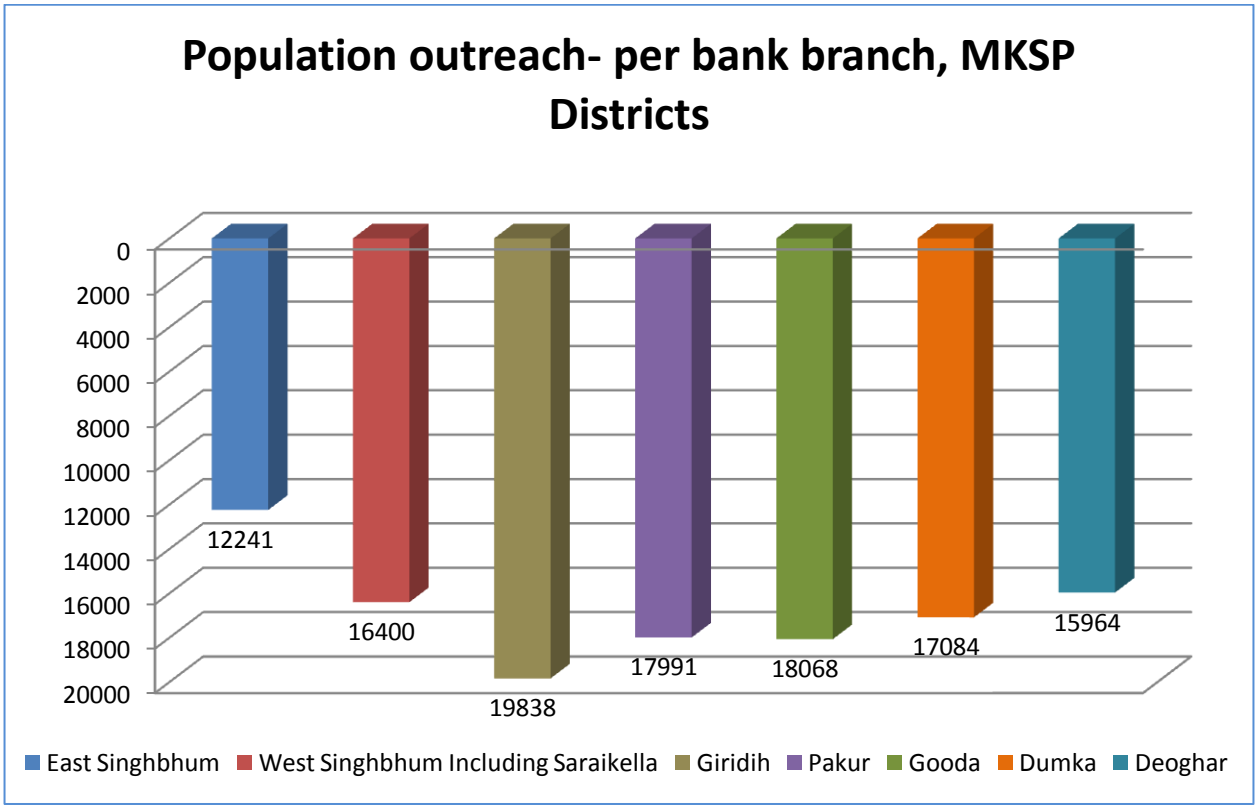
Professional Assistance for Development Action (PRADAN) is working in Jharkhand since 1993 with the focus on promoting and strengthening of existing as well as new livelihoods. The approach is mainly based on three broad strategies, improving the management and productivity of natural resources for increasing income and food sufficiency, promotion of non-farm enterprises and rural micro-credit programme with the poor women. PRADAN has promoted 7708 women's Self–Help-Groups (SHGs) in the State in 16 districts till March 2013.

1.4 Context of Financial Inclusion

The formal financial system in India is dominated by banks and same is the case with Jharkhand. In most tribal areas, absence of banks and other financial institutions have made the poor dependent on the informal sources of credit delivery. These traders and money lenders, no doubt, do provide an important service to the poor but their conditions are so strangling that poor end up becoming poorer and rarely do come out these traps as a significant economic production systems is influenced and controlled by these agents. The widespread practiced subsistence agriculture has limited scope to create surplus and generate savings. Thus, as soon as the first misfortune a family meets; there is no other way than go to the money lender, thus beginning the vicious debt cycle. The banks have poor reach out due to low bank branch density (also because of low population density) and even provide poorer access to rural poor as they find it easy to entertain few customers with big pockets than mass of poor customers with a little surplus and savings and credit worthiness.

The State had a network of 1661 bank branches, covered by 22 public sector banks with 1,123 branches, 8 private sector banks with 36 branches, two Regional Rural Banks with 388 branches, eight District Central Co-operative Banks (DCCBs) with 112 branches, and two primary urban co-operative banks with two branches, as on March 31, 2007. The population group-wise distribution of these branches indicates that the rural branches accounted for 62 per cent of the total number of branches in the State, as against the all-India average of 34 per cent. The share of semi-urban branches in the State was 18.2 per cent as compared to 24.1 per cent at the all-India level.

The Average Population per Bank Office (APPBO) of the State was 17,418 as on March 31, 2007 and 17,340 as on September 30, 2007, as compared to all-India average of 16,000. The APPBO of the districts of Jharkhand ranges from 12,241 in East Singhbhum to 26,550 in Garhwa as on September 30, 2007.



Source: - ABBPO as 30th September, 2007 (http://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/84199)

1.5 Livelihood Context

The State has a sub-humid climate with average annual rainfall of 1,109 mm. However, due to high variability of monsoon rains, low moisture holding capacity of soils, absence of developed aquifers due to the hard rock substrate and high run-off due to the undulating terrain, agriculture is fraught with high risks[10]. Paddy, the principal crop of the State sown over 1.35 mha had an average yield of only 1.15 ton/ha[11] as compared to Indian average of 2.10 ton/ha during the same year. Agriculture remains the principal source of livelihoods for an overwhelming majority of the population, with more than 60% of the main workers (as high as 85% in Gumla) classified as cultivators. About 3.8 million hectares (mha) or 48% of the State's geographical area is cultivable. However, the net sown area is only 1.8 mha[12] or about 23% (all India 47%) of the geographical area and more than half of the cultivable land remains fallow. Subsidiary farm-based activities like dairy, poultry, etc. generally follow growth in agriculture. Forests continue to be an important supplemental source of livelihoods for the Scheduled Tribes. Tasar silk and Lac rearing, collection and trade of firewood and a variety of fruits, nuts and leaves are the sources of cash and non-cash income from forests. Jharkhand produces about 50% of the country's raw tropical Tasar silk and 56% of its shellac. Declining forests, increasingly stringent and conservation-oriented forest policies and administration, low capital investment, low levels of technology and an exploitative trade chain are rapidly marginalizing this once important source of livelihoods for the Scheduled Tribes.

[10] *As per the categorization by Indian Meteorological Department, Jharkhand figures in the "drought corridor" of the country, which also includes Rajasthan, Gujarat, Andhra Pradesh (drought prone districts of Rayalaseema and Telengana regions), West Uttar Pradesh, Madhya Pradesh (including Chhattisgarh), Bihar and parts of West Bengal adjoining Jharkhand.*

[11] *India stat.com (from Ministry of Agriculture, GoI)*

[12] *Government of India, Planning Commission, Agro-climatic Regional Planning Unit (ARPU), Working Paper No. 10, August, 1998, page 28.*

Low productivity of agriculture, one-dimensional nature of the farm economy and lack of development in non-farm livelihood sectors make food security[13] the primary concern of farmers. The State produces barely half of its food grains requirement (the country is surplus by 9%). Per capita daily availability of food grains is 230 grams (all India 523 g, standard 480 g). Jharkhand (besides Bihar) was classified as "extremely food insecure State" by a recent study[14].

Historically, public interventions by way of capital investment, research and extension to improve agriculture in India have largely been guided by concerns of aggregate food sufficiency and have focused on the irrigated plains and deltas, considered high potential areas. As the "low potential" part of one of agriculturally the least developed States, Jharkhand thus suffered doubly in terms of policy attention to agriculture. As markets typically follow demand, channels for supply of implements and inputs are virtually non-existent due to absence of demand, and further constrain development of the sector.

a. NTFPs

Forests continue to be an important supplemental source of livelihoods for the Scheduled Tribes. Tasar silk and shellac rearing, collection and trade of firewood and a variety of fruits, nuts and leaves are the sources of cash and non-cash income from forests.

NTFP plays a major role in the economy and livelihood of the forest dwelling communities including tribal. Forests and trees have customarily played a critical role in the livelihoods of the tribal poor in Jharkhand. The majority of this group depends fully or in part on forest resources to meet their subsistence needs. For them, forests are also a source of construction material, fuel, medicines, animal feed and nutrients for crops. Jharkhand, having an estimated transaction of 700 crore annually in NTFP, as per Jharkhand Industry departments publication.[15], the importance of the forestry sector in its economy can be judged both by its initial high share in total land and by its recent growth performance. Land under forests, for instance, constitutes about 29 percent of total land, with wide district-wise variation, ranging from 9 percent in Dhanbad to 43–45 percent in Garhwa, Palamu and Hazribagh. Besides, during 1993–2003, while the overall share of agriculture and allied sectors has dropped from 23 percent to 17 percent the share of the forestry sector has doubled from 1.9 percent to 3.4 percent. The growth in the forestry sector accelerated, particularly after the emergence of the new state and was in the range of 15 percent per year, compared with 4 percent for other agricultural subsectors from 2001–03. Jharkhand's forest resources, which at present contribute to rural livelihoods on a subsistence level, could play a much bigger role in economic growth and poverty alleviation.

During the lean season, many people's livelihoods depend critically on forest products for subsistence or supplementary income. The most destitute gather wood for sale. A major part of the wood that head loaders and bicycle loaders carry is meant for the urban markets. The degree of dependence on forests for subsistence or cash income varies from place to place and depends on the state of forests, access and presence or absence of other income- generation opportunities. Preliminary results from the recent Citizen's Report Card survey (PAF, 2004) suggested that in the 400 households surveyed, about 12

[13] *Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. (NC Saxena, Report on the Food Assistance Programme in India, Planning Commission, 2002)*

[14] *Food Insecurity Atlas of Rural India. April 2001. World Food Programme and MS Swaminathan Research Foundation.*

[15] *Investment opportunities in Jharkhand- NTFP and other produces*

percent depend totally on the forest during times of unemployment. Also, the survey reported that most forest products are collected for personal use. In all the six villages surveyed by the Tata Energy Research Institute (TERI), the results showed that fuel-wood, fodder and wooden poles were gathered for household use and construction. Estimates of fuel-wood collection ranged from 2 kg per household per day to 30 kg per household per day.

Although public expenditure on forest resource development and management has been increasing in accordance with new priorities, this has not yielded the expected returns. The annual budget for forestry programs from state and central sources is just under Rs. 2 billion (less than 0.5 percent of GSDP), and represents a significant increase from the situation in undivided Bihar. Approximately half of this is meant for operational programs, with approximately 70 percent spent on forest management, mainly to establish plantations on degraded lands and in association with new community based forest management approaches. While average expenditure (Rs. 407 per ha) is nearly 26 percent higher than the national average, the average revenue per ha of forest cover is significantly lower (Rs. 71 per ha) than in many other states and one-third the national average. Hence, while there is ample scope for increasing efficiency in the forestry sector and plays critical importance for the rural poor and the tribal population lies in providing access in times of crisis to supplement food consumption.

b. Agriculture and allied activities (horticulture)

Agriculture remains the principal source of livelihoods for an overwhelming majority of the population, with more than 60% of the main workers (as high as 85% in Gumla) classified as cultivators (Census 2001). About 3.8 million hectares (mha) or 48% of the State's geographical area is cultivable. However, the net sown area is only 1.8 mha[16] or about 23% (all India 47%) of the geographical area and more than half of the cultivable land remains fallow. In comparison to India on the whole or its major states, Jharkhand however, experienced an impressive growth in agricultural GSDP during the decade 1993-94 to 2003-04. While states like Kerala, Tamilnadu experience a negative growth and Punjab, Maharashtra a very low rate of growth, Jharkhand witnesses a growth of 4.25 %,[17] which is almost equal to GSDP growth rate of the State (4.28%).

Jharkhand has a total geographical area of 79.71 lakh ha, of which 19.94 lakh ha under forest, 6.99 lakh ha under cultivable waste, 11.73 lakh ha for non – agricultural use, 0.87 lakh ha under permanent pasture, 1.10 lakh ha under miscellaneous tree crops and groves, 12.12 lakh ha. Under current fallow, 7.59 lakh ha under other fallow with 17.87 lakh ha under net sown area. Net irrigated area stands at 5.99 lakh ha. The gross cropped area in the state is just 20.68 lakh ha, reflects that the agriculture is mono cropping agriculture system is prevailing in the state.

[16] *Government of India, Planning Commission, Agro-climatic Regional Planning Unit (ARPU), Working Paper No. 10, August, 1998, page 28.*
[17] *Source: Food Security Atlas of Rural Jharkhand 2008, page 35; (Pub: Institute of Human Development, Delhi)*

District wise of the project districts land use status, irrigated area and irrigation status is presented in following:

Districts	Gross[#18] cultivated area	Net cultivated area	Gross[@19] irrigated area	Net irrigated area	Rain fed	
					Area	% of net cultivated area
Deoghar	64.72	62.66	25.83	23.24	167.53	37.40
Dumka	125.15	119.10	47.77	52.18	233.40	51.03
E. Singhbhum	147.95	84.28	17.71	16.27	184.86	45.59
Giridih	93.59	77.49	26.84	24.99	243.68	31.80
Godda	84.52	78.21	22.69	20.33	143.52	54.49
Pakur	63.05	58.84	6.76	5.82	116.00	50.72
Seraikela-Kharsawan	68.28	62.42	18.91	18.82	154.36	40.44
W. Singhbhum	163.13	147.99	19.22	17.73	295.28	50.12
Jharkhand Total	**2,068.48**	**1,787.88**	**639.80**	**599.60**	**4,068.89**	**43.94**

Source of data: JSAC, Government of Jharkhand, Food Secuirity Atlas of rural Jharkhand, IHD (2008) & indiastat.com

Soils in Jharkhand: The entire State has an undulating and hilly terrain, there are local differences in topography and it is convenient to classify the landscape as upper-, middle- and lower watersheds. The level of development in agriculture and the overall pattern of livelihoods vary with local topography and distance from urban centers. Forests were the principal source of livelihoods until recently in the upper watersheds that have steeper slopes and are almost entirely populated by the Scheduled Tribes. The average landholding per household would be about 1 hectare out of which each household here would own about an acre of upland (*tarn* land) which mostly remains fallow or poorly cultivated with minor millets or pulses. Homestead lands, often as much as a fourth of an acre or more, would be used to cultivate maize, finger millets, beans and some tuber crops. Traditional varieties of broadcast rainfed paddy (*goda dhaan*) would be cultivated in the upper and middle portions of the cultivated land. Productivity here is abysmally low and risk of crop failure very high. The narrow strips of valley portions are used to cultivate traditional varieties of transplanted paddy, with low but fairly reliable yields. Modern seed varieties, chemical fertilizers, irrigation and farm machinery are largely unheard of in these places. Land and water management practices are not well developed and most cultivated land is not properly bunded and terraced. Agriculture is entirely for subsistence. Cattle are reared entirely for draft power and manure. A few hens and pigs that scavenge the homesteads serve as buffers. Forest produce, various beans and wage income are sources of cash. Migration increasingly is taking the place of gathering in the livelihoods basket.

[18] *# This represents the total area sown once and/or more than once in a particular year, i.e. the area is counted as many times as there are sowings in a year. This total area is known as gross cultivated area*.

[19] *@ It is the total area under crops, irrigated once and/or more than once in a year. It is counted as many times as the number of times the areas are cropped and irrigated in a year*.

The middle watersheds with gentler slopes occupy the largest area of Jharkhand. Scheduled Tribes, in majority here, have been settled agriculturists longer in these parts compared to their counterparts in the upper watersheds. However, farming practices remain rudimentary. Chemical fertilizers and improved seeds are used on a limited scale, that too in the most unscientific manner by the more entrepreneurial and less food-insecure. Vegetables and tubers are cultivated on a small scale in the homestead besides maize and millets. *Goda dhaan*, millets, pulses and oilseeds are the upland and midland crops. Transplanted paddy is cultivated in the low lands. The valleys are broader. Paddy yield averages from 0.5 ton/ha in the upland to about 2.0 ton/ha in the valleys. Even short spells of rain failure can significantly reduce crop yields in the uplands and midlands. Open wells capable of irrigating about half an acre are now fairly widespread, thanks mainly to various government schemes, though only the non-tribal farmers make good use of these. The state government has recently launched one lakh farm pond scheme under MGNREGA. Land and water management practices, though still rudimentary, are more evolved than in the upper watersheds. The practice of open grazing after paddy is harvested inhibits winter cultivation even where irrigation is available. Cattle are reared primarily for manure and draft (cultivation) power. Pigs, goats, poultry and a few fruit trees (jackfruit and tamarind) constitute the buffer.

Farming systems in the lower watersheds, comprising gentle slopes and wider valleys, have been influenced to some extent by the green revolution-led advances in agriculture. Small pockets of economic vibrancy have developed near cities and towns. Markets and market routes have been established. Though the Scheduled Tribes are in a minority here, they too have adopted better agricultural practices compared to their counterparts elsewhere. Double cropping, year round vegetable cultivation and small pockets of sugarcane can be seen in such areas. Cultivated land is managed fairly well in the valleys though water resources have not been harnessed adequately and yields remain well below potential. Uplands and forests are poorly focused in the rural economy, although they play significant role in sustaining the livelihoods. Improved agricultural tools including tractors, etc. are occasionally seen in use for ploughing and agricultural transport.

Land classes of Jharkhand State: These land classes are further categorized as follows

Land Class	Sub Group	Type	Description
Don	Don I	Lowland	Lowest in topo-sequence, clay-loam soil suitable for long duration rice crop, field remain wet in Jan-Feb even after harvesting Paddy, sometimes summer paddy is also grown here.
	Don II	Medium lowland	Clay loam soil and Best for rice production**,** Rarely faces drought**,** Suitable for medium duration rice.
	Don III	Medium up-land	Clay loam soil**,** transitional lands between don & *tanr*, upper topo-sequence and suitable for short duration rice, maize, vegetables
Tanr	Tanr I	Upland	Loam soil and land immediately adjacent to the houses. Land used for vegetables, maize and rice seedlings, generally it receives a lot of organic matter and
	Tanr II	Upland	Sandy loam soil, gentle sloppy, good soil depth, low WHC, poor in organic matter, erosion prone, acidic in nature, farmers grow vegetables, maize and millets
	Tanr III	Upland	Sandy loam soil, sloppy, poor soil fertility, shallow soil depth, low WHC, Near foothills and acidic in nature

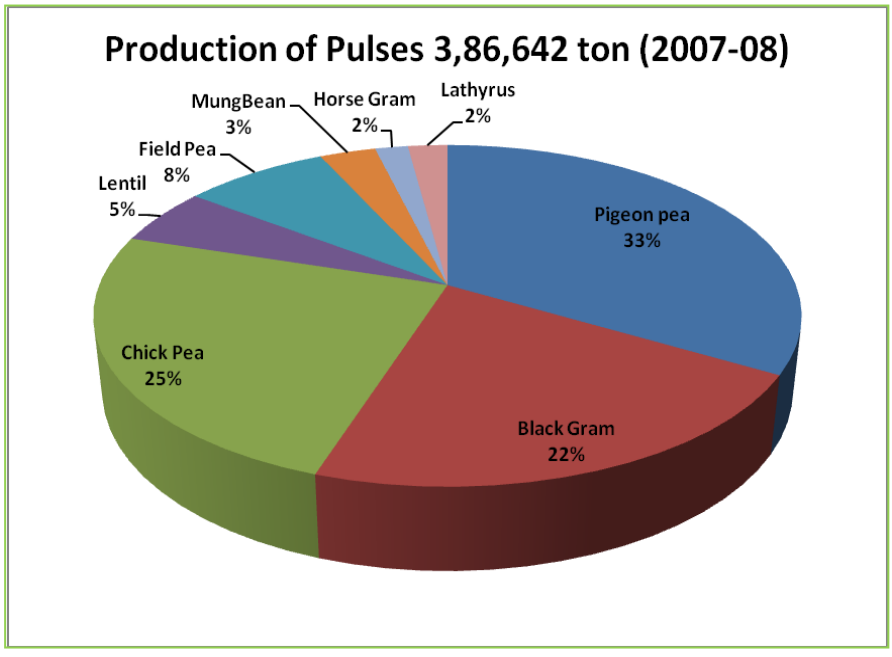
Soil fertility status: The major area of the state covered with sandy loam to loam with acidic soils (pH 4.5–6.5) and having low fertility. About 66% area of soils are low in available phosphorous content, 18% soils low in Potassium (K) content, 38% soils low in Sulphur (S), 7% soils are deficient in available Zinc (Zn), 4 % in available copper while 45 % soils are deficient in available boron in the state.

More than 70% of soils are deficit in organic carbon and micronutrients. Majority of soils of the state have medium status of available nitrogen (280-560 kg/ha) and about 19.6% area have low available Nitrogen content.

About 49% area of soils are extremely acidic to strongly acidic (pH <5.5) and 36% area suffering from moderate to slight soil acidity (pH 5.6-6.5) while neutral soils (pH 6.6-7.3) accounts for only 8% in the State.

Food grains production in Jharkhand: The food grains production is very low in the state and not meeting the requirement of the people. The sustainable growth in agriculture sector is the "need of the hour" not only for the state but also for the country as a whole. Food grain crops grow in Jharkhand on about 2.38 million ha area, which represents 1.92% in all India acreage. The food grains production has gone up from 2.07 to 3.69 million tonnes, which represent from 1.59-1.70% in All-India average between 2005-06 and 2006- 2007.

Present position of different cereal crops, pulses, vegetables in Jharkhand: About 91% of the cropped area is covered under food crops in Jharkhand including 84% under cereals and 7% only pulses. Cash crops constitute 3% followed by oil seeds and sugarcane. The rest 6% of the cropped area is covered under vegetables and fruits. Among cereals, rice, maize, wheat, ragi is important. Rice is the single most important food crop in India and occupies 44.0 m ha while Jharkhand contributes about 1.62 m ha under rice cultivation. During 2007-08, the area under rice is 16.44 lakh ha, production 33.26 lakh tones. Maize is the 2nd important crop of the state occupying 6% of the cropped area. The current area under maize is around 2.37 lakh ha, production 3.56 lakh tones and yield 1500 kg/ha**.** Maize does possess tremendous potential in diversified agriculture prospects in terms of feed for dairy, poultry, piggery and agro-industries. Wheat is 3rd important crop of the state occupying nearly 3% of the cropped area under cereals crops in the Jharkhand. In the wake of the fast growing consumption demand of wheat in the state, some area of low yielding millets will have to be gradually replaced in the cropping system. The area under wheat is 86,341 ha production is 1.29 lakh tones and yield was 1,500 kg/ha during 2007-08. Coarse cereals are the 4th important crops of the state, which occupying 2.45% cropped area under coarse cereals. The area of coarse cereals is 2.9 lakh ha in the state which is lower than neighbouring states U.P (22.0 lakh ha), Bihar (6.9 lakh ha), Chhattisgarh (3.3 lakh ha.



About 5.5% of the NSA is covered under pulses in Jharkhand and the productivity is more than the national average. The major pulses include Arhar *(Tur)* and Gram. Arhar is grown mainly under rain-fed conditions, while Gram is cultivated during the rabi

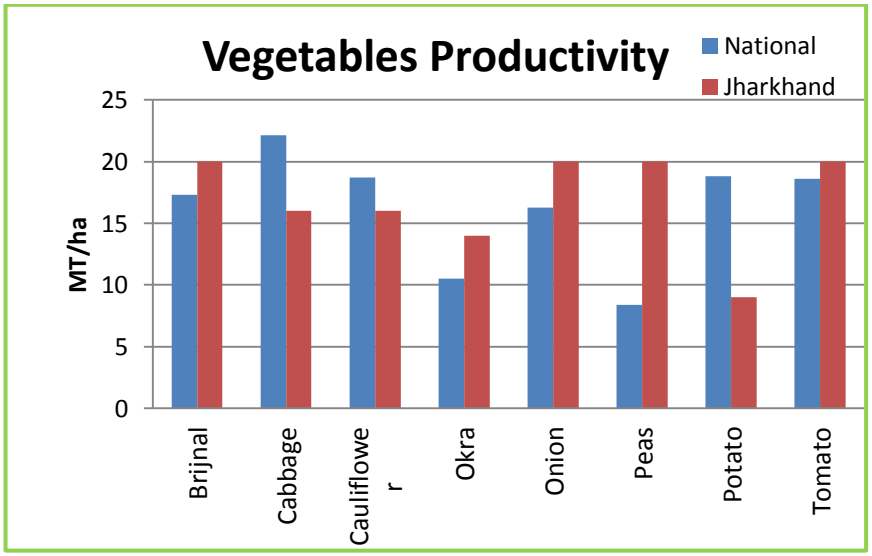
season with the residual moisture. Other pulses like Lentil, Moong and Black gram are also grown in certain pockets of the state. Most of the pulses are grown under low input based farming system in marginal lands. However, the land area and productivity under pulses crops also show a decline over the years. The following figures show the land area under pulses, average productivity and a comparison with national average:

Sl.	Year	Net area under Pulse Crops ('000 ha.)	Av. Productivity in Jharkhand (Kg./ ha.)	Av. Productivity in India (Kg./ha.)
1	2000-2001	116.30	812	533
2	2001-2002	116.10	825	609
3	2002-2003	114.23	807	587
4	2003-2004	108.65	818	611

Source: Agriculture Department, GoJ, Report 2004

Mustard is the major oilseed crop in Jharkhand that is grown in just about 2.5% of the area. Other minor oilseed crops include groundnut and niger. Productivity of all the oilseed crops are at abysmally low levels although the agro-climatic factors are favourable in Jharkhand. The low productivity is attributed to the deployment of poor quality soils, lack of proper tillage, lack of irrigation and almost no application of manures and fertilizers.

Jharkhand fares well in vegetable cultivation. The Agro-climatic conditions in certain areas of Jharkhand (mainly the plateau areas) are suitable for year-round cultivation of a number of vegetables such as Tomato, Cauliflower and Cabbage. Well-drained sandy loam soil, moderate temperature and good rainfall are favorable factors. However due to acute shortage of irrigation facilities, not more than 7.5% of the Net Sown Area of the state could be cultivated with vegetables. The average productivity of vegetable crops compares favorably with the national average as depicted in the following chart:



Source: National Horticulture Board

The overall picture vis-à-vis food grains, pulses, oilseeds and even vegetables (particularly regarding coverage) clearly suggest that Jharkhand is hugely deficient in all the items and is heavily dependent on import from other states to meet its internal demands.

c. Livestock

Livestock, next to agriculture, is the major source of supplementary income of rural households. Livestock has always been an integral part of the rural livelihood systems in Jharkhand, all through the known history of the state.

Subsidiary farm-based activities like dairy, poultry, etc. generally follow growth in agriculture. These have not developed in the State in spite of increasing demand for the products. The state is broadly characterized by a large-scale dominance of local indigenous cows having very low yield (around 200-350 kg of milk per lactation) and a moderate number of buffaloes. The district wise data for the 2004-05[20] shows that 39.25 lakh milk–yielding bovine's cattle in the state produce 36.44 Lakh kg per day of milk (which works out to less than 1 kg milk per animal per day). The State has an average milk production per village of 124 kg per day which is far behind from the national average of 442 kg per day, whereas the density of milk production is 49 kg per square km as compared to 83 kg per sq km for the country average.

According to the 17th livestock census, 2003, the livestock in the State is as under:-

Cattle – 7,658,721
Buffaloes – 1,343,494
Sheep – 679,929
Goat – 5,031,016
Pig – 1,107,930
Horses and Pony – 4,925
Dog – 485,345
Poultry – 14,429,279

But irrespective of all the efforts the supply demand scenario shows a high dependency and the state produces only 2/3rd of the total requirement. As per the Annual plan document of Department of animal husbandry 2010-11, the availability and production scenario of major livestock is depicted in the table below

Availability and requirement of major livestock product in Jharkhand (2008-09)

Item	Production	Availability per capita	Requirement	Deficit	% deficit
Milk	15.97 LT	152gm./day	23.36 LT	7.39 lakh Ton	(-) 31.6%
Egg	717 Million	25 eggs/annum	1143 Million	426 Million	(-) 37.27%
Meat	441.67 Lakh Kg	7 Gm./day	657 lakh Ton	215.33 lakh Kg	(-) 32.77%

Although livestock generally do not serve as a primary source of livelihood, livestock play an integral role in supporting the livelihood of the rural poor. This is especially the case amongst the landless and marginal

[20] *Jharkhand dairy project DPR -2008 (by NDDB and directorate of dairy development, GoJ)*

farmers where its contribution is greater. For many households, livestock and wage labour are the only or the major sources of cash earnings[21]. As per a survey conducted by ILRI (International Livestock Research Institute) in 4 districts of Jharkhand; Gooda, Palamu, Ranchi and East Singbhum, it was found that, almost all the surveyed households (about 90%) reported that they could not maintain their family without the income from livestock. Livestock serve as savings and insurance as they can be sold as and when the household needs cash, especially for marriages, deaths, festivals, treatment for disease, expenses for schooling, repairing of houses or purchasing of agricultural inputs. These essential livelihood functions of livestock are well-documented for India and in developing countries generally (see, e.g. Moll 2005; Rangnekar 2006). A specific example for India is reported by Das et al. (1999) who found that around Bareilly 52% of households sold a goat when money was needed for an emergency. Small livestock (and cattle) kept in these traditional low-input systems accumulate capital over several months with little or no investment and generate cash at the end of the production cycle or at the point of an 'emergency' sale. Generally a part of the income (e.g. from the sale of a fattened pig) is used for purchasing another animal or batch of livestock in order to recycle the activity.

In Jharkhand, as in the region, livestock keeping is integral to the livelihoods of rural households and to the broad rural economy. The state as a whole have livelihoods of the large majority of rural households based on smallholder rain fed crop–livestock farming—mainly rice cropping with livestock—and the majority of the farms have less than 1 ha of land, as per the study of ILRI. The culture of rain fed agriculture and livestock in together are complementary to each other. But there is a gap in knowledge, market, policies moreover state is yet to develop a proper road map around livestock. Whereas, there is a consistent growing demand for livestock products, both within the local market and from the region. This increasing demand represents an excellent opportunity for improving the livelihoods of poor livestock keepers provided that they are given effective support by the Government and other development agencies and through the engagement of the private sector. Market-led interventions developed through participatory processes will be the key to success.

1.6 Performance of NREGA in the State

MGNREGA aims to achieve the objective as enunciated in the Article: 41 of the Indian Constitution- "giving citizens the right to work". The Act got first introduced in 200 most backward districts of the country in Feb 2006; it was proposed to extend to the remaining districts only after 5 years, after seeing the popularity of the Act. But in the next year itself the Act was extended further to 130 more districts & within a year after the Act got universalized by bringing the entire country under its horizon with the exception of districts that have a hundred percent urban population & got soon named after Mahatma Gandhi (in Oct 2nd, 2009) to make the Act more reachable to the masses and thus it became Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). In the context of Jharkhand all the tribal dominated districts were covered from the very beginning. MGNREGA has been a big game changer since its advent owing to its scale, achievements and possibilities that it provides. The local wage rates have been changed more than two times and so have been the impact on migratory pattern. Many development investments have been made possible like large-scale land development (leveling, bunding), dug wells, water harvesting structures and other such works like watershed.

[21] *Potential for livelihood improvement through livestock development in Jharkhand, ILRI, Page-13*

MGNREGA being the flagship programme of GOI shown a lot of promise and tremendous expectation among rural people, since its inception. But during the last few years, however, MGNREGA has gone downhill. Employment levels have declined year after year, and especially till 2012-13. MGNREGA expenditure declined from nearly 1% of GDP in 2008-9 to 0.3% or so in 2012-13. After growing quite rapidly for several years, wages were frozen in real terms and delinked from minimum wages. Long delays in wage payments further reduced the real value of MGNREGA employment for rural workers.

In context of the state, twenty of Jharkhand's 24 districts were in the list of 200 districts where the Mahatma Gandhi National Rural Employment Guarantee Act came into force on 2nd February 2006. Till then, the state shows a declining result. If comparison can be made within in two financial years FY 2012-13 and 2013-14, there is significant decrease in key parameters. Regarding the registration and issuance of job cards, the members of families willing to participate in the scheme were provided registration followed by issuance of job cards. The number of job cards issued till the end of January 2014 has been 3,952,122. Whereas the figure was 4,007,027 at the completion of financial year 2012-13, this shows that issue of job cards has decreased significantly and 54,905 families have been deleted since 2012-13. The most important outcome of the MGNREGA is the numbers of days the households receive employment on demand during the year. During the Financial year 2012-13 total 566.40 lakh person days were generated by 14.18 lakh households under the programme, whereas till February 21st in the financial year 2013-14, 363.25 Lakh person days were generated by 10.13 lakh households under the programme. This shows a 36% deficit in person days generated and 29% deficit in household employment only having 40 days for the completion of the financial year. There is also a significant 4 person day's drop from 40 to 36 in no of person days per household. Some key outcomes of the state and the project blocks are shown below

MGNREGA indicators	Cumulative No of HH issued Job Card				Cumulative No. of HH provided employment		Cumulative No. of HH completed 100 days		House Hold Employed < 15 days 2013-2014		Av. Person days per employed HH
	SCs	STs	Others	Total	HH	%	HH	%	HH	%	
Jharkhand	521,257	1,497,805	1,931,951	3,951,013	1,002,372	25.37	45,798	1.16	300,064	29.94	35.65
Godda	11,108	38,731	128,396	178,235	52,446	29.43	3,211	1.80	14,667	27.97	37.89
Dumka	13,844	104,486	91,668	209,998	60,610	28.86	2,571	1.22	17,166	28.32	36.19
Deoghar	23,861	31,270	125,450	180,581	77,557	42.95	10,380	5.75	12,710	16.39	52.36
Giridih	31,130	29,578	163,137	223,845	71,963	32.15	4,110	1.84	18,504	25.71	40.66
Pakur	5,670	94,860	64,978	165,508	35,481	21.44	1,107	0.67	9,409	26.52	34.58
W.Singhbhum	7,471	192,691	57,055	257,217	62,356	24.24	844	0.33	23,785	38.14	27.28
E. Singhbhum	11,370	115,178	90,879	217,427	49,888	22.94	1851	0.85	17,575	35.23	31.26
S.Kharsawa	8,588	66,369	68,572	143,529	31,146	21.70	354	0.25	12,522	40.20	26.25

Source: MGNREGA cell Jharkhand FY-2013-14

Though MGNREGS has its own set of issues, which need serious attention like timely payment of wages, transparency in wage payment, smooth bank payment etc., it has the potential to alleviate many problems faced by these communities, It is besieged with several problems. The first is that there is a lack of awareness among the people that they have to place a demand for work to be granted work. Secondly, there is lack of adequate technical and administrative infrastructure required for carrying out the works as per provisions of the Act. Evaluation, documents like muster, MB and pay orders to banks and then to wage earners account is a tedious task and at each level there are inordinate delays. All in all this leads to disaffection and people do not want to work in the MGNREGS.

1.7 Existing Livelihood initiatives and social sector initiatives in the selected area

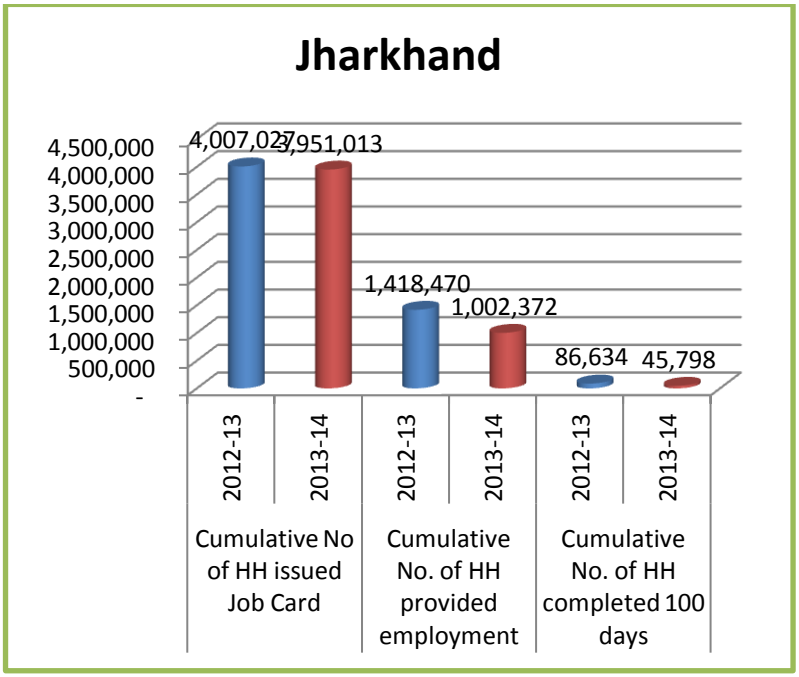
Though there are many schemes of both the State and Central Govt. meant for the benefit of Tribal, there is no visible impact of implementation in the project area. Unemployment and migration for work is still prevalent. Some of the major programmes under implementation in the state as well as the project districts are as under:

Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA):
The allotment of the work is based on the 100 days employment assurance in order to provide wage employment and stop migration. The work under the scheme will be related to soil and water conservation and road construction work in the village. The State and the project districts show 26-52 Av. Person days per employed Household but shows only around 1% household are getting the mandated right to work, which was earlier 2%.

MGNREGA indicators	Cumulative No of HH issued Job Card				Cumulative No. of HH provided employment		Cumulative No. of HH completed 100 days		Av. Person days per employed HH	
	STs		Total							
	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14
Jharkhand	1,508,139	1,497,805	4,007,027	3,951,013	1,418,470	1,002,372	86,634	45,798	39.9	35.7
Godda	39,337	38,731	182,857	178,235	61,288	52,446	3,622	3,211	38.3	37.9
Dumka	104,678	104,486	211,679	209,998	78,844	60,610	6,103	2,571	42.3	36.2
Deoghar	31,147	31,270	178,534	180,581	85,882	77,557	7,875	10,380	45.2	52.4
Giridih	29,416	29,578	220,888	223,845	99,080	71,963	7,849	4,110	43.7	40.7
Pakur	94,992	94,860	166,510	165,508	59,151	35,481	3,156	1,107	39.5	34.6
W.Singhbhum	189,269	192,691	252,868	257,217	94,681	62,356	2,277	844	30.8	27.3
E. Singhbhum	114,837	115,178	217,319	217,427	75,428	49,888	6,246	1,851	40.0	31.3
S.Kharsawa	67,324	66,369	145,703	143,529	50,758	31,146	1,959	354	34.3	26.2

Source: MGNREGA cell Jharkhand FY-2013-14

A comparative analysis



Swarna Jayanti Gram Swarojgar Yojana (SGSY):

The SGSY self employment programme has been launched by Government of India w.e.f. 1.4.1999 with a holistic approach by replacing schemes like Integrated Rural Development Project (IRDP), Training for Rural Youth and Self Employment Programme (TRYSEM), DWCRA, Supply of Improved Toolkit to Rural Artisans (SITRA), MWS and Gramya Krushi Yojana etc. This subsidy linked credit programme envisages assistance to BPL families in rural areas enabling them to cross the poverty line by taking up income generating activities in farm / non farm sector either individually or in groups. A summary of the programme is given below to understand the situation in Jharkhand.

Item	2008-09	2009-10	2010-11 (Up to Sep.)
SHG's formed	49,707	56,648	64,747
SHG's Swarojgaris assisted	64,385	57,526	47,367
Swarojgaris trained	49,280	25,642	21,285
Individual Swarojgaris Assisted	22,967	10,549	5,516
Minority Swarojgaris assisted	7,192	4,524	4,596
SC SHGs assisted for economic acti.	8,182	7,117	3,967
ST SHGs assisted for economic acti.	26,798	22,037	17,512
Minorities SHGs assisted	5,150	3,745	3,919
Women SHGs assisted	56,816	50,275	36,994
Disable SHGs assisted	11	11	18
Individual SC Swarojgaris assisted	4,846	2,096	908
Individual ST Swarojgaris assisted	9,080	4,116	2,334
Individual Minorities Swarojgaris assisted	2,042	779	677
Individual Women Swarojgaris assisted	3,636	1,395	879
Individual Disable Swarojgaris assisted	169	54	9

Source: http://jharkhand.gov.in/new_depts/pland/Jharkhand%20Overview.pdf page xlii

Indira Awas Yojana:

Housing is one of the basic requirements for human survival. For a normal citizen owning a house provides sufficient economic security and status in society. For a shelter less person a house brings about a profound social change in his existence endowing with an identity, thus integrating him with his immediate social milieu. IAY was a sub-scheme of JRY. Since 1st January 1996, it has been delinked from JRY and has been made an independent scheme. The programme envisages assistance to shelter less rural families for construction of huts. Indira Awas Yojana targets BPL families. There is also a provision to repair old huts and / or converting *kutcha* huts into *pucca* huts. A maximum of Rs. 20,000/- is provided under both the schemes. A scenario of the financial as well physical status of IAY is given below

Indira Awas Yojana financial status 2013-14

Source of allocation under IAY	Total availability (Lakh Rs)	Total utilization (Lakh Rs)	Utilization %
All central schemes	71,571.46	16,842.61	23.53
IAY new construction	53,806.20	8,421.30	15.65
IAY Incentive homestead scheme	17,765.26	-	-
Total	143,142.92	25,263.91	17.65

Source: http://iay.nic.in/netiay/fin_prog_st_rpt1.aspx?page1=S&state_code=34&fin_year=2013-2014& state_ name= JHARKHAND

Some physical details district wise:

S.No.	Districts	House Sanctioned during the 2013-14 for					House Under construction			Houses Completed				
		STs	SCs	Minority	OTH	Total	Sanctioned during last or current year	Sanctioned prior to last year	Total	STs	SCs	Min	OTH	Total
1	Deoghar	725	383	42	88	1,238	4,813	11	4,824	-	-	-	-	-
2	Dumka	2,910	168	35	192	3,305	9,871	1,610	11,481	2	-	-	1	3
3	E. Singhbhum	1,262	66	21	138	1,487	9,173	138	9,311	-	-	-	-	-
4	Giridih	1,935	1,370	538	410	4,253	10,200	4,031	14,231	4	8	2	5	19
5	Godda	2,225	388	161	203	2,977	9,728	29	9,757	-	-	-	-	-
6	Pakur	1,613	61	211	183	2,068	6,891	756	7,647	-	-	-	-	-
7	S. Kharsawa	406	42	9	22	479	2,896	-	2,896	-	-	-	-	-
8	W. Singhbhum	362	9	2	2	375	5,742	7	5,749	-	-	-	-	-
Jharkhand		20,433	6,343	1,784	3,370	31,930	141,580	30,858	172,438	7	8	2	6	23

Source: Source: http://iay.nic.in/netiay/fin_prog_st_rpt1.aspx?page1=S&state_code=34&fin_year=2013-2014& state_ name= JHARKHAND

1.8 PIA's prior experience in developing the prototype for proposed interventions

PRADAN is working in Jharkhand since 1988 in Jharkhand. During this period PRADAN's outreach grew to 7700 SHGs, 120,000 households in 1,904 villages of 60 blocks and districts and ~ 72,000 families for promotion of livelihoods. Briefly, major achievements of PRADAN in Jharkhand during the period are captured below;

- Over 7,700 SHGs currently function in some of the most backward districts of Jharkhand.
- About 70% of the families covered under livelihood programmes have been able to double their food grain production. About 74% of the families, covered under various livelihood programmes, are able to enhance their net yearly income by over Rs. 10,000 with about 16% families, earning more than Rs. 20,000 annually.
- PRADAN had supported the Welfare Department, Government of Jharkhand, in developing locally relevant livelihood intervention prototypes for the tribal populated blocks in Jharkhand. These prototypes are being implemented through the involvement of over 50 NGOs across the state.
- We have worked with the Department of Rural Development (DoRD), GoJ to formulate Special SGSY Projects around the theme of social mobilization and INRM based livelihoods. PRADAN together with CInI (Central India Initiative, an Initiative of Sir Ratan Tata Trust in the central India region to address the issues of poverty) has been supporting the Department of Rural Development, Govt. of Jharkhand to develop perspective plan for the Watershed programme and detail out implementation procedures. Similar such engagements are also envisaged for the newly launched National Rural Livelihood Mission and planned Bharat Rural Livelihoods Foundation.
- PRADAN has systematically cultivated mainstream banks and financial institutions to leverage large scale finance. Watershed and WADI programme supported by NABARD helped in expanding natural resource based livelihood programmes in the areas with high tribal concentration. A number of such projects have been actively considered / sanctioned by NABARD for financing in the last one year.

- Collaboration with the Central Silk Board (CSB) has culminated in a large-scale project supported under MKSP. PRADAN has decided to launch a sectoral promotion organization to scale-up the initiative.

- PRADAN is a member of a network of 15-NGOs called Vikasbazar. Net.The forum was created in 2005 to initiate joint and coordinated efforts of like-minded organizations to facilitate participation of marginal and small producers in the market. Over the years, regular interactions with partners in the forum have created a common understanding of developmental challenges and a shared vision among partners. The situation is now very conducive for joint actions for large-scale replication of best practices. VB.N has already taken up some of the successful models developed by PRADAN for replication in Jharkhand.

Over the past 25 years following movements were witnessed-

- There has been an increased sense of settled farming in the past few years. The activity which began with Kharif paddy stabilization has moved on to kharif vegetables with incomes at Rs.15, 000 to Rs. 25,000 (*Annual Assessments*). The paddy production too and doubled from 2 t/h to 4t/h. There are now intensive vegetable clusters carefully developed in all locations where there is round-the-year engagement with systematic input-output linkages and enhanced cropping cooperation with regard to time, crop, variety, scale and collective nursery. Such maturity has made people stay back in their villages and see agriculture as viable occupation.

- Livelihood agenda has taken pace and families have diversified their livelihoods to horticulture plantations, Tasar rearing, poultry, Lac rearing, Goat rearing, floriculture and so on. Thus, there are multiple livelihood interventions converging at household level.

- Over the past two and half decade the livelihood perspectives have undergone change from a activity focus with technical Package of Practices, has moved on to a Value Chain Perspective with focus on reducing cost of production, reducing production risks, enhancing productivity and price realization and better institutional mechanisms for sustaining the activities.

- There has been increasing realization that incomes alone cannot meet the needs and aspiration of the community. There is a need for safe drinking water, for safety of women and children, enhanced sense of contribution in family and village and so on. Systematic projects like UN Women, Drinking Water & Sanitation project with UNICEF, Education Initiatives with SRTT, Legal Support programme with Jagori, Improving Local Governance have been undertaken in the past phases and have demonstrated that such comprehensive approach is effective in even sustaining the livelihood initiatives.

- While women continues to be our primary unit of engagement, there has been a change in approach from merely 'targeting' women-as if women is an instrument of development intervention, to an approach where the women and her collectives set agenda and chart roadmap of development.

- The scale of poverty is vast and multidimensional and we seek collective action with other CSO organization. Through the Vikas Bazar. Net(VBN) a network organization, we have worked with 14 NGOs in developing value-chain, collectively raising funds, influencing each other on best management practices. This is now become a part of our development approach. In MKSP also we are going to do some pilots with some of the CSO's.

- As the outreach indicates, the scale of the project has significantly increased. In Jharkhand out of 259 blocks we operate in around 60 blocks; this is close to 24%. The state sees PRADAN as an agency which can deliver development outcomes at scale and can create multiple avenues of advantages for the marginalized communities.

PRADAN particularly in case Tasar as a livelihood opportunity, the strategy is to identify and develop the sector to provide new and better livelihoods to poor people on large scale. In the field of Tasar sericulture following points states the journey so far

Tasar Sericulture: Tasar sericulture is one of the NTFP based livelihoods in which PRADAN has done extensive works over the past two and half decades to systematically create livelihood opportunities for the Tribal Families in the proposed project areas of Jharkhand and Bihar. PRADAN set up its Tasar project in Godda district of Santal Parganas in 1988 and extended its operations to cover Dumka, West Singhbhum and Saraikella districts. The Endeavour's of PRADAN under a Special SGSY Project between 2003 TO 2008 have triggered off rapid growth in Tasar sector. The combined production of Tasar raw silk in Jharkhand and Bihar was stagnating at a level of 80 MT for over a decade till 2003. This has seen a rapid increase to attain a level of 150 MT in 2007. From 2003 to 2007, nearly 7,000 families could be supported intensively to adopt improved technologies and provided with marketing support to enhance their average income by Rs. 12,000 to 15,000 annually. The significant achievements of PRADAN in Tasar sericulture in recent years could be summarized as per the following:

- Increase in the production of Tasar raw silk by 50% in the project areas of Jharkhand and Bihar,

- Breakthroughs achieved in large-scale production of nucleus and basic seeds through involvement of communities. This development helped the local farmers to attain self-reliance in seed supply,

- Large number of village based seed production enterprises could be promoted to fully cater to the needs of over 8,000 rearer's. On an average, 14-15 Lakh DFLs are prepared by the Grainage Entrepreneurs annually. Besides catering to local demands, DFLs are supplied to M.P., Maharashtra and Odisha every year,

- Prepared more than 350 skilled service providers, capable of delivering different services to the producers,

- Establishment of Tasar host tree plantations in 5,450 hectare of privately owned wastelands offer livelihood opportunities to more than 7,600 families.

- Establishment of large number of Yarn production centres has facilitated value addition at the local levels. Over 1,500 poor rural women take part in Yarn processing to earn their livelihoods.
- Creation of public –private partnership joint venture Company named Eco-Tasar, dedicated for the production and marketing of Tasar fabrics.

- The design development efforts of Eco-Tasar in collaboration with NID and NIFT have created a wide collection of unique designs in Tasar to attract domestic and global markets.

The above developments have created a huge demand among the rural communities to take up Tasar sericulture as a viable livelihood proposition. The responses received from the markets- both domestic and global, shows a discernible growth trend. With the GDP of the national economy rotating around 5, this could possibly the best time for Tasar sericulture and its producers. There is a need to proactively take advantage of these opportunities to widen the coverage to benefit a large number of people living in remote and forested areas.

1.9 Basic PIA Information

1	Name of PIA	Professional Assistance for Development Action (PRADAN)
2	Legal Status (NGO / Network NGO / CBO / Producer Co. / Section-25 Co. / Pvt. Co/ Other – Please specify)	NGO
3	If Network NGO, number of partners being supported?	Not Applicable
4	Registration No. & Date of Registration	No. S/13434, Society Act of *1860* 18th day of 1983
5	Name of Donors in the past 3 years, if any (give max3)	▪ MoRD, Govt. of India ▪ Central Silk Board ▪ NABARD
6	Name with Size (Budget in INR) of relevant projects handled in the past 3 years (give max 3) in the proposed area	• Special SGSY project on Tasar. Budget Rs.1437 lakh • Sustainable community based livelihoods-Jharkhand. Budget Rs. 1137.38 lakh
7	Annual Revenue of PIA for the most recent audited financial year	Rs. 525,794,885
8	List ongoing projects (max 3.) and their Size (INR) in the proposed area	• Integrated Tribal Development Project of NABARD in Godda and Dumka district and project size Rs. 1699.115lakh • Special SGSY- INRM based livelihood project in Godda and Dumka district. Project size is Rs.2186 lakh • Tribal Development Project of NABARD on WADI in West Singhbhum District. The project size is Rs.384.34 lakh
9	Completion of last project (MM/YY)	• Special SGSY project for the Development of Tasar Sericulture on 31st March 2008 • Sustainable community based livelihood in Jharkhand on March 2010
10	Total value of assets available with the PIA in the proposed area?	Rs.188,620,375 (Assets, Corpus & Free Reserve at 31.03.2010)
11	Experience of working with, in the proposed area (i) Women SHGs/Groups (Y/N) (ii) NTFP based livelihoods with existing tribal groups	PRADAN has extensive experience of working with women self help groups and on agriculture based livelihoods with women's groups in some of the poorest pockets in the country – detail is provided in sections below.
12	In the proposed project, what % of the implementation will be undertaken by existing capacities and what % will be leveraged from external community based organizations in the project area?	Existing - 75% External - 25%

13. Human Resource

#	Name	Sex	Location	Designation	Edu-Qualification	Experience in PRADAN (in Years)
1	Satyabrata Acharyya	M	Ranchi	Programme Director	M.Sc (Ag)	23.6
2	Yoganand Mishra	M	Ranchi	Integrator (State Unit)	B.E	20.1
3	Md. Shamshad Alam	M	Deoghar	Integrator (Tasar Theme)	B.Sc (Forestry)	17.4
4	Ashok Kumar	M	Ranchi	Integrator (Theme)	M.Sc (Ag)	16
5	Ashis Chakraborty	M	Deoghar	Integrator (Tasar Theme)	B.Sc (Forestry)	14.1
6	Rajendra Kr. Khandai	M	Deoghar	Integrator (Tasar Theme)	B.Sc (Ag)	8.5
7	Binod Raj Dahal	M	Godda	Team Leader	MSW	13.3
8	Jibdas Sahu	M	Dumka	Team Leader	B.Sc (Ag)	18.4
9	A. Mannan Choudhury	M	West Singhbhum	Team Leader	M.Sc (Ag)	11.3
10	Bala Devi Ningthoujam	F	Ranchi	Executive (Projects)	MA	11.4
11	Tarak Nath Das	M	Godda	Executive (Projects)	MA	6.3
12	Mehmood Hasan	M	Godda	Executive (Projects)	MSW	5.3
13	Vinay Kumar Rana	M	Godda	Executive (Projects)	B.Tech	3.3
14	Madhavesh Kumar	M	Godda	Executive (Projects)	PGDM	2.4
15	Suryakanta Sahoo	M	Godda	Executive (Projects)	PGDM	2.4
16	Md. Kamran	M	Godda	Executive (Projects)	MA	2.4
17	Khusnoda Tabasum	F	Godda	Executive (Projects)	M.A	2.3
18	Mohd. Arif	M	Godda	Executive (Projects)	Master of Tourism Administration	2.3
19	Raju Maity	M	Dumka	Executive (Projects)	M.Com	4
20	Sweety Singh Chauhan	F	Dumka	Executive (Projects)	M.Sc	3.3
21	Md Zahid Zafar	M	Dumka	Executive (Projects)	MSW	2.3
22	Smruti Rekha Jena	F	Dumka	Executive (Projects)	MBA	2.2
23	Swadhin Kumar Rout	M	Dumka	Executive (Projects)	B.Tech	2.2
24	Md Fahad Khan	M	Dumka	Executive (Projects)	B.Tech	1.4
25	Prince Singh	M	Dumka	Executive (Projects)	B.Tech	1.3
26	Bipin Bihari	M	Dumka	Executive (Projects)	MA (Psychology)	6.5
27	Anita Shil	F	West Singhbhum	Executive (Projects)	M.A (Economics)	5.5
28	Rahul Singh	M	West Singhbhum	Executive (Projects)	M.Sc	5.3
29	Atul Kumar Pandey	M	West Singhbhum	Executive (Projects)	B.Tech	5.3
30	Shiv Shankar Singh	M	West Singhbhum	Executive (Projects)	M.Sc	4.3
31	Swaroop Jana	M	West Singhbhum	Executive (Projects)	M.A	5
32	Subhojit	M	West Singhbhum	Executive (Projects)	B.Tech	2
33	Payal Chakraborty	F	West Singhbhum	Executive (Projects)	B.Tech	2
34	Madan M. Karmakar	M	Ranchi	Sr. Assistant (FAA)	M.Com	23.6
35	Awadhesh Kr. Tiwari	M	Ranchi	Sr. Assistant (FAA)	PGDCA	15.6
36	Chandan Kumar	M	West Singhbhum	Accounts Assistant	B.A(P)	2
37	Chandan Kumar	M	Deoghar	Assistant (FAA)	B.Com	1
38	Kamlesh Kumar	M	Dumka	Assistant (FAA)	B.Com	7
39	Birendra Kumar Pandey	M	Dumka	Assistant (FAA)	B.Com	3.7
40	Umesh Kumar Pathak	M	Godda	Assistant (FAA)	B.Com	2.7
41	Archana Kumari	F	Ranchi	Assistant (FAA)	B.Com	5.6
42	Nisha M. Kumar	F	Ranchi	Assistant (FAA)	MBA	15.7
43	Arjun Sharma	M	West Singhbhum	Assistant (FAA)	B.Com	6.9
44	Amit Kumar	M	West Singhbhum	Assistant (FAA)	B.Com	4.4

13. Human Resource

#	Name	Sex	Location	Designation	Edu-Qualification	Experience in PRADAN (in Years)
45	Shyamapada Mahato	M	Deoghar	Assistant (Projects)	Matric	23.6
46	Nalini Hansdak	F	Godda	Assistant (Projects)	Matric	23.2
47	Murlidhar Mishra	M	Godda	Assistant (Projects)	B.A	19.6
48	Md. Shahabuddin	M	West Singhbhum	Assistant (Projects)	Matric	15.6
49	Chottan K. Thakur	M	Dumka	Field Help (Coccon)	B.com	5
50	Pankaj Kumar	M	Dumka	Field Help (Coccon)	B.Com(Hons)	5
51	Ashish K. Upadhyay	M	Dumka	MIS Coordinator	B.A(History Hons)	1
52	Vikas Pratap	M	Godda	MIS Coordinator	B.Com(Hons)	1
53	Murshid Altaf	M	West Singhbhum	MIS coordinator	B.Sc(IT)	1
54	Sanjoy Mondal	M	Godda	Project Assistant (Office)	B.Com(Hons)	5
55	Rajesh Ranjan	M	Dumka	Project Assitant (Field)	Diploma in sericulture	6
56	Panchanan Pandey	M	Dumka	Project Assitant (Field)	12th	2
57	Brajesh Kumar Ray	M	Dumka	Project Assitant (Field)	DCA	6
58	Sailendra K. Choubey	M	Godda	Project Assitant (Field)	B.com	3
59	Sanjay Prasad	M	Godda	Project Assitant (Field)	PGCRM	5
60	Uttam Kumar	M	Godda	Project Assitant (Field)	BA(Hons)	4
61	Chandra Mohan Azam	M	West Singhbhum	Project Assitant (Field)	Non matric	2
62	Gopal Prasad	M	West Singhbhum	Project Assitant (Field)	B.com	2
63	Subodh Kumar	M	West Singhbhum	Project Assitant (Field)	M.A(RD)	2
64	Rega Kuntia	M	West Singhbhum	Project Assitant (Field)	B.A(History Hons)	2
65	Dibakar Mondal	M	West Singhbhum	SMS (Tasar Development Project)	Msc(Sericulture)	8

The staffs of the project implementation team mentioned above are as on 1st November, 2013. The recruitment of the new project personnel as per the requirement of the project will be intimated to the Coordination Agency in the process of implementation of the project.

Chapter 2: Detailed intervention strategy and phasing

2.1 Objectives of the project poverty context in the area

a. Vision of success

Helping poor farmers to enhance the quality of lives & livelihoods, of themselves and their families, through sustainable Tasar sericulture interventions, of these 6,567 farmer would form the core mass of the project, their experiences and learning's would create a ripple effect and create sufficient impetus which in turn would impact the perceptions and behaviour of the rest of the women in their immediate vicinity.

b. Goal

The Goal of the project is to eliminate abject poverty of 60% of the project families by income enhancement of Rs. 10,000 – Rs. 18,700 per annum per household on a sustainable basis from Tasar. From all sources together the incremental income will be Rs.22,800 to 26,777.

c. Thrust area and Key objectives

The proposed project will be implemented by PRADAN in 8 districts of Jharkhand seeks to work with 6,567 families particularly focusing on Tasar as a sub sector through women SHGs as the mobilization base.

The current state of affairs in Tasar sector in the State warrants attention to improve infrastructure support in seed multiplication, promoting establishment of Tasar host plants as economic block plantations, effective utilization of existing resources/infrastructure, extension support for effective dissemination of technologies/improved package of practices for cultivation, rearing of silkworms, upgrading skill levels of the farmers to undertake sericulture activities for income generation, generating adequate trained manpower with technical knowledge and motivational skills, revamping departmental machineries for implementation of development initiatives and their monitoring, coordinating with line Departments, directing efforts for privatization and emphasizing the development of entrepreneurship in Tasar silk sector, with the help of Community Based Organizations. The broad and specific objectives of the project are as follows:

- Building capacities of all participating families in adopting skills to effectively and profitably engage in livelihood activities based on Tasar sericulture,
- Introduction of improved technologies and practices to push the productivity frontiers for accelerated growth in Tasar Sector,
- Strengthening seed sector to eliminate the key supply constraint in Tasar sericulture.
- Investment to create alternative market mechanisms to ensure fair prices for cocoons.
- Promote Producers' collective to provide sustainable systems of services to producers.
- Design development and dissemination

The main focus of the this project is to facilitate rapid growth in the sub-sector of Tasar Sericulture through capacity building of poor tribal families to facilitate adoption of improved technologies and practices and enabling them to access mainstream markets to sustain the economic gains.

d. Key Outputs

The detailed processes / outputs during the project would include:

Sl.	Project Activity	Detailed processes / outputs during the project period
1.	Silkworm rearing	○ **6142** families would be involved in silkworm rearer's ○ Each family will be provided with rearing equipments. ○ Each family would produce 8,000 to 10,000 commercial grade cocoons. ○ Number of Rearer's Collectives – 6, storage of cocoons to avoid distress sale ○ No. of producers' collective formed - 3.
2.	Tasar seed production (Grainage)	○ Total number of Grainage: **175** ○ Each Grainage would be provided with grainage hall and required equipments. ○ Grainage would be an individual enterprise at village level ○ Each Grainage entrepreneur would produce 5,000 to 6,000 DFLs in one cycle ○ Individual Graineurs would serve the requirement of 25-30 rearer's in each Grainage cycle.
3	Basic seed production unit	○ Total number of basic seed production unit: **4** ○ Each basic seed production unit would be provided with one Grainage hall along with processing unit and required grainage equipment. ○ Basic seed production unit would be owned by the collective. ○ Each unit would produce 25,000 to 30, 000 basic seed Individual basic seed production unit would serve the requirement of 50 -60 Grainage entrepreneurs
4.	Cocoon Bank	○ Total number of Cocoon Bank: **1** ○ The cocoon bank constitutes largely the building construction for storage and stifling of cocoons. ○ Working capital for the purchase and storage of cocoons ○ Cocoon Bank would be owned by the collective.
5.	Tasar Yarn Bank	○ Total number of Tasar Yarn Bank: **1** ○ Major part of the activity would be yarn purchase from the producers, shorting and storage. ○ Tasar Yarn Bank would be owned by the collective.
6.	Building capacities of all participating families ,	○ Hamlet level visioning / planning exercises, ○ Technical training for productivity enhancement, ○ Handholding support by Community Resource Persons (CRPs), on a day-to-day basis, ○ Exposures for adopting improved practices, ○ Selection and extensive training of CRPs. Reviewing effectiveness and providing and on-field support.
7.	Promoting and nurturing Producer Institutions to ensure sustained availability of linkages and services for the participating families,	○ Number of producers' collective: **6** ○ Awareness building around the need to collectivize, ○ Membership training to build a sense of ownership and to understand the accountability as a member, ○ Exposure and training of the governing board members, ○ Training and support to staff to effectively deliver the goods and services mandated by the organization.
8.	Market Support	○ Design development in Tasar weaving clusters and its promotion ○ Design competition among weavers ○ Design competition among design student/ institutes The above would bring in brand image for Indian Tasar and also the required demand pull

Project Specific key Outputs in the project period:

- Total Family Coverage under the Project :11,938
- Total Family Coverage under Direct Livelihood :6,567
- Total Family Coverage through indirect livelihood benefits :2,142
- Total Families to be mobilized into SHGs :3,229
- Total Area (in Ha.) of Plantations to be raised :607
- Total Area (in Ha.) of Natural Forest to be rejuvenated :3,150
- DFLs to be produced by the end of 3rd Year:
  - Basic Seed DFLs (Lakh Units) :2.25
  - Commercial DFLs (Lakh Units) :21.39
- Total Cocoon Production by the end of 3rd Year :1,161.41 Lakh Pieces
- Value of the Project output by 3rd Year (Rs. In Lakh) :3,175.68

These would lead to additional income of Rs 10,000 -18,700 from Tasar for 60 % of participant women

e. Guiding Principles

The key guiding principles at the time of project implementation would be:

- The focus would be particularly on increasing the livelihood of a family with women at the centre stage.
- To utilize the potential of community led institutions – SHGs, TVS[22] and Producer Institutions.
- To achieve the vision with enabling approach.
- To make the initiatives based on community processes.

f. Values and Non-Negotiable

- Enabling approach
- Community Participation and community led initiative
- Equity
- Dignity of families to be upheld
- Integrity among staff and project participants
- Transparency in decision making

2.2 Project Strategy

PRADAN played a major role in creating a value chain. The main elements of the strategy included: creating village-based supply of disease-free layings (DFLs) of Tasar moth; promoting scientific rearing practices to reduce mortality among silk worms; raising plantations of host trees on privately owned wastelands and promoting Tasar yarn production among Tribal communities.

A major strategy of PRADAN was to collaborate with parastatal organization like the Central Silk Board that opened windows of opportunities by ways of access to improved technology, critical inputs like foundation seeds, exposure and training of professionals and funds for demonstration and up scaling of interventions and opportunities to collaborate with other mainstream stakeholders. PRADAN closely worked with CSB to develop an array training modules for the benefits of the producers.

[22] *Tasar Vikas Samiti*

Hamlet-level groups of cocoon producers called Tasar Vikas Samitis have been formed to support silkworm rearer's to access technology, services and fairer markets. On similar lines, the primary groups of yarn producers ensure year-round supply of raw materials (cocoons) for its members and support them for collectivized marketing. The primary producers' groups and the SHGs help their members to access credit from banks.

The overall initiatives undertaken in our project areas will be sustained by tiers of producers' collectives. Tasar sericulture will provide an incremental income of Rs. 10,000 to Rs. 18,700 to a producer-family (silkworm rearer's, Grainage entrepreneur, yarn producers and weavers) from their slack labor and idle assets (such as wastelands). Given the economic profile of households, many a times, this level of income contributes to almost 100% income enhancement of the household. Families are able to invest their earning in debt redemption, recovery of mortgaged lands, buying pump sets, repairing or constructing houses and in educating their children in good schools.

2.3 Community Institutions Architecture

a. Past experience of PIA

1. Past experience in forming/nurturing women based groups and experience of promotion of agriculture based livelihood promotion with them: For PRADAN, Self Help Group is the primary socio-economic institution to foster the drive for change. Through their systematic engagement in saving and credit activity the women and the concerned HH get a platform to experience values of mutual help, trust, equality, and transparency. PRADAN professionals facilitate new areas of thought for different livelihood opportunity at the member/family level. We consider SHGs as foundation to assist community especially woman in her movement towards sustainable livelihoods and well-being in a way that she takes charge of her own development. PRADAN worked to form and support 7,700 SHGs with a membership of 120,000. Most of our SHG members belong to marginalized communities with 66% members are from SC/ST communities and the rest 34% are from OBC and Others.

Due to continuous deliberation by our professionals about the larger role of SHG other than microfinance, it has been seen that there happened a change in the outlook of SHGs. About 65% of the SHGs are actively engaged in enhancing the livelihood activities of their households. This includes concrete plan and actions towards increasing period of food security at households through productivity enhancement of food grains and increasing cash earning by ways of diversifying into cash crops or embarking on business ventures. About 26% SHGs are actively discussing the issues other than microfinance. The discussions were more on midday meals, PDS, legal aid health and sanitation related. At the operational level, the major emphasis is on strengthening SHGs and associative tiers and the producers' collectives to prepare these bodies for sustainability of programmes.

In places where PRADAN have been implementing Special SGSY projects, the SHG members participate in the preparation of the hamlet level Detail Implementation Planning (DIP) and influence decisions relating to village planning. The SHG members are responsible for the implementation of the plan including measurement and certification of works pertaining to asset creation, approve expenditures for the same and periodically report the progress of the works to the DRDAs.

PRADAN's experience of promotion of NTFP based livelihoods with tribal groups.

Tasar sericulture is one of the NTFP based livelihoods in which PRADAN has done extensive works over the past two decades to systematically create livelihood opportunities for the Tribal Families in the proposed project areas of Jharkhand and Bihar. PRADAN set up its Tasar project in Godda district of Santal Parganas in 1988 and extended its operations to cover Dumka, West Singbhum and Saraikela districts. This region is the host of 50,000 traditional Tasar silkworm rearer's.

In the following we would provide an account of work done so far by PRADAN in Tasar Sericulture and the impact of the same on Tribal families:

- Organizing traditional rearer's, to protect and maintain their host tree stock (such as *Terminalia arjuna* and *Terminalia tomentosa*) in the Forest Revenue lands. Protection against illicit tree felling, regular pruning/ training resulted into rejuvenation of about 15000 Hectares of Tasar host flora in the natural forests. These forests, brought to pristine form, are now being utilized by nearly 5000 families for Tasar silkworm rearing to earn livelihoods.

- Raising 5,450 Hectares of plantations of Tasar host plant *Terminalia arjuna* in the wastelands owned by over 7,600 families. About 50% of the plantations were raised in forest-fringe villages to stabilize the production bases of the traditional rearer's. The remaining is undertaken in villages with no history of Tasar silkworm rearing. Here the purpose of the intervention is to create promote silkworm rearing in `non-traditional areas'.

- One of the major problems in Tasar, at the level of the silkworm rearer's, is lack of availability of good quality seeds. Only 15% of the total requirement for seed is met through supply from the Government sericulture establishments. PRADAN pioneered in establishing private seed production units called Grainage in Tasar sector. Grainage is an establishment where quality seeds or Disease Free Layings (DFLs), as these are termed; are prepared through scientific elimination of diseases from the Tasar eggs and are distributed among the rearer's. PRADAN trains young people from the rearer's community and helps them set up Grainage in their villages. These Grainage function as home based service enterprise to produce high quality DFLs and cater to the rearer's in the local area. So far, 300 such Grainage have been promoted to produce around 15-Lakh DFL units to cater to the requirements of 8,000 silkworm rearer's. This intervention has significantly contributed to stabilize Tasar cocoon production in the sector.

- Promoting the concept of scientific rearing among silkworm rearer's. Use of DFLs, has been accepted as a regular practice by all the rearer's. Further, the rearer's have been trained to adopt early stage rearing under nylon nets to protect the young worms from elements and pest-predators. The average annual production of cocoons from PRADAN supported rearer's is about 50-60 million pieces, contributing to nearly 15% of the total production of the country.

- Participation of women in Tasar silkworm rearing is a significant feature in the project areas of PRADAN. Traditionally, participation of women (in their reproductive age) in Tasar silkworm rearing is a taboo. PRADAN has worked closely with the women SHGs that strongly advocated breaking the taboo and creating an equal ground for the women to carry out silkworm rearing and earn livelihoods. Today, the enhanced productivity of cocoons in our project areas is widely attributed to the hard works of women.

- PRADAN has introduced Yarn production activity among women with no-prior history of the activity. Currently, the activity involves about 1050 women producers. The focus here is to introduce improved reeling / spinning technology, capacity building of women to become proficient producers of yarn and building service linkages to carry on the enterprises at the grassroots. On an average, about 15-18 MT of Tasar yarns are produced in the project areas that meet the specifications of discerning markets.

- Created a pool of 350 Community Service Providers, capable of providing efficient services pertaining to input supply, production management and marketing of various produces. The CRPs fill in the critical gaps related to expertise and services at the level of the producers to enhance the overall performance of the sector. These people play significant roles for the extension of Tasar sericulture activities in the project areas.

- PRADAN has built a team of Professionals and Subject Matter Specialists, trained to work with the producer communities, competent to handle the complexities of extending the activities in remote locations, maintaining high performance standards and fostering formal / informal producers' collectives to put them at the forefront of the sectoral growth.

- The Collaboration between PRADAN and the Central Silk Board, the apex sericulture organization in India for over a decade, is perhaps the longest GO-NGO partnership to promote grassroots action in Sericulture sector. This collaboration resulted into significant policy changes, large scale public investments in Tasar sector (which normally receives much less investment compared to Mulberry silk) and creation of a community based model for sericulture development to eradicate mass poverty.

2. Best practices adopted by women groups promoted by PRADAN: PRADAN has played a major role in demystifying technology suited to the rural community and trained cocoon and yarn producers to adopt improved technologies. The training programmes have included both men and women. Up gradation /introduction of skills through training and introduction of improved technologies have meant that income levels for women have increased significantly.

All the producers have been covered under various trainings; the method included a series of in-house and field training followed by refresher events. The trainings were followed up by rigorous monitoring and review. PRADAN follows group approach that facilitates experience sharing among producers, distilling best practices and adoption of the same. Each producer is supported for periods of 2-3 years to pass the learning curve. Some of the best practices widely adopted by the producers are as following:

- Utilizing large tracts of privately owned fallow / wastelands for raising Tasar Host plantations,
- Use of only Disease Free Layings for silkworm rearing,
- Use of nylon net to protect young larvae from elements and pest-predators,
- Use of prophylactic measures to avoid disease outbreak,
- Monitoring quality parameters of Tasar eggs in private grainages by the producers collectives,
- Paying the cost of CRPs by the producers against the services,
- Data collection and review of performance in the primary level organizations,
- Use reeling / spinning machine by women for yarn extraction,
- Use of Solar power for reeling units,

These best practices ensure income to the producers on a sustainable basis and help the producers to attain self-reliance.

3. Strategies undertaken in the past in enabling access to credit and markets through the women groups/federations: PRADAN played a major role in creating a value chain. The main elements of the strategy included: creating village-based supply of disease-free layings (DFLs) of Tasar moth; promoting scientific rearing practices to reduce mortality among silk worms; raising plantations of host trees on privately owned wastelands and promoting Tasar yarn production among Tribal communities.

A major strategy of PRADAN was to collaborate with parastatal organization like the Central Silk Board that opened windows of opportunities by ways of access to improved technology, critical inputs like foundation seeds, exposure and training of professionals and funds for demonstration and upscaling of interventions and opportunities to collaborate with other mainstream stakeholders. PRADAN closely worked with CSB to develop an array training modules for the benefits of the producers.

Hamlet-level groups of cocoon producers called Tasar Vikas Samitis have been formed to support silkworm rearer's to access technology, services and fairer markets. On similar lines, the primary groups of yarn producers ensure year-round supply of raw materials (cocoons) for its members and support them for collectivized marketing. The primary producers' groups and the SHGs help their members to access credit from banks.

Tasar production is now a major economic activity in the area. The production of Tasar cocoons from the project promoted producers (over 7500 Tasar silkworm rearer's) constitutes about 15% of the national production. The overall initiatives undertaken in our project areas are being sustained by tiers of producers' collectives. Tasar sericulture now provides an incremental income of Rs. 10,000 to Rs. 15,000 to a producer-family (silkworm rearer, Grainage entrepreneur, yarn producers and weavers) from their slack labor and idle assets (such as wastelands). Given the economic profile of households, many a times, this level of income contributes to almost 100% income enhancement of the household. Families are able to invest their earning in debt redemption, recovery of mortgaged lands, buying pump sets, repairing or constructing houses and in educating their children in good schools.

b. Proposed plans/ strategies as part of the Project

1. Proposed strategies to ensure implementation of the project community processes including use of community resource persons and enhancement of their capacities

It is essential for the project to create appropriate mechanism for rigorous monitoring, door step delivery of services and enabling the producers to follow strict quality control regime. PIA would create cost-effective and efficient mechanism by involving village based resource persons who would perform the key functions of managing input-output linkages and ensure delivery of inputs and services at the doorstep. These people will manage linkages for seeds, would help the community in procuring inputs such as fertilizers, seedlings, DFLs, establishment of village level nursery for the production of seedlings and also help them in storage and marketing of cocoons under the project. Village level Community Resource Persons will be selected and provided with all relevant training on the implementation and management of the project and delivering different kindly of service even after the end of the project. The technical training to the CRP would be provided jointly by PRADAN and CSB resource person.

2. Systems and checks put in place to ensure that the local resource persons are accountable to / managed by the women institutions.

The Local resource persons would be nested /hosted at Primary level organizations such as Tasar Vikas Samiti or Yarn Producers' groups. PRADAN would work intensively with the primary groups to enable them to govern the Community Resource Persons (CRPs). From the beginning, the systems of submission of monthly plans by CRPs and review of the same by the primary groups would make the governance process participatory and effective. In medium to longer term, the primary groups would pay the CRPs against the services rendered. This arrangement would demand accountability and performance from the CRPs.

3. Plans to enable women institutions/producers' collectives to put in place a transparent self monitoring and review mechanism internally for program improvement.

At the primary level, the producers' groups are small—based on a hamlet or a village. The smaller size of the group would help in strengthening group processes chiefly through face-to-face interaction. Such a setting is ideal for promoting an ambiance of openness through proper facilitation. The members learn from each other through experience sharing, setting goals collectively and jointly monitor their movement towards goal attainment. Normally, after every production / business cycle, the producers share their results and assess performance and take corrective actions.

4. Briefly elaborate on systems/ and procedures that you propose to put in place for adoption of best practices by the women institutions /producers' collectives.

Rigorous training, exposure, facilitating experience sharing among producers and an internal review mechanism among the producer groups for assessing member performance and CRPs would go a long way towards supporting producers to adopt best practices, set better standards and create space for mutual learning. PRADAN would involve the women institutions / producers' groups at every stage from planning, implementation and review in order to create a strong stake of the villagers. Delegating financial responsibility to the primary groups—including the task of fund handling, record keeping and periodic reporting of progress would be important procedures to build ownership of people in the project.

5. Building federations at different levels for sustaining collective action.

The project will ensure federated bodies at two different dimensions integrating and differentiating both social and livelihood perspectives. In the social front federated bodies of SHG will anchor whereas Producer collectives will knit tightly the variables of livelihood. These federated bodies shall play the role of overall monitoring and also create linkages for its member groups and positive synergy with other stakeholders in the project context in local area. The producers collective would come as and when the production volumes of different commodities go up and also the demand for related services emerges – it would also take up the mandate of developing input and output linkages. Creation of appropriate organizations, designed to enhance the stake and control of the producers, would be a major challenge in the context of Tasar as majority of the producers come from the tribal and backward communities and are financially very poor.

However, it is envisaged to create relevant institutions with the involvement of the producers and enabling them to exert their control in the long run.

6. Role of Community professional and community resource person

Emphasis will be given on selection of beneficiaries, organizing Self Help Groups (SHGs) for various activities, signing of agreement with beneficiaries, development of infrastructure etc during the early period of the project, to get maximum project output and keep the tribal's interested in Tasar culture, utilization of the existing Tasar food plants in the forest areas/ raised under other schemes, Skill up-gradation, handholding support to beneficiaries in creation of activity groups are the primary activities which will be achieved by engaging Community Resource Persons (CRP). Disease monitoring, technological support etc will also be looked after by these groups of resource person's. Development of pool of Community Resource Persons will be a prime focus of the project. The SHG/VLC members shall identify from their villages one person with certain skills set like basic mathematical ability, writing and communication skills, acceptable to all/most families and one who is willing to extend himself/herself for supporting others in and around the village as community service providers.

Large pool of CRP will be built under the ISDS project of CSB that would help the project to run in a better way.

7. Control of CBOs over the fund flow mechanism

The project would be implemented by existing PRADAN team based at District level and headed by a team leader and anchor the project implementation. The team would set up a Field Implementation Units (FIU) at Block level that would spearhead grassroots action. The FIU would comprise Professionals, Subject Matter specials and assistant.

At village level where there is a potential of sericulture, all the women would be organized in to SHGs and after conducting a baseline survey the Tasar producers would be organized in to an activity group called "Tasar Vikas Samity" (TVS) out of SHGs comprise plantation farmers, rearer's, Graineurs, reelers and spinner. The TVS would further form a small group out TVS as Project Execution Committee" (PEC) to implement the project

The implementation structure will create space for the individual activities and will be supported by well stated processes to guide the implementation structure. At first village level planning will be done by the activity group (TVS) where individual families will express their interest, resource base etc. and based on the physical plan, TVS will place their requisition for the transfer of fund in to TVS account specially dedicated for the project implementation. The requisition will be further verified by the concerned PRADAN professional and will be submitted to PRADAN. Based on the requisition PRADAN team at District level would transfer the fund in to TVS accounts.

The individual families with the help of PEC and the community service provider will implement the activities and the bills/ Master rolls of the works will be raised on weekly basis and payments will be made as per the bills/ Master rolls of the works produced. The bills against the grants will be submitted to PRADAN after verification by the representative of PRADAN along with representatives from PEC and the community service provider. Here the role of monitoring will be undertaken by the PEC & PRADAN. Individual families will carry out the activity under the handholding support of Service Provider and the

Representative of PRADAN. TVS will submit the entire bill to PRADAN at the end of every month and after settling all the accounts fresh requisition will be placed based on the plan along with the physical and financial report.

The project implementation plan will be developed and the detailing of the plan will be done by conducting a specific TVS meeting for the planning process and proper minutes will be kept. The members of PEC will also be trained by PRADAN around the processes, financial management, monitoring etc.

Keeping such a small group will help members of the TVS to interact with each other effectively, maintain the regimentation of the activity. These Primary level organization's (called `Tasar Vikas Samity') main concern will be selection of rearer's, selection of proper rearing site, maintenance of host plants, promotion of new plantations, monitoring of quality standard of DFLs and helping rearer's to access services for rearing and marketing of cocoons.

Rigorous training, exposure, facilitating experience sharing among producers and an internal review mechanism among the producer groups for assessing member performance and CRPs would go a long way towards supporting individual families/ producers to adopt best practices, set better standards and create space for mutual learning. The PIAs would involve the women institutions / producers' groups at every stage from planning, implementation and review in order to create a strong stake of the villagers. Delegating financial responsibility to the primary groups—including the task of fund handling, record keeping and periodic reporting of progress would be important procedures to build ownership of people in the project.

Chapter 3: Detailed Program Components

3.1 Detail of Proposed Action

This project proposes to build on the foundations of a) large scale social mobilization of women facilitated by PRADAN for nearly two decades in Jharkhand and b) an array of livelihood propositions for the marginalized, based on Tasar sericulture that have been made standardized through decades of meticulous efforts by PRADAN with support from the Central Silk Board (CSB).

As mentioned earlier, the mainstay of livelihood interventions would be around Tasar Sericulture, a forest based activity, traditionally undertaken by communities living in forest villages. The proposed project would exploit the benefits of recent advancements in the sector to extend the livelihood opportunities to newer clusters, covering families with no prior experience to facilitate adoption of improved technologies of Tasar sericulture and enabling them to access mainstream markets and sustain economic gains.

This project is designed to capitalize on the revival and growth attained in Tasar sericulture in recent years in Bihar & Jharkhand through intensive efforts of PRADAN in collaboration with Central Silk Board to implement a Special SGSY Project for development of Tasar Sericulture. The idea here is to broad base the best practices of the above-mentioned project within Odisha to benefit a large number of poorer households.

Besides enhancing the stake and involvement of the women in the income activities like Tasar sericulture, the project would work for strengthening their position at household. Although women play a central role in agriculture, yet low productivity of rain fed farming hardly supports the family to meet year-round food requirement. Food shortages affect women most, both physically as well as emotionally. As homemakers and rearer's of small children, they bear the emotional trauma of coping with hungry children, and are most likely to receive less or go without food in times of shortages. The project proposes to support at least 50% of the participating families to overcome food shortage by ways of increasing their paddy production. This effort would be further supplemented by SHGs and Cluster associations, who will support their members to claim food grains from PDSs.

By way of activities, the project would:

- Strengthen the existing SHGs and clusters and orienting them to livelihood activities,
- Promote functional groups of Tasar silkworm rearer's comprising of women and men,
- Promote District / Block level aggregations (formal or informal) of the primary groups. These organizations would enable the producers to sustain their initiatives,
- Implement a variety of activities pertaining to Tasar sericulture to build capacity of producers, equipping them with implements and accessories, create assets such as seed production units, host tree plantations, reeling units, sorting-grading centre's,
- Set up Tasar Cocoon and silk Yarn banks as alternative marketing mechanisms,
- Support at least 50% of the participating families to adopt improved technologies and methods (such as SRI) of food grain production. The SHGs and Clusters would support the remaining families to claim their entitlements for food grains from PDS.
- Promote a cadre of community based service providers to provide hand holding assistance and linkages for credit and market for the participating families.

- ❖ Promote and nurture suitable producer organizations (cooperatives or producer companies as per the new Act) to provide sustainable systems for services to the project participants,
- ❖ Undertake activities pertaining to documentation of processes, impacts and for wider dissemination of experience.

1. Plans for promoting and enhancing food and nutritional security for women farmers

The initiatives proposed viz., improved agriculture and vegetable cultivation in the backyard would provide required food security round the year resulting in arresting the malnutrition in the tribal populace. PRADAN will also try to encourage the members for the consumption of vegetables and food grain produced to increase the nutritional security of the members.

2. Strategies addressing sustainable/evergreen/regenerative NTFP practices

Research Institutes of the Central Silk Board have come out with many technologies in seed, pre-cocoon and post-cocoon sectors, which were tried and fine tuned adding the indigenous knowledge of the tribal's who are practicing Tasar culture as tradition. The proposed project interventions would help in increasing green cover through rejuvenating and safe guarding Tasar host flora in the fringe forest areas and also taking up block plantations in private waste lands.

Pre harvest, harvest and post harvest protocols development: Community protocols will be developed by integrating traditional and scientific knowledge in regeneration, maintenance and rearing management techniques based on best practices elsewhere with required modification. The project will train the project participants in various activities of Tasar culture on best practices and provide improved rearing, grainage equipment and cocoon reeling machines to them.

Use of indigenous knowledge: The project will make use of rich indigenous knowledge and technologies in Tasar host plant regeneration, Tasar silkworm dfl incubation, and seed production etc for sustainable use of resources for enhancement of tribal livelihoods.

Suitability of technology to the local agro-ecology: The existing practices and technologies will be studied, validated and community consultation will be facilitated to assess the suitability of technology for adoption before introducing.

Resilience to climate change – Integrated Natural Resource Management: The project is also encouraging NTFP/MAPs for additional income. The project is also promoting agro forestry models by developing land and water resource development so as make it integrated natural resource management. All these initiatives will have reasonable resilience to climate change factor.

Soil and water moister conservation steps proposed would improve the soil condition, check soil erosion etc. Intercropping, improved agriculture practices and vegetable cultivation would bring improvement in soil health and productivity.

PRADAN will encourage the use of organic matters in all the activities along with that PRADAN will seek support from CSB to provide alternative solutions of inorganic practices.

3. Targeting : Approach and Details on tribal NTFP collectors as project participants

Informal village level groups like Tasar Vikas Samity (TVS), Producer's Collective, Rearer's' Collective and other Activity sericulture groups are responsible for various project activities. Their role includes planning, implementing and monitoring the entire range of activities. These groups would meet once in 15 days to plan and budget for various activities. These groups will have their own bank account for thrift, and maintain its accounts and stock book for material transactions, which are audited. With formation of these groups, increased tribal participation was sought at every stage of project activities starting from site selection, planning, budgeting, and taking up the related activity with all required care. All the financial and material transactions with individuals in the villages are carried out through the respective activity groups.

At the start of the work, these groups are facilitated to prepare a detail work plan and budget based on their abilities to contribute labor and material. The work plan and the budget of the groups are submitted to Project Implementing Agency (PIA) office through the functionary of PIA operating in the area. Once the work starts in the village, PIA functionary assesses the progress of the work and monitors the expenditure details and recommends release of the next indent directly to the bank account of the groups. The groups incur the expenditure for the said purpose and submit the work done/ utilization certificate to PIA. Due to group involvement, it would be relatively easy to collect the beneficiary share and also to resolve local issues besides group can exert pressure on individuals to increase their contribution so as to improve the group's financial position for lean periods.

The PIA shall constitute various committees such as Beneficiary Selection Committee, Purchase Committee etc. and follow the prevailing rules, regulations and standard practices. The transactions and dealings shall be transparent and the books of accounts, records shall be made available to the Officers associated with implementation of the project at any time. The PIA shall maintain the Accounts by following standard practices and books of accounts, get the accounts audited as per the rules and procedures followed by the PIA in respect of funds received from Govt. of India and other sources, shall submit UCs along with audited statement of Accounts every financial year. The PIA shall submit quarterly progress reports to the CA and Chairman, PMB in the prescribed formats.

Major technological inputs viz., *chawki* nylon nets, microscopes etc., will be purchased through centralized purchases as per recommendation of Purchase Committee (comprising the CSB, PIA, DOS or any other Line Department, as the case may be) for the project on a rate contract for the entire project period. Release of project funds to carry out remaining activities would be directly to accounts of the activity groups as per recommendation of work plans by CBOs.

4. Plans for Post-project Sustainability and Scaling-up strategies

Tasar culture is an age old practice in the project area of the rural poor specially the Scheduled Tribes. The assured availability of quality commercial seed, improved technologies and the means for its adoption provided under the project, increase in the food plant population by maintaining Tasar host flora in natural forests/ private waste lands and chawkie garden leads not only to the increased production and productivity but also to sustain the project beyond the project period.

Organization of beneficiaries and different stakeholders into manageable groups, SHGs, TVS, and integrating them into Producers Organizations would strengthen the development of the industry. Establishment of

required infrastructure within the project area, capacity building through training programmes and study tours, establishment of credit linkages with financial institutions helps in sustainability of the project. The increased earning capacity of the beneficiaries with increased productivity and quality, development of viable rural enterprises such as Private Grainage, Seed rearing, reeling, spinning, etc would take the project beyond simple sustenance to a viable commercial activity.

The project empowers rural poor in general and the women in particular economically with the introduction of the activities through technologies, which are women friendly, child unfriendly, hygienic and superior in terms of both quality and quantity production. This would along with introduction of improved machinery and technologies, establishment of backward and forward linkages between various groups would definitely result in self-sustainability of different activities.

The present Project is formulated based on the experience and lessons learnt during the earlier developmental Projects with an emphasis on formation of groups and producers' collective with establishment of effective forward and backward linkages. The biodiversity conservation is another important issue that is being effectively addressed through raising of plantations and scientific utilization of the forest trees. These measures on adoption by the existing Tasar rearer's as well as by those who take up the new rural micro enterprises like the private Grainage by the middle level educated unemployed, contributes to the sustainability of the project beyond the project period. The economics of various activities like private Graineurs, seed and commercial rearing besides yarn production activities indicates that the Project components rightly contributes towards poverty reduction, gender equity and has all the potentialities of a sustainable rural model for socio-economic development. Project output would be compared with the following indicators.

- Cocoon Productivity: 32 seed cocoons per dfl in the Seed crop and 50 Cocoons per dfls in the commercial crop.
- The entire requirement of dfls in the commercial crop would be met through village based private Grainage to be established under this project.
- Gestation period for newly raised plantations would be limited to 3 years by adopting recommended technologies.
- By the end of third year, the producer's institution would attain self-reliance to sustain targeted standards of production.
- Producers' collective will be self sustainable in operation.

5. Plans aiming at drudgery reduction for women NTFP collectors

The technology inputs and small equipment in Tasar host plant raising, Grainage and silkworm rearing are women friendly and help them to carry out the activity without drudgery. Even the small branches of Tasar host plants at the time of cocoon harvest would help them to get required firewood instead of depending on forests for its collection.

6. Plans for awareness generation with regard to " NTFP Collector's" rights entitlements under different schemes related to her identity as "NTFP Collector":

Tasar for time immemorial is considered to be male domain, even in many places females are not allowed in the rearing sites with a belief that they will bring bad omen. However, with the introduction of Tasar block Plantations, engagement with SHG's, continuity of focus on women has somehow eased the penetration of

women in the activity. But still the development of a major portion of the human resource is completely neglected. Having recognized this acute imbalance against the women, the project plan and processes would address the inequities in the following manner-

- To ensure almost 100% participation of women in all programs and schemes though males would also be one of the participants in decision making and training events
- Sensitization of stakeholders on the issue of Gender discrimination in SHG, TVS and gramsabha meetings
- Increase role of women in decision making and income through various initiatives
- To bring the services at the farmers doorstep and technical support at village level to ensure women participation.
- Introduction of drudgery reduction tools and equipments and with different women friendly techniques
- Technical support and extension services to be provided at the level of Self Help Groups - market information, credit facilities.

7. Strategies for Development of pro poor value chain around Women NTFP collectors ensuring increased access to market and market information for better marketing of their products

Micro-entrepreneurial models evolved and tested on scale during the Special SGSY Projects in Bihar and Jharkhand viz., nursery raising, seed and commercial rearing, Tasar seed production would be key livelihoods besides improved agriculture and vegetable cultivation. Viable linkages would be developed amongst these activities and also with value addition across the Tasar chain.

At present key constraint in the Tasar value chain viz., Tasar basic and commercial seed production and supply is being addressed through the initiative. Organization of beneficiaries and different stakeholders into manageable groups, SHGs, TVS, and integrating them into Producers Organizations would strengthen the living conditions of tribal's with increased access to knowledge, credit and market. Establishment of required infrastructure within the project area, capacity building through training programmes and study tours, establishment of credit linkages with financial institutions helps in sustainability of the project. The increased earning capacity of the beneficiaries with increased productivity and quality, development of viable rural enterprises such as Private Grainage, Seed rearing, reeling, spinning,etc would take the project beyond simple sustenance to a viable commercial activity.

Introduction of improved technologies and establishment of backward and forward linkages between various groups would definitely result in self-sustainability of different activities. Above all, the adoption of best practices of the earlier phase of special SGSY project would make the whole proposed interventions robust and sustainable. The economics of various activities like private Graineurs, seed and commercial rearing indicates that the Project components rightly contributes towards poverty reduction and has all the potentialities of a sustainable rural model for socioeconomic development. At present, average disease free laying consumption per ha ranges between 150 and 250 only. Under the project, it is proposed to increase the brushing capacity to 300 dfls per ha by providing inputs to the existing systematic plantation and also by raising block plantation. With the farm inputs provided under the project and adoption of improved rearing

technology, the cocoon productivity would increase to 50 cocoons per dfl and a farmer would be getting an estimated additional annual income of over Rs 14,000/- for engagement of about 100 days. Additional income through private Grainage would be around Rs. 18,700/- and through that of Basic Seed Production would be around Rs. 68,000/-. In case of intercropping in block plantation, an additional income of about Rs 4,000 to 5,000/- would be generated, which will enable the farmers to maintain the systematic plantation during the gestation period.

Further, linkages with the existing conversion facility available in the state would be made to the cocoon producers for assured marketability. In view of the huge demand –supply gap of Tasar silk in the country efforts would be made to promote conversion clusters in the project areas in the next phase once the production of cocoons stabilizes.

8. Strategies for disseminating knowledge. Including plans for skill up gradation among women.

Women are the back bone of the tribal community. Women plays significant role in both household and economic activities, still they are having socially lower status. Organizing women into SHGs and building capacity through training would make them driving force of the village. Training and capacity building would very important component of the project. PIA team would require exposure visit to different organization for learning best practices and new technologies relevant to the project.

All the members of SHG would be provided with membership training, leadership training, book keeping and livelihood visioning. Promoting and nurturing these organizations around SHGs of this area would be meaningful and facilitate pro development processes. They will be actively involved in various trainings on Tasar and other sectoral activities, on-field training by CRPs etc.

Men and women of the target families can be taken to see related works of different agencies to broaden their understanding on natural resource management. To groom women to mature SHG members, knowledgeable and skilled human resources, these women need different trainings like membership training of SHG, technical training, entrepreneurial training, membership of people's institution, etc.

For every aspect of interventions, there will be a strong focus on building required skills and capacities among the beneficiaries in order to enable them manage their livelihoods in the long run. Training would be provided to all categories of beneficiaries to help them acquire technical skills. Additionally, Entrepreneurial Motivational Training (EMT) for the beneficiaries to promote self-reliance among producers in their business would be included. All the technical training would be provided in collaboration with CSB. A large number of village based community resource persons would be trained under the project. This resource person would be part of a rigorous follow-up mechanism to offer handholding support to the beneficiaries of the project.

9. Plans for increasing access of credit to women farmers and women groups.

While credit would be mobilized from the SHG savings for routine activities and for activities like seed production, the groups would approach the financial institutions to mobilize credit for the working capital requirements.

10. Please elaborate on the direct 'incremental' income (returns) to farmers through proposed project.

The incremental income should be sustainable. Proposal may include cash flow projections to indicate changes at the level of project participant, the cash flows will include savings through reduction in costs - e.g. low external inputs use sustainable technology, regeneration.

Prior to the similar initiatives in Bihar and Jharkhand through SGSY Projects, most of the traditional Tasar farmers were rearing occasionally that to as part of their tradition and not on commercial scale. While models of seed production are absent in the proposed project area, average income from Tasar is in the range of Rs. 4000 to Rs. 5000/-. The present initiative can build all the required linkages so as to make available critical inputs and services available at the door steps, would ensure taking up Tasar silkworm rearing on a regular basis and following the technologies for assured higher incomes.

Plantations raised and rejuvenated would take care of the Tasar silkworm rearing for over four decades with initial project support for raising and maintaining them. While the initial costs are quite high will be mobilized from project assistance, for the later years system is built in to keep aside fund required for minimal maintenance costs, from the cocoon sales. Due to well knit linkages between basic seed Grainage, seed rearer's and private Grainage within the cluster would sustain beyond the project period.

With the proposed interventions while commercial rearer's can get an estimated incremental annual income of over Rs 10,000/- per crop. Additional income through private Grainage would be around Rs. 18,700/- and through that of Basic Seed Production would be around Rs. 68,000/- for the group. In case of intercropping in block plantation, an additional income of about Rs 4,000 to 5,000/- would be generated, which will enable the farmers to maintain the systematic plantation during the gestation period. Except the income through intercropping, incremental incomes through other activities do not only sustain would definitely increase due to capacity utilization, improvement in quality due to increased skill levels. Further, the costs of production would come down and earnings would increase due to technology intervention and capacity building. Also due to linkages amongst the activity groups dependency on others will come down which reduce the incidental expenditure to take up various activities.

11. Community Contribution:

It is planned to raise community contribution in almost all the activity components namely – Raising of block plantation, Assistance to different strata of rearer's, Grainage etc. Apart from these, the community shall be encouraged to pay for services of CRPs at a later stage preferably just after the project period. The contribution would come in different ways:

- ❖ Depositing in cash – The family can deposit the contribution amount as decided in the TVS meeting to the Project Execution Committee (PEC) account before the work starts.
- ❖ Depositing in installments - If the family is not able to pay the amount upfront, then they can pay the amount in different as the work progresses from their own wage payment or other means in that proportion.
- ❖ During work through Labour – The families with whom the activity is done, if their family members work in that activity, they would not take the part/full wage payment till the point their share of contribution amount is completed.
- ❖ In the form of Kind – For agriculture operations, contributions for farm inputs can come from farmers own inputs.

The contribution amount collected shall be deposited with PEC along with its records.

3.2 Convergence with MGNREGA and other line Departments

The total project cost will be raised from three sources respectively MoRD, CSB, contribution from Beneficiaries and credit, other than that convergence from any other sources are not considered during conceptualizing the project. MoRD and CSB will provide the total grant of 86.03% having individual share of 64.52% & 21.51% respectively, the remaining 13.97% will be contributed by the project families either from their own contribution or by arranging loan. However, with emerging opportunities and latest guidelines issued around Tasar Plantation under MGNREGA, it will always be emphasized to take the Raising of Block Plantation activity under the convergence from MGNREGA, besides exploring convergence opportunities from other sources including RKVY, NABARD etc.

3.3 Training and Capacity building of communities

Success of the project and sustainable development of the industry largely depend on the well-equipped human resources in the state. Exposure to the industry to study the practices adopted in the other traditional states or the project areas where Tasar culture is being practiced would pay rich dividends in overall development. It is proposed that all the beneficiaries would be trained in their respective activities and also on the community related aspects. Tasar sericulture may be an entirely new vocation for the families to be selected. Thus for every aspect of interventions, there will be a strong focus on building required skills and capacities among the beneficiaries in order to enable them manage their livelihoods in the long run. Training is needed to help people acquire technical skills. Additionally, PRADAN proposes to carry out Entrepreneurial Motivational Training (EMT) for the beneficiaries to enable them embark on new ventures. Some of the community specific trainings are as follows

❖Technical training for Households for implementation of sericulture activities-6,567 training days will be imparted to ensure the technical skill around different activities of Tasar Sericulture like Nursery raising techniques of Arjuna plants, Seed crop Rearing, Commercial rearing, Grainage etc. The families will also be taken for exposure in different established areas to see the impacts of Tasar Sericulture.

❖Technical training for sectoral activities- 7,748 training days will be imparted around technicalities of improved agriculture, vegetable cultivation and along with that exposure visits will also be conducted in the successful adjoining areas.

❖Institution building of Producer Collectives- 6,780 training days will be imparted in leadership, membership; Governance related trainings, so that the activities can fully run by the collectives. The board members will also be given exposure to successful collectives.

❖Nurturing of New Self-Help-Groups (SHGs) – 6,618 training days will be imparted in leadership, membership; book keeping and livelihood visioning of the SHG members. The trainings will build the basics of SHG members and will also help them to actualize the visualized change. The SHG members will also be taken to good SHG's to understand the processes and systems and to implement & follow them in their own SHG's.

3.4 Training and Capacity building of Community Professionals

PRADAN will also use the services of a number of village based resource persons who would be part of a rigorous follow-up mechanism to offer handholding support to the beneficiaries of the project. The CRPs play a critical role in extension services, taking the knowledge and delivering it to the farmers based on their context. The CRPs thus need constant training and exposures in process, communication and technological parameters, handling of tools and equipment to enhance their knowledge and skills. A series of trainings and exposures have been planned for CRPs right from the stage of planning, on-going implementation phase and also post seasons review. They are provided training on documentation, yield estimation process. 161 CRPs are expected to be trained within the project period and they are going to impart 14,315 training days altogether in the project period.

Chapter 4: Implementation Arrangements

4.1 Implementation Plan

a) Elements of Implementation Process

The implementation would be centered on activity group and its collectives. The proposed project would be anchored at the village node, with forming an implementation body among the rearer's themselves of the respective villages. A CRP would be assisting these members of activity group and working under them. For smooth implementation this group with CRP would meet weekly for planning & monitoring and supervising during the week. All the members would sit together reviewing the performance in monthly meetings.

Grassroots mobilization:

- Identification of potential cluster
- SHG saturation in the selected area,
- Formation of activity groups,

Engaging with producers for livelihood promotion:

- Livelihood planning with families,
- Training of families with focus on skill development of women,
- Introducing systems of accounts keeping in the activity groups and fund transfer to groups,
- Supporting activity groups (Primary Level Groups) to raise plantations, build infrastructure,
- Supporting producers to carry out production,
- Facilitating product aggregation and marketing,
- Facilitating experience sharing in producers' groups,

Engaging with external stakeholders

- Building linkages with banks and sharing credit plan,
- Building linkage with other CSO's for the implementation of the project,
- Connecting producers' groups with input suppliers,
- Market promotion and Establishing contacts with buyers,
- Disseminating project experience among wider stakeholder groups.

Programme Monitoring and Reporting:

- Data capturing and collation
- Periodic field visits by the Team and central unit members
- Quarterly review meetings with project staff
- Joint field visit with CSB
- Submission of QPR for physical and financial progress,
- Annual Audit report

PRADAN's role would be more towards capacity building of the participant family and other CSO's from implementation to management, and build simple systems and processes to implement and monitor the program smoothly. The involvement directly in the field for implementation with the activity group & CRPs would be an integral role, and focus would be to build capacities of the women

b) Project Implementation Plan & Flow:

PRADAN teams at the district level would anchor the implementation of the project. The teams would make plan (as part of the Annual plan of the Team) and set up Field Implementation Units that would spearhead grassroots action. The field implementation units would be based at Block level and would be constituted of Professionals, Subject Matter specials. The FIU would work in the existing SHG clusters and would directly engage with the producers to form primary groups, train producers and CRPs, provide support in planning and implementation and create mechanisms for sustenance.

PRADAN will also engage with reputed CSO's of the state do the implementation on a pilot basis. Here PRADAN will help the identified CSO's in making plan and will train their field implementation units, which would spearhead the grassroots action. PRADAN will do make arrangements for smooth implementation of the pilots taking support from the coordinating agencies.

The thematic and overall programme support to the teams/ identified CSO's would be provided by a central Unit, which would be responsible for the implementation of Tasar sericulture projects in multiple states. The Central Unit (Project Facilitation and Resource Cell) would be constituted of domain experts who would be responsible for mobilizing HR, training of staff and CRP, offering support for technology, finance management, programme monitoring, documentation and networking with stakeholders.

I. Internal structure for implementation

The project would be organized around the existing structure of operations of PRADAN, the team model at a large and also along with identified CSO's in a pilot basis. In case of team model, in every block one to two Executives (Projects) would be placed in the role of Programme coordinator, under them one Subject Matter Specialist (SMS), preferably sericulture background, and one Assistant (Minimum graduate) would be placed to implement this proposed project. The project would be integrated at District level under the Team Leader, in the role of Project Anchor. At the central level, the Project would anchor by Project Facilitation Unit for overall responsible for providing guidance and shape to the project, reviewing & monitoring, initiating linkages and orchestration. The unit would bring in new knowledge and integrating the implementation and sharing learning's across states. The Project coordinators would be responsible for implementation of the proposed project at village level with the based institutions. The capacity building, field level guidance and handholding of the institutions and leaders would be their responsibility. Importantly, these people would work to bring in transformative changes among the participating family. They would be assisted by SMS & Assistants. The SMS would help with technical guidance at the field level to all, and support the Coordinators. The Assistants would help the Coordinator by doing repetitive jobs like muster roll checking & collection, everyday field monitoring while infrastructure creation work going on, helping CRP with accounts book maintenance, etc. The SMS and Assistants would report to the Coordinator. Review of the programmes would be done in monthly team meetings. Whereas in case pilots with CSO's, PRADAN will help to build the capacities of CSO members. PRADAN will also help to develop the

implementation model at the field level by engaging with them. PRADAN will closely monitor their progress in the field and will be responsible for the proper implementation of the project.

II. Role of CRP- Knowledge dissemination, monitoring and scaling up

There is pressing need to engage with the community to build their skills, making them aware about new scientific practices of doing in the field of Tasar Sericulture and building their vision and understanding around collectives. So there is a high need to create a sector specialist cadre who works with a belief that engagement at cutting edge will bring the theory of change and one of our major strategies will be to create such a pool. CSB sanctioned ISDS (Integrated Skill Development Scheme) project to PRADAN for Skill Development for the existing producers of special SGSY projects in Bihar and Jharkhand. The training will be provided jointly by PRADAN and CSB and skilled person would be utilized in the field for the implementation of such projects. Emphasis will be given on selection of beneficiaries, organizing Self Help Groups (SHGs) for various activities, signing of agreement with beneficiaries, development of infrastructure etc during the early period of the project, to get maximum project output and keep the tribal's interested in Tasar culture, utilization of the existing Tasar food plants in the forest areas/ raised under other schemes, Skill up-gradation, handholding support to beneficiaries in creation of activity groups are the primary activities which will be achieved by engaging Community Resource Persons (CRP). Disease monitoring, technological support etc will also be looked after by these groups of resource person's. Development of pool of Community Resource Persons will be a prime focus of the project. A large number of village based resource persons would be trained under the project. This resource person would be part of a rigorous follow-up mechanism to offer handholding support to the beneficiaries of the project.

III. Role of project staff and community professionals

The sector in the present context where states are reducing its size, there is high need of young and energetic people to rejuvenate it. The professional influx will help to anchor a multi-stakeholder in complex socio-cultural region of the country to deliver the mandate of establishing and spreading Tasar sector. This will strengthen the human resource systems for direct work, inclusion of new areas by influencing other actors, especially by strengthening capabilities of other civil society actors. PRADAN will also use the services of Subject Matter Specialist (SMS) to provide technical support to the beneficiaries at different stages of growth period.

There will be multiple numbers of trainings to cater the knowledge deficits of professionals, SMS; trainings around extension services, handholding support to communities, improved agriculture, Vegetable cultivation, Institution buildings of Producer Collectives and Nurturing of SHG's will remain the prime focus. The HR development is a year round programme and therefore will continue throughout the year or seasonal if the activities are seasonal in nature. The engagements of trainings are elaborately mentioned in the Gantt chart.

IV. Geography and Yearly distribution

The project activities would be implemented in 20 blocks of 8 districts. However, given the scope and range of activities, not all of them shall be initiated in all the blocks simultaneously. The table below presents the year wise plan of different activities:

Year Wise Physical Phasing

Sl. No.	Component/ Activity	Unit	PHYSICAL			
			Yr-1	Yr-2	Yr-3	Total
1	**Raising of Block plantation**					
1.1	Raising Tasar host plantation	Hac.	413	194	-	607
1.2	Maintenance of host plant - 1st Year	Hac.	-	413	194	607
1.3	Maintenance of host plant - 2nd Year	Hac.	-	-	607	607
2	**Assistance to Nucleus Seed Rearer's**					
2.1	Supply of rearing equipments	No.	40	40	-	80
2.2	Supply of inputs for maintenance of block plantation	Hac.	28	56	56	140
2.3	Assistance for Tasar silkworm rearing	No.	40	80	80	200
2.4	Crop insurance	Dfls	8,000	16,000	16,000	40,000
2.5	Rearer's insurance	No.	40	80	80	200
3	**Assistance to Basic Seed Rearer's**					
3.1	Supply of rearing equipments	No.	237	335	123	695
3.2	Supply of inputs for maintenance of block plantation	Hac	165	400	313	879
3.3	Assistance for Tasar silkworm rearing	No.	237	572	581	1,390
3.4	Crop insurance	Dfls	47,400	114,400	116,210	278,010
3.5	Rearer's insurance	No.	237	572	581	1,390
4	**Assistance to Commercial Rearer's**					
4.1	Supply of rearing equipment	No.	1,830	2,587	950	5,367
4.2	Assistance for Tasar silkworm rearing	No.	1,830	4,417	4,487	10,734
4.3	Crop insurance	Dfls	366,000	883,400	897,457	2,146,857
4.4	Rearer's insurance	No.	1,830	4,417	4,487	10,734
5	**Assistance to Private Graineurs**					
5.1	Construction of grainage building	No.	60	84	31	175
5.2	Supply of grainage equipment	No.	60	84	31	175
5.3	Working capital	No.	60	84	31	175
5.4	Grainage consumables	No.	60	144	146	350
6	**Assistance to Basic Seed Production Units**					
6.1	Construction of grainage building	No.	4	-	-	4
6.2	Supply of grainage equipment	No.	4	-	-	4
6.3	Working capital	No.	4	-	-	4
6.4	Grainage consumables	No.	4	-	-	4
7	**Assistance to Rearer's Collectives**					
7.1	Cocoon storage facilities	No.	6	-	-	6
7.2	Common facilities	No.	6	-	-	6
8	**Assistance to Reeler's' Collectives**					
8.1	Supply of equipments	No.	-	4	-	4
8.2	Working capital	No.	-	4	-	4
8.3	Common facilities	No.	-	4	-	4
9	**Establishment of Cocoon Bank**	No.	1	1		2

Year Wise Physical Phasing

Sl. No.	Component/ Activity	Unit	PHYSICAL			
			Yr-1	Yr-2	Yr-3	Total
10	**Establishment of Tasar Yarn Bank**	No.	1			1
11	**Human Resource Development**					
11.1.	Technical training of project personnel	No.	6	4	-	10
11.2.	**Technical training for Project Families for implementation of sericulture activities**					
11.2.1	Nursery farmers	No.	75	35	-	110
11.2.2	Nucleus Seed Rearer's	No.	40	40	-	80
11.2.3	Basic Seed Rearer's	No.	237	335	123	695
11.2.4	Private Graineurs	No.	60	84	31	175
11.2.5	Commercial Rearer's	No.	1,830	2,587	950	5,367
11.2.6	Reeler's	No.	-	100	-	100
11.2.7	Spinners	No.	-	40	-	40
11.2.8	Study tour/ Exposure visit	No.	561	805	276	1,642
11.3.	**Technical training for sectoral activities**					
11.3.1	Improved Agriculture	No.	2,167	3,186	1,104	6,457
11.3.2	vegetable cultivation	No.	433	637	221	1,291
11.3.3	Exposure of Project Families to improved practices	No.	542	797	276	1,614
11.4.	**Training of Community Resource Persons (CRPs) for extension of activities**					
11.4.1	Orientation and training on Tasar	No.	54	80	28	161
11.4.2	Exposure to improved practices	No.	27	40	14	81
11.4.3	Technical and Refresher Training	No.	54	80	28	161
11.5.	**On-field training / handholding provided by CRPs to the Project Families**					
11.5.1	Tasar Silkworm Rearing	No.	2,107	2,962	1,073	6,142
11.5.2	Tasar Seed Production	No.	60	84	31	175
11.5.3	Est. of Community Arjuna Nursery	No.	75	35	-	110
11.5.4	Tasar raw silk production	No.	-	100	-	100
11.5.5	Tasar spun silk production	No.	-	40	-	40
11.5.6	Improved agriculture	No.	2,167	3,186	1,104	6,457
11.5.7	Vegetable cultivation	No.	433	637	221	1,291
11.6.	**Institution building of Producer Collectives**					
11.6.1	Membership training	No.	2,167	3,186	1,104	6,457
11.6.2	Leadership/ Governance Training	No.	108	159	55	323
11.6.3	Exposure of Board members & staff	No.	24	36	12	73
11.7.	**Nurturing of New Self-Help-Groups (SHGs)**					
11.7.1	Membership training (25%)	No.	542	797	276	1,614
11.7.2	Leadership Training (20%)	No.	433	637	221	1,291
11.7.3	Book keeping Training (7.5%)	No.	163	239	83	484
11.7.4	Exposure of Cluster & Federation Members (2.25%)	No.	49	72	25	145
11.7.5	Livelihood Visioning (50%)	No.	1,084	1,593	552	3,229
11.8.	**Trainers Training programme**	LS	1	-	-	1
12	**Publicity and extension**					
12.1	Workshop/seminar	No.	1		1	2
12.2	*Krishi mela*	No.	4	3	3	10

The above year wise plan indicates approximate number of participant families for each of the activities and depending on experiences they may be changes

Chapter 5: Implementation Schedule

Gantt chart of schedule of activities (Phasing out strategy)

The implementation schedule has been broken down into sub-activities and schedule for first year is illustrated on a Gantt chart below:

ACTIVITIES	M 1	M 2	M 3	M 4	M 5	M 6	M 7	M 8	M 9	M 10	M 11	M 12
Month→	(Nov)	(Dec)	(Jan)	(Feb)	(Mar)	(Apr)	(May)	(Jun)	(July)	(Aug)	(Sep)	(Oct)
Year→	2013		2014									
PLANNING												
Preparation of Inception Report												
Preparation of DPR												
Staff deployment												
Staff orientation/ Training												
Finalization of villages												
Identification of SHG members												
PEC formation, training												
Community exposure												
Family/Village level Planning												
ACTIVITY												
Raising of Block Plantation												
Raising of Kisan Nursery												
Selection of private entrepreneurs/SHGs												
Preparation of land for nursery												
Collection of Arjuna seeds												
Making cattle proof trench												
Procurement of FYM, Poly Bags etc.												
Filling up of poly bags												
Soaking of seed, Heap formation & germination of seeds												
Placing germinated seed into poly bags												
Maintenance of seedlings												
Supply of seedlings												
Raising of Plantation												
Survey & selection of villages & Govt./												
private land/waste land etc												
Selection of beneficiaries												
Formation of Self Help Groups												
Allotment of land to beneficiaries/SHGs												
Land husbandry												
Making cattle proof trench												
Digging of pits & filling with rooting media												
Procurement of seedlings												
Transplantation of seedlings												
Maintenance of plantation												
Assistance to Nucleus Seed Rearer's												
Selection of Nucleus Seed Rearer's (NSR)												
Signing of agreement with NSR												

ACTIVITIES	M 1	M 2	M 3	M 4	M 5	M 6	M 7	M 8	M 9	M 10	M 11	M 12
Month→	(Nov)	(Dec)	(Jan)	(Feb)	(Mar)	(Apr)	(May)	(Jun)	(July)	(Aug)	(Sep)	(Oct)
Year→	2013		2014									
Supply of inputs for maintenance of plantation												
Supply of Nucleus seed to NSR												
Crop & Rearer's' insurance												
Conducting silkworm rearing												
Silkworm Rearing assistance to NSR												
Assistance to Basic Seed Rearer's												
Selection of seed farmers												
Signing of agreement with BSRs												
Supply of inputs for maint. of block plantation												
Supply of Basic seed to BSRs												
Crop & Rearer's' insurance												
Conducting silkworm rearing												
Harvesting of seed cocoons												
Disposal of seed cocoons												
Assistance to Private Graineurs												
Identification of private graineurs												
Construction of Grainage building												
Procurement & supply of grainage equipment												
Supply consumables												
Procurement of seed cocoons by graineurs												
Processing of seed cocoons												
Production of commercial DFLs												
Sale/supply of pierced cocoons												
Assistance to Commercial Rearer's												
Identify Commercial Rearer's (CR)												
Establish linkages												
Supply inputs for rearing												
Supply rearing equipment												
Provide insurance cover to com. crops & rearer's												
Procurement of commercial DFLs												
Silkworm Rearing assistance to CR												
Creation of Infrastructure facilities under the project												
Assistance to Basic Seed Production Units												
Assistance to Rearer's' Collectives												
Establishment of Cocoon Bank												
Establishment of Tasar Yarn Bank												
HUMAN RESOURCE DEVELOPMENT												
Trainers Training Programme												
Technical training of project personnel												
Technical training for Households for implementation of sericulture activities												
Nursery farmers												
Nucleus Seed Rearer's												
Basic Seed Rearer's												
Private Graineurs												

ACTIVITIES	M 1	M 2	M 3	M 4	M 5	M 6	M 7	M 8	M 9	M 10	M 11	M 12
Month→	(Nov)	(Dec)	(Jan)	(Feb)	(Mar)	(Apr)	(May)	(Jun)	(July)	(Aug)	(Sep)	(Oct)
Year→	2013		2014									
Commercial Rearer's												
Study tour/ Exposure visit												
Technical training for sectoral activities												
Improved Agriculture												
vegetable cultivation												
Exposure of beneficiaries to improved practices												
Training of Community Resource Persons (CRPs) for extension of activities												
Orientation and training on Tasar												
Exposure to improved practices												
Technical and Refresher Training												
On-field training / handholding provided by CRPs to the Project Families												
Tasar Silkworm Rearing												
Tasar Seed Production												
Est. of Community Arjuna Nursery												
Improved agriculture												
Vegetable cultivation												
Institution building of Producer Collectives												
Membership training												
Leadership/ Governance Training												
Exposure of Board members & staff												
Nurturing of New Self-Help-Groups (SHGs)												
Membership training (25%)												
Leadership Training (20%)												
Book keeping Training (7.5%)												
Exposure of Cluster & Federation Members (2.25%)												
Livelihood Visioning (50%)												
Trainers Training programme												
PUBLICITY AND EXTENSION												
Workshop/seminar												
Printing passbook/pamphlets												
Krishi mela												
DISEASE MONITORING												
DOCUMENTATION AND EVALUATION												
CONSULTANCY AND ADVOCACY												
TECHNOLOGY EXTENSION AND BUSINESS DEVELOPMENT SUPPORT												
PROJECT ADMINISTRATIVE EXPENSES												
PROJECT MONITORING COST												

Chapter 6: Results Framework

Project: Promotion of Large Scale Tasar Sericulture Based Livelihoods in Jharkhand

Goal:- The Goal of the project is to eliminate abject poverty of 60% of the project families by income enhancement of Rs. 10,000 – Rs. 18,700 per annum from Tasar on a sustainable basis		
Objective 1: Building capacities of all participating families in adopting skills to effectively and profitably engage in livelihood activities based on Tasar sericulture **Objective 2**: Introduction of improved technologies and practices to push the productivity frontiers for accelerated growth in Tasar Sector **Objective 3**: Strengthening seed sector to eliminate the key supply constraint in Tasar sericulture **Objective 4**: Investment to create alternative market mechanisms to ensure fair prices for cocoons and yarn **Objective 5**: Promote Producers' collective to provide sustainable systems of services to producers **Objective 6**: Design development and dissemination		
Activities	**Outputs**	**Outcome**
Silkworm rearing	➢ **6,142** families would be involved as silkworm rearer's ➢ Each family will be provided with rearing equipments. ➢ Each family would produce 8,000 to 10,000 commercial grade cocoons. ➢ Number of Rearer's Collectives – 6, would help in storage of cocoons to avoid distress sale ➢ No. of producers' collective formed - 4. ➢ 607 ha of plantation will be raised and 3150 Ha of natural forest will be rejuvenated	➢ Participating families profitably engage in livelihood activities based on Tasar sericulture: Cocoon Productivity: 40 seed cocoons per dfl in the Seed crop and 50 Cocoons per dfl's in the commercial crop. ➢ Plantation raised & rejuvenated ➢ Assistance to nucleus seed graineurs would help produce 116 million quality cocoons, which would help earn Rs. 25,652 per household per season. ➢ Commercial rearer's would earn Rs14,020 per season/ per household
Tasar seed production (Grainage)	➢ Total number of Grainage: **175** ➢ Each Grainage entrepreneur would be provided with grainage hall and required equipments. ➢ Grainage would be an individual enterprise at village level ➢ Each Grainage entrepreneur would produce 5,000 to 6,000 DFLs in one Grainage cycle ➢ Individual Graineurs would serve the requirement of 25-30 rearer's in each Grainage cycle.	➢ The entire requirement of dfl's in the commercial crop would be met through village based Grainage ➢ Availability of quality dfl's at village level ➢ Graineurs would earn Rs 18,668 Per season/per household
Basic seed production unit	➢ Total number of basic seed production unit: **4** ➢ Each basic seed production unit would be provided with one Grainage hall along with processing unit and required grainage equipment. ➢ Basic seed production unit would be owned by the collective. ➢ Each unit would produce 25,000 to 30, 000 basic seed ➢ Individual basic seed production unit would serve the requirement of 50 -60 Grainage entrepreneurs	➢ Availability of quality DFLs in field locations ➢ Strengthening of the value chain ➢ Dependency on government departments to self sufficiency
Building capacities of all participating families ,	➢ Hamlet level visioning / planning exercises, ➢ Technical training for productivity enhancement, ➢ Handholding support by Community Resource	➢ A cadre of community based service providers (CRP) provide on-field support to the rearing families and help them in credit

Goal:- The Goal of the project is to eliminate abject poverty of 60% of the project families by income enhancement of Rs. 10,000 – Rs. 18,700 per annum from Tasar on a sustainable basis		
Objective 1: Building capacities of all participating families in adopting skills to effectively and profitably engage in livelihood activities based on Tasar sericulture **Objective 2**: Introduction of improved technologies and practices to push the productivity frontiers for accelerated growth in Tasar Sector **Objective 3**: Strengthening seed sector to eliminate the key supply constraint in Tasar sericulture **Objective 4**: Investment to create alternative market mechanisms to ensure fair prices for cocoons and yarn **Objective 5**: Promote Producers' collective to provide sustainable systems of services to producers **Objective 6**: Design development and dissemination		
Activities	**Outputs**	**Outcome**
	Persons (CRPs), on a day-to-day basis, ➢ Exposures for adopting improved practices, ➢ Selection and extensive training of CRPs. Reviewing effectiveness and providing and on-field support.	and market linkages ➢ 161 trained community resource persons providing technical support to 6,142 households on Tasar rearing activities ➢ 6,142 persons trained in take up Tasar rearing, of which ➢ 110 farmers trained on nursery raising, 80 trained nucleus seeds rearer's, 695 trained basic seed rearer's, 175 trained private graineurs and 5367 trained commercial rearer's ➢ 6,457 Households in Improved agriculture and 1,291 Households in Vegetable cultivation will be trained
Promoting and nurturing Producer Institutions to ensure sustained availability of linkages and services for the participating families,	➢ Number of producers' collective: **4** ➢ Awareness building around the need to collectivize, ➢ Membership training to build a sense of ownership and to understand the accountability as a member, ➢ Exposure and training of the governing board members, ➢ Training and support to staff to effectively deliver the goods and services mandated by the organization.	➢ The self sustained District / Block level aggregations of the primary groups enable the producers to sustain their targeted standards of production. ➢ Interdependency
Market Support	➢ Establishment of Cocoon Bank: **2** ➢ Establishment of Tasar Yarn Bank: **1** ➢ Design development in Tasar weaving clusters and its promotion ➢ Design competition among weavers ➢ Design competition among design student/ institutes	➢ Fair price to the silkworm rearer's against their produce ➢ Stabilization of yarn and cocoon prices and create alternative marketing mechanisms ➢ Helping the people to get regular supply of Raw materials on a sustainable basis ➢ Helping the yarn producer's to sale off their produce irrespective of market fluctuations at a fair price.

Chapter 7: Monitoring, Evaluation and Learning

7.1 Web based MIS and real time input-output monitoring at various levels:

PRADAN uses a basic computer based MIS to capture on-line plans and achievements for each staff and team across the organization. The MIS would generate reports about farmer's individual engagement, SHG related parameters both at individual and institutional level, Livelihood activity parameters, CRPs engagement etc. Family level data is collected at a specific interval. This data is collected from field office at block level about each family and entered at field/district level office wherever the internet facility is available. The analysis and reviewing is done at all the levels – block, district, state as well as central level. The analyzed data is fed back through a review system, described below, to the appropriate node so that it supports in decision making. The project specific data would be drawn from manual reports as well as web- based MIS so that progress of project activities can be reviewed and also review reports can be prepared for analysis and decision making.

7.2 Review Mechanism

The Review for the project would be conducted at three levels – within PRADAN, in the community and by the executing/ coordinating agency and the different systems of reviewing are as described below:

Within PRADAN: The monitoring and learning systems in PRADAN have been designed to facilitate learning and feedback to help personnel improve and to ensure quality and quantum of work against plans. Each project team would meet monthly to report performance against plans and make plans for the next month. A State Management Committee (SMC) comprising of all team leaders in the State and the State Programme Director supported by functional heads from head office and sectoral anchors shall review performance once in three months. There is, thus, a great deal of emphasis on interactive review.

Within the Community: Much of the operational review of the project shall be done at the SHG and TVS level, in their weekly and monthly meeting respectively. At a later stage the producer collectives will also play a crucial role in review the process, performance and analyzing it. These community institutions will organize themselves, with the facilitative support of the PIA staff, to run the processes for monitoring and review in terms of inputs, processes and outputs and impact. The farmers collective shall also keep track of the business data and present it to its governing board members and also the SHG federated structures. The project aims at empowering the community to take charge by way of certifying the utilization of funds as per the plans. The community will certify by passing resolutions to that effect. This is similar to the concept of community social audit system, which has been found to be an effective method to ensure the authenticity and transparency of such a large project.

By executing/ coordinating agency: Central Silk Board being the executing/ coordinating agency shall coordinate with MORD in fund release, monitoring, mid-term review and mid-course corrections, if required. CSB also ensures timely fund release to PIAs besides extending required technical support in training personnel involved in project implementation (Trainers Training Programme), identification of the Consultants/ Resource persons/ Trainers for the various training programmes, supply of entire nucleus seed as per the allocations for the state concerned, coordination with Line Departments viz., State Rural Development Department & Forest Department and disease monitoring besides overall management at project level.

7.3 Project Monitoring

State Level monitoring committee (SLMC): The SLMC would closely monitor the implementation of the project by reviewing the overall physical and financial progress every quarter and suggest necessary actions for successful implementation of the Project, as per yearly work plans.

The SLMC will be headed by the CEO of SRLM and they will constitute the committee at state level.

State Level Technical Project Support Group: As the proposed projects intend to transfer the proven technologies evolved by research institutes in seed, pre-cocoon and post-cocoon sector, to address any technical issues raised during implementation of the projects, a State Level Technical Project Support Group is proposed under the project, which will be chaired by the Director/ Commissioner of Department of sericulture. The Director/ Commissioner would constitute the committee at state level.

Project Review Committee: A Project Review Committee is constituted at State level with the Secretary (Rural Development) of the state as the Chairman and the CEO of SRLM as Member Convener. The committee will be constituted by RD secretary at state level and they would monitor and periodically review the project.

Project Management Board: The Member Secretary of CSB would be the Chairperson of the Project Management Board (PMB) with the Scientist in-charge of the projects, Central Silk Board and the Project Coordinator as Member Convener of the PMB. The PMB would take care of linkages amongst the MKSP Projects in Tasar sector in other states besides review and revision of the project after mid-term evaluation, if required.

7.4 Role of the organizations involved

Central Silk Board (CSB): Being the Coordinating Agency, shall coordinate with MORD in fund release, monitoring, mid-term review and mid-course corrections, if required. CSB also ensures timely fund release of its share to PIA besides extending required technical support in training personnel involved in project implementation (Trainers Training Programme), identification of the Consultants/ Resource persons/ Trainers for the various training programmes, finalizing the training material/modules, supply of entire nucleus seed and basic seed.

It shall also coordinate with State Sericulture Department and disease monitoring besides overall management at project level. Project Management Board (PMB), chaired by the Member Secretary, CSB and convened by the Project Coordinator, will decide on overall project management aspects including revisions, if required. CSB would also finalize the composition and ToR for the PMB. CSB also facilitate dovetailing the CDP scheme in coordination with DOS to bridge the gaps, if any. The Project Coordinator will coordinate all project related issues with the Ministry of Rural Development, Central Silk Board & its nested units and PIA/FIA besides other line departments. PMB will also suggest on the innovative components to be incorporated under the project within 5% of the project grant by proposing to SLMC or utilizing the savings, as the case may be.
Project Officer nominated preferably from the field office (BSM&TC) of BTSSO in the state or from the Regional Office of CSB in the state, would coordinate the required technological inputs in pre-cocoon sector (from field office of CTR&TI, Ranchi or the main institute), seed sector (in consultation with BTSSO, Bilaspur) and in post-cocoon sector (from field/ Zonal office of CSTRI, Bangalore or the main institute). The Project Officer will provide technologies for adoption under the projects in consultation with the institutes concerned besides assist in programming, implementing and supervision of the and report specific feedback to the SLMC, STPSG and

PMB, for reviewing and planning future strategies for implementation, in co-ordination with the Regional Office of CSB, SRLM and the Department of Sericulture. CSB will also take disease containment measures in association with DOS, PIA and other stakeholders. It would also plan and train various categories of project participants under ISDS directly or involving PIA concerned.

Department of Sericulture (DOS): State Level Technical Project Support Group (STPSG) would be chaired by the Commissioner of Sericulture of the Project State, which would advise FIA/PIA on the additional requirements, dovetailing of schemes, up scaling etc. The Group would also discuss on dovetailing/ converging other schemes to upscale and also to improve income augmenting efforts besides suggesting revisions if any to PMB. DOS shall help in front loading the project by making available the infrastructure and resources for nucleus and basic seed rearing, cocoon storage and cocoon conversion to the community besides nominating an officer to coordinate in implementation of the project directly and also by involving its District Officers in the project districts. Besides, DOS shall actively involved in beneficiary identification/ base line survey wherever necessary, Purchase Committee, training of stake holders, extension support, joint verification, marketing, wherever possible.

State Rural Livelihood Mission (SRLM): State Level Monitoring Committee (SLMC) will be headed by CEO/Mission Director, SRLM involving CSB, DOS, PIA/FIA, Dept. of Tribal Welfare, Forests, Agriculture and others, as the case may be. CEO, SRLM would also facilitate constitution of Project Review Committee headed by the Secretary-RD and will be the Member Convener of the same. Both CSB and the PIA will keep CEO, SRLM updated on the releases to PIA and also on physical and financial progress to be furnished to MoRD. SRLM would help PIA in SHG formation, as it is mandatory under MKSP. It would also facilitate convergence with other development schemes like MGNREGS, RKVY etc., to leverage the effect of the project grant available under the project.

Project Implementing Agency (PIA): PIA will enter into MoU with the CSB and implementation of the project components as per the project document/ revisions if any, will be the sole responsibility of PIA. PIA will place the indent to both MoRD and CSB as per the stipulated guidelines and terms, receive funds for project implementation or in turn release it to FIA/ District level units of PIA (team) for field level implementation. It will be the responsibility of PIA to ensure proper utilisation of funds at project level. As much as possible, the programme funds will be released to the group/ cluster level accounts by PIA. It will also ensure submission of the physical and financial progress reports in the prescribed formats to both MoRD and CSB besides uploading required information and data in the project website. It will also coordinate with the DOS/SRLM for utilising the existing infrastructure and also to dovetail with available schemes so as to upscale the project coverage. Proper care to complement efforts of the DOS in covering all the stakeholders in the project cluster will be taken by PIA so that all the stakeholders in the clusters will be involved to get a visible impact. At the same time, PIA shall arrange for engaging the required number of person power at grass root and cluster level, in view of the number of families to be covered, terrain and coverage of the project area, issues pertaining to land procurement, pre-requisites to take up soil treatments/ plantation and creation of infrastructure activities under the Project, so that envisaged project objectives and output can be achieved. PIA will also engage with other CSO's to make demonstration in the field of Tasar Sericulture. PRADAN being the PIA will identify reputed CSO's in the state and will promote a part of MKSP Tasar based livelihood programme with them in pilot basis maintaining all the non negotiable of MKSP to broaden it areas.

Other Line Departments: Department of Rural Development, Forests, Agriculture, Tribal Welfare etc., would play an equally crucial role to augment efforts of CSB, SRLM, DOS and PIA, wherever possible, which would be facilitated by DOS/ SRLM or CSB. While Department of Rural Development would help in convergence with

MGNREGS and also CFT (Cluster Facilitation Team) in applicable blocks for augmentation of Tasar host plants, Dept. of Forests will help to address the issues related to access to food plants in the fringe forest area, supply of seedlings of host plants for plantation, census of Tasar host plants, including Tasar host plants under their afforestation programmes etc. Tribal Welfare Dept., through its agencies like ITDA would facilitate convergence with their existing schemes so as to scale up the coverage.

Chapter 8: Budget

Project Investments/ Support requested under MKSP, Rationale

The project plans to invest primarily in creation of large scale Tasar Sericulture based livelihood in Jharkhand, including broad basing the community based organization with women at centre stage, sustainable agricultural practices, developing a cadre of community based resource persons and helping the producers in market access. The financial investments are proposed around these activities as described below. To create the appropriate budget heads, the budget is segregated into three broad heads

8.1. Project Investments and Support requested under MKSP

The Project is proposed to be implemented at an outlay of **Rs. 2,782.665 Lakh** for a period of three years. Of this, people's own contribution and credit mobilization is Rs. 388.718 Lakh. A total grant assistance of **Rs. 2,393.947 Lakh** is budgeted under the project of which **Rs. 1,795.461 Lakh** (75% of the grant component) is being sought as Government of India share under the MKSP and the remaining **Rs. 598.486 Lakh** (25% of the grant component) will be shared by the Central Silk Board from its CDP schemes.

8.2. Rationale for the various line items related to Proposed Action

Unit costs of various project components/ activities are detailed as separate annexure. Various items of unit costs are arrived due to field experience under the recently concluded special SGSY projects in Bihar and Jharkhand, ongoing NABARD-TDF projects and MKSP Tasar projects in other Tasar producing states besides the flagship programme of the CSB i.e., Catalytic Development Programme (CDP).

Further, the unit costs of some of the activities might be modified as per the field needs and also unit costs for new and innovative components will be finalized by PIA and the Coordinating Agency from time to time. PIA and Coordinating Agency will have liberty to modify the unit costs of various components/ activities as per field requirements and request of PIA based on the feasibility without change in MoRD share and decreasing the total number of beneficiaries to be covered.

8.3. Analysis of main cost components along with sub components along with timeline

A. **Programme Cost:** In this budget head mainly the cost incurred at the community level, creation of resources and infrastructure is taken into account. The budget line items are as follows:-

I. Raising of Block Plantation: Large tracts of Upland available in the project district, which are highly degraded and it is very difficult for a poor tribal family to convert it in to agricultural purpose. These waste lands which have been remained idle for over few decades are day by day degrading and converting in to ravine and large gully. These lands are also suitable for raising Arjuna plantation, which would also conserve the soil and moisture in the area besides generating income for the individual family up to Rs.15000/- every year 3rd year onwards for over five decades. Under the project it is proposed to support plantation families with 0.7 hac *Arjuna* plantation to individual family to cover the entire wasteland. The spacing of plants would be 10ft x 6ft to promote umbrella

shaped canopy with sufficient quantity of foliage so that the maximum number of worms could be hosted by single tree. Wider spacing would also help to take up inter-crop in good quality of soils, besides mechanization.

While the plantations would be ready to take up Tasar silkworm rearing only after three years, will be utilized for nucleus and basic seed rearing in the 3rd year itself and transfer the adult worms to forest plants. From 4th year onwards, they would conduct the entire rearing on these plantations. Each rearer with 0.7 ha is estimated to support 200 dfls per year per crop. Taking into consideration the location of the existing block plantations and as far as possible, the PIA would try to organize raising the block plantation in such a manner that all the BSM&TCs in the Project state shall have no difficulty in selecting Adopted Seed Rearer's and the Seed Rearer's to whom the dfls are supplied by them and are situated in their proximity for close monitoring the ASR's and SR's rearing. The activity do include

- Raising nursery to support seedlings to the plantation
- Cattle proof trench in the upland (CPTs) for protection of plantation
- Soil and moisture conservation for better growth in the stipulated time period
- Intercropping for better return from per unit area as well as to ensure better growth of the plantation
- Maintenance of Tasar host plants

New plantations would be in private lands in the eight districts of Jharkhand (wherever possible) and the forest patches which are vacant after allocating (usufructs rights or tree *patta*) to forest dweller's with their participation since beginning. Even the land patches under control of DOS/ created by DOS would also be considered for the purpose. All the existing plantations (block plantations and natural host flora) to be utilized under the project would be provided with inputs for their maintenance and considered as new plantation depending on population of Tasar host plants in absence of availability of private/govt./forest lands for taking up new plantations. The plantation having provisions in the budget line item will be preferred in the project period through MGNREGA convergence. In case of such convergence the amount allocated for raising of plantation could be used for increasing the number of rearer's and project specified other related activities as per the sanction cost norms applicable.

The particular budget head will includes Cost of raising the plantation, cost of nursery raising, cost of soil conservation works in the plantation, maintenance of plantation, Fertilizer & medicine cost, Cost of intercropping and all the related activities and payments needed to raise the plantation.

II. Assistance to Nucleus Seed Rearer's (NSR): In order to organize production and supply of required basic seed in the project area, it is proposed to organize Nucleus seed rearing through NSRs and procure the seed cocoons for preservation and processing. As already indicated earlier, a progressive Tasar rearer with consistent good record in production of Tasar cocoons and having well maintained Tasar host plants in fringe forest areas or block plantation of 0.7 ha. (When it is productive during 4th year) would be selected as a Nucleus Seed Rearer. These NSRs would be conducting the rearing of Nucleus seed during the commercial crop season.

Other than capital investments towards rearing equipment to the seed rearer's, the fund allocated for the purpose will be maintained as Community Investment Fund and utilized for procurement of quality silkworm seed till the seed requirement is addressed locally. However, caution will be taken by PIA to maintain the Community Investment Fund as non-erodable and modalities of utilization can be decided by Producer Groups/CFs and in consultation with PIA/CA.

The budget head include cost incurred for the supply of rearing equipments, supply of inputs for maintenance of plantation, assistance in the rearing, cost of insurances of the crop and the rearer.

III. Assistance to Basic Seed Rearer's (SR): Basic Seed Rearer's (BSRs) is organized for production of seed cocoons for production of commercial dfls in the project area by private Graineurs. As already indicated earlier, a progressive Tasar rearer with consistent good record in production of Tasar cocoons and having well maintained Tasar host plants in fringe forest areas or block plantation of 0.7 ha. (When it is productive during 4th year) would be selected as a Basic Seed Rearer. These BSRs would be conducting the rearing of basic seed during the seed crop season and the selected seed cocoons would be procured by private Graineurs concerned. Private Graineurs in consultation with the PIA shall select the BSRs.

This include cost incurred for the supply of rearing equipments, supply of inputs for maintenance of plantation, assistance in the rearing, cost of insurances of the crop and the rearer.

IV. Assistance to Commercial Rearer's (CR): Commercial Rearer's, mostly tribal people live in the forest or in the fringe areas though, agriculture is the primary livelihood of these people. However considering the low yields of paddy in the rain fed areas, people look for additional livelihood opportunities. Tasar rearing starts after the agriculture season i.e., September, when the opportunity cost of labor remains low. The rearer's traditionally rear Tasar silkworms in the nearby forest areas.

All the commercial rearer's would be extended project assistance of 90% for supply of chawkie rearing equipment and about 12.6% of the cost of Tasar silkworm rearing. The commercial crops are proposed to be insured against vagaries of nature besides extending insurance cover to the beneficiaries under personal accident policy and their hut under fire and theft policy. 100% of the premium amount would be met from the project cost (CSB & MORD) for a period of two years and later they would be facilitate to continue from their earnings.

As there is no provision for inputs for maintenance, the fund allocated under the component will be maintained as Community Investment Fund and utilized for supply of inputs for maintenance of plantations/ natural host flora for one year as one time grant and also procurement of quality silkworm seed till the seed requirement is addressed locally. However, caution will be taken by PIA to maintain the Community Investment Fund as non-erodable and modalities of utilization can be decided by Producer Groups/CFs and in consultation with PIA/CA.

This budget head includes cost incurred for the supply of rearing equipments, assistance in the rearing, cost of insurances of the crop and the rearer.

V. Assistance to Private Graineurs: For silkworm rearing activity, the rearer's require an assured supply of DFLs or seed material. Grainage enterprises are set up in the villages for improving the supply of DFLs to the commercial rearer's and increasing area of coverage under Tasar silkworm rearing. The project proposes to set up Grainage enterprise units in the Tasar rearing villages, involving local youths as the entrepreneurs. Each such Grainage would have a production capacity of 5000-6000 DFLs per cycle to cater to the needs of 25 to 30 rearer's, in the surrounding villages. A typical Grainage will have 300 sq.ft areas and provided with equipments such as microscopes necessary for identifying and eliminating diseases and for ensuring good hatching in Tasar eggs. Besides this, the Grainage would have wooden furniture and other accessories to facilitate easy operation. These identified private Graineurs would be trained in latest seed production technology, moth examination techniques for production and supply of quality disease free seed to commercial rearer's besides management inputs for successful running of the enterprise, in maintaining records etc. The PIA would organize these Graineurs in to suitable manageable groups and assist in establishing backward and forward linkages with the seed rearer's for seed cocoon and commercial rearer's for selling the commercial dfls.

Preparatory work for Grainage starts from March onwards like Identification of Grainage owners, Construction of Grainage building, Procurement and supply of Grainage equipment, Supplying consumables, Procurement of Seed cocoon etc. While, existing private Grainage would be supported for construction of additional infrastructure viz., ovi-position, egg washing etc., repair of existing building, and equipment supply besides part of the working capital. New set of Graineurs would also be promoted with all the required support.PIA/CA will decide on requirements of clubbing the provisions available to 3-4 private Grainage units to establish low cost Grainage houses recommended by BTSSO so that these structures can also be utilized for production of basic seed to meet entire seed requirement locally. The fund available towards working capital will be maintained as Community Investment Fund and utilized for procurement of seed cocoons including production incentives and maintained as non-erodable fund with modalities of utilization decided by Producer Groups/CFs and in consultation with PIA/CA.

Though the private Grainage is being promoted as individual enterprise with ownership of *TVS*/ activity group/ SHG, Producer Groups/CFs and in consultation with PIA/CA may decide to transfer the unit to suitable producer or *TVS* if the quality standards and other requirements are not met by the private Graineurs concerned. Hence, the private Graineurs will enter in to such an agreement with *TVS*/ activity group/Producer Group/SHG. In such cases; he/she would be entitled to receive back the personal investments made for the purpose besides the rent for the premises from the Community Investment Fund.

This budget head includes the cost incurred in the construction of the Grainage building, cost of equipments for the grainage, Working capital for the grainage activity and cost for the consumables used in the grainage activity.

VI. Assistance to Basic Seed Production Units (BSPU): There is a great deal of demand for Basic seeds in the project areas to increase dfl production by at least 50%, over and above the current scale of production. Further, the recent initiatives of to expand Tasar sericulture in Tasar producing states would need additional supply of basic seed. It is thus clear that any further expansion of Tasar sericulture would require augmenting the supply of basic seeds.

However, in view of the requirement of basic seed in large quantities, in addition to supply of basic seed from BSM&TC in the state, it is proposed to establish 4 Basic Seed Production Units (BSPUs) under private sector, which was successfully tried under Special SGSY Project in Bihar and Jharkhand.

As this is a large construction work therefore activity needs to be completed before the monsoon. Preferably it should be constructed in between January to June then only it is going to help the Tasar families to catch the season. The unit will be constructed in a major Tasar producing cluster. Though it is proposed to establish BSPU at one place, based on requirement and availability of infrastructure the provisions may be utilized to strengthen the existing infrastructure available with DOS and other organizations private or public to be utilized by the community for basic seed production. PIA would explore the possibility of getting community land for the purpose so that it would be in the vicinity of the villages and plantation for better monitoring. Else it would take support from DOS to establish in govt. land. They would also be utilized during the commercial Grainage for better utilization of the infrastructure. Invariably, the unit will be the property of the producer groups and the working capital would be maintained as Community Investment Fund which will be maintained as non-erodable fund for purchase of seed cocoons and also for payment of production incentives, engaging moth testers etc., as the case may be.

This budget head includes the cost incurred in the construction of the Grainage building & its boundary wall, cost of equipments for the grainage, bore well with overhead tank Working capital for the grainage activity and cost for the consumables used in the grainage activity.

VII. Assistance to Rearer's Collectives: To start with, the beneficiaries covered under the project will be brought together under the Rearer's groups/ SHGs. These Beneficiaries/groups/SHGs shall be formed in to a *Tasar Vikas Samity (TVS)* or any other formal/ informal body. The main objective of these entities is to bring effective coordination among the rearer's, provide support services and ensure timely procurement of cocoons at remunerative prices. In addition, these cooperatives shall establish forward linkage with the reeler's groups and other marketing agencies for effective sale of cocoons at remunerative prices and also with the financial institution for credit facilities to meet working capital requirement. These entities would receive all the technical inputs and other support from the PIA. The Rearer's' Collectives shall be managed by the members themselves in accordance to prevailing acts, rules and regulations of the state. This would not only facilitate easy communication but also help in jointly protecting the forests, coordinating plantation activities and planning rearing etc.

Large-scale development of sub-sectors would require strong institutions, which would spearhead and sustain initiatives for the development of the sub-sector in the long run. Appropriate policy formulation, raising financial resources for investments, creating demands for research and extension, vigorous promotion of products, protecting the entitlements of the producers and widening stakeholder base are some of the important areas in Tasar Sericulture, which would require strong initiatives. Creation of appropriate organizations, designed to enhance the stake and control of the producers, would be a major challenge in the context of Tasar as majority of the producers come from the tribal and backward communities and are financially very poor. However, it is envisaged to create relevant institutions with the involvement of the producers and enabling them to exert their control in the long run.

If PIA can accommodate the requirements of the collective by allocating any other suitable building from DOS or other public or private organization, the allocation can well be utilized for other essential purposes including the inputs for maintenance of natural host flora for commercial rearing and rearing helpful activities, production incentives, advance towards cocoon procurement, disinfection sprays etc with community participation for better maintenance against agreement and maintained as non-erodable Community Investment Fund.

This budget head includes cost for the creation of the Cocoon storage and office facilities along with equipments and furniture cost for supporting the Rearer's collectives.

VIII. Assistance to Reeler's' Collectives: The project proposes to convert part of the cocoon production into yarn on pilot scale. These reeler's and spinners are proposed to be assisted through establishing collectives. Each collective shall consist of 25 reeler's and about 10 spinners and have Reeling, Re-reeling and Spinning machineries along with necessary equipment, accessories and work place for conversion. These collectives would convert a portion of cocoon produced under the project in to value added products such as reeled & twisted Tasar silk yarn, Tasar spun yarn etc. and market them at remunerative prices within and outside the state. This would lead to further expansion based on the potential in various production clusters under the project.

Each collective would be provided with the required building and equipments from the project, and also linked to the financial institutions/ activity based companies for credit mobilization to meet working capital requirements. In order to facilitate the smooth and orderly functioning of these collectives, members of these collectives would be trained in the reeling/ spinning activities and some of the members would also be trained in management & cooperative aspects. Similar to BSPUs, required modifications will be attempted as for as the number, infrastructure, working capital depending on the field requirements. For example, if buildings of DOS/ other private or public can be made available the allocated fund would be utilized to meet the requirements of production incentives to rearer's and reeler's. These collectives shall be managed by the members themselves in accordance with the prevailing cooperative act, or other rules and regulations of the state. Possibility of cocoon conversion by establishing CFCs with facilities for cocoon stifling, storage, work shed, equipment, consumables and working capital, by involving production houses viz., Eco- Tasar Pvt Ltd., to bring in professionalism and also for value addition locally, will also be attempted.

Provisions available towards working capital and also other savings under the collective if PIA can get other suitable building from DOS /private or public, can be maintained as non-erodable Community Investment Fund, which can be utilized for increasing the number of units, strengthening available infrastructure at nominal costs, production incentives, advance towards cocoon procurement, with well documented modalities involving producer groups/ *TVS*/SHGs, as the case may be.

This includes all the cost incurred in the construction of the infrastructure, establishing CFCs with facilities for cocoon stifling, storage, work shed, equipment, consumables, working capital and all other cost required to assist the Reeler's collective.

IX. Establishment of Cocoon Bank: This is critical downstream intervention that integrates pre and post-cocoon segments of the value chain. Tasar has only one commercial crop cycle. Cocoons for commercial usage are thus harvested only once a year. These serve as the raw material for yarn

production. Due to lack of infrastructure in villages and compelled by the urgent need of cash, the silkworm rearer's tend to sell off their produce (cocoons) soon after the harvest. Often it involves selling at the peak of the glut leading to low price realization.

As an alternative to the above, PRADAN has set up Cocoon Banks that procures Tasar cocoons during peak of the harvesting season directly from the Tasar rearer's, offering them a fair price. The cocoon bank has capital, staff and infrastructures for large scale procurement, storage and business operation. Cocoons are sold to the yarn producers all through the year. The Yarn producers would buy cocoons in smaller lots (may be for one-month production cycle) from cocoon banks. Thus they would require small amount of working capital to do their business. This drastically reduces interest burden on them.

If PIA can get other suitable building from DOS / private or public organization for the purpose, fund available under the component can be maintained as non-erodable Community Investment Fund, with clear documented modalities and the provisions can be utilized for strengthening available infrastructure at nominal costs, production incentives, advance towards cocoon procurement, involving producer groups/ *TVS* / SHGs, as the case may be.

This includes all the cost incurred in the construction of the infrastructure of the cocoon bank and the cost of the onetime revolving capital to run the Cocoon Bank.

X. Establishment of Tasar Yarn Bank: With respect to Yarn, there is a seasonality of demand in the yarn market catering to the domestic segment. The yarn market for the export segment fluctuates greatly—depending on nature of export orders and arrival of yarns from China (sometimes substituting Indian yarn).

While inflow of yarn is continuous from the yarn producers' collectives, the outflow and sales realization is not necessarily regular. In view of the above, there is a need to maintain a certain volume of stock (at least a 20% of its inflow at any time) to cater to the major buyers. Any uncertainty in demands raises the stock volume significantly—thus increasing the net block of capital and thereby the interest burden on the producers.

Understanding the above constraints, PRADAN has intervened by setting up Tasar Yarn bank. The yarn bank procures yarns from the producer groups at 15 to 30 days' intervals. The producers are paid upfront by the yarn bank against the transaction. The yarn bank has the capital to retain the stock for longer period. The bank sells the stock to wholesalers (70% of the stock) and retailers (remaining 30%) at competitive rates. From the point of Yarn producers, payment against their produce in shorter intervals would further reduce their business cycle and hence, reduce interest burden on them.

If PIA can get other suitable building from DOS / private or public organization for the purpose, fund available under the component can be maintained as non-erodable Community Investment Fund, with clear documented modalities and the provisions can be utilized for strengthening available infrastructure at nominal costs, production incentives, advance towards cocoon procurement, involving producer groups/ *TVS* / SHGs, as the case may be.

This includes the cost of one time revolving capital and the cost of equipments to run the Tasar Yarn Bank.

B. Human Resource Development cost: In this budget head mainly the cost incurred to build the capacity and skill at all the levels right from community to Community Resource Persons to different level functionaries of PRADAN will be catered. This includes cost of travel, boarding, lodging, honorarium to resource persons from community/ PIA/ CA/ others, stationery and training materials, hiring equipments and infrastructure for the training, printing and all other related costs to the training.

I. Technical Training of Project Personnel: This includes all the Costs related to the training of the personnel involved in the implementation of the project of the PIA.

II. Technical training of households for implementation of sericulture activities: This includes all the Costs related to the training to improve the technicalities of the community engaged in Tasar Sericulture activities. The training includes training of Nursery farmers, Nucleus Seed Rearer's, Basic Seed Rearer's, Private Graineurs, Commercial Rearer's and study tour & exposure visits of them.

III. Technical training for sectoral activities: This includes all the Costs related to the training to improve the technicalities of the community engaged in Sectoral activities. The training includes training in improved agriculture, Vegetable cultivation and study tour & exposure visits of them.

IV. Training of Community Resource Persons (CRPs) for extension of activities: This includes all the Costs related to the training to improve the technicalities of the Community Resource Persons (CRPs) engaged in extension of the Tasar Sericulture and other Sectoral activities. The training includes training in orientation on Tasar, Exposure to improved practices around Tasar Sericulture, Vegetable cultivation, improved agriculture and times to time their refresher training on technicalities.

V. On-field training/ handholding provided by CRPs to the Project Families: This includes all the Costs related to the on field training and handholding support given to the project families by the CRPs. The cost incurred to support the Tasar silkworm rearing, Tasar seed production, Establishment of Community Arjuna Nursery & raising of plantation, improved agriculture and Vegetable cultivation.

VI. Institution building of Producer Collectives: This includes all the Costs related to the training of the producers to build their institution. The cost incurred for the trainings to build membership, build leadership, building of Governance structure and their exposure to different areas to build their perspective will be catered.

VII. Nurturing of New Self-Help-Groups (SHGs): This includes all the Costs related to the training of the SHGs. The cost incurred for the trainings to build their membership, build leadership, Book keeping & maintenance of accounts, Livelihood visioning of the SHG members and their exposure to different areas to build their perspective around clusters and federation structures will be catered.

VIII. Trainers Training Programme: To generate motivated trained resource personnel and extension workers who could catalyze developmental process, one trainer's Training Programme will be organized in the state. CSB shall organize the programme covering managerial, technical, co-

operative, motivational and behavioral aspects with an objective of successful implementation of the project. The key filed personnel associated with the implementation of the project from PIA, BTSSO, CTR&TI and CSTRI would be participated. The resource person will be from CSB, PRADAN and some external and programme will be anchored and co-ordinated by Central Silk Board. This includes all the Costs related to the training of the trainers involved in the implementation of the project.

While all the categories of training have to be carried out as per the envisage targets, PIA will have flexibility to modify the unit costs within various categories subject to covering the envisaged number of trainings and the persons trained, within the total allocation under the HRD, in consultation with PIA/CA. Additionally, PIA may also use the services of Subject Matter Specialist (SMS) to provide technical support to the beneficiaries at different stages of the Tasar Sericulture activity.

PIA may also propose specific requirements of capacity building in core Tasar activities for CRPs, Producer Groups and Opinion makers across the value chain to CSB so as to consider under ISDS of CSB.

C. Programme support Implementation cost: In this budget head mainly the cost incurred to support the programme, workshops, *Krishi mela*s, disease monitoring, documentation and evaluation, consultancy & advocacy, monitoring and the cost for the implementation will be catered:-

I. Publicity and Extension: It is envisaged to take up Publicity & Extension Activities especially for technology dissemination and community models etc with the help of different Resource organization like CSB, consultants and PRADAN's internal pool.

The EA/ PIA may organize seminars/ Workshops at a suitable place in the project area to share experience, exchange ideas and concepts among the project personnel. The Scientists/ technocrats from CSB may also be invited to educate know-how of the latest innovations/ developments made in the technology etc., and also to provide answers to the field problems, if any. On this occasion, the best commercial rearer, reeler, spinner, weaver, SHG etc. may be awarded.

The PIA may also bring out pamphlets/ brochures in the local language or language neutral material of the improved technology practices of different activities so that the beneficiaries would easily understand the technology/ processes involved. Further, all the beneficiaries may be issued with a pass book to record details of rearing, activities undertaken, assistance and credit received, income generated, repayment of credit, insurance particulars etc.

It is proposed to organize Farmers' day to bring the extension officials, progressive beneficiaries, group leaders, providers of support services etc., to a common platform to exchange the experience, ideas, problems and concepts etc. PIA will have the flexibility to organize more number of similar events including *vichar ghoshti* for benefit of the beneficiaries within the total allocation.

This includes all the Costs related to the publicity of the project and its extension. All type of costs for organizing Workshops & seminars, printing of passbook, pamphlets and other resource materials and cost to organize *Krishi mela*s will be incurred under this head.

II. Design Development & Product Diversification: In order to increase producer's share locally nominal provisions have been made for design development and product diversification. Help of CSTRI,

Bangalore, CTR&TI, Ranchi, Designers, and production houses like Eco-Tasar pvt ltd etc will be sought for the purpose.

This includes all the Costs related to the in the purpose of development of designs and diversification of the Tasar based products taking help from mentioned and other resource agencies.

III. Disease monitoring: In order to encourage quality regime and to ensure higher productivity to achieve desired income levels, joint disease monitoring is proposed which will be taken care by BTSSO unit of Central Silk Board.

The system of monitoring disease has been introduced during the course of special SGSY projects implementation in the states of Bihar and Jharkhand. It has very positive impact in the control of diseases at the village level and enhanced the productivity by 20%.

The constituted committee of Central Silk Board would regularly visit the field and assesses the disease level in the field at all levels right from the preparation of rearing field to the harvest of cocoons and also assessing the incidence of diseases. The committee will also visit the grainage at the time of cocoon preservation and grainage operation for conducting a disease assessment and guidance.

The committee will be headed by BTSSO and other members of the committee will be representative from PRADAN, Department of Sericulture and Community Based organization.

In order to encourage quality regime and to ensure higher productivity to achieve desired income levels, joint disease monitoring is proposed which will be taken care by BTSSO unit in the State.

This includes all the Costs related to the monitoring of the diseases of the different sectoral activities.

IV. Documentation and Evaluation: PIA will decide on the various requirements viz., base line survey, documentation of gender sensitization, impact assessment, case studies, public disclosure etc. in consultation with Coordinating agency.

This includes all the Costs related to periodic evaluation of the project and documentation of the best practices & learning's.

V. Consultancy and Advocacy: Funds under this component may be utilized for hiring services of experts from resource organizations for drafting various training modules, MoU/ agreements for operating CFCs/ CIF/ infrastructure from state, case studies, baseline/ impact studies etc. The resource person can be from within PRADAN, technical institutions like CSB, Research organizations like C-DAC and other essential support hired.

This includes all the Costs related to the support hired for the better implementation of the project, research & development around new ideas & constraints, policy level advocacy works and all other works which require external support to build on the project and to overcome the issues.

D. **Project administrative expenses:** Cost of Institutional overheads and other expenses for the project management at state level and district level offices. Project Administration costs amounting to 5% of the project grant shall be released to PIA for project administrating above field level. This includes salary and travel costs of staff engaged in administrating the project. It also includes printing & stationary, Office Rent, Electricity, Office Furniture & Office Equipments etc.

E. **Technology Extension and Business Development support:** This includes all the Costs related to the project implementation at block and village level. Project Implementation costs amounting to 5% of the project grant shall be released to PIA for project implementation at field level. This includes salary and travel costs of staff engaged in administrating the project. It also includes printing & stationary, Office Rent, Electricity, Office Furniture & Office Equipments etc.

F. **Project Monitoring cost:** This includes all the Costs related to the periodic monitoring of the project at different levels by the fund routing/ coordinating agency (CSB).

The timeline of each component and sub component is mentioned in the activity chart in chapter-5, implementation schedule and will generally be followed accordingly.

8.4 Analysis and Benchmarks of proposed cost

The MKSP budget component analysis is provided in the accompanying table. The proposed project seeks support of Rs.20, 053 per family under the project out of which Rs.1, 046 for the organizational administrative expenses and similar amounting for implementing the project at field level. The various component specific budget, budget share and cost per family are given below.

MKSP Component Analysis	Total Budget (Lakh Rs)	Rs/ Family
Cost of Total project cost per family	2,782.66	23,309.30
Cost of Contribution (Self contribution & Credit) cost per Family	388.72	3,256.14
Cost of Total grant support per Family	2,393.95	20,053.17
Cost of Program cost per Family	1,654.51	13,859.18
Cost of Human resource Development per Family	352.33	2,951.36
Cost of Programme support Implementation cost per Family	100.00	837.66
Cost of Project administrative expenses per Family	124.83	1,045.64
Cost of Technology Extension and Business Development support per Family	124.83	1,045.64
Cost of Project Monitoring cost per Family	37.45	313.69

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(Rs. in Lakhs)

Sl. No.	Component/ Activity	Unit	PHYSICAL				Unit cost	FINANCIAL				SHARING PATTERN				Project Grant
			Yr-1	Yr-2	Yr-3	Total		Yr-1	Yr-2	Yr-3	Total Cost	Credit	Benefi -ciary	MORD	CSB	
1	**Raising of Block plantation**															
1.1	Raising Tasar host plantation	Hac.	413	194	-	607	0.447	184.783	86.799	-	271.582	-	53.990	71.912	145.68	217.592
1.2	Maintenance of host plant - 1st Year	Hac.	-	413	194	607	0.070	-	28.976	13.611	42.587	-	6.070	36.517	-	36.517
1.3	Maintenance of host plant - 2nd Year	Hac.	-	-	607	607	0.094	-	-	56.976	56.976	-	8.619	48.356	-	48.356
Sub-total								**184.783**	**115.775**	**70.58**	**371.14**	**-**	**68.679**	**156.78**	**145.6**	**302.46**
2	**Assistance to Nucleus Seed Rearer's**															
2.1	Supply of rearing equipments	No.	40	40	-	80	0.061	2.440	2.440	-	4.880	-	0.480	1.960	2.440	4.400
2.2	Supply of inputs for maintenance of block plantation	Hac.	28	56	56	140	0.095	2.646	5.292	5.292	13.230	-	0.924	5.691	6.615	12.306
2.3	Assistance for Tasar silkworm rearing	No.	40	80	80	200	0.024	0.955	1.910	1.910	4.775	2.400	0.440	0.685	1.250	1.935
2.4	Crop insurance	Dfls	8,000	16,000	16,000	40,000	0.000	0.163	0.326	0.326	0.815	-	-	0.408	0.408	0.815
2.5	Rearer's insurance	No.	40	80	80	200	0.000	0.012	0.025	0.025	0.062	-	-	0.031	0.031	0.062
Sub-total								**6.216**	**9.993**	**7.553**	**23.762**	**2.400**	**1.844**	**8.775**	**10.74**	**19.518**
3	**Assistance to Basic Seed Rearer's**															
3.1	Supply of rearing equipments	No.	237	335	123	695	0.061	14.457	20.435	7.503	42.395	-	4.169	17.028	21.198	38.226
3.2	Supply of inputs for maintenance of block plantation	Hac	165	400	313	879	0.095	15.620	37.838	29.560	83.018	-	5.798	35.711	41.509	77.220
3.3	Assistance for Tasar silkworm rearing	No.	237	572	581	1,390	0.024	5.658	13.657	13.871	33.186	16.680	3.059	4.760	8.688	13.448
3.4	Crop insurance	Dfls	47,400	114,40	116,21	278,010	0.000	0.895	2.160	2.194	5.249	-	-	2.624	2.624	5.249
3.5	Rearer's insurance	No.	237	572	581	1,390	0.000	0.073	0.177	0.180	0.431	-	-	0.215	0.215	0.431
Sub-total								**36.704**	**74.266**	**53.30**	**164.27**	**16.680**	**13.026**	**60.339**	**74.23**	**134.57**
4	**Assistance to Commercial Rearer's**															

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(Rs. in Lakhs)

Sl. No.	Component/ Activity	Unit	PHYSICAL				Unit cost	FINANCIAL				SHARING PATTERN				Project Grant
			Yr-1	Yr-2	Yr-3	Total		Yr-1	Yr-2	Yr-3	Total Cost	Credit	Benefi -ciary	MORD	CSB	
4.1	Supply of rearing equipment	No.	1,830	2,587	950	5,367	0.061	111.630	157.807	57.959	327.396	-	32.203	161.014	134.17	295.193
4.2	Assistance for Tasar silkworm rearing	No.	1,830	4,417	4,487	10,734	0.020	36.646	88.450	89.858	214.954	128.81	59.039	27.104	-	27.104
4.3	Crop insurance	Dfls	366,00	883,40	897,45	2,146,857	0.000	7.459	18.004	18.290	43.753	-	-	21.876	21.876	43.753
4.4	Rearer's insurance	No.	1,830	4,417	4,487	10,734	0.000	0.567	1.369	1.391	3.328	-	-	1.664	1.664	3.328
Sub-total								**156.302**	**265.630**	**167.4**	**589.43**	**128.81**	**91.241**	**211.65**	**157.7**	**369.37**
5	**Assistance to Private Graineurs**															
5.1	Construction of grainage building	No.	60	84	31	175	1.000	59.669	84.352	30.981	175.000	-	8.750	70.000	96.250	166.250
5.2	Supply of grainage equipment	No.	60	84	31	175	0.420	25.061	35.428	13.012	73.500	-	-	36.750	36.750	73.500
5.3	Working capital	No.	60	84	31	175	0.350	20.884	29.523	10.843	61.250	17.501	10.498	2.626	30.625	33.251
5.4	Grainage consumables	No.	60	144	146	350	0.030	1.790	4.321	4.389	10.500	1.750	1.750	3.500	3.500	6.999
Sub-total								**107.405**	**153.624**	**59.22**	**320.25**	**19.251**	**20.999**	**112.87**	**167.1**	**280.00**
6	**Assistance to Basic Seed Production Units**															
6.1	Construction of grainage building	No.	4	-	-	4	36.34	145.370	-	-	145.370	-	-	128.639	16.731	145.370
6.2	Supply of grainage equipment	No.	4	-	-	4	2.944	11.776	-	-	11.776	-	-	11.776	-	11.776
6.3	Working capital	No.	4	-	-	4	2.975	11.900	-	-	11.900	-	-	11.900	-	11.900
6.4	Grainage consumables	No.	4	-	-	4	0.100	0.400	-	-	0.400	-	-	0.361	0.039	0.400
Sub-total								**169.446**	**-**	**-**	**169.44**	**-**	**-**	**152.67**	**16.77**	**169.44**
7	**Assistance to Rearer's Collectives**															
7.1	Cocoon storage facilities	No.	6	-	-	6	7.500	45.000	-	-	45.000	-	-	36.000	9.000	45.000
7.2	Common facilities	No.	6	-	-	6	0.373	2.238	-	-	2.238	-	-	2.238	-	2.238
Sub-total								**47.238**	**-**	**-**	**47.238**	**-**	**-**	**38.238**	**9.000**	**47.238**
8	**Assistance to Reeler's' Collectives**															
8.1	Supply of equipments	No.	-	4	-	4	12.07	-	48.306	-	48.306	-	-	35.706	12.600	48.306
8.2	Working capital	No.	-	4	-	4	7.500	-	30.000	-	30.000	25.386	-	-	4.615	4.615
8.3	Common facilities	No.	-	4	-	4	0.100	-	0.400	-	0.400	0.400	-	-	-	0.000
Sub-total								**-**	**78.706**	**-**	**78.706**	**25.786**	**-**	**35.706**	**17.21**	**52.921**

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(Rs. in Lakhs)

Sl. No.	Component/ Activity	Unit	PHYSICAL				Unit cost	FINANCIAL				SHARING PATTERN				Project Grant
			Yr-1	Yr-2	Yr-3	Total		Yr-1	Yr-2	Yr-3	Total Cost	Credit	Benefi -ciary	MORD	CSB	
9	**Establishment of Cocoon Bank**	No.	1	1		2	**87.50**	**87.500**	**87.500**	**-**	**175.00**	**-**	**-**	**175.00**	**-**	**175.00**
10	**Establishment of Tasar Yarn Bank**	No.	1			1	**103.9**	**103.970**	**-**	**-**	**103.97**	**-**	**-**	**103.97**	**-**	**103.97**
Sub- Total (1-10)								**899.564**	**785.495**	**358.1**	**2,043.22**	**192.92**	**195.78**	**1,056.02**	**598.4**	**1654.5**
11	**Human Resource Development**															
11.1.	Technical training of project personnel	No.	6	4	-	10	**0.100**	**0.600**	**0.400**	**-**	**1.000**	**-**	**-**	**1.000**	**-**	**1.000**
11.2.	**Technical training for Project Families for implementation of sericulture activities**															
11.2.1	Nursery farmers	No.	75	35	-	110	0.010	0.733	0.342	-	1.075	-	-	1.075	-	1.075
11.2.2	Nucleus Seed Rearer's	No.	40	40	-	80	0.011	0.455	0.455	-	0.911	-	-	0.911	-	0.911
11.2.3	Basic Seed Rearer's	No.	237	335	123	695	0.009	2.249	3.178	1.167	6.594	-	-	6.594	-	6.594
11.2.4	Private Graineurs	No.	60	84	31	175	0.125	7.504	10.505	3.877	21.886	-	-	21.886	-	21.886
11.2.5	Commercial Rearer's	No.	1,830	2,587	950	5,367	0.007	12.627	17.850	6.556	37.033	-	-	37.033	-	37.033
11.2.6	Reeler's	No.	-	100	-	100	0.173	-	17.308	-	17.308	-	-	17.308	-	17.308
11.2.7	Spinners	No.	-	40	-	40	0.173	-	6.923	-	6.923	-	-	6.923	-	6.923
11.2.8	Study tour/ Exposure visit	No.	561	805	276	1,642	0.009	5.286	7.594	2.603	15.482	-	-	15.482	-	15.482
Sub-total								**28.853**	**64.155**	**14.20**	**107.212**	**-**	**-**	**107.212**	**-**	**107.21**
11.3.	**Technical training for sectoral activities**															
11.3.1	Improved Agriculture	No.	2,167	3,186	1,104	6,457	0.003	7.102	10.442	3.619	21.163	-	-	21.163	-	21.163
11.3.2	vegetable cultivation	No.	433	637	221	1,291	0.002	0.947	1.392	0.483	2.822	-	-	2.822	-	2.822
11.3.3	Exposure of Project Families to improved practices	No.	542	797	276	1,614	0.003	1.869	2.748	0.952	5.569	-	-	5.569	-	5.569
Sub-total								**9.918**	**14.582**	**5.054**	**29.554**	**-**	**-**	**29.554**	**-**	**29.554**
11.4.	**Training of Community Resource Persons (CRPs) for extension of activities**															
11.4.1	Orientation and training on Tasar	No.	54	80	28	161	0.255	13.831	20.335	7.047	41.213	-	-	41.213	-	41.213
11.4.2	Exposure to improved practices	No.	27	40	14	81	0.016	0.421	0.618	0.214	1.253	-	-	1.253	-	1.253
11.4.3	Technical and Refresher Training	No.	54	80	28	161	0.013	0.692	1.017	0.352	2.061	-	-	2.061	-	2.061
Sub-total								**14.943**	**21.970**	**7.614**	**44.526**	**-**	**-**	**44.526**	**-**	**44.526**
11.5.	**On-field training / handholding provided by CRPs to the Project Families**															

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(Rs. in Lakhs)

Sl. No.	Component/ Activity	Unit	PHYSICAL				Unit cost	FINANCIAL				SHARING PATTERN				Project Grant
			Yr-1	Yr-2	Yr-3	Total		Yr-1	Yr-2	Yr-3	Total Cost	Credit	Benefi -ciary	MORD	CSB	
11.5.1	Tasar Silkworm Rearing	No.	2,107	2,962	1,073	6,142	0.007	15.144	21.289	7.713	44.147	-	-	44.147	-	44.147
11.5.2	Tasar Seed Production	No.	60	84	31	175	0.009	0.518	0.725	0.267	1.509	-	-	1.509	-	1.509
11.5.3	Est. of Community Arjuna Nursery	No.	75	35	-	110	0.014	1.078	0.503	-	1.581	-	-	1.581	-	1.581
11.5.4	Tasar raw silk production	No.	-	100	-	100	0.029	-	2.875	-	2.875	-	-	2.875	-	2.875
11.5.5	Tasar spun silk production	No.	-	40	-	40	0.029	-	1.150	-	1.150	-	-	1.150	-	1.150
11.5.6	Improved agriculture	No.	2,167	3,186	1,104	6,457	0.004	9.345	13.740	4.762	27.846	-	-	27.846	-	27.846
11.5.7	Vegetable cultivation	No.	433	637	221	1,291	0.002	0.897	1.319	0.457	2.673	-	-	2.673	-	2.673
Sub-total								**26.982**	**41.601**	**13.19**	**81.782**	**-**	**-**	**81.782**	**-**	**81.782**
11.6.	**Institution building of Producer Collectives**															
11.6.1	Membership training	No.	2,167	3,186	1,104	6,457	0.007	14.952	21.983	7.619	44.554	-	-	44.554	-	44.554
11.6.2	Leadership/ Governance Training	No.	108	159	55	323	0.026	2.804	4.122	1.428	8.354	-	-	8.354	-	8.354
11.6.3	Exposure of Board members & staff	No.	24	36	12	73	0.052	1.259	1.852	0.642	3.753	-	-	3.753	-	3.753
Sub-total								**19.015**	**27.957**	**9.689**	**56.661**	**-**	**-**	**56.661**	**-**	**56.661**
11.7.	**Nurturing of New Self-Help-Groups (SHGs)**															
11.7.1	Membership training (25%)	No.	542	797	276	1,614	0.005	2.492	3.664	1.270	7.426	-	-	7.426	-	7.426
11.7.2	Leadership Training (20%)	No.	433	637	221	1,291	0.007	3.034	4.460	1.546	9.040	-	-	9.040	-	9.040
11.7.3	Book keeping Training (7.5%)	No.	163	239	83	484	0.008	1.365	2.007	0.696	4.068	-	-	4.068	-	4.068
11.7.4	Exposure of Cluster & Federation Members (2.25%)	No.	49	72	25	145	0.006	0.312	0.459	0.159	0.930	-	-	0.930	-	0.930
11.7.5	Livelihood Visioning (50%)	No.	1,084	1,593	552	3,229	0.002	2.059	3.027	1.049	6.134	-	-	6.134	-	6.134
Sub-total								**9.262**	**13.617**	**4.719**	**27.598**	**-**	**-**	**27.598**	**-**	**27.598**
11.8.	**Trainers Training programme**	LS	1	-	-	1	4.000	**4.000**	**-**	**-**	**4.000**	**-**	**-**	**4.000**	**-**	**4.000**
Sub- Total (11.1-11.8)								**113.574**	**184.282**	**54.47**	**352.333**	**-**	**-**	**352.333**	**-**	**352.33**

Multi-State Project under MKSP-NTFP for Promotion of Large Scale Tasar Sericulture Based Livelihoods in JHARKHAND

Year Wise Physical and Financial Phasing

(Rs. in Lakhs)

Sl. No.	Component/ Activity	Unit	PHYSICAL				Unit cost	FINANCIAL				SHARING PATTERN				Project Grant
			Yr-1	Yr-2	Yr-3	Total		Yr-1	Yr-2	Yr-3	Total Cost	Credit	Benefi -ciary	MORD	CSB	
12	**Publicity and extension**															
12.1	Workshop/seminar	No.	1		1	2	4.000	4.000	-	4.000	8.000	-	-	8.000	-	8.000
12.2	Printing passbook/pamphlets	LS	NA					3.000	2.000		5.000	-	-	5.000	-	5.000
12.3	*Krishi mela*	No.	4	3	3	10	0.500	2.000	1.500	1.500	5.000	-	-	5.000	-	5.000
Sub-total								**9.000**	**3.500**	**5.500**	**18.000**	**-**	**-**	**18.000**	**-**	**18.000**
13	**Design Development & Diversification**	LS	NA					**-**	**10.000**	**-**	**10.000**	**-**	**-**	**10.000**	**-**	**10.000**
14	**Disease monitoring**	LS	NA					**8.000**	**4.000**	**-**	**12.000**	**-**	**-**	**12.000**	**-**	**12.000**
15	**Documentation and evaluation**	LS	NA					**5.000**	**10.000**	**5.000**	**20.000**	**-**	**-**	**20.000**	**-**	**20.000**
16	**Consultancy & Advocacy**	LS	NA					**10.000**	**15.000**	**15.00**	**40.000**	**-**	**-**	**40.000**	**-**	**40.000**
17	**Technology Extension and Business Development support**	LS	NA					**52.257**	**50.664**	**21.90**	**124.828**	**-**	**-**	**124.828**	**-**	**124.82**
18	**Project administrative expenses**	LS	NA					**52.257**	**50.664**	**21.90**	**124.828**	**-**	**-**	**124.828**	**-**	**124.82**
19	**Project Monitoring cost**	LS	NA					**15.677**	**15.199**	**6.572**	**37.448**	**-**	**-**	**37.448**	**-**	**37.448**
Sub- Total (12-19)								**152.191**	**159.027**	**75.88**	**387.105**	**-**	**-**	**387.105**	**-**	**387.10**
Grand Total								**1,165.3**	**1,128.8**	**488.5**	**2,782.66**	**192.92**	**195.78**	**1,795.46**	**598.4**	**2393.9**
Percentage to total financial outlay								**41.878**	**40.566**	**17.55**	**100.000**	**6.933**	**7.036**	**64.523**	**21.50**	**86.031**
Percentage to the project assistance														**75.000**	**25.00**	**100.00**

ANNEXURES

Annexure-1

Project at a glance

1	Title	**Promotion of Large Scale Tasar Sericulture Based Livelihoods in Jharkhand**		
2	Project area	Districts	Blocks	
		Godda	Sunderpahari, Poraiyahaat and Boarijore	
		Pakur	Littipara	
		Dumka	Shikaripara, Kathikund, Raneswar and Masaliya	
		Saraikella	Kuchai	
		W Singhbhum	Chakradharpur, Khutpani and Hatgamharia	
		E Singhbhum	Dalbhumgarh, gurabandha, Musabani & Dumaria	
		Deoghar	Devipur, Madhupur, Deoghar Sadar	
		Giridih	Deori	
3	Coordinating Agency	Central Silk Board, Min.of Textiles, Govt. of India		
4	Project Implementing Agency	PRADAN		
5	Total Project Cost (Rs. In Lakhs)	**2,782.665**		
6	Funding Pattern (Rs. in lakhs)	CREDIT & BENEFICIARY (Rs. in lakhs)	MORD (Rs. in lakhs)	CSB (Rs. in lakhs)
		388.718	1,795.461	598.486
	Sharing pattern (%)	13.97	64.52	21.51
		Cost/beneficiary (Rs)	%	
	Investment per Family	20,053.2	100.0	
	Cost of capacity building per Family	2,951.4	14.7	
	Cost of program cost per Family	13,859.2	69.1	
	Cost of Program support cost per Family	3,242.6	16.2	
7	Project Period	2013-14 to 2015-16 (Three years)		
8	Beneficiaries to be covered (Direct)			
	Nursery farmers	110		
	Nucleus Seed rearer's	80		
	Basic Seed rearer's	695		
	Commercial rearer's	5,367		
	Private Graineurs	175		
	Community Resource Persons	161		
	BSPU members (15 per unit)	15		
	Improved agriculture	6,457		
	Vegetable cultivation	1,291		
	Women SHG members	3,229		
	Indirect beneficiaries	2,142		
	Total Project Beneficiaries	11,938		
9	Infrastructure to be created			
a	Block plantation (Forest/ private/ revenue lands) (ha.)	607		
b	Regeneration of block plantation (ha.)	3,150		
c	Basic Seed Production Units (No.)	4		
d	Rearer's' Collective (No.)	6		
10	Project Output (during the Project period):			
	Tasar basic seed (Lakh dfls)	2.25		
	Tasar commercial seed (Lakh dfls)	21.39		
	Tasar Reeling Cocoons (Lakh Nos.)	1,161.41		
11	Value of the Project output (Lakh Rs.)	3,175.68		

Annexure-2

Promotion of Large Scale Tasar Sericulture Based Livelihoods in Jharkhand

Productivity norms

#	PARAMETERS	TASAR
1	Spacing/ number of plants in Tasar host plantation per ha.	
	Block plantation (3.0 m x 1.8m)	1,852
	Chawkie garden (1.8m x 1.8m)	3,086
	Block plantation with Chawkie garden (90:10)	1,975
2	Requirement of seedlings per ha. including 10% mortality	
	Block plantation (3.0 m x 1.8m)	2,037
	Chawkie garden (1.8m x 1.8m)	3,395
	Block plantation with Chawkie garden (90:10)	2,173
3	Number of seedlings/ *kisan* nursery	76,400
4	Cost of seed cocoons (Rs./ cocoon)	1
5	Cocoon. Dfl ratio (Basic seed cocoons to Comm.dfls)	4:1
	Cocoon. Dfl ratio (Nucleus seed cocoons to Basic seed)	5:1
6	Dfl : Dfl multiplication ratio	1:8
7	Extent of food plants per farmer (Ha.).	0.7
8	Average brushing per family (Dfls)	200
9	No. of crops/year/rearer	1
10	Insurance premium / 100 dfls (Rs.)@ 7% of sum assured	
	I crop	188.8
	II crop	203.8
	III crop	218.8
11	JPA with spouse / dependent (Rs.)	31
12	Cost of Tasar silkworm seed (Rs.)	6
13	Yield of cocoons / dfl (No.)	
	By Seed Rearer's	40
	By Adopted Seed Rearer's (BV)/ Commercial Rearer's	50
14	Yield of seed cocoons / dfl (No.) by seed rearer's	
	Bivoltine/ Trivoltine- I & II crop	32
15	Yield of raw silk / 1000 cocoons (kg.)	
	Bivoltine	1
	Trivoltine	0.65
	Average	0.75
16	Yield of spun silk from reeling waste / 1000 cocoons (Kg.)	
	Bivoltine	0.3
	Trivoltine	0.25
	Average	0.25
17	Yield of spun silk from pierced cocoons / 1000 cocoons (kg.)	0.8

Promotion of Large Scale Tasar Sericulture Based Livelihoods in Jharkhand

Productivity norms

#	PARAMETERS	TASAR
18	Average rate of reeling cocoons / '000 cocoons (Rs.)	
	Bivoltine	1,600
	Trivoltine	1,300
19	Raw silk production / mc./yr. (kg.)	40
20	Spun silk production /mc./yr. (kg.)	40
	No. of working days/ year	300
21	Avg. Rate/kg. raw silk (Rs.)	2,800
22	Avg. Rate/kg. spun silk (Rs.)	1,800

Activities	NSR	SR
Brushing / rearer /crop [dfl]	200	200
Selection of seed cocoons [%]	75%	80%
Preservation loss [%]	15%	---

Annexure-3

Year Wise Physical Phasing

Sl. No.	Component/ Activity	Unit	PHYSICAL			
			Yr-1	Yr-2	Yr-3	Total
1	**Raising of Block plantation**					
1.1	Raising Tasar host plantation	Hac.	413	194	-	607
1.2	Maintenance of host plant - 1st Year	Hac.	-	413	194	607
1.3	Maintenance of host plant - 2nd Year	Hac.	-	-	607	607
2	**Assistance to Nucleus Seed Rearer's**					
2.1	Supply of rearing equipments	No.	40	40	-	80
2.2	Supply of inputs for maintenance of block plantation	Hac.	28	56	56	140
2.3	Assistance for Tasar silkworm rearing	No.	40	80	80	200
2.4	Crop insurance	Dfls	8,000	16,000	16,000	40,000
2.5	Rearer's insurance	No.	40	80	80	200
3	**Assistance to Basic Seed Rearer's**					
3.1	Supply of rearing equipments	No.	237	335	123	695
3.2	Supply of inputs for maintenance of block plantation	Hac	165	400	313	879
3.3	Assistance for Tasar silkworm rearing	No.	237	572	581	1,390
3.4	Crop insurance	Dfls	47,400	114,400	116,210	278,010
3.5	Rearer's insurance	No.	237	572	581	1,390
4	**Assistance to Commercial Rearer's**					
4.1	Supply of rearing equipment	No.	1,830	2,587	950	5,367
4.2	Assistance for Tasar silkworm rearing	No.	1,830	4,417	4,487	10,734
4.3	Crop insurance	Dfls	366,000	883,400	897,457	2,146,857
4.4	Rearer's insurance	No.	1,830	4,417	4,487	10,734
5	**Assistance to Private Graineurs**					
5.1	Construction of grainage building	No.	60	84	31	175
5.2	Supply of grainage equipment	No.	60	84	31	175
5.3	Working capital	No.	60	84	31	175
5.4	Grainage consumables	No.	60	144	146	350
6	**Assistance to Basic Seed Production Units**					
6.1	Construction of grainage building	No.	4	-	-	4
6.2	Supply of grainage equipment	No.	4	-	-	4
6.3	Working capital	No.	4	-	-	4
6.4	Grainage consumables	No.	4	-	-	4
7	**Assistance to Rearer's Collectives**					
7.1	Cocoon storage facilities	No.	6	-	-	6
7.2	Common facilities	No.	6	-	-	6
8	**Assistance to Reeler's' Collectives**					
8.1	Supply of equipments	No.	-	4	-	4
8.2	Working capital	No.	-	4	-	4
8.3	Common facilities	No.	-	4	-	4
9	**Establishment of Cocoon Bank**	No.	1	1		2
10	**Establishment of Tasar Yarn Bank**	No.	1			1
11	**Human Resource Development**					
11.1.	Technical training of project personnel	No.	6	4	-	10
11.2.	**Technical training for Project Families for implementation of sericulture activities**					
11.2.1	Nursery farmers	No.	75	35	-	110
11.2.2	Nucleus Seed Rearer's	No.	40	40	-	80
11.2.3	Basic Seed Rearer's	No.	237	335	123	695
11.2.4	Private Graineurs	No.	60	84	31	175
11.2.5	Commercial Rearer's	No.	1,830	2,587	950	5,367
11.2.6	Reeler's	No.	-	100	-	100
11.2.7	Spinners	No.	-	40	-	40
11.2.8	Study tour/ Exposure visit	No.	561	805	276	1,642
11.3.	**Technical training for sectoral activities**					

Year Wise Physical Phasing

Sl. No.	Component/ Activity	Unit	PHYSICAL			
			Yr-1	Yr-2	Yr-3	Total
11.3.1	Improved Agriculture	No.	2,167	3,186	1,104	6,457
11.3.2	vegetable cultivation	No.	433	637	221	1,291
11.3.3	Exposure of Project Families to improved practices	No.	542	797	276	1,614
11.4.	**Training of Community Resource Persons (CRPs) for extension of activities**					
11.4.1	Orientation and training on Tasar	No.	54	80	28	161
11.4.2	Exposure to improved practices	No.	27	40	14	81
11.4.3	Technical and Refresher Training	No.	54	80	28	161
11.5.	**On-field training / handholding provided by CRPs to the Project Families**					
11.5.1	Tasar Silkworm Rearing	No.	2,107	2,962	1,073	6,142
11.5.2	Tasar Seed Production	No.	60	84	31	175
11.5.3	Est. of Community Arjuna Nursery	No.	75	35	-	110
11.5.4	Tasar raw silk production	No.	-	100	-	100
11.5.5	Tasar spun silk production	No.	-	40	-	40
11.5.6	Improved agriculture	No.	2,167	3,186	1,104	6,457
11.5.7	Vegetable cultivation	No.	433	637	221	1,291
11.6.	**Institution building of Producer Collectives**					
11.6.1	Membership training	No.	2,167	3,186	1,104	6,457
11.6.2	Leadership/ Governance Training	No.	108	159	55	323
11.6.3	Exposure of Board members & staff	No.	24	36	12	73
11.7.	**Nurturing of New Self-Help-Groups (SHGs)**					
11.7.1	Membership training (25%)	No.	542	797	276	1,614
11.7.2	Leadership Training (20%)	No.	433	637	221	1,291
11.7.3	Book keeping Training (7.5%)	No.	163	239	83	484
11.7.4	Exposure of Cluster & Federation Members (2.25%)	No.	49	72	25	145
11.7.5	Livelihood Visioning (50%)	No.	1,084	1,593	552	3,229
11.8.	**Trainers Training programme**	LS	1	-	-	1
12	**Publicity and extension**					
12.1	Workshop/seminar	No.	1		1	2
12.2	*Krishi mela*	No.	4	3	3	10

Annexure-4

Physical outlay at the end of the project

Sl. No.	Particulars	Unit	No.
1	Basic Seed Production Units	No.	4
2	Basic seed production	Lakh dfls	2.25
3	Private Graineurs	No.	175
	Basic seed rearer's	No.	695
	Nucleus seed rearer's	No.	80
4	Basic seed requirement	Lakh dfls	3.008
	Nucleus seed requirement	Lakh dfls	0.40
5	Silk worm rearer's- Commercial	No.	5367
6	Basic Seed cocoon production	Lakh nos.	120.32
7	Commercial dfl production	Lakh dfls	21.39
8	Reeling cocoon production	Lakh nos.	1,161.41

Annexure-5

Year Wise Physical and Financial Phasing

(Rs. in Lakhs)

Sl. No.	Component/ Activity	Unit	PHYSICAL				Unit cost (Lakhs)	FINANCIAL			
			Yr-1	Yr-2	Yr-3	Total		Yr-1	Yr-2	Yr-3	Total Cost
1	**Raising of Block plantation**										
1.1	Raising Tasar host plantation	Hac.	413	194	-	607	0.447	184.783	86.799	-	271.582
1.2	Maintenance of host plant - 1st Year	Hac.	-	413	194	607	0.070	-	28.976	13.611	42.587
1.3	Maintenance of host plant - 2nd Year	Hac.	-	-	607	607	0.094	-	-	56.976	56.976
Sub-total								**184.783**	**115.775**	**70.587**	**371.145**
2	**Assistance to Nucleus Seed Rearer's**										
2.1	Supply of rearing equipments	No.	40	40	-	80	0.061	2.440	2.440	-	4.880
2.2	Supply of inputs for maintenance of block plantation	Hac.	28	56	56	140	0.095	2.646	5.292	5.292	13.230
2.3	Assistance for Tasar silkworm rearing	No.	40	80	80	200	0.024	0.955	1.910	1.910	4.775
2.4	Crop insurance	Dfls	8,000	16,000	16,000	40,000	0.000	0.163	0.326	0.326	0.815
2.5	Rearer's insurance	No.	40	80	80	200	0.000	0.012	0.025	0.025	0.062
Sub-total								**6.216**	**9.993**	**7.553**	**23.762**
3	**Assistance to Basic Seed Rearer's**										
3.1	Supply of rearing equipments	No.	237	335	123	695	0.061	14.457	20.435	7.503	42.395
3.2	Supply of inputs for maintenance of block plantation	Hac	165	400	313	879	0.095	15.620	37.838	29.560	83.018
3.3	Assistance for Tasar silkworm rearing	No.	237	572	581	1,390	0.024	5.658	13.657	13.871	33.186
3.4	Crop insurance	Dfls	47,400	114,400	116,210	278,010	0.000	0.895	2.160	2.194	5.249
3.5	Rearer's insurance	No.	237	572	581	1,390	0.000	0.073	0.177	0.180	0.431
Sub-total								**36.704**	**74.266**	**53.309**	**164.279**
4	**Assistance to Commercial Rearer's**										
4.1	Supply of rearing equipment	No.	1,830	2,587	950	5,367	0.061	111.630	157.807	57.959	327.396
4.2	Assistance for Tasar silkworm rearing	No.	1,830	4,417	4,487	10,734	0.020	36.646	88.450	89.858	214.954
4.3	Crop insurance	Dfls	366,000	883,400	897,457	2,146,857	0.000	7.459	18.004	18.290	43.753
4.4	Rearer's insurance	No.	1,830	4,417	4,487	10,734	0.000	0.567	1.369	1.391	3.328
Sub-total								**156.302**	**265.630**	**167.498**	**589.430**
5	**Assistance to Private Graineurs**										
5.1	Construction of grainage building	No.	60	84	31	175	1.000	59.669	84.352	30.981	175.000
5.2	Supply of grainage equipment	No.	60	84	31	175	0.420	25.061	35.428	13.012	73.500
5.3	Working capital	No.	60	84	31	175	0.350	20.884	29.523	10.843	61.250
5.4	Grainage consumables	No.	60	144	146	350	0.030	1.790	4.321	4.389	10.500
Sub-total								**107.405**	**153.624**	**59.225**	**320.250**
6	**Assistance to Basic Seed Production Units**										
6.1	Construction of grainage building	No.	4	-	-	4	36.343	145.370	-	-	145.370
6.2	Supply of grainage equipment	No.	4	-	-	4	2.944	11.776	-	-	11.776
6.3	Working capital	No.	4	-	-	4	2.975	11.900	-	-	11.900
6.4	Grainage consumables	No.	4	-	-	4	0.100	0.400	-	-	0.400
Sub-total								**169.446**	**-**	**-**	**169.446**

Year Wise Physical and Financial Phasing

(Rs. in Lakhs)

Sl. No.	Component/ Activity	Unit	PHYSICAL				Unit cost (Lakhs)	FINANCIAL			
			Yr-1	Yr-2	Yr-3	Total		Yr-1	Yr-2	Yr-3	Total Cost
7	**Assistance to Rearer's Collectives**										
7.1	Cocoon storage facilities	No.	6	-	-	6	7.500	45.000	-	-	45.000
7.2	Common facilities	No.	6	-	-	6	0.373	2.238	-	-	2.238
Sub-total								**47.238**	**-**	**-**	**47.238**
8	**Assistance to Reeler's' Collectives**										
8.1	Supply of equipments	No.	-	4	-	4	12.077	-	48.306	-	48.306
8.2	Working capital	No.	-	4	-	4	7.500	-	30.000	-	30.000
8.3	Common facilities	No.	-	4	-	4	0.100	-	0.400	-	0.400
Sub-total								**-**	**78.706**	**-**	**78.706**
9	**Establishment of Cocoon Bank**	No.	1	1		2	**87.500**	**87.500**	**87.500**	**-**	**175.000**
10	**Establishment of Tasar Yarn Bank**	No.	1			1	**103.970**	**103.970**	**-**	**-**	**103.970**
Sub- Total (1-10)								**899.564**	**785.495**	**358.171**	**2,043.227**
11	**Human Resource Development**										
11.1.	Technical training of project personnel	No.	6	4	-	10	**0.100**	**0.600**	**0.400**	**-**	**1.000**
11.2.	**Technical training for Project Families for implementation of sericulture activities**										
11.2.1	Nursery farmers	No.	75	35	-	110	0.010	0.733	0.342	-	1.075
11.2.2	Nucleus Seed Rearer's	No.	40	40	-	80	0.011	0.455	0.455	-	0.911
11.2.3	Basic Seed Rearer's	No.	237	335	123	695	0.009	2.249	3.178	1.167	6.594
11.2.4	Private Graineurs	No.	60	84	31	175	0.125	7.504	10.505	3.877	21.886
11.2.5	Commercial Rearer's	No.	1,830	2,587	950	5,367	0.007	12.627	17.850	6.556	37.033
11.2.6	Reeler's	No.	-	100	-	100	0.173	-	17.308	-	17.308
11.2.7	Spinners	No.	-	40	-	40	0.173	-	6.923	-	6.923
11.2.8	Study tour/ Exposure visit	No.	561	805	276	1,642	0.009	5.286	7.594	2.603	15.482
Sub-total								**28.853**	**64.155**	**14.203**	**107.212**
11.3.	**Technical training for sectoral activities**										
11.3.1	Improved Agriculture	No.	2,167	3,186	1,104	6,457	0.003	7.102	10.442	3.619	21.163
11.3.2	vegetable cultivation	No.	433	637	221	1,291	0.002	0.947	1.392	0.483	2.822
11.3.3	Exposure of Project Families to improved practices	No.	542	797	276	1,614	0.003	1.869	2.748	0.952	5.569
Sub-total								**9.918**	**14.582**	**5.054**	**29.554**
11.4.	**Training of Community Resource Persons (CRPs) for extension of activities**										
11.4.1	Orientation and training on Tasar	No.	54	80	28	161	0.255	13.831	20.335	7.047	41.213
11.4.2	Exposure to improved practices	No.	27	40	14	81	0.016	0.421	0.618	0.214	1.253
11.4.3	Technical and Refresher Training	No.	54	80	28	161	0.013	0.692	1.017	0.352	2.061
Sub-total								**14.943**	**21.970**	**7.614**	**44.526**
11.5.	**On-field training / handholding provided by CRPs to the Project Families**										
11.5.1	Tasar Silkworm Rearing	No.	2,107	2,962	1,073	6,142	0.007	15.144	21.289	7.713	44.147
11.5.2	Tasar Seed Production	No.	60	84	31	175	0.009	0.518	0.725	0.267	1.509

Year Wise Physical and Financial Phasing

(Rs. in Lakhs)

Sl. No.	Component/ Activity	Unit	PHYSICAL				Unit cost (Lakhs)	FINANCIAL			
			Yr-1	Yr-2	Yr-3	Total		Yr-1	Yr-2	Yr-3	Total Cost
11.5.3	Est. of Community Arjuna Nursery	No.	75	35	-	110	0.014	1.078	0.503	-	1.581
11.5.4	Tasar raw silk production	No.	-	100	-	100	0.029	-	2.875	-	2.875
11.5.5	Tasar spun silk production	No.	-	40	-	40	0.029	-	1.150	-	1.150
11.5.6	Improved agriculture	No.	2,167	3,186	1,104	6,457	0.004	9.345	13.740	4.762	27.846
11.5.7	Vegetable cultivation	No.	433	637	221	1,291	0.002	0.897	1.319	0.457	2.673
Sub-total								**26.982**	**41.601**	**13.199**	**81.782**
11.6.	**Institution building of Producer Collectives**										
11.6.1	Membership training	No.	2,167	3,186	1,104	6,457	0.007	14.952	21.983	7.619	44.554
11.6.2	Leadership/ Governance Training	No.	108	159	55	323	0.026	2.804	4.122	1.428	8.354
11.6.3	Exposure of Board members & staff	No.	24	36	12	73	0.052	1.259	1.852	0.642	3.753
Sub-total								**19.015**	**27.957**	**9.689**	**56.661**
11.7.	**Nurturing of New Self-Help-Groups (SHGs)**										
11.7.1	Membership training (25%)	No.	542	797	276	1,614	0.005	2.492	3.664	1.270	7.426
11.7.2	Leadership Training (20%)	No.	433	637	221	1,291	0.007	3.034	4.460	1.546	9.040
11.7.3	Book keeping Training (7.5%)	No.	163	239	83	484	0.008	1.365	2.007	0.696	4.068
11.7.4	Exposure of Cluster & Federation Members (2.25%)	No.	49	72	25	145	0.006	0.312	0.459	0.159	0.930
11.7.5	Livelihood Visioning (50%)	No.	1,084	1,593	552	3,229	0.002	2.059	3.027	1.049	6.134
Sub-total								**9.262**	**13.617**	**4.719**	**27.598**
11.8.	**Trainers Training programme**	LS	1	-	-	1	4.000	**4.000**	**-**	**-**	**4.000**
Sub- Total (11.1-11.8)								**113.574**	**184.282**	**54.478**	**352.333**
12	**Publicity and extension**										
12.1	Workshop/seminar	No.	1		1	2	4.000	4.000	-	4.000	8.000
12.2	Printing passbook/pamphlets	LS			NA			3.000	2.000		5.000
12.3	*Krishi mela*	No.	4	3	3	10	0.500	2.000	1.500	1.500	5.000
Sub-total								**9.000**	**3.500**	**5.500**	**18.000**
13	**Design Development & Diversification**	LS			NA			**-**	**10.000**	**-**	**10.000**
14	**Disease monitoring**	LS			NA			**8.000**	**4.000**	**-**	**12.000**
15	**Documentation and evaluation**	LS			NA			**5.000**	**10.000**	**5.000**	**20.000**
16	**Consultancy & Advocacy**	LS			NA			**10.000**	**15.000**	**15.000**	**40.000**
17	**Technology Extension and Business Development support**	LS			NA			**52.257**	**50.664**	**21.907**	**124.828**
18	**Project administrative expenses**	LS			NA			**52.257**	**50.664**	**21.907**	**124.828**
19	**Project Monitoring cost**	LS			NA			**15.677**	**15.199**	**6.572**	**37.448**
Sub- Total (12-19)								**152.191**	**159.027**	**75.887**	**387.105**
Grand Total								**1,165.329**	**1,128.804**	**488.536**	**2,782.665**
Percentage to total financial outlay								**41.878**	**40.566**	**17.556**	**100.000**

MKSP Component Analysis	Total Budget (Lakh Rs)	Rs/ Family
Cost of Total project cost per family	2,782.66	23,309.30
Cost of Contribution (Self contribution & Credit) cost per Family	388.72	3,256.14
Cost of Total grant support per Family	2,393.95	20,053.17
Cost of Program cost per Family	1,654.51	13,859.18
Cost of Human resource Development per Family	352.33	2,951.36
Cost of Programme support Implementation cost per Family	100.00	837.66
Cost of Project administrative expenses per Family	124.83	1,045.64
Cost of Technology Extension and Business Development support per Family	124.83	1,045.64
Cost of Project Monitoring cost per Family	37.45	313.69

Annexure-6

Year wise Phasing of Financial outlay and Sharing pattern

(Rs. in Lakhs)

Sl. No.	Component/ Activity	Unit	Unit cost (Lakhs)	FINANCIAL				SHARING PATTERN				Project Grant
				Yr-1	Yr-2	Yr-3	Total Cost	Credit	Benefi-ciary	MORD	CSB	
1	**Raising of Block plantation**											
1.1	Raising Tasar host plantation	Hac.	0.447	184.783	86.799	-	271.582	-	53.990	71.912	145.680	217.592
1.2	Maintenance of host plant - 1st Year	Hac.	0.070	-	28.976	13.611	42.587	-	6.070	36.517	-	36.517
1.3	Maintenance of host plant - 2nd Year	Hac.	0.094	-	-	56.976	56.976	-	8.619	48.356	-	48.356
Sub-total				**184.783**	**115.775**	**70.587**	**371.145**	**-**	**68.679**	**156.786**	**145.680**	**302.466**
2	**Assistance to Nucleus Seed Rearer's**											
2.1	Supply of rearing equipments	No.	0.061	2.440	2.440	-	4.880	-	0.480	1.960	2.440	4.400
2.2	Supply of inputs for maintenance of block plantation	Hac.	0.095	2.646	5.292	5.292	13.230	-	0.924	5.691	6.615	12.306
2.3	Assistance for Tasar silkworm rearing	No.	0.024	0.955	1.910	1.910	4.775	2.400	0.440	0.685	1.250	1.935
2.4	Crop insurance	Dfls	0.000	0.163	0.326	0.326	0.815	-	-	0.408	0.408	0.815
2.5	Rearer's insurance	No.	0.000	0.012	0.025	0.025	0.062	-	-	0.031	0.031	0.062
Sub-total				**6.216**	**9.993**	**7.553**	**23.762**	**2.400**	**1.844**	**8.775**	**10.744**	**19.518**
3	**Assistance to Basic Seed Rearer's**											
3.1	Supply of rearing equipments	No.	0.061	14.457	20.435	7.503	42.395	-	4.169	17.028	21.198	38.226
3.2	Supply of inputs for maintenance of block plantation	Hac	0.095	15.620	37.838	29.560	83.018	-	5.798	35.711	41.509	77.220
3.3	Assistance for Tasar silkworm rearing	No.	0.024	5.658	13.657	13.871	33.186	16.680	3.059	4.760	8.688	13.448
3.4	Crop insurance	Dfls	0.000	0.895	2.160	2.194	5.249	-	-	2.624	2.624	5.249
3.5	Rearer's insurance	No.	0.000	0.073	0.177	0.180	0.431	-	-	0.215	0.215	0.431
Sub-total				**36.704**	**74.266**	**53.309**	**164.279**	**16.680**	**13.026**	**60.339**	**74.234**	**134.573**
4	**Assistance to Commercial Rearer's**											
4.1	Supply of rearing equipment	No.	0.061	111.630	157.807	57.959	327.396	-	32.203	161.014	134.179	295.193
4.2	Assistance for Tasar silkworm rearing	No.	0.020	36.646	88.450	89.858	214.954	128.811	59.039	27.104	-	27.104
4.3	Crop insurance	Dfls	0.000	7.459	18.004	18.290	43.753	-	-	21.876	21.876	43.753
4.4	Rearer's insurance	No.	0.000	0.567	1.369	1.391	3.328	-	-	1.664	1.664	3.328
Sub-total				**156.302**	**265.630**	**167.498**	**589.430**	**128.811**	**91.241**	**211.659**	**157.719**	**369.378**
5	**Assistance to Private Graineurs**											
5.1	Construction of grainage building	No.	1.000	59.669	84.352	30.981	175.000	-	8.750	70.000	96.250	166.250
5.2	Supply of grainage equipment	No.	0.420	25.061	35.428	13.012	73.500	-	-	36.750	36.750	73.500
5.3	Working capital	No.	0.350	20.884	29.523	10.843	61.250	17.501	10.498	2.626	30.625	33.251
5.4	Grainage consumables	No.	0.030	1.790	4.321	4.389	10.500	1.750	1.750	3.500	3.500	6.999
Sub-total				**107.405**	**153.624**	**59.225**	**320.250**	**19.251**	**20.999**	**112.875**	**167.125**	**280.000**
6	**Assistance to Basic Seed Production Units**											
6.1	Construction of grainage building	No.	36.343	145.370	-	-	145.370	-	-	128.639	16.731	145.370

Year wise Phasing of Financial outlay and Sharing pattern

(Rs. in Lakhs)

Sl. No.	Component/ Activity	Unit	Unit cost (Lakhs)	FINANCIAL				SHARING PATTERN				Project Grant
				Yr-1	Yr-2	Yr-3	Total Cost	Credit	Benefi-ciary	MORD	CSB	
6.2	Supply of grainage equipment	No.	2.944	11.776	-	-	11.776	-	-	11.776	-	11.776
6.3	Working capital	No.	2.975	11.900	-	-	11.900	-	-	11.900	-	11.900
6.4	Grainage consumables	No.	0.100	0.400	-	-	0.400	-	-	0.361	0.039	0.400
Sub-total				**169.446**	**-**	**-**	**169.446**	**-**	**-**	**152.676**	**16.770**	**169.446**
7	**Assistance to Rearer's Collectives**											
7.1	Cocoon storage facilities	No.	7.500	45.000	-	-	45.000	-	-	36.000	9.000	45.000
7.2	Common facilities	No.	0.373	2.238	-	-	2.238	-	-	2.238	-	2.238
Sub-total				**47.238**	**-**	**-**	**47.238**	**-**	**-**	**38.238**	**9.000**	**47.238**
8	**Assistance to Reeler's' Collectives**											
8.1	Supply of equipments	No.	12.077	-	48.306	-	48.306	-	-	35.706	12.600	48.306
8.2	Working capital	No.	7.500	-	30.000	-	30.000	25.386	-	-	4.615	4.615
8.3	Common facilities	No.	0.100	-	0.400	-	0.400	0.400	-	-	-	0.000
Sub-total				**-**	**78.706**	**-**	**78.706**	**25.786**	**-**	**35.706**	**17.215**	**52.921**
9	**Establishment of Cocoon Bank**	No.	**87.500**	**87.500**	**87.500**	**-**	**175.000**	**-**	**-**	**175.000**	**-**	**175.000**
10	**Establishment of Tasar Yarn Bank**	No.	**103.970**	**103.970**	**-**	**-**	**103.970**	**-**	**-**	**103.970**	**-**	**103.970**
Sub- Total (1-10)				**899.564**	**785.495**	**358.171**	**2,043.227**	**192.928**	**195.789**	**1,056.023**	**598.486**	**1654.509**
11	**Human Resource Development**											
11.1.	Technical training of project personnel	No.	**0.100**	**0.600**	**0.400**	**-**	**1.000**	**-**	**-**	**1.000**	**-**	**1.000**
11.2.	**Technical training for Project Families for implementation of sericulture activities**											
11.2.1	Nursery farmers	No.	0.010	0.733	0.342	-	1.075	-	-	1.075	-	1.075
11.2.2	Nucleus Seed Rearer's	No.	0.011	0.455	0.455	-	0.911	-	-	0.911	-	0.911
11.2.3	Basic Seed Rearer's	No.	0.009	2.249	3.178	1.167	6.594	-	-	6.594	-	6.594
11.2.4	Private Graineurs	No.	0.125	7.504	10.505	3.877	21.886	-	-	21.886	-	21.886
11.2.5	Commercial Rearer's	No.	0.007	12.627	17.850	6.556	37.033	-	-	37.033	-	37.033
11.2.6	Reeler's	No.	0.173	-	17.308	-	17.308	-	-	17.308	-	17.308
11.2.7	Spinners	No.	0.173	-	6.923	-	6.923	-	-	6.923	-	6.923
11.2.8	Study tour/ Exposure visit	No.	0.009	5.286	7.594	2.603	15.482	-	-	15.482	-	15.482
Sub-total				**28.853**	**64.155**	**14.203**	**107.212**	**-**	**-**	**107.212**	**-**	**107.212**
11.3.	**Technical training for sectoral activities**											
11.3.1	Improved Agriculture	No.	0.003	7.102	10.442	3.619	21.163	-	-	21.163	-	21.163
11.3.2	vegetable cultivation	No.	0.002	0.947	1.392	0.483	2.822	-	-	2.822	-	2.822
11.3.3	Exposure of Project Families to improved practices	No.	0.003	1.869	2.748	0.952	5.569	-	-	5.569	-	5.569
Sub-total				**9.918**	**14.582**	**5.054**	**29.554**	**-**	**-**	**29.554**	**-**	**29.554**
11.4.	**Training of Community Resource Persons (CRPs) for extension of activities**											
11.4.1	Orientation and training on Tasar	No.	0.255	13.831	20.335	7.047	41.213	-	-	41.213	-	41.213
11.4.2	Exposure to improved practices	No.	0.016	0.421	0.618	0.214	1.253	-	-	1.253	-	1.253

Year wise Phasing of Financial outlay and Sharing pattern

(Rs. in Lakhs)

Sl. No.	Component/ Activity	Unit	Unit cost (Lakhs)	FINANCIAL				SHARING PATTERN				Project Grant
				Yr-1	Yr-2	Yr-3	Total Cost	Credit	Benefi-ciary	MORD	CSB	
11.4.3	Technical and Refresher Training	No.	0.013	0.692	1.017	0.352	2.061	-	-	2.061	-	2.061
Sub-total				**14.943**	**21.970**	**7.614**	**44.526**	**-**	**-**	**44.526**	**-**	**44.526**
11.5.	**On-field training / handholding provided by CRPs to the Project Families**											
11.5.1	Tasar Silkworm Rearing	No.	0.007	15.144	21.289	7.713	44.147	-	-	44.147	-	44.147
11.5.2	Tasar Seed Production	No.	0.009	0.518	0.725	0.267	1.509	-	-	1.509	-	1.509
11.5.3	Est. of Community Arjuna Nursery	No.	0.014	1.078	0.503	-	1.581	-	-	1.581	-	1.581
11.5.4	Tasar raw silk production	No.	0.029	-	2.875	-	2.875	-	-	2.875	-	2.875
11.5.5	Tasar spun silk production	No.	0.029	-	1.150	-	1.150	-	-	1.150	-	1.150
11.5.6	Improved agriculture	No.	0.004	9.345	13.740	4.762	27.846	-	-	27.846	-	27.846
11.5.7	Vegetable cultivation	No.	0.002	0.897	1.319	0.457	2.673	-	-	2.673	-	2.673
Sub-total				**26.982**	**41.601**	**13.199**	**81.782**	**-**	**-**	**81.782**	**-**	**81.782**
11.6.	**Institution building of Producer Collectives**											
11.6.1	Membership training	No.	0.007	14.952	21.983	7.619	44.554	-	-	44.554	-	44.554
11.6.2	Leadership/ Governance Training	No.	0.026	2.804	4.122	1.428	8.354	-	-	8.354	-	8.354
11.6.3	Exposure of Board members & staff	No.	0.052	1.259	1.852	0.642	3.753	-	-	3.753	-	3.753
Sub-total				**19.015**	**27.957**	**9.689**	**56.661**	**-**	**-**	**56.661**	**-**	**56.661**
11.7.	**Nurturing of New Self-Help-Groups (SHGs)**											
11.7.1	Membership training (25%)	No.	0.005	2.492	3.664	1.270	7.426	-	-	7.426	-	7.426
11.7.2	Leadership Training (20%)	No.	0.007	3.034	4.460	1.546	9.040	-	-	9.040	-	9.040
11.7.3	Book keeping Training (7.5%)	No.	0.008	1.365	2.007	0.696	4.068	-	-	4.068	-	4.068
11.7.4	Exposure of Cluster & Federation Members (2.25%)	No.	0.006	0.312	0.459	0.159	0.930	-	-	0.930	-	0.930
11.7.5	Livelihood Visioning (50%)	No.	0.002	2.059	3.027	1.049	6.134	-	-	6.134	-	6.134
Sub-total				**9.262**	**13.617**	**4.719**	**27.598**	**-**	**-**	**27.598**	**-**	**27.598**
11.8.	**Trainers Training programme**	LS	4.000	**4.000**	**-**	**-**	**4.000**	**-**	**-**	**4.000**	**-**	**4.000**
Sub- Total (11.1-11.8)				**113.574**	**184.282**	**54.478**	**352.333**	**-**	**-**	**352.333**	**-**	**352.333**
12	**Publicity and extension**											
12.1	Workshop/seminar	No.	4.000	4.000	-	4.000	8.000	-	-	8.000	-	8.000
12.2	Printing passbook/pamphlets	LS		3.000	2.000		5.000	-	-	5.000	-	5.000
12.3	*Krishi mela*	No.	0.500	2.000	1.500	1.500	5.000	-	-	5.000	-	5.000
Sub-total				**9.000**	**3.500**	**5.500**	**18.000**	**-**	**-**	**18.000**	**-**	**18.000**
13	**Design Development & Diversification**	LS		**-**	**10.000**	**-**	**10.000**	**-**	**-**	**10.000**	**-**	**10.000**
14	**Disease monitoring**	LS		**8.000**	**4.000**	**-**	**12.000**	**-**	**-**	**12.000**	**-**	**12.000**
15	**Documentation and evaluation**	LS		**5.000**	**10.000**	**5.000**	**20.000**	**-**	**-**	**20.000**	**-**	**20.000**
16	**Consultancy & Advocacy**	LS		**10.000**	**15.000**	**15.000**	**40.000**	**-**	**-**	**40.000**	**-**	**40.000**
17	**Technology Extension and Business Development support**	LS		**52.257**	**50.664**	**21.907**	**124.828**	**-**	**-**	**124.828**	**-**	**124.828**

Year wise Phasing of Financial outlay and Sharing pattern

(Rs. in Lakhs)

Sl. No.	Component/ Activity	Unit	Unit cost (Lakhs)	FINANCIAL				SHARING PATTERN				Project Grant
				Yr-1	Yr-2	Yr-3	Total Cost	Credit	Benefi-ciary	MORD	CSB	
18	Project administrative expenses	LS		52.257	50.664	21.907	124.828	-	-	124.828	-	124.828
19	Project Monitoring cost	LS		15.677	15.199	6.572	37.448	-	-	37.448	-	37.448
Sub- Total (12-19)				152.191	159.027	75.887	387.105	-	-	387.105	-	387.105
Grand Total				1,165.329	1,128.804	488.536	2,782.665	192.928	195.789	1,795.461	598.486	2393.947
Percentage to total financial outlay				41.878	40.566	17.556	100.000	6.933	7.036	64.523	21.508	86.031
Percentage to the project assistance										75.000	25.000	100.000

MKSP Component Analysis	Total Budget (Lakh Rs)	Rs/ Family
Cost of Total project cost per family	2,782.66	23,309.30
Cost of Contribution (Self contribution & Credit) cost per Family	388.72	3,256.14
Cost of Total grant support per Family	2,393.95	20,053.17
Cost of Program cost per Family	1,654.51	13,859.18
Cost of Human resource Development per Family	352.33	2,951.36
Cost of Programme support Implementation cost per Family	100.00	837.66
Cost of Project administrative expenses per Family	124.83	1,045.64
Cost of Technology Extension and Business Development support per Family	124.83	1,045.64
Cost of Project Monitoring cost per Family	37.45	313.69

Annexure-7

First Year Physical and Financial phasing

(Rs. in Lakhs)

Sl. No.	Component/ Activity	Unit	PHYSICAL	Unit cost (Lakhs)	FINANCIAL	SHARING PATTERN Yr-1				Project Grant
			Yr-1		Yr-1	Credit	Benefi-ciary	MORD	CSB	
1	**Raising of Block plantation**									
1.1	Raising Tasar host plantation	Hac.	413	0.447	184.783	-	36.734	48.929	99.120	148.049
1.2	Maintenance of host plant - 1st Year	Hac.	-	0.070	-	-	-	-	-	-
1.3	Maintenance of host plant - 2nd Year	Hac.	-	0.094	-	-	-	-	-	-
Sub-total					**184.783**	**-**	**36.734**	**48.929**	**99.120**	**148.049**
2	**Assistance to Nucleus Seed Rearer's**									
2.1	Supply of rearing equipments	No.	40	0.061	2.440	-	0.240	0.980	1.220	2.200
2.2	Supply of inputs for maintenance of block plantation	Hac.	28	0.095	2.646	-	0.185	1.138	1.323	2.461
2.3	Assistance for Tasar silkworm rearing	No.	40	0.024	0.955	0.480	0.088	0.137	0.250	0.387
2.4	Crop insurance	Dfls	8,000	0.000	0.163	-	-	0.082	0.082	0.163
2.5	Rearer's insurance	No.	40	0.000	0.012	-	-	0.006	0.006	0.012
Sub-total					**6.216**	**0.480**	**0.513**	**2.343**	**2.881**	**5.224**
3	**Assistance to Basic Seed Rearer's**									
3.1	Supply of rearing equipments	No.	237	0.061	14.457	-	1.422	5.807	7.229	13.035
3.2	Supply of inputs for maintenance of block plantation	Hac	165	0.095	15.620	-	1.091	6.719	7.810	14.529
3.3	Assistance for Tasar silkworm rearing	No.	237	0.024	5.658	2.844	0.522	0.812	1.481	2.293
3.4	Crop insurance	Dfls	47,400	0.000	0.895	-	-	0.447	0.447	0.895
3.5	Rearer's insurance	No.	237	0.000	0.073	-	-	0.037	0.037	0.073
Sub-total					**36.704**	**2.844**	**3.034**	**13.822**	**17.004**	**30.826**
4	**Assistance to Commercial Rearer's**									
4.1	Supply of rearing equipment	No.	1,830	0.061	111.630	-	10.980	54.900	45.750	100.650
4.2	Assistance for Tasar silkworm rearing	No.	1,830	0.020	36.646	21.960	10.065	4.621	-	4.621
4.3	Crop insurance	Dfls	366,000	0.000	7.459	-	-	3.730	3.730	7.459
4.4	Rearer's insurance	No.	1,830	0.000	0.567	-	-	0.284	0.284	0.567
Sub-total					**156.302**	**21.960**	**21.045**	**63.534**	**49.763**	**113.297**
5	**Assistance to Private Graineurs**									
5.1	Construction of grainage building	No.	60	1.000	59.669	-	2.983	23.867	32.818	56.685
5.2	Supply of grainage equipment	No.	60	0.420	25.061	-	-	12.530	12.530	25.061
5.3	Working capital	No.	60	0.350	20.884	5.967	3.580	0.895	10.442	11.337
5.4	Grainage consumables	No.	60	0.030	1.790	0.298	0.298	0.597	0.597	1.193
Sub-total					**107.405**	**6.266**	**6.861**	**37.890**	**56.387**	**94.277**
6	**Assistance to Basic Seed Production Units**									
6.1	Construction of grainage building	No.	4	36.343	145.370	-	-	128.639	16.731	145.370
6.2	Supply of grainage equipment	No.	4	2.944	11.776	-	-	11.776	-	11.776
6.3	Working capital	No.	4	2.975	11.900	-	-	11.900	-	11.900
6.4	Grainage consumables	No.	4	0.100	0.400	-	-	0.361	0.039	0.400

First Year Physical and Financial phasing

(Rs. in Lakhs)

Sl. No.	Component/ Activity	Unit	PHYSICAL	Unit cost (Lakhs)	FINANCIAL	SHARING PATTERN Yr-1				Project Grant
			Yr-1		Yr-1	Credit	Benefi-ciary	MORD	CSB	
Sub-total					**169.446**	**-**	**-**	**152.676**	**16.770**	**169.446**
7	**Assistance to Rearer's Collectives**									
7.1	Cocoon storage facilities	No.	6	7.500	45.000	-	-	36.000	9.000	45.000
7.2	Common facilities	No.	6	0.373	2.238	-	-	2.238	-	2.238
Sub-total					**47.238**	**-**	**-**	**38.238**	**9.000**	**47.238**
8	**Assistance to Reeler's' Collectives**									
8.1	Supply of equipments	No.	-	12.077	-	-	-	-	-	-
8.2	Working capital	No.	-	7.500	-	-	-	-	-	-
8.3	Common facilities	No.	-	0.100	-	-	-	-	-	-
Sub-total					**-**	**-**	**-**	**-**	**-**	-
9	**Establishment of Cocoon Bank**	No.	1	**87.500**	**87.500**	-	-	87.500	-	**87.500**
10	**Establishment of Tasar Yarn Bank**	No.	1	**103.970**	**103.970**	-	-	103.970	-	**103.970**
Sub- Total (1-10)					**899.564**	**31.550**	**68.188**	**548.901**	**250.925**	**799.826**
11	**Human Resource Development**									
11.1.	Technical training of project personnel	No.	6	**0.100**	**0.600**	-	-	0.600	-	**0.600**
11.2.	**Technical training for Project Families for implementation of sericulture activities**									
11.2.1	Nursery farmers	No.	75	0.010	0.733	-	-	0.733	-	0.733
11.2.2	Nucleus Seed Rearer's	No.	40	0.011	0.455	-	-	0.455	-	0.455
11.2.3	Basic Seed Rearer's	No.	237	0.009	2.249	-	-	2.249	-	2.249
11.2.4	Private Graineurs	No.	60	0.125	7.504	-	-	7.504	-	7.504
11.2.5	Commercial Rearer's	No.	1,830	0.007	12.627	-	-	12.627	-	12.627
11.2.6	Reeler's	No.	-	0.173	-	-	-	-	-	-
11.2.7	Spinners	No.	-	0.173	-	-	-	-	-	-
11.2.8	Study tour/ Exposure visit	No.	561	0.009	5.286	-	-	5.286	-	5.286
Sub-total					**28.853**	-	-	28.853	-	**28.853**
11.3.	**Technical training for sectoral activities**									
11.3.1	Improved Agriculture	No.	2,167	0.003	7.102	-	-	7.102	-	7.102
11.3.2	vegetable cultivation	No.	433	0.002	0.947	-	-	0.947	-	0.947
11.3.3	Exposure of Project Families to improved practices	No.	542	0.003	1.869	-	-	1.869	-	1.869
Sub-total					**9.918**	**-**	**-**	**9.918**	**-**	**9.918**
11.4.	**Training of Community Resource Persons (CRPs) for extension of activities**									
11.4.1	Orientation and training on Tasar	No.	54	0.255	13.831	-	-	13.831	-	13.831
11.4.2	Exposure to improved practices	No.	27	0.016	0.421	-	-	0.421	-	0.421
11.4.3	Technical and Refresher Training	No.	54	0.013	0.692	-	-	0.692	-	0.692
Sub-total					**14.943**	**-**	**-**	**14.943**	**-**	**14.943**
11.5.	**On-field training / handholding provided by CRPs to the Project Families**									
11.5.1	Tasar Silkworm Rearing	No.	2,107	0.007	15.144	-	-	15.144	-	15.144
11.5.2	Tasar Seed Production	No.	60	0.009	0.518	-	-	0.518	-	0.518
11.5.3	Est. of Community Arjuna Nursery	No.	75	0.014	1.078	-	-	1.078	-	1.078

First Year Physical and Financial phasing

(Rs. in Lakhs)

Sl. No.	Component/ Activity	Unit	PHYSICAL	Unit cost (Lakhs)	FINANCIAL	SHARING PATTERN Yr-1				Project Grant
			Yr-1		Yr-1	Credit	Benefi-ciary	MORD	CSB	
11.5.4	Tasar raw silk production	No.	-	0.029	-	-	-	-	-	-
11.5.5	Tasar spun silk production	No.	-	0.029	-	-	-	-	-	-
11.5.6	Improved agriculture	No.	2,167	0.004	9.345	-	-	9.345	-	9.345
11.5.7	Vegetable cultivation	No.	433	0.002	0.897	-	-	0.897	-	0.897
Sub-total					**26.982**	**-**	**-**	**26.982**	**-**	**26.982**
11.6.	**Institution building of Producer Collectives**									
11.6.1	Membership training	No.	2,167	0.007	14.952	-	-	14.952	-	14.952
11.6.2	Leadership/ Governance Training	No.	108	0.026	2.804	-	-	2.804	-	2.804
11.6.3	Exposure of Board members & staff	No.	24	0.052	1.259	-	-	1.259	-	1.259
Sub-total					**19.015**	**-**	**-**	**19.015**	**-**	**19.015**
11.7.	**Nurturing of New Self-Help-Groups (SHGs)**									
11.7.1	Membership training (25%)	No.	542	0.005	2.492	-	-	2.492	-	2.492
11.7.2	Leadership Training (20%)	No.	433	0.007	3.034	-	-	3.034	-	3.034
11.7.3	Book keeping Training (7.5%)	No.	163	0.008	1.365	-	-	1.365	-	1.365
11.7.4	Exposure of Cluster & Federation Members (2.25%)	No.	49	0.006	0.312	-	-	0.312	-	0.312
11.7.5	Livelihood Visioning (50%)	No.	1,084	0.002	2.059	-	-	2.059	-	2.059
Sub-total					**9.262**	**-**	**-**	**9.262**	**-**	**9.262**
11.8.	**Trainers Training programme**	LS	1	4.000	**4.000**	**-**	**-**	**4.000**	**-**	**4.000**
Sub- Total (11.1-11.8)					**113.574**	**-**	**-**	**113.574**	**-**	**113.574**
12	**Publicity and extension**									
12.1	Workshop/seminar	No.	1	4.000	4.000	-	-	4.000	-	4.000
12.2	Printing passbook/pamphlets	LS	NA		3.000	-	-	3.000	-	3.000
12.3	*Krishi mela*	No.	4	0.500	2.000	-	-	2.000	-	2.000
Sub-total					**9.000**	**-**	**-**	**9.000**	**-**	**9.000**
13	**Design Development & Diversification**	LS	NA		**-**	-	-	-	-	-
14	**Disease monitoring**	LS	NA		**8.000**	-	-	8.000	-	8.000
15	**Documentation and evaluation**	LS	NA		**5.000**	-	-	5.000	-	5.000
16	**Consultancy & Advocacy**	LS	NA		**10.000**	-	-	10.000	-	10.000
17	**Technology Extension and Business Development support**	LS	NA		**52.257**	-	-	52.257	-	52.257
18	**Project administrative expenses**	LS	NA		**52.257**	-	-	52.257	-	52.257
19	**Project Monitoring cost**	LS	NA		**15.677**	-	-	15.677	-	15.677
Sub- Total (12-19)					**152.191**	**-**	**-**	**152.191**	**-**	**152.191**
GRAND TOTAL					**1,165.329**	**31.550**	**68.188**	**814.665**	**250.925**	**1,065.590**
Percentage to total financial outlay					**41.88**	**2.71**	**5.85**	**69.91**	**21.53**	**91.44**

Annexure-8

Second Year Physical and Financial phasing

(Rs. in Lakhs)

Sl. No.	Component/ Activity	Unit	PHYSICAL	Unit cost (Lakhs)	FINANCIAL	SHARING PATTERN Yr-2				Project Grant
			Yr-2		Yr-2	Credit	Benefi-ciary	MORD	CSB	
1	**Raising of Block plantation**									
1.1	Raising Tasar host plantation	Hac.	194	0.447	86.799	-	17.255	22.983	46.560	69.543
1.2	Maintenance of host plant - 1st Year	Hac.	413	0.070	28.976	-	4.130	24.846	-	24.846
1.3	Maintenance of host plant - 2nd Year	Hac.	-	0.094	-	-	-	-	-	-
Sub-total					**115.775**	**-**	**21.385**	**47.830**	**46.560**	**94.390**
2	**Assistance to Nucleus Seed Rearer's**									
2.1	Supply of rearing equipments	No.	40	0.061	2.440	-	0.240	0.980	1.220	2.200
2.2	Supply of inputs for maintenance of block plantation	Hac.	56	0.095	5.292	-	0.370	2.276	2.646	4.922
2.3	Assistance for Tasar silkworm rearing	No.	80	0.024	1.910	0.960	0.176	0.274	0.500	0.774
2.4	Crop insurance	Dfls	16,000	0.000	0.326	-	-	0.163	0.163	0.326
2.5	Rearer's insurance	No.	80	0.000	0.025	-	-	0.012	0.012	0.025
Sub-total					**9.993**	**0.960**	**0.786**	**3.706**	**4.541**	**8.247**
3	**Assistance to Basic Seed Rearer's**									
3.1	Supply of rearing equipments	No.	335	0.061	20.435	-	2.010	8.208	10.218	18.425
3.2	Supply of inputs for maintenance of block plantation	Hac	400	0.095	37.838	-	2.643	16.276	18.919	35.195
3.3	Assistance for Tasar silkworm rearing	No.	572	0.024	13.657	6.864	1.259	1.959	3.575	5.534
3.4	Crop insurance	Dfls	114,400	0.000	2.160	-	-	1.080	1.080	2.160
3.5	Rearer's insurance	No.	572	0.000	0.177	-	-	0.089	0.089	0.177
Sub-total					**74.266**	**6.864**	**5.911**	**27.611**	**33.880**	**61.492**
4	**Assistance to Commercial Rearer's**									
4.1	Supply of rearing equipment	No.	2,587	0.061	157.807	-	15.522	77.610	64.675	142.285
4.2	Assistance for Tasar silkworm rearing	No.	4,417	0.020	88.450	53.004	24.294	11.153	-	11.153
4.3	Crop insurance	Dfls	883,400	0.000	18.004	-	-	9.002	9.002	18.004
4.4	Rearer's insurance	No.	4,417	0.000	1.369	-	-	0.685	0.685	1.369
Sub-total					**265.630**	**53.004**	**39.816**	**98.449**	**74.361**	**172.811**
5	**Assistance to Private Graineurs**									
5.1	Construction of grainage building	No.	84	1.000	84.352	-	4.218	33.741	46.393	80.134
5.2	Supply of grainage equipment	No.	84	0.420	35.428	-	-	17.714	17.714	35.427
5.3	Working capital	No.	84	0.350	29.523	8.436	5.060	1.266	14.761	16.027
5.4	Grainage consumables	No.	144	0.030	4.321	0.720	0.720	1.440	1.440	2.880
Sub-total					**153.624**	**9.156**	**9.998**	**54.160**	**80.308**	**134.468**
6	**Assistance to Basic Seed Production Units**									
6.1	Construction of grainage building	No.	-	36.343	-	-	-	-	-	-
6.2	Supply of grainage equipment	No.	-	2.944	-	-	-	-	-	-
6.3	Working capital	No.	-	2.975	-	-	-	-	-	-
6.4	Grainage consumables	No.	-	0.100	-	-	-	-	-	-
Sub-total					**-**	**-**	**-**	**-**	**-**	**-**

Second Year Physical and Financial phasing

(Rs. in Lakhs)

Sl. No.	Component/ Activity	Unit	PHYSICAL	Unit cost (Lakhs)	FINANCIAL	SHARING PATTERN Yr-2				Project Grant
			Yr-2		Yr-2	Credit	Benefi-ciary	MORD	CSB	
7	**Assistance to Rearer's Collectives**									
7.1	Cocoon storage facilities	No.	-	7.500	-	-	-	-	-	-
7.2	Common facilities	No.	-	0.373	-	-	-	-	-	-
Sub-total					**-**	**-**	**-**	**-**	**-**	**-**
8	**Assistance to Reeler's' Collectives**									
8.1	Supply of equipments	No.	4	12.077	48.306	-	-	35.706	12.600	48.306
8.2	Working capital	No.	4	7.500	30.000	25.386	-	-	4.615	4.615
8.3	Common facilities	No.	4	0.100	0.400	0.400	-	-	-	-
Sub-total					**78.706**	**25.786**	**-**	**35.706**	**17.215**	52.921
9	**Establishment of Cocoon Bank**	No.	1	**87.500**	**87.500**	-	-	87.500	-	**87.500**
10	**Establishment of Tasar Yarn Bank**	No.		**103.970**	**-**	-	-	-	-	**-**
Sub- Total (1-10)					**785.495**	**95.769**	**77.895**	**354.962**	**256.866**	**611.828**
11	**Human Resource Development**									
11.1.	Technical training of project personnel	No.	4	**0.100**	**0.400**	-	-	0.400	-	**0.400**
11.2.	**Technical training for Project Families for implementation of sericulture activities**									
11.2.1	Nursery farmers	No.	35	0.010	0.342	-	-	0.342	-	0.342
11.2.2	Nucleus Seed Rearer's	No.	40	0.011	0.455	-	-	0.455	-	0.455
11.2.3	Basic Seed Rearer's	No.	335	0.009	3.178	-	-	3.178	-	3.178
11.2.4	Private Graineurs	No.	84	0.125	10.505	-	-	10.505	-	10.505
11.2.5	Commercial Rearer's	No.	2,587	0.007	17.850	-	-	17.850	-	17.850
11.2.6	Reeler's	No.	100	0.173	17.308	-	-	17.308	-	17.308
11.2.7	Spinners	No.	40	0.173	6.923	-	-	6.923	-	6.923
11.2.8	Study tour/ Exposure visit	No.	805	0.009	7.594	-	-	7.594	-	7.594
Sub-total					**64.155**	-	-	64.155	-	**64.155**
11.3.	**Technical training for sectoral activities**									
11.3.1	Improved Agriculture	No.	3,186	0.003	10.442	-	-	10.442	-	10.442
11.3.2	vegetable cultivation	No.	637	0.002	1.392	-	-	1.392	-	1.392
11.3.3	Exposure of Project Families to improved practices	No.	797	0.003	2.748	-	-	2.748	-	2.748
Sub-total					**14.582**	**-**	**-**	**14.582**	**-**	**14.582**
11.4.	**Training of Community Resource Persons (CRPs) for extension of activities**									
11.4.1	Orientation and training on Tasar	No.	80	0.255	20.335	-	-	20.335	-	20.335
11.4.2	Exposure to improved practices	No.	40	0.016	0.618	-	-	0.618	-	0.618
11.4.3	Technical and Refresher Training	No.	80	0.013	1.017	-	-	1.017	-	1.017
Sub-total					**21.970**	**-**	**-**	**21.970**	**-**	**21.970**
11.5.	**On-field training / handholding provided by CRPs to the Project Families**									
11.5.1	Tasar Silkworm Rearing	No.	2,962	0.007	21.289	-	-	21.289	-	21.289
11.5.2	Tasar Seed Production	No.	84	0.009	0.725	-	-	0.725	-	0.725
11.5.3	Est. of Community Arjuna Nursery	No.	35	0.014	0.503	-	-	0.503	-	0.503
11.5.4	Tasar raw silk production	No.	100	0.029	2.875	-	-	2.875	-	2.875

Second Year Physical and Financial phasing

(Rs. in Lakhs)

Sl. No.	Component/ Activity	Unit	PHYSICAL	Unit cost (Lakhs)	FINANCIAL	SHARING PATTERN Yr-2				Project Grant
			Yr-2		Yr-2	Credit	Benefi-ciary	MORD	CSB	
11.5.5	Tasar spun silk production	No.	40	0.029	1.150	-	-	1.150	-	1.150
11.5.6	Improved agriculture	No.	3,186	0.004	13.740	-	-	13.740	-	13.740
11.5.7	Vegetable cultivation	No.	637	0.002	1.319	-	-	1.319	-	1.319
Sub-total					**41.601**	**-**	**-**	**41.601**	**-**	**41.601**
11.6.	**Institution building of Producer Collectives**									
11.6.1	Membership training	No.	3,186	0.007	21.983	-	-	21.983	-	21.983
11.6.2	Leadership/ Governance Training	No.	159	0.026	4.122	-	-	4.122	-	4.122
11.6.3	Exposure of Board members & staff	No.	36	0.052	1.852	-	-	1.852	-	1.852
Sub-total					**27.957**	**-**	**-**	**27.957**	**-**	**27.957**
11.7.	**Nurturing of New Self-Help-Groups (SHGs)**									
11.7.1	Membership training (25%)	No.	797	0.005	3.664	-	-	3.664	-	3.664
11.7.2	Leadership Training (20%)	No.	637	0.007	4.460	-	-	4.460	-	4.460
11.7.3	Book keeping Training (7.5%)	No.	239	0.008	2.007	-	-	2.007	-	2.007
11.7.4	Exposure of Cluster & Federation Members (2.25%)	No.	72	0.006	0.459	-	-	0.459	-	0.459
11.7.5	Livelihood Visioning (50%)	No.	1,593	0.002	3.027	-	-	3.027	-	3.027
Sub-total					**13.617**	**-**	**-**	**13.617**	**-**	**13.617**
11.8.	**Trainers Training programme**	LS	-	4.000	**-**	**-**	**-**	**-**	**-**	**-**
Sub- Total (11.1-11.8)					**184.282**	**-**	**-**	**184.282**	**-**	**184.282**
12	**Publicity and extension**									
12.1	Workshop/seminar	No.		4.000	-	-	-	-	-	-
12.2	Printing passbook/pamphlets	LS	NA		2.000	-	-	2.000	-	2.000
12.3	*Krishi mela*	No.	3	0.500	1.500	-	-	1.500	-	1.500
Sub-total					**3.500**	**-**	**-**	**3.500**	**-**	**3.500**
13	**Design Development & Diversification**	LS	NA		**10.000**	-	-	10.000	-	10.000
14	**Disease monitoring**	LS	NA		**4.000**	-	-	4.000	-	4.000
15	**Documentation and evaluation**	LS	NA		**10.000**	-	-	10.000	-	10.000
16	**Consultancy & Advocacy**	LS	NA		**15.000**	-	-	15.000	-	15.000
17	**Technology Extension and Business Development support**	LS	NA		**50.664**	-	-	50.664	-	50.664
18	**Project administrative expenses**	LS	NA		**50.664**	-	-	50.664	-	50.664
19	**Project Monitoring cost**	LS	NA		**15.199**	-	-	15.199	-	15.199
Sub- Total (12-19)					**159.027**	**-**	**-**	**159.027**	**-**	**159.027**
GRAND TOTAL					**1,128.804**	**95.769**	**77.895**	**698.271**	**256.866**	**955.137**
Percentage to total financial outlay					**40.566**	**8.48**	**6.90**	**61.86**	**22.76**	**84.61**

Annexure-9

Third Year Physical and Financial phasing

(Rs. in Lakhs)

Sl. No.	Component/ Activity	Unit	PHYSICAL	Unit cost (Lakhs)	FINANCIAL	SHARING PATTERN Yr-3				Project Grant
			Yr-3		Yr-3	Credit	Benefi-ciary	MORD	CSB	
1	**Raising of Block plantation**									
1.1	Raising Tasar host plantation	Hac.	-	0.447	-	-	-	-	-	-
1.2	Maintenance of host plant - 1st Year	Hac.	194	0.070	13.611	-	1.940	11.671	-	11.671
1.3	Maintenance of host plant - 2nd Year	Hac.	607	0.094	56.976	-	8.619	48.356	-	48.356
Sub-total					**70.587**	**-**	**10.559**	**60.027**	**-**	**60.027**
2	**Assistance to Nucleus Seed Rearer's**									
2.1	Supply of rearing equipments	No.	-	0.061	-	-	-	-	-	-
2.2	Supply of inputs for maintenance of block plantation	Hac.	56	0.095	5.292	-	0.370	2.276	2.646	4.922
2.3	Assistance for Tasar silkworm rearing	No.	80	0.024	1.910	0.960	0.176	0.274	0.500	0.774
2.4	Crop insurance	Dfls	16,000	0.000	0.326	-	-	0.163	0.163	0.326
2.5	Rearer's insurance	No.	80	0.000	0.025	-	-	0.012	0.012	0.025
Sub-total					**7.553**	**0.960**	**0.546**	**2.726**	**3.321**	**6.047**
3	**Assistance to Basic Seed Rearer's**									
3.1	Supply of rearing equipments	No.	123	0.061	7.503	-	0.738	3.014	3.752	6.765
3.2	Supply of inputs for maintenance of block plantation	Hac	313	0.095	29.560	-	2.065	12.716	14.780	27.496
3.3	Assistance for Tasar silkworm rearing	No.	581	0.024	13.871	6.972	1.279	1.990	3.631	5.621
3.4	Crop insurance	Dfls	116,210	0.000	2.194	-	-	1.097	1.097	2.194
3.5	Rearer's insurance	No.	581	0.000	0.180	-	-	0.090	0.090	0.180
Sub-total					**53.309**	**6.972**	**4.081**	**18.906**	**23.350**	**42.256**
4	**Assistance to Commercial Rearer's**									
4.1	Supply of rearing equipment	No.	950	0.061	57.959	-	5.701	28.504	23.754	52.258
4.2	Assistance for Tasar silkworm rearing	No.	4,487	0.020	89.858	53.847	24.680	11.330	-	11.330
4.3	Crop insurance	Dfls	897,457	0.000	18.290	-	-	9.145	9.145	18.290
4.4	Rearer's insurance	No.	4,487	0.000	1.391	-	-	0.696	0.696	1.391
Sub-total					**167.498**	**53.847**	**30.381**	**49.675**	**33.594**	**83.269**
5	**Assistance to Private Graineurs**									
5.1	Construction of grainage building	No.	31	1.000	30.981	-	1.549	12.392	17.039	29.431
5.2	Supply of grainage equipment	No.	31	0.420	13.012	-	-	6.506	6.506	13.012
5.3	Working capital	No.	31	0.350	10.843	3.098	1.858	0.465	5.422	5.886
5.4	Grainage consumables	No.	146	0.030	4.389	0.732	0.732	1.463	1.463	2.926
Sub-total					**59.225**	**3.830**	**4.139**	**20.826**	**30.429**	**51.255**
6	**Assistance to Basic Seed Production Units**									
6.1	Construction of grainage building	No.	-	36.343	-	-	-	-	-	-
6.2	Supply of grainage equipment	No.	-	2.944	-	-	-	-	-	-
6.3	Working capital	No.	-	2.975	-	-	-	-	-	-
6.4	Grainage consumables	No.	-	0.100	-	-	-	-	-	-
Sub-total					**-**	**-**	**-**	**-**	**-**	**-**

Third Year Physical and Financial phasing

(Rs. in Lakhs)

Sl. No.	Component/ Activity	Unit	PHYSICAL	Unit cost (Lakhs)	FINANCIAL	SHARING PATTERN Yr-3				Project Grant
			Yr-3		Yr-3	Credit	Benefi-ciary	MORD	CSB	
7	**Assistance to Rearer's Collectives**									
7.1	Cocoon storage facilities	No.	-	7.500	-	-	-	-	-	-
7.2	Common facilities	No.	-	0.373	-	-	-	-	-	-
Sub-total					**-**	**-**	**-**	**-**	**-**	**-**
8	**Assistance to Reeler's' Collectives**									
8.1	Supply of equipments	No.	-	12.077	-	-	-	-	-	-
8.2	Working capital	No.	-	7.500	-	-	-	-	-	-
8.3	Common facilities	No.	-	0.100	-	-	-	-	-	-
Sub-total					**-**	**-**	**-**	**-**	**-**	-
9	**Establishment of Cocoon Bank**	No.		**87.500**	**-**	-	-	-	-	**-**
10	**Establishment of Tasar Yarn Bank**	No.		**103.970**	**-**	-	-	-	-	**-**
Sub- Total (1-10)					**358.171**	**65.609**	**49.706**	**152.160**	**90.695**	**242.855**
11	**Human Resource Development**									
11.1.	Technical training of project personnel	No.	-	**0.100**	**-**	-	-	-	-	**-**
11.2.	**Technical training for Project Families for implementation of sericulture activities**									
11.2.1	Nursery farmers	No.	-	0.010	-	-	-	-	-	-
11.2.2	Nucleus Seed Rearer's	No.	-	0.011	-	-	-	-	-	-
11.2.3	Basic Seed Rearer's	No.	123	0.009	1.167	-	-	1.167	-	1.167
11.2.4	Private Graineurs	No.	31	0.125	3.877	-	-	3.877	-	3.877
11.2.5	Commercial Rearer's	No.	950	0.007	6.556	-	-	6.556	-	6.556
11.2.6	Reeler's	No.	-	0.173	-	-	-	-	-	-
11.2.7	Spinners	No.	-	0.173	-	-	-	-	-	-
11.2.8	Study tour/ Exposure visit	No.	276	0.009	2.603	-	-	2.603	-	2.603
Sub-total					**14.203**	-	-	14.203	-	**14.203**
11.3.	**Technical training for sectoral activities**									
11.3.1	Improved Agriculture	No.	1,104	0.003	3.619	-	-	3.619	-	3.619
11.3.2	vegetable cultivation	No.	221	0.002	0.483	-	-	0.483	-	0.483
11.3.3	Exposure of Project Families to improved practices	No.	276	0.003	0.952	-	-	0.952	-	0.952
Sub-total					**5.054**	**-**	**-**	**5.054**	**-**	**5.054**
11.4.	**Training of Community Resource Persons (CRPs) for extension of activities**									
11.4.1	Orientation and training on Tasar	No.	28	0.255	7.047	-	-	7.047	-	7.047
11.4.2	Exposure to improved practices	No.	14	0.016	0.214	-	-	0.214	-	0.214
11.4.3	Technical and Refresher Training	No.	28	0.013	0.352	-	-	0.352	-	0.352
Sub-total					**7.614**	**-**	**-**	**7.614**	**-**	**7.614**
11.5.	**On-field training / handholding provided by CRPs to the Project Families**									
11.5.1	Tasar Silkworm Rearing	No.	1,073	0.007	7.713	-	-	7.713	-	7.713
11.5.2	Tasar Seed Production	No.	31	0.009	0.267	-	-	0.267	-	0.267
11.5.3	Est. of Community Arjuna Nursery	No.	-	0.014	-	-	-	-	-	-
11.5.4	Tasar raw silk production	No.	-	0.029	-	-	-	-	-	-

Third Year Physical and Financial phasing

(Rs. in Lakhs)

Sl. No.	Component/ Activity	Unit	PHYSICAL	Unit cost (Lakhs)	FINANCIAL	SHARING PATTERN Yr-3				Project Grant
			Yr-3		Yr-3	Credit	Benefi-ciary	MORD	CSB	
11.5.5	Tasar spun silk production	No.	-	0.029	-	-	-	-	-	-
11.5.6	Improved agriculture	No.	1,104	0.004	4.762	-	-	4.762	-	4.762
11.5.7	Vegetable cultivation	No.	221	0.002	0.457	-	-	0.457	-	0.457
Sub-total					**13.199**	**-**	**-**	**13.199**	**-**	**13.199**
11.6.	**Institution building of Producer Collectives**									
11.6.1	Membership training	No.	1,104	0.007	7.619	-	-	7.619	-	7.619
11.6.2	Leadership/ Governance Training	No.	55	0.026	1.428	-	-	1.428	-	1.428
11.6.3	Exposure of Board members & staff	No.	12	0.052	0.642	-	-	0.642	-	0.642
Sub-total					**9.689**	**-**	**-**	**9.689**	**-**	**9.689**
11.7.	**Nurturing of New Self-Help-Groups (SHGs)**									
11.7.1	Membership training (25%)	No.	276	0.005	1.270	-	-	1.270	-	1.270
11.7.2	Leadership Training (20%)	No.	221	0.007	1.546	-	-	1.546	-	1.546
11.7.3	Book keeping Training (7.5%)	No.	83	0.008	0.696	-	-	0.696	-	0.696
11.7.4	Exposure of Cluster & Federation Members (2.25%)	No.	25	0.006	0.159	-	-	0.159	-	0.159
11.7.5	Livelihood Visioning (50%)	No.	552	0.002	1.049	-	-	1.049	-	1.049
Sub-total					**4.719**	**-**	**-**	**4.719**	**-**	**4.719**
11.8.	**Trainers Training programme**	LS	-	4.000	**-**	**-**	**-**	**-**	**-**	**-**
Sub- Total (11.1-11.8)					**54.478**	**-**	**-**	**54.478**	**-**	**54.478**
12	**Publicity and extension**									
12.1	Workshop/seminar	No.	1	4.000	4.000	-	-	4.000	-	4.000
12.2	Printing passbook/pamphlets	LS	NA			-	-	-	-	-
12.3	*Krishi mela*	No.	3	0.500	1.500	-	-	1.500	-	1.500
Sub-total					**5.500**	**-**	**-**	**5.500**	**-**	**5.500**
13	**Design Development & Diversification**	LS	NA		**-**	-	-	-	-	-
14	**Disease monitoring**	LS	NA		**-**	-	-	-	-	-
15	**Documentation and evaluation**	LS	NA		**5.000**	-	-	5.000	-	5.000
16	**Consultancy & Advocacy**	LS	NA		**15.000**	-	-	15.000	-	15.000
17	**Technology Extension and Business Development support**	LS	NA		**21.907**	-	-	21.907	-	21.907
18	**Project administrative expenses**	LS	NA		**21.907**	-	-	21.907	-	21.907
19	**Project Monitoring cost**	LS	NA		**6.572**	-	-	6.572	-	6.572
Sub- Total (12-19)					**75.887**	**-**	**-**	**75.887**	**-**	**75.887**
GRAND TOTAL					**488.536**	**65.609**	**49.706**	**282.525**	**90.695**	**373.220**
Percentage to total financial outlay					**17.556**	**13.43**	**10.17**	**57.83**	**18.56**	**76.40**

Annexure-10

Unit Cost for Raising Block Plantation

(Unit: 1 Hac with Plant Spacing of 10ft x 6 ft.)							
A	**Unit Cost Estimate of Raising 1 Hac of Tasar Plantations**						
Sl	**Particulars**	**Unit**	**Number**	**Rs/unit**	**Total (Rs)**	**Contribution (Rs)**	**Grant (Rs)**
1	Cost Asan and Arjuna of seedlings including 10% mortality	No.	2,173	3.00	6,519	0	6,519
2	Soil conservation						
a	Staggered trench (6ft x2ft x 2ft)	No.	279	33.60	9,374	2,344	7,031
b	Cattle proof trench	cft	7,500	1.40	10,500	2,625	7,875
3	Pit digging (1.5ftx1.5ftx1ft)	No.	1,975	3.15	6,222	1,556	4,667
4	Cost of vermin-composts @ 400/ plant	Kg	790	5.00	3,951	0	3,951
5	Anti-termite treatment		LS		250	0	250
6	Transplantation of seedling	No.	1,975	1.50	2,963	1,185	1,778
7	Basin formation and weeding	No.	1,975	1.50	2,963	1,185	1,778
8	Intercropping	LS			2,000	0	2,000
	Total				**44,742**	**8,895**	**35,847**
B.1	**Unit Cost Estimate for the Maintenance of 1 Hac of Tasar Plantations in the 2nd. year**						
Sl	**Particulars**	**Unit**	**Number**	**Rs/unit**	**Total**	**Contribution (Rs)**	**Grant**
1	1st. Hoeing and basin formation in the 2nd. Year	No.	1,975	1.50	2,963	1,185	1,778
2	Spraying of neem based insecticide	LS			300	0	300
3	Cost of mixed fertilizer (N -12:P- 32:K -16)	KG	98.77	18	1,778	0	1,778
4	2nd. Hoeing in the 2nd. Year	No.	1975	1.00	1,975	790	1,185
	Sub-Total				**7,016**	**1,975**	**5,041**
B.2	**Unit Cost Estimate for the Maintenance of 1 Hac of Tasar Plantations in the 3rd. year**						
Sl	**Particulars**		**Input**	**Rs/unit**	**Total**		**Grant**
1	1st. Hoeing in the 3rd Year	No.	1975	1.60	3,160	1,264	1,896
2	Spraying of neem based insecticide	LS			300	0	300
3	Cost of mixed fertilizer (N -12:P- 32:K -16)	Kg	197.53	18	3,556	0	3,556
4	2nd. Hoeing in the 2nd. Year	No.	1975	1.20	2,370	948	1,422
Sub-Total					**9,386**	**2,212**	**7,174**
Maintenance total					**16,402**	**4,188**	**12,215**
Total of raising and maintenance					**61,144**	**13,082**	**48,062**
Percentage sharing						*21*	*79*

SHARING	Credit	Benef.	MORD	CSB	Total
Raising of Tasar host plants	0	8,895	11,847	24,000	44,742
Percentage	*0.0*	*19.9*	*26.5*	*53.6*	*100.00*
Maintenance in the 2nd year	0	1,000	6,016	0	7,016
Percentage	*0.0*	*14.3*	*85.7*	*0.0*	*100.00*
Maintenance in the 3rd year	0	1,420	7,966	0	9,386
Percentage	*0.0*	*15.1*	*84.9*	*0.0*	*100.00*
Total	**0**	**11,315**	**25,830**	**24,000**	**61,144**
	0.0	***18.5***	***42.2***	***39.3***	***100.0***

CDP unit cost – 40,000 (60% CSB share)

Annexure-11

Unit Cost for Nucleus Seed Rearer's (NSRs)

(Capacity: 200 dfls)

Sl. No.	Particulars	Unit	Input	Labour	Rate (Rs.)	Amount (Rs)
A	**Rearing Equipment**					
1	Secateurs/ Looping Shear	No.	2		500	1,000
2	Low volume sprayer (one for 10 rearer's)	No.	1		500	500
3	Nylon net (40'x30'x10')	No.	1		4,000	4,000
4	Bamboos	No.	12		50	600
	Sub-total					***6,100***
B	**Maintenance of Tasar host plants (0.7 Hac)**					
5	Cost of fertilizers NPK mixture for 2100 plants @200gm/plant	Kg	420		18	7,560
6	Cost of insecticides for foliar spray	LS				240
7	Cultural operations	LS				1,650
	Sub-total					***9,450***
C	**Tasar Silkworm Rearing**					
8	Cost of Tasar silkworm dfls	No.	200		6	1,200
9	Slaked Lime	kg	50		8.00	400
10	Bleaching Powder	kg	5		35.00	175
11	Sodium Hypo chloride	kg	0.5		125.00	63
12	Spraying of Sodium Hypo chloride	LS				550
	Sub-total					***2,388***
	TOTAL					**17,938**

SHARING	Credit	Benef.	MORD	CSB	Total
Rearing Equipment	0	600	2,450	3,050	6,100
Percentage	*0.0*	*9.8*	*40.2*	*50.0*	*100.0*
Maintenance of host plants	0	660	4,065	4,725	9,450
Percentage	*0.0*	*7.0*	*43.0*	*50.0*	*100.0*
Tasar Silkworm Rearing	1,200	220	343	625	2,388
Percentage	*50.3*	*9.2*	*14.3*	*26.2*	*100.0*
Total	**1,200**	**1,480**	**6,858**	**8,400**	**17,938**
Percentage	***6.7***	***8.3***	***38.2***	***46.8***	***100.0***

CDP unit cost- 16,800/- (50% csb share)

Annexure-12

Unit Cost for Basic Seed Rearer's (BSRs)

(Capacity: 200 dfls)

Sl. No.	Particulars	Unit	Input	Labour	Rate (Rs.)	Amount (Rs)
A	**Rearing Equipment**					
1	Secateurs/ Looping Shear	No.	2		500	1,000
2	Low volume sprayer (one for 10 rearer's)	No.	1		500	500
3	Nylon net (40'x30'x10')	No.	1		4,000	4,000
4	Bamboos	No.	12		50	600
	Sub-total					***6,100***
B	**Maintenance of Tasar host plants (0.7 Hac)**					
5	Cost of fertilizers NPK mixture for 2100 plants @200gm/plant	Kg	420		18	7,560
6	Cost of insecticides for foliar spray	LS				240
7	Cultural operations	LS				1,650
	Sub-total					***9,450***
C	**Tasar Silkworm Rearing**					
8	Cost of Tasar silkworm dfls	No.	200		6	1,200
9	Slaked Lime	kg	50		8.00	400
10	Bleaching Powder	kg	5		35.00	175
11	Sodium Hypo chloride	kg	0.5		125.00	63
12	Spraying of Sodium Hypo chloride	LS				550
	Sub-total					***2,388***
	TOTAL					**17,938**

SHARING	Credit	Benef.	MORD	CSB	Total
Rearing Equipment	0	600	2,450	3,050	6,100
Percentage	*0.0*	*9.8*	*40.2*	*50.0*	*100.0*
Maintenance of host plants	0	660	4,065	4,725	9,450
Percentage	*0.0*	*7.0*	*43.0*	*50.0*	*100.0*
Tasar Silkworm Rearing	1,200	220	343	625	2,388
Percentage	*50.3*	*9.2*	*14.3*	*26.2*	*100.0*
Total	**1,200**	**1,480**	**6,858**	**8,400**	**17,938**
Percentage	***6.7***	***8.3***	***38.2***	***46.8***	***100.0***

CDP unit cost- 16,800/- (50% csb share)

Annexure-13

Unit Cost for Rearing Equipment and Silkworm rearing for Commercial rearer's

(Capacity: 200 dfls)

Sl. No.	Particulars	Unit	Input	Rate (Rs.)	Amount (Rs)
A	**Rearing Equipment**				
1	Secateurs/ Looping Shear	No.	2	500	1,000
2	Low volume sprayer (one for 10 rearer's)	No.	1	500	500
3	Nylon net (40'x30'x10')	No.	1	4,000	4,000
4	Bamboos	No.	12	50	600
	Sub-total				***6,100***
B	**Tasar Silkworm Rearing**				
5	Cost of Tasar silkworm dfls	No.	200	6	1,200
6	Bleaching Powder & Lime (1:9)	kg	20	6.00	120
7	Bleaching Powder	kg	2	35.00	70
8	Sodium Hypo chloride	kg	0.5	125.00	63
9	Spraying of Sodium Hypo chloride	LS			550
	Sub-total				***2,003***
	TOTAL				**8,103**

SHARING	Credit	Benef.	MORD	CSB	Total
Rearing Equipment	0	600	3,000	2,500	6,100
Percentage	*0*	*9.836*	*49.2*	*41.0*	*100.00*
Tasar Silkworm Rearing	1,200	550	253	0	2,003
Percentage	*59.93*	*27.47*	*12.6*	*0.0*	*100.00*
Total	**1,200**	**1,150**	**3,253**	**2,500**	**8,103**
Percentage	***14.8***	***14.2***	***40.1***	***30.9***	***100.0***

CDP unit cost- 10,800/- (25% csb share)

Annexure-14

Unit Cost for Tasar Private Graineurs (Capacity: 25,000 cocoons)

Sl.No	Particulars	Unit	Input	Rate (Rs.)	Amount (Rs.)
A.	**Construction of grainage building (25'x12' with verandah)**	**No.**	**1**	**100,000**	**100,000**
B.	**Grainage Equipments**				
1	Microscope with light arrangement	No.	2	5,000	10,000
2	Egg laying boxes/ Nylon net bags	No.	3,000	4	12,000
3	Egg laying cabinet	No.	1	6,500	6,500
4	Wooden Moth Testing Table (5ft x 1.5ft)	No.	1	4,000	4,000
5	Stools	No.	2	750	1,500
6	Plastic drum (60 liters)	No.	1	1,100	1,100
7	Plastic bucket	No.	5	200	1,000
8	Plastic tub (small)	No.	5	150	750
9	Plastic tub (20 liters)	No.	5	300	1,500
10	Plastic mug	No.	5	50	250
11	Mortar & Pestle	No.	5	320	1,600
12	Measuring Cylinder (Plastic)	No.	1	300	300
13	Weighing balance	No.	1	1,500	1,500
	Sub-total				***42,000***
C.	**Consumables & Working Capital**				
1	Cost of seed cocoons	LS			35,000
2	Consumables	LS			3,000
	Sub-total				***38,000***
	TOTAL				**180,000**

SHARING	Credit	Benef.	MORD	CSB	Total
Grainage building	0	5,000	40,000	55,000	100,000
Percentage	*0*	*5.0*	*40.0*	*55.0*	*100.00*
Grainage equipment	0	0	21,000	21,000	42,000
Percentage	*0*	*0.0*	*50.0*	*50.0*	*100.00*
Working capital	10,000	6,000	1,500	17,500	35,000
Percentage	*28.6*	*17.1*	*4.3*	*50.0*	*100.00*
Consumables	500	500	1,000	1,000	3,000
Percentage	*16.7*	*16.7*	*33.3*	*33.3*	*100.00*
Total	**10,500**	**11,500**	**63,500**	**94,500**	**180,000**
Percentage	***5.8***	***6.4***	***35.3***	***52.5***	***100.0***

CDP unit cost- 230,000/- (50% csb share)

Annexure-15

Unit Cost for Basic Seed Production Unit (Capacity: 1,50,000 cocoons)

Sl.No	Particulars	Unit	Input	Rate (Rs.)	Amount (Rs.)
A.	Construction of grainage building: ground floor - 2433 sq. ft with all-round verandah and 1st floor - 1335 sq. ft along with septic tank, generator room	**1**		**3,434,250**	**3,434,250**
B.	**Boundary wall**	**LS**		**200,000**	**200,000**
C.	**Grainage Equipments**				
1	Microscope with light arrangement	No.	10	4,000	40,000
2	Egg laying boxes	No.	15,000	4	52,500
3	Egg laying cabinet	No.	2	6,500	13,000
4	Wooden Moth Testing Table	No.	5	2,500	12,500
5	Wooden chair (with arms)	No.	10	1,000	10,000
6	Gator sprayer	No.	1	5,000	5,000
7	Plastic drum	No.	4	850	3,400
8	Plastic bucket	No.	10	200	2,000
9	Plastic tub (small)	No.	10	100	1,000
10	Plastic tub (big)	No.	20	250	5,000
11	Mortar & Pestle	No.	100	320	32,000
12	Measuring Cylinder (Plastic)	No.	2	200	400
13	Dry - Wet Thermometer	No.	2	800	1,600
14	Electronic Weighing balance	No.	1	14,000	14,000
15	Humidifier	No.	1	6,000	6,000
16	Egg drying chamber	No.	1	6,000	6,000
17	Centrifuge	No.	1	25,000	25,000
18	Generator	No.	1	55,000	55,000
19	Miscellaneous (office furniture)	LS			10,000
	Sub-total				***294,400***
D	**Consumables & Working Capital**				
1	Cost of seed cocoons	No.	150,000	1.65	247,500
2	Operational cost	LS			50,000
3	Consumables	LS			10,000
	Sub-total				***307,500***
	TOTAL				**4,236,150**

SHARING	Credit	Benef.	MORD	CSB	Total
Construction and boundary wall	0	0	3,484,250	150,000	3,634,250
Percentage	*0.0*	*0*	*95.9*	*4.1*	*100.00*
Grainage equipment	0	0	294,400	0	294,400
Percentage	*0.0*	*0*	*100.0*	*0.0*	*100.00*
Consumable & working capital	0	0	307,500	0	307,500
Percentage	*0.0*	*0*	*100.0*	*0.0*	*100.00*
Total	**0**	**0**	**4,086,150**	**150,000**	**4,236,150**
Percentage	***0.0***	***0.0***	***96.5***	***3.5***	***100.0***

CDP unit cost- 384,000/- (70% csb share) - provision is for state PPC strengthening 269,290

Annexure-16

Unit Cost for Rearer's' Collective

Particulars	Unit	Input	Rate	Amount
1. Construction of Cocoon Storage & Office room	1		750,000	750,000
Sub-total				**750,000**
2. Equipments				
Electrical wiring and lightning arrester	1		10,000	10,000
Almirah	No.	1	6,000	6,000
Wooden table	No.	1	1,500	1,500
Chairs	No.	5	400	2,000
Wooden bench	No.	1	1,500	1,500
White Board	No.	1	2,500	2,500
Dari for meeting & training	No.	2	2,400	4,800
Utensils for training purpose	LS			3,000
Insurance & Miscellaneous	LS			6,000
Sub-total				***37,300***
TOTAL				**787,300**

SHARING	Credit	Benef.	MORD	CSB	Total
Storage & office room	0	0	600,000	150,000	750,000
Percentage	*0*	*0.0*	*80.0*	*20.0*	*100.00*
Equipments	0	0	37,300	0	37,300
Percentage	*0*	*0.0*	*100.0*	*0.0*	*100.00*
Total	**0**	**0**	**637,300**	**150,000**	**787,300**
Percentage	***0.0***	***0.0***	***80.9***	***19.1***	***100.0***

CDP unit cost- 225,000/- (60% csb share)

Annexure-17

Unit Cost for Common Facility Centre for reeler's and spinners

Particulars	Unit	Input	Rate	Amount (Rs)
1. Work shed and storage room	1		500,000	0
2. Equipments				
Reeling-cum-twisting machines	No.	25	19,000	475,000
Re-reeling machine	No.	10	3,500	35,000
Spinning wheel	No.	10	5,000	50,000
Solar set	No.	25	25,000	625,000
Weighing balance	No.	1	1,500	1,500
Almirah	No.	1	5,000	5,000
Table	No.	1	1,500	1,500
Chairs	No.	4	350	1,400
Stools	No.	25	250	6,250
Insurance & maintenance	lump sum			7,000
Sub-total				***1,207,650***
3. Working capital for 3 months	lump sum			750,000
4. Consumables	lump sum			10,000
Sub-total				***760,000***
TOTAL				**1,967,650**

SHARING	Benef.	Credit	MORD	CSB	Total
Equipments	0	0	892,650	315,000	1,207,650
Percentage	*0.0*	*0.00*	*73.9*	*26.1*	*100.00*
Working capital	0	634,615	0	115,385	750,000
Percentage	*0.0*	*84.6*	*0.0*	*15.4*	*100.00*
Consumables	0	10,000	0	0	10,000
Percentage	*0.0*	*100.0*	*0.0*	*0.0*	*100.00*
Total	0	644,615	892,650	430,385	1,967,650
Percentage	0	32.76	45.37	21.87	100

Annexure-18

Unit Cost of a Tasar Cocoon Bank						
A. Infrastructure (One time Grant)						
Sl	**Particulars**	**No of units**	**Floor Area**	**Unit**	**Unit cost (Rs)**	**Amount (Rs)**
1	Cost of land for go down	1	3,000	sq ft	75,000	75,000
2	Cocoon Go down superstructure (No)	1	1,300	sq ft	1,300,000	1,300,000
3	Interior Iron rack	1			200,000	200,000
4	Cocoon drying Floor (No)	1	900	sq ft	90,000	90,000
5	Stifling Chambers (*Ushna Kothi*) - No	2	300	sq ft	300,000	600,000
Sub-Total						**2,265,000**
B. Requirement of one time Revolving Capital Grant Support						
1	Purchase price of Tasar reelable cocoons (No of pieces)			4,000,000	1.50	6,000,000
2	Other Direct cost of purchase, stifling, packaging etc			4,000,000	0.14	560,000
3	Insurance of stock at go down					35,000
4	Cost on go down in charge (1 person)			4,000	12	48,000
5	Other overheads					2,000
Sub-Total						**6,645,000**
Total						**8,750,000**

Annexure-19

Unit Cost of a Tasar Silk Yarn Bank				
A. Equipments (One time Grant)				
Sl	**Particulars**	**No of units**	**Unit cost (Rs)**	**Amount (Rs)**
1	Electronic weigh machine	1	15,000	15,000
2	Yarn sorting machines	1	25,000	25,000
3	Yarn racks with 120 kg capacity each (yarn storage)	12	6,000	72,000
	Sub-Total			**112,000**
B. Requirement of one time Revolving Capital Grant Support				
1	Purchase price of Tasar reeled yarns (Kgs)	2,000	2,650	5,300,000
2	Purchase price of Tasar spun yarns (Kgs)	3,000	1,600	4,800,000
3	Grading and sorting costs	8,000	2.5	20,000
4	Cost of poly pack (Rs/Kg yarns)	8,000	1	8,000
5	Insurance of stock at go down			35,000
6	Rent of the go down	4,000	12	48,000
7	Cost of go down in charge	6,000	12	72,000
8	Other overheads			2,000
	Sub-Total			**10,285,000**
Total				**10,397,000**
Total cost of Reeled yarn/ Kg yarn (Rs/Kg yarn)				**2,687**
Total cost of spun yarn/ Kg yarn (Rs/Kg yarn)				**1,637**
Sale price of reeled yarns (Rs / Kg yarn)				**2,700**
Sale price of spun yarns (Rs / Kg yarn)				**1,650**
Surplus to meet contingencies (Rs)				**65,000**

Annexure-20

Project Out Put (Within Project Period)

Sl.No.	Output	Physical		
		Year-1	Year-2	Year-3
1	Commercial dfls produced (lakhs)	1.75	5.00	7.00
2	Total raw silk production (kg)	8,237	20,640	33,416
3	Total Tasar spun silk production (kg)	2,887	7,440	11,402
		2,887	7,440	11,402

Sl.No.	Output	Financial (Rs. in lakhs)		
		Year-1	Year-2	Year-3
1	Commercial dfls (lakhs)	10.50	30.00	42.00
2	Raw Silk	230.63	577.92	935.65
3	Tasar Spun silk (MT)	34.65	89.28	136.82
TOTAL		275.78	697.20	1,114.48

Annexure-21

Cost Economics of Raising Kisan Nursery (Group Activity)

Period- 4 Months

Salient Features of the activity - Raising of Seedlings of Tasar host plants		
1	Capacity per Kisan nursery (No. of seeds)	70,000
2	Number of cycles per year	1
3	Extent of block plantations of Tasar host plants/ Rearer	25
4	Number of seedlings survived/ nursery (No.)	55,000
5	Quantity of arjuna seeds required (Kg.)	200
Profit and Loss Account		
1	Cost of arjuna seed (Rs.)	800
2	Cost of Labour for raising nursery (Rs.)	28,485
3	Input costs and incidental expenditure (Rs.)	36,965
4	Knapsack Sprayer (Rs.)	5,000
5	Shade net (Rs.)	17,500
6	Interest on working capital loan @ 12% for 4 months	3,975
Total Expenditure (Rs.)		**92,725**
Income (Rs.)		
1	Sale of seedlings @ Rs.3/-	165,000
Total Income (Rs.)		**165,000**
Gross Profit (Rs.)		**72,275**

Annexure-22

Cost Economics of Commercial Rearing by individual Rearer

Salient features of Silkworm rearing		
1	Host plant availability	Forest plantation
2	DFLs required by an individual for full capacity utilization	200
3	Number of rearing cycle per year	1
4	Reel able cocoon productivity per DFL	50
6	Duration of rearing cycle in the commercial crop (days)	60 - 65
7	Price of 1 unit of DFL (Rs.)	6.00
8	Average price of 1 piece of whole cocoon (Rs.)	2.00
9	Capital Investment (Rs.):	
10	Equipments and accessories	
	Cost of 1 nylon nets @ Rs.3500/net	3,500
	Sprayer & secateurs	800
	Total Capital Investment (Rs.)	**4,300**
11	Depreciation on Assets (Rs.):	
	Equipments and accessories @ 10% of the value/ annum	430
	Total Depreciation (Rs.)	**430**
Profit and Loss Account of 1 cycle of Silkworm Rearing		
Expenditure (Rs.)		
Cost of DFLs (Rs.)		1,200
Cost of prophylactic measures		250
Plant maintenance		500
Total Expenditure (Rs.)		**1,950**
Income (Rs.)		
Sale of 10,000 Cocoons (200 DFLs *50 cocoon per DFL)		20,000
Total Income (Rs.)		**20,000**
Gross Profit (Rs.)		**18,050**
Profit after depreciation of assets (Rs.)		**17,620**

Note: Based on Bivoltine commercial crop

Annexure-23

Cost Economics of a private grainage

Salient features of a private grainage		
1	Capacity to preserve seed cocoons (pieces)	25,000
2	Number of grainage cycle per year	1
3	Expected production of DFLs per cycle	5,556
4	Number of rearer's to be served	30
5	Duration of grainage cycle (days)	20-25
6	Cost of 1 piece of seed cocoon (Rs.)	1.2
7	Price of 1 unit of DFL (Rs.)	6.00
8	Price of 1 Piece of pierced cocoon (Rs.)	0.9
9	Capital Investment (Rs.):	
Grainage building		100,000
Equipments and furniture		42,000
Total Capital Investment (Rs.)		**142,000**
10	Depreciation on Assets (Rs.):	
Grainage building @ 5% of the value / annum		5,000
Equipments and furniture @ 10% of the value/ annum		4,200
Total Depreciation (Rs.)		**9,200**
Profit and Loss Account of 1 cycle of grainage operation		
Expenditure (Rs.)		
Cost of Seed cocoons (Rs.)		30,000
Cost of consumables (LS)		1,000
Cost of Hired microscopist (for 10 days)		1,000
Interest on working capital loan @ 12% for 3 months		960
Total Expenditure (Rs.)		**32,960**
Income (Rs.)		
Sale of DFLs		33,333
Sale of Pierced cocoons		22,500
Total Income (Rs.)		**55,833**
Gross Profit (Rs.)		**22,873**
Profit after depreciation of assets (Rs.)		**13,673**

Note: Based on Bivoltine commercial crop

Annexure-24

Income and Expenditure account of Basic Seed Preservation and DFL Production

Period: 200 to 210 days

Sl No.	Particulars	Data
1	Capacity to preserve seed cocoons (pieces)	150,000
2	Number of grainage cycle per year	1
3	Expected production of DFLs per cycle	30,000
4	Number of grainage to be served	60
5	Duration of preservation cycle (days)	210
6	Duration of grainage cycle	24
7	Cost of 1 piece of seed cocoon including sorting & transportation	1.5
8	Monthly wage rate of laborer for preservation of cocoons in village (Rs.)	1500
9	Number of months the laborer would be hired	7
10	Daily wage rate of microscopists in the village (Rs.)	125
11	Number of days the microscopists would be engaged	20
12	Daily wage rate of unskilled laborers in the villages (Rs.)	127
13	Number of days the unskilled laborers would get engaged	20
14	Cost of consumable for 1 cycle of grainage (Rs.)	3000
15	Yearly maintenance & disinfection of building	3000
16	Base price of 1 unit of DFL (Rs.)	6.00
17	Price of 1 piece of pierced cocoon	1.00

Profit and Loss Account of 1 cycle of basic grainage operation

A Expenditure

Sl.	Particulars	Amount (Rs.)
1	Cost of Seed cocoons (Rs.)	225,000
2	Cost of hiring 1 labor for 8 months	10500
3	Cost of grainage consumables	3,000
4	Cost of Hiring 8 microscopists	25000
5	Cost of hiring 8 laborers for 30 days	25400
6	Yearly maintenance and disinfection of grainage	3000
	Total Expenditure:	**291,900**

B Income

Sl.	Particulars	Amount (Rs.)
1	Sale of DFLs	180000
2	Sale of Pierced cocoons	150000
	Total Income:	**330000**

C Gross profit: (Total Income- Total Expenditure) 38,800

Note: Based on Bivoltine crop for one grainage cycle
Infrastructure can be used for the commercial grainage also

Annexure-25

A brief of different activities taken up in different project location along with tentative net return and periodicity

Activity	Stakeholder	Unit Of Production		Tentative Investment (Rs)	Period	Individual/ Group activity	Gross Profit/ Cycle (Rs) (Total income- Total Expenditure)	Net Profit/ Cycle (Gross Profit- Depreciation) (Rs)
		Quantity	Unit					
Tasar Sericulture								
Raising of seedlings	Kisan Nursery Entrepreneur	55,000	Seedlings	92,725	4 months	Individual/ Group	72,275	72,275
Plantation farmer/ Silkworm rearing								
Seed Rearing	Seed Rearer	200	DFL	1,950	40-45 Days	Individual	16,050	15,620
Nucleus Seed Rearing	Adopted Seed Rearer	200	DFL	1,950	60-65 Days	Individual	20,050	19,620
Commercial Rearing	Commercial Rearer	200	DFL	1,950	60-65 Days	Individual	18,050	17,620
Silkworm Seed Production and processing								
Basic Seed	Tasar Vikas Samity/ Society	150,000	Cocoon	291,200	200-220	Group	38,800	38,800
Reeling	Reeler	28,000	Cocoon	63,112	8 months	Individual	82,572	19,460
Spinning	Spinner	39,375	Cocoon	31,976	9 months	Individual	48,727	16,751
Grainage	Graineurs	25,000	Cocoon	32,960	20-25 days	Individual/ Group	22,873	13,673
Agriculture								
Paddy (SRI & Improved)	Family	0.50	Acre	750	4-5 months	Individual	7,875	6,000
Vegetables	Family	0.10	Acre	1,500	3 months	Individual	12,875	10,500
NTFP Processing								
Mahua collection	Family	480	Kg	0	20-30 Days	Individual	6,640	5,000
Siali Leaf Plate Making (machine)	Family	200	plates/ Day/ person	500	120-180 days	Individual	4,950	4,450

Notes

- These are the basket of activities and it is assumed that, a family must took up 2-3 activities
- The activities may vary location to location
- These basket of activities will also considered as a climate resilient strategy
- Net Return per cycle does not include the depreciation loss
- In net return per cycle, each cycle is based on period mentioned
- In case of vegetables the economics may vary from crop to crop, calculations are based on Tomato & brinjal
- Tentative Investments are in cash and are not calculating labour
- The units may vary from area to area and family to family

Annexure-26

Gantt Chart to show the periodicity of different activities from which some of them will be taken up by the Project Families

ACTIVITIES / Month→	M1 (Nov)	M2 (Dec)	M3 (Jan)	M4 (Feb)	M5 (Mar)	M6 (Apr)	M7 (May)	M8 (Jun)	M9 (July)	M 10 (Aug)	M 11 (Sep)	M 12 (Oct)
Tasar Sericulture												
Raising of Seedlings					■	■	■	■	■	■		
Plantation farmer/ Silkworm rearing												
Seed Rearing								■	■	■		
Nucleus Seed Rearing										■	■	■
Commercial Rearing	■	■									■	■
Silkworm Seed Production and processing												
Basic Seed	■	■	■	■	■	■	■	■	■			
Reeling	■	■	■	■	■	■	■					■
Spinning	■	■	■	■	■	■	■	■				■
Grainage	■									■	■	■
Agriculture												
Paddy (SRI & Improved)	■	■						■	■	■	■	■
Vegetables								■	■	■	■	■
NTFP Processing												
Mahua collection					■	■	■					
Siali Leaf Plate Making (machine)	■	■	■	■	■	■	■	■	■			

Annexure-27

Year-Wise Physical plan Outputs and Returns

#	Output	Physical										TOTAL
		Project Period			Beyond Project Period							
		Yr-1	Yr-2	Yr-3	Yr-1	Yr-2	Yr-3	Yr-4	Yr-5	Yr-6	Yr-7	
1	Natural Host Flora (Ha.)	1,207	2,913	3,150	3,150	3,150	3,150	3,150	3,150	3,150	3,150	**29,323.35**
2	Block Plantation (Ha.)	413	607	607	607	607	607	607	607	607	607	**5,876.00**
3	Reeling cocoons (Lakh Nos.)	186.79	451.652	548.62	548.6	548.6	548.6	548.6	548.6	548.62	548.62	**5,027.40**
4	Pierced Cocoons (Lakh Nos.)	15.168	39.008	46.880	46.88	46.88	46.88	46.88	46.88	46.880	46.880	**429.22**
5	Raw silk production (MT)	14.943	36.132	43.890	43.89	43.89	43.89	43.89	43.89	43.890	43.890	**402.19**
6	Tasar spun silk production (MT)	4.873	11.959	14.488	14.48	14.48	14.48	14.48	14.48	14.488	14.488	**132.74**
7	Fire wood (MT)	1,207	2,913	9,451	9,451	9,451	9,451	9,451	9,451	9,451	9,451	**79,730.25**

	Output	Financial (Rs. in Lakhs)										TOTAL
		Project Period			Beyond Project Period							
		Yr-1	Yr-2	Yr-3	Yr-1	Yr-2	Yr-3	Yr-4	Yr-5	Yr-6	Yr-7	
1	Revenue from Reeling cocoons	298.86	722.643	877.79	921.6	967.7	1,016.15	1,066.9	1,120.31	1,176.3	1,235.1	9,403.642
2	Revenue from Pierced Cocoons	16.685	42.909	51.568	54.14	56.85	59.696	62.681	65.815	69.10	72.561	552.022
3	Revenue from Tasar Raw silk	83.683	202.340	245.78	258.0	270.9	284.523	298.74	313.687	329.3	345.84	2,633.020
4	Revenue from Tasar Spun Silk	68.228	167.421	202.83	212.9	223.6	234.810	246.55	258.878	271.8	285.41	2,172.567
5	Revenue from Fire wood	4.828	11.652	37.805	39.69	41.68	43.764	45.952	48.250	50.66	53.196	377.485
6	Revenue from intercropping	12.390	18.210	18.210	1.500	0.000	0.000	0.000	0.000	0.000	0.000	50.310
7	Revenue from vegetable cultivation	21.670	30.460	11.040	11.59	12.17	12.780	13.419	14.090	14.79	15.534	157.552
8	Revenue from Agriculture	65.010	91.380	33.120	34.77	36.51	38.341	40.258	42.270	44.384	46.603	472.656
TOTAL		**571.3**	**1,287.0**	**1,478.1**	**1,534.44**	**1,609.5**	**1,690.0**	**1,774.5**	**1,863.3**	**1,956.47**	**2054.2**	**15,819.25**

Note:
1. All the outputs are as per assumptions and physical phasing indicated in the project proposal
2. About 20% of the total reeling cocoons & 50% spinning cocoons will be converted in the project area.
3. Incremental income would be Rs. 3000/- from paddy, Rs.5000/- from vegetable and Rs 3000/- from intercropping
4. Firewood at Rs.400/- per MT. and intercropping would be possible in the initial four years of plantation.
5. An additional revenue of 5% every year is expected after the project period.

Annexure-28

Economic Analysis of the Project

I. Internal Rate of Return

Year	Total Project Cost	Total Project Grant	Total Returns	Net Returns	D.F. 10%	NPV at 10% D.F.	D.F. 15%	NPV at 15%
1	1,165.33	1,065.59	571.36	(593.97)	0.91	(539.92)	0.87	(516.51)
2	1,128.80	955.14	1,287.02	158.21	0.83	130.68	0.76	119.62
3	488.54	373.22	1,478.15	989.62	0.75	743.20	0.66	650.67
4	139.13	-	1,534.44	1,395.31	0.68	953.00	0.57	797.84
5	146.09	-	1,609.59	1,463.50	0.62	908.83	0.50	727.65
6	153.39	-	1,690.07	1,536.67	0.56	867.45	0.43	664.30
7	161.06	-	1,774.57	1,613.51	0.51	828.05	0.38	606.52
8	169.12	-	1,863.30	1,694.18	0.47	790.34	0.33	553.83
9	177.57	-	1,956.47	1,778.89	0.42	754.43	0.28	505.74
10	186.45	-	2,054.29	1,867.84	0.39	720.98	0.25	461.36
Total	**3,915.49**	**2,393.95**	**15,819.25**	**11,903.76**		**6,157.05**		**4,571.02**

IRR = **27.54%**

ii. Benefit-Cost Ratio

Year	Total Project Cost	Total Project Grant	Total Returns	D.F. 10%	NPV of Cost	NPV of Return	D.F. 15%	NPV of Cost	NPV of Return
1	1,165.33	1,065.59	571.36	0.91	1,059.28	519.37	0.87	1,013.37	496.86
2	1,128.80	955.14	1,287.02	0.83	932.39	1,063.07	0.76	853.49	973.11
3	488.54	373.22	1,478.15	0.75	366.89	1,110.09	0.66	321.21	971.89
4	139.13	-	1,534.44	0.68	95.03	1,048.02	0.57	79.56	877.39
5	146.09	-	1,609.59	0.62	90.72	999.55	0.50	72.64	800.29
6	153.39	-	1,690.07	0.56	86.59	954.04	0.43	66.31	730.62
7	161.06	-	1,774.57	0.51	82.66	910.71	0.38	60.54	667.06
8	169.12	-	1,863.30	0.47	78.89	869.23	0.33	55.28	609.11
9	177.57	-	1,956.47	0.42	75.31	829.74	0.28	50.48	556.22
10	186.45	-	2,054.29	0.39	71.97	792.96	0.25	46.05	507.41
Total	**3,915.49**	**2,393.95**	**15,819.25**		**2,939.74**	**9,096.79**		**2,618.94**	**7,189.96**
	BCR =					***3.09***			***2.75***

Note: Project cost from year-4 onwards refers to the estimated labour and input cost invested by beneficiaries, which is 5% of the total project cost.

Annexure-29

Institution architecture:

All the beneficiaries selected under the project would be either from existing SHGs in the proposed area or in places where there is no SHGs, groups will be formed in association with SRLM. These beneficiaries will be organized in to activity groups at the hamlet levels that would be federated to producers' collective at block / district.

Large-scale development of sub-sectors would require strong institutions, which would spearhead and sustain initiatives for the development of the sub-sector in the long run. Appropriate policy formulation, raising financial resources for investments, vigorous promotion of products, protecting the entitlements of the producers and widening stakeholder base are some of the important areas in Tasar Sericulture, which would require strong initiatives. Creation of appropriate organizations, designed to enhance the stake and control of the producers, would be a major challenge in the context of Tasar as majority of the producers come from the tribal and backward communities and are financially very poor. PRADAN would envisage creating relevant institutions with the involvement of the producers and enabling them to exert their control in the long run. This is also relevant in the context of the present plan; as the success of the plan would depend upon the efficiency of technology extension, establishing linkages between different producer groups and facilitating their access to carry out Tasar rearing in the forestlands. Given the time bound nature of the proposed expansion plan, and necessity of large scale mobilization of investment, PRADAN proposes to create different organizations as described below:

Primary level organization: The producers would be organized in to informal groups at village level. The village level organization will comprise of common rearer's and grainage owners who already exist in the village / hamlet. The primary level organization will comprise of 15-40 number of producers, depending on the size of the village / hamlet. Keeping such a small group will help members of the organization to interact with each other effectively. Primary level organization's (called "Tasar Vikas Samity") main concern will be selection of rearer's, selection of proper rearing site, maintenance of host plants, promotion of new plantations, monitoring of quality standard of DFLs and helping rearer's to access services for rearing and marketing of cocoons.

Secondary Level Organization: The secondary level organization will be formed at district/block level as an aggregation of village level organization (TVS) and will be organized into a "Tasar Rearer's' Collective". Here, all the members of village level organization will be an independent member of producers' collective. The district level collective will either be registered or will be linked with relevant state model in the respective state. The major role of the collective would be as following:

- Quality and price regulation for DFLs,
- Seed cocoon preservation and basic seed production,
- Promoting improved Silkworm rearing practices,
- Surplus and deficit management of DFLs,
- Accessing distant markets for cocoon sales,
- Establishing linkages with resource and research institutions for facilitating innovations,
- Mobilizing finance from financial institutions,
- Collaborating with Forest Department to improve the Tasar host stock.

It is proposed that the formation, grooming and nurturing of Producers' collective, who will be formed for every 500-1000 families based on the geographical spread. The Board Member and CEO of the Institution would get various training in all the relevant fields and exposure on the institution building in a well established Producers' Institution outside the project area, with the help of an expert resource person. Membership building of the institution is also an important part for its effective functioning on long run. The process would continue till the end of the project so that the institution would function on a sustainable basis even after the project period without any financial support.

Annexure-30

Plans for Post-project Sustainability and Scaling-up strategies

Tasar culture is an age old practice in the project area of the rural poor specially the Scheduled Tribes. The assured availability of quality commercial seed, improved technologies and the means for its adoption provided under the project, increase in the food plant population by maintaining Tasar host flora in natural forests/ private waste lands and chawkie garden leads not only to the increased production and productivity but also to sustain the project beyond the project period.

Organization of beneficiaries and different stakeholders into manageable groups, SHGs, TVS, and integrating them into Producers Organizations would strengthen the development of the industry. Establishment of required infrastructure within the project area, capacity building through training programmes and study tours, establishment of credit linkages with financial institutions helps in sustainability of the project. The increased earning capacity of the beneficiaries with increased productivity and quality, development of viable rural enterprises such as Private Grainage, Seed rearing, reeling, spinning, etc would take the project beyond simple sustenance to a viable commercial activity.

The project empowers rural poor in general and the women in particular economically with the introduction of the activities through technologies, which are women friendly, child unfriendly, hygienic and superior in terms of both quality and quantity production. This would along with introduction of improved machinery and technologies, establishment of backward and forward linkages between various groups would definitely result in self-sustainability of different activities.

The present Project is formulated based on the experience and lessons learnt during the earlier developmental Projects with an emphasis on formation of groups and producers' collective with establishment of effective forward and backward linkages. The biodiversity conservation is another important issue that is being effectively addressed through raising of plantations and scientific utilization of the forest trees. These measures on adoption by the existing Tasar rearer's as well as by those who take up the new rural micro enterprises like the private grainage by the middle level educated unemployed, contributes to the sustainability of the project beyond the project period. The economics of various activities like private graineurs, seed and commercial rearing besides yarn production activities indicates that the Project components rightly contributes towards poverty reduction, gender equity and has all the potentialities of a sustainable rural model for socio-economic development. Project output would be compared with the following indicators.

- The entire requirement of dfls in the commercial crop would be met through village based private Grainage to be established under this project.
- Gestation period for newly raised plantations would be limited to 3 years by adopting recommended technologies.
- By the end of third year, the producer's institution would attain self-reliance to sustain targeted standards of production.
- Producers' collective will be self sustainable in operation.

Annexure-31

Marketing Arrangement:

In the past three decades, the demand for Silk in the domestic market has increased at the rate of 5% per year on real terms. However, the production of Tasar silk during the same period has increased significantly in the last five years, gone up from 428 MT in 2007-08 to 1585 MT in 2011-12 (source Annual Report, CSB). The overall demand for Tasar silk far exceeds its supply from within India. Hence India has to import nearly 6,000 MT (the raw silk import of 2010-11 is 5,820 MT) of raw silk from China and Korea to meet its demand. The total value of Tasar fabric trade in India is estimated to be nearly Rs.450 crore. The domestic market accounts for nearly 60% of the total trade and the export market contributes the remaining.

As sericulture is a state subject under the Constitution of India, respective State Governments have the responsibility to take steps to formulate and implement schemes for sericulture development. However, allocations for the development of the industry are made on the basis of annual plans approved by the Planning Commission. Central Silk Board (CSB), under the Union Ministry of Textiles is the nodal agency of the Central Government that co-ordinates the development of the sericulture industry in various states and advises the Central Government on all matters relating to the development of sericulture. Besides the Central and State Government sericulture establishments, there are other important actors who contribute to the overall growth and development of the sericulture industry. These actors do take care of the marketing system by different means, some of the key actors and their role in marketing is as follows.

Central Silk Board (CSB)

The CSB has its headquarters in Bangalore. As the apex sericulture promotion institution in the country, the CSB is directly responsible for organizing sericulture research, training, basic seed production and also in sustaining a fair price mechanism for Tasar cocoons through its subsidiary organizations called RMB (Raw Material Bank):

Raw Material Bank (RMB)

The RMB offers support prices for Tasar cocoons. They buy cocoons directly from rearer's through cocoon *haats* (markets). The RMB support price is fixed by a designated Price Fixation Committee, which is composed of representatives from rearer's, weavers, NGOs, *khadi* institutions, State Sericulture establishments and nominated CSB officials. The RMB is headquartered in Chaibasa, Jharkhand.

State Sericulture Departments (DoS)

The Departments of Sericulture (DoS) in states such as Chhattisgarh and Andhra Pradesh offers market supports for Tasar cocoons by operating cocoon banks. Odisha on the other hand has been the only State where the Government had made systematic efforts to promote Tasar Producers' Cooperative as a means to strengthen the livelihoods of producers across the value chain. This initiative was undertaken in the late '70s and early '80s with a focus to bring all the producers within the folds of collectives. The Cooperatives took responsibilities of organizing DFL supply, offered extension services and bought bulk of the cocoons from the rearer's at fair prices.