

Chapter – I

Industrial Scenario

1.1. INTRODUCTION:

Handloom is one of the oldest cottage industries in India. Despite the onslaught of modern technology based industrialization and the proliferation of power looms and composite textile mills in independent India, handloom continues to occupy a prominent place in the country's economy. In a capital scarce and labour surplus economy like India, this traditional cottage industry has remained as a major source of employment and livelihood to the people next only to agriculture. During the year 1988-89, it provided direct employment to 7.8 million persons and produced 3,665 (13.80%) million metres of cloth out of a total production of 26,554 million metres of cloth produced in the textiles goods sector of the country. In addition to the direct employment, it provides indirect employment to 1.5 persons per every weaver in the loom engaged in production. Besides all these, the industry through the backward and forward linkage effects generates employment for many others such as loom and accessories manufacturers, dyers, printers, processors, twistors, sellers etc. On the whole the industry provides a total of 5.5 per cent of the employment in the decentralized sector of the country's economy.

Goods manufactured in the handloom sector have also a high export potentiality.

Exports from the handloom sector accounts to the four percent of the total textiles and clothing exports of the country in terms of the value in rupees, Rs.2600 crores. United States of America and European Union are the predominant markets for the Indian hand-woven materials, apart from Japan and Australia. Together they constitute nearly 70% of the Indian Handloom Exports. Efforts to tap new Markets like Australia and New Zealand are in progress. There are no Quantitative restrictions of operating quotas in this

sector and further the sector enjoys duty draw back and few other exemptions, in comparison with the other sectors.

The textile industry has been the backbone of Indian Economy in view of its significant contribution to GDP (4%), industrial output (14%), foreign exchange earnings (1/3rd of total foreign exchange) and employment (next to Agriculture). Structural profile of the industry shows that all the segments of the industry, except spinning are small and Medium Enterprises (SMEs) and such SMEs are located in identifiable geographical Clusters in the country. These SMEs, though enjoy some natural advantages like low costs and flexibility, suffer from the disadvantages of being in relatively isolated environment and are constrained by their in capacity to adopt the required technology, improve productivity and access the markets in an efficient manner. Such constraints faced by the SMEs are generally common in a Cluster.

1.2. Handloom: In the global scenario of handloom sector, India is number one in position posses 85% of the world installed capacity. The total world installed capacity is nearly 4.60 Million in which India share is 3.90 million.

1.3. Silk: China is world largest producer of silk contributing 60,000 tonnes of silk. India is the second largest producer of silk contributing 18 % of the total raw silk produced in the world. But it has unique distinction of being endowed by nature with all four varieties of silk, namely mulberry, tassar, Eri and Muga. In the export of Indian silk textiles USA is the most important export destination followed by United Kingdom and Germany.

1.3. Tie and dye textile: Tie and dye is also known as Ikat design. The word *Ikat* derived from Malyalam word "*Mangikat*" mean to bind, knot, and wind around. If in a fabric the longitudinal (Warp) and Horizontal threads (Weft) both are dyed with predetermined design and woven to meet each other in a weaving process by forming a bold design, it is called "*Double*

Ikat". In case where a single yarn either warp or weft is tied to form a specific design during the weaving, it is termed as single *Ikat*.

Apart from India manufacturing of *Ikat* textile is also taking place in few other parts of the world, some of these are "Orkinova Island" Japan, (Shibori) China, Indonesia, Guatemala, Nigeria and Peru.

1.4. Handloom/ Ikat fabrics in India

Handloom Industries is the oldest of its kind in the world. It is believed that it was in existence even prior to the writing of the Veda. In the ancient time, the fabrics were in existence woven to meet the requirement of the family. Use of cotton for production of fabric was started during the 300 B.C.

In India the tie and dye weaving is also found in Andhra Pradesh (Pochampally), west Bengal (Dhanikhali), Gujrat and Rajasthan. In Andhra Pradesh and west Bengal the weaving of tie and dye fabric are done by employing Bandha as is done in Orissa whereas in Gujrat and Rajasthan the woven fabrics are tied and dyed to bring the effect of Tie and dyed on the fabrics. The Bomkai alike designs (an extra warp/ weft designs) are under production in Jagatsinghpur area of Orissa, Santipur area of west Bengal, small pockets of Northeast, Yeola in Maharashtra and southern states.

Availability of manpower at reasonable rate, traditionally strong base, beautiful craftsmanship, reduction of labour oriented industries in developed countries, large population base export potentiality are some of the major strength of India.

1.5. Profile of the industry (Orissa)

The textile sector of the state mainly comprised of ginning and pressing, spinning, weaving and marginally small processing sector. The state produces raw cotton in some of the inland districts and therefore ginning activities have been started in the state. A recent census of ginning and processing factories in the countries by textile committees (2001-02) has recorded 14 units out of which 11 are working. Since the units have been

established recently, they are considered relatively modern in terms of civil structures and modern machineries.

The spinning industries are comprised of 14 units with 367440 spindles of which 4 are only working. The working units are also not utilizing the installed capacity in full. In the weaving sector, the only composite unit that is Orissa Textile Mill (OMT) is closed. Therefore, the weaving is mainly carried out in handloom and power looms. So far as processing is concerned it is mostly carried out by hand processing in most unorganized manner. The processing activities are mainly carried out in tumble wash or by tie and dye techniques. A census carried out by Textile Committee (1999) for the power processing sector reveals that there is one independent processor in the state.

No. of Units, looms and weavers

Sr. No	Zone	Total no of Units	Total Looms	Weavers
	Handloom			
1	Central	9848(26.68)	14290(31.76)	26535(27.39)
2	South	6308(17.09)	7278(16.18)	17255(17.81)
3	West	20758(56.23)	23426(52.06)	53085(54.8)
4	Handloom	36914(100)	44994(100)	96875(100)
5	Power loom	469	123	2012
6	Total	37383	46232	98887

Note: Figures in bracket are percentages

The distribution of handloom indicate large number of units in west zone are (56.23%) followed by central (26.68%) and southern (17.08%) zones. Since each units owns a loom or two, the distribution of looms apparently show a similar distribution pattern of units as well as the weavers. Number of handlooms per unit is estimated at 1.21 while the number of weavers working per unit is 2.62 while per loom it is 2.15.

The organizational set up of handloom industry of Orissa has largely controlled by the master weavers and the traders (61%). The cooperative movement has been less successful to bring the artisanal units into the co-operative fold. About 24% of the artisanal units are able to run their own business enterprises.

Distribution of Households by loom size

Zone	One loom	2-4 loom	Above 4 loom	Total
(1)	(2)	(3)	(4)	(5)
Central	6752(68.57)	2965(30.11)	130(1.32)	9847
South	5541(87.84)	756(11.98)	11(0.17)	6308
West	18891(91.01)	1788(8.61)	80(0.39)	20758
Total	31184(84.48)	5509(14.92)	221(0.60)	36914

Note: Figures in bracket are percentages

The handloom industry is dominated by single loom units (84.48%). The units having 2 to 4 looms are around 14.92% and more than 4 looms is almost negligible. Single loom units are dominated in west zone while the central zone shows a better picture of looms per unit.

The handlooms industry is decentralized and dispersed. The clustered growth of the units is an account of the skill and ability of the artisan to produce a particular product category themselves, which others did not have the knowledge to replicate. For the purpose of identifying the major handloom cluster centres of the states, a group of at least 200 artisanal units was taken as the benchmark (i.e. all village / blocks are more than 200 units formed a cluster). On adoption of the above criteria, it is observed that more than 55% of the units are concentrated in major clusters with almost 27435 looms. Districts like Cuttack, Jagatsinghpur, Balasore and Jajpur in central zone, Nayagarh and Ganjam in south zone and Bargarh, Bolangir, Boudh, Nupara and Sonepur in west zone are clearly identified as handloom cluster districts.

1.6. Government Policy:

New textile policy (NTP- 2000) has been framed to give direction and focus on strategic thrust areas. Few important goals and objectives are:-

- Facilitate the textile industry to attain and sustain pre-eminent global standing in the manufacture and export of clothing.

- Equip the industry to withstand pressure of import penetration and maintain a dominant presence in the domestic market.
- Develop a strong multi-fibre base with thrust of product up-gradation and diversification
- Sustain and strengthen the traditional knowledge, skills and capabilities of our weavers and crafts people.
- Enrich human resource skills and capabilities, with special emphasis on those working in the decentralized sectors of the industry; for this purpose to revitalized the institutional structure
- Make information technology (IT), an integral part of the entire value chain of textile production and thereby facilitate the industry to achieve international standards in terms of quality, design and marketing
- Involve and ensure the active cooperation and partnership of the state Governments, Financial Institutions, Entrepreneurs, Farmers and Non Governmental Organizations in fulfillments of these objectives.

Some of the Target and thrust areas are:

- Strengthen and encourage the handloom industry to produce value-added items and assist it to forge joint ventures to secure global markets
- Re-design and revamp, the 10th five year plan, the schemes and programs initiated in the handloom, sericulture, handicrafts and jute sector to ensure better returns for those belonging to the disadvantaged categories
- Facilitates the growth and strengthen HRD Institutions, particularly NIFT, on innovative lines.
- Review and revitalized the working of the TRAs to focus research on industry needs
- Transform and professionals all field organization under the ministry of Textiles to enables them to play the role of facilitators of change and growth.

Some of the programs launched during the last few years:

- Deen Dayal Hathkargha Protshan Yojana; to support and assist the total gamut of handloom activities
- Up-gradation of textile testing laboratories; in wake of German ban on the use of certain harmful azoic dyes in textiles, the Government has taken the initiative to up-grade or establish modern laboratories to test quality and eco-parameters in textile dyes and chemicals.
- Economic Research and market intelligence unit; to organize the collection and dissemination of information for the benefit of all for effective planning and strategy to overcome the competition in the international market.
- Nodal centre for Up-Gradation of Textile Education (NCUTE): This centre is engaged in mapping the present textile education scenario at various levels of human resource requirement, identifying the quantitative and qualitative gaps and will prepare an action plan supported by the required software to fill these gaps based on sector wise felt needs.
- National centre for textile design (NCTD): Centre has been set up with the website to provide colour and trend forecasts, designs, motifs and database of different kinds of handloom weavers, designers, exports, machine suppliers etc.
- National centre for Design and product Development for handicrafts: The centre caters to the design and technology related needs of the handicrafts sectors and provide the services of reputed national and international design experts to the small scale and cottage handicraft industry to enable them to compete in the world market.

Chapter – II

Historical Evolution and Description of Cluster

2.1 Historical Evolution

The writing in the stones of Kahandagiri cave Orissa suggests that the art of weaving was in Orissa before 600 B.C. Similarly some carving in the temples of Sonepur cluster (Baidyanath) indicates that weaving was in existence in the area during prior to 9th B.C. Besides weaving with cotton yarn, there was also weaving with wild silk (*Tassar*), wool and fibers from stem of lotus. The tie-dye weaving in western Orissa came in to existence during mid of 14th century when 100 weaver's families were brought from Raipur area of Madhya Pradesh by the then ruler of Patnagarh Sri Ramai Dev. The weavers' later on titled as *Meher* and their caste known as *Bhulia*. Such weavers were traditionally weaving the tie and dye fabrics. Orissa has also history of exporting handloom to south-east Asia countries like Thailand, Java, Borneo and Sumatra (Last three are Island of Indonesia) during pre-independence period in sea route. It is therefore also the bank of river Mahanadi and some other big river of Orissa has developed weaving culture.

The *Bomkai* Designs are the traditional designs in production in the village named *Bomkai* in Ganjam District of Orissa. Latter on it is introduced in Sonepur.

Before 1950's the main product mix of this cluster was cotton sari and Dhotis. The main occupation of "*Bhulia*" community was weavings. Weavers had looms of short width and they used to weave cotton sari of length 12ft and its width was 36 inches. During that period, cotton yarn of (10 to 40) counts were available in the market.

Weavers by own used to sell woven sari at nearby locally market and whatever they got remuneration by selling the sari, they used to brought yarn for further weaving.

During this period, due to absence of chemical dyes, mainly vegetable dye was used to dye the yarn. Vegetable dye had limited colours i,e yellow (From

Turmeric), Maroon (From bark of Aal trees), Blue (Nile) and black (Hirakasi and Chakda seeds). The colour of vegetable dyes was not fast in the fabrics. The vegetable dye has limited ranges of colour that limit the design of tie & dye fabrics.

During mid of 1950's the late Padamshree Sri Kruthartha Acharya was the up-coming entrepreneur in handloom sector. He was belonging to Bargarh sub-division which was neighbouring district of Sonepur. He had installed 200 looms at Sonepur and established a unit for producing handloom sarees.

During mid of 1960's, lots of modifications were done to upgrade the handloom sector of Sonepur. The widths of looms were widening up to (48 to 50) inches; mercerized yarns of finer quality (60 counts) were introduced.

Shri Kruthartha Acharya also introduced chemical dyes. Many weavers were trained to adopt the change. Due to introduction of chemical dye, the ranges of colour shed were increased which helps the weavers to produce variety of design in tie and dye fabrics. Slowly other weavers of the cluster adopted the new technology.

Dr Acharya also searched other market by promoting the Sonepur product in other States by participating in exhibition and fair conducted by handloom department, Govt. of India.

He also used to purchase the woven sari from weaver and used to supply raw materials and design to them. This helped the weavers to only concentrate on production work instead of marketing the products.

Latter on during 1954, Dr. Achaya converted his firm into cooperative society named Sambalpuri Bastrayala Handloom Cooperative Society Ltd, Bargarh, which is at present stand as a leading PWCS of not only the State but also of the country.

During mid Seventies G.O.O. initiated a corporation called Orissa Handloom Development Corporation which grew and decayed in two decades and has been liquidated recently.

The other major changes taken place in the cluster was introduction of silk yarn in early 1980's. The body part of silk fabric was woven with silk yarn and *Anchal* by cotton tie and dye. It took two – three years to develop *Jala*

design which helped the weaver to design the fabric in simple way. This *Bomkai* design were developed in the late 80's and introduced in early 1990's in the cluster. Since then, the permutation and combination of designs involving in tie-dye, *Bomkai*, *Jala* etc are practicing in the cluster. Latter on Body design was also developed to make the fabric more attractive and *Zari* were used to add value to the fabric.

Weaver co-operative societies were the major firms operating in the handloom sectors. These societies were large in number during mid of 90's. The entry of private entrepreneurs and private traders started from 1980's. Padamshri Chaturbhuj Meher had entered in this sector in early 1980's and had great contribution in this sector. On the other hand gradual reduce in the Government subsidies, declining support from apex WCS, closure of Handloom Development corporation and mismanagement at the primary wcs level are the main reasons of reduction in the number of active co-operative societies.

Unlike the Tie-Dye work in the other part of India, the motif and design of the cluster are infinite in number and every motif or design is characterized under a special caption. No design is let out without giving it a name. It shows the creative mind of the weavers of region.

General information

Orissa had 129236 (1951), 119005 (1987) and 92869 (1996) as per the handloom figure census, which shows the continuous decline in the loom position.

The total looms in Sonepur district is 7243 (As per the survey conducted by ADT office Sonepur). The product mixes are cotton sari, silk sari and dress material. The total production of the cluster in the Co-Operative Sector is Rs 985.46 lacs. The details are given below.

No. of weavers and looms in Sonepur cluster

Blocks	No. of looms	No. of M.V	Cotton sari (In Lacs)	Silk sari (In Lacs)	Dress material (In Lacs)	Total value (In Lacs)

			In mts	In Rs	In mts	In Rs	In mts	In Rs	
Sonepur	1778	12	0.70	57.30	1.90	243	0.03	2.40	302.7
Binka	0445	2	0.505	40.15	0.078	24.80	0.067	5.35	070.3
Tarva	1148	7	0.450	59.62	0.720	22.89	-	-	082.51
Dunguri palli	1285	6	0.280	30.35	0.070	20.00	-	-	50.35
B.M.Pur	1447	16	0.550	58.00	0.710	179.3	-	-	237.3
Ullunda	1140	10	0.660	72.0	0.53	170.3	-	-	242.3
Total	7243	53	3.145	317.42	4.008	660.29	0.097	7.75	985.46

2.2. System of Production:

The production system of handloom industry is carried under three different patterns viz. independent weavers, master weavers/traders and cooperative weavers.

2.2.1. The independent weaver purchases yarns and other essential raw materials on his own money, weaves cloth and sells the produce on his own either in the open market or to the traders and middlemen. As his sale and output of clothes is determined by the local marketing conditions and due to increasing consumerism culture, the tastes and preferences of clothes among the consumers change very frequently the independent weaver always depends on the traders and middlemen for the marketability of his goods. On account of this type of dependency relationship, the weavers are getting exploited by the traders and middlemen and lead a hand to mouth existence.

2.2.2. The master weavers advance yarn and raw materials to the weavers and pay wages to them on receipt of woven cloth. Although they look after marketability aspect of handloom goods and make the weavers free from botheration of salability of their goods, they provide employment to weavers whenever the market conditions are favorable and kick them out during lean season. As a result, the weavers working under the master weavers lead a very precarious life and due to the un-organised nature of industry and weak

bargaining power of the weavers the wage rate is very low. In order to compete with the mill-made goods and to ensure their high profitability ratio, the master weavers follow the strategy of wage curtailment. Often the weavers are found attached to them due to their indebtedness and weak economic power. Moreover, although the master weavers play an important role in handloom industry, particularly by evolving new designs and developing the markets for handloom goods in the absence of adequate co-operativisation of handloom industry, they are, in fact, the part of the exploitative capitalist system in the garb of master weavers. The weavers working under them are virtually reduced to the status of unorganized labour notwithstanding their ownership of the means of production and control over the timing of the works. By controlling the supply of key raw materials i.e. the yarn, the merchant capital and the big capitalists in the garb of master weavers holds a sway over the handloom industry and large number of weavers of the country without any responsibility of fixed capital investment on plant and machinery and employment of labour, in order to avoid the industrial laws and regulations, labour laws, taxes and the like. Many big producers having a control over more than 100 weavers at different localities with an annual turnover of more than Rs.50 lakh to Rs.1 crore operate their business in the garb of master weavers. Thus, in the absence of adequate co-operative coverage of the weavers, the handloom industry of the country is virtually controlled by the master weavers and the big merchant capital with the old putting out system of production.

2.2.3. The third and least exploitative pattern of production of handloom goods is through co-operativisation. In order to give protection to the handloom industry in the face of competition from the power looms and composite textile mills and to reduce the high level of exploitation of the weavers by the private master weavers and big merchant capital, the government has intensified the promotion of weaver's co-operative societies

since late forties. These weavers' co-operative societies in their operational area try to bring all weavers to their fold by opening membership to them at a very nominal share with subsidy from the government. They provide yarn and other essential raw materials to weaver members for producing cloth as per the given specification, receive the finished goods on payment of wages / conversion charges and above all arrange for the sale of finished goods. The members are entitled to a share in the profits of the society and get bonus in proportion to their output of cloth.

However, as the whole industry located in every nook and corner of India is yet to be fully covered by the co-operatives, the three different patterns of production exist in different degrees at various parts of the country with a predominance of the master weavers and private merchant capital to a greater extent. On account of this, the handloom industry of the country is languishing behind coupled with the inefficiencies of the weavers' co-operative societies. The weavers are living in an unhygienic and poor socio-economic environment although they are the designers of modern fashionable clothes and the pioneers of modern culture and civilization in the country.

2.3. Tie and Dye, and Ikat Design:

The handloom industry of Orissa is famous for its tie and dye works. The weavers of Orissa are well known for their talent. They are competent to weave decorative design locally known as *bandha* works. Besides Orissa, the states of Gujrat, Andhra Pradesh, Rajasthan and Madhya Pradesh are also famous for tie and dye designs. However, although the fundamental principles of works and designs are basically same there are regional variations also. The Gujarathi Patola is made by dyeing both warp and Weft and then adjusting the designs on the loom. This is known as double *ikat* design or double tie and dye works. The single *ikat* design made by the

weavers of Rajasthan is called "*Badhami* design" and it is done on the cloth itself without dyeing the yarn. Where as, the weavers of Orissa, Andhra Pradesh and Madhya Pradesh dye the yarn and then bring the design on the loom. In case of Orissa handloom fabrics, when the tie and dye design is made on either warp or weft, it is known as single *ikat* design. Apart from the richness of motifs, the tie and dye design of Orissa handloom is unique in textile designing as the colours of the fabrics are harmoniously blended and without using any extra shedding mechanism like the jacquard and dobby. Elaborate and rich figures effects are obtained on the cloth by the use of this process.

Both the warp and weft are dyed by this process in accordance with the requirement of the design. For border design the warp alone is processed. For *Palavas* or *Anchals* of the sari, the weft is processed and for the overall body designs both the warp and weft is processed. Before the preparation of warp and weft, the yarn is wound around a wooden frame. The length of one turn in case of weft yarn wound depends on the reed width to be woven. The weaver learns from his experience the total allowance he has to give in the length of the yarn, taking into consideration the counts of warp and weft and the reed and pick used in the cloth. After the preparation of weft yarn to be used for *Anchal* or *Palav* the weavers sit with his paper design before the frame and carefully binds the outline of the figure on the yarn itself to prepare '*Bandha*'. This process is known as tying. While tying the weaver takes into consideration the likely waste in the subsequent process of winding, warping and looming and makes due allowance for it in the initial stage of preparing the yarn for tying. After tying the yarn the weaver dyes it with different colours. In this process of one tying the weaver gets '*Bandha*' material for several pieces of cloth of the same design. Besides the preparation of weft yarn for the '*Anchal*' i.e. the '*Bandha*' the weaver takes out the weft yarn from the frame and dyes parts of the tied yarn in different colours to be woven horizontally over the body of the warp yarn stretched in the loom. Here also the weaver makes weft yarn for several pieces of cloth of the same design at one time.

Thus, the designs of cloth woven in this process differ from printed and jacquard designs. The figures produced by printing and jacquard can be developed only on one side of the cloth, whereas equally prominent bright coloured designs are produced on both sides of the cloth by the tie and dye process. However, in recent years besides the *bandha* design' of the '*Anchal*' the weavers have started making '*Jala* design' in the '*Anchal*' taking into consideration the change in consumers tastes and preferences for certain designs. In this process of '*Jala* design' the figures of animals and floral motifs look more prominent and attractive. The weaver does this design by working in the loom itself with the help of his drawing in the graph and he does not require the tying and dyeing of Anchal weft yarn by putting it in a separate frame.

2.4. Dwelling conditions and works Environment:

At the time of survey of the households it has been noticed that a majority of the weavers live in Kutcha and thatched roof houses. Most of the weavers work on pit looms. During rainy season the floor of these houses often remain wet and sticky; the roofs start leaking at many places. As a result, the looms remain idle for most part of a day. It is observed that on normal days also the weavers are found to be working in an inhospitable environment. In the scorching heat of the summer the weaver is found to be working in an ill-ventilated loom-shed and that too without a fan. In these households the loom shed is so gloomy that the weavers are forced to use electric lamp or tube light even during the day time due to insufficient light.

2.5. PREPARATORY WORKS:

The local word for Warp is *tana* and the weft is called *buna*. The weavers make warp for two pieces of sarees at a time. The weaver of cotton sarees collect the coloured yarn for the preparation of warp and weft from the Trader-designers, Master weavers and the cooperatives for two pieces of cloth of 6.5 mts. Each at a time, 350 gms for the warp and 400 gms for the weft. On receiving the yarn, the female members of the household prepare

the warp of 13.00mts. length in a *Jantur*. One lady member or an outsider converts the hank yarn to the *jantur* by using one or two *chhata*, an implement made of bamboo stick to convert the hank yarn into warp of requisite size. She puts the tag of the hank yarn lying in *chhata* inside the whole of *fundra* and by operating the *chhatas* kept in swinging position with the help of pointed *shulis*, she moves the yarn from one point to the other point of the *jantur* by using the *fundra*. The use of *fundra* smo others the operation of yarn to prepare the warp of a requisite length in a *jantur*. The different points of *jantur* consisting of seven *khuntis* (small wooden stick) affixed in small holes of a big piece of wood at one end and six *khuntis* fitted in another big piece of wood at the other are connected with one another with the help of a long rope. However, those who are weaving silk sarees, they are getting readymade warp for two pieces of sarees weighing 400 Gms with a length of 13.00 mts. from the Trader-designers, Master weavers and the cooperatives. On getting a warp ready, the weaver of this household the end border which he in local term calls it *Munharacha*. Then to straighten and strengthen the warp they use one type of gum made from the *peja* or juice of cooked rice. This is called *pajani* by the weavers. After doing *pajani* they roll the warp. This almost takes one day and two persons get engaged for around six to seven hours. After the completion of *pajani*, each thread of the new warp is meticulously joined with the each thread of the old warp fitted in the comb. This is called *phanijura*. In order to make the *phanijura* process easier the weaver while cutting the last piece saree on completion in his loom he leaves around six inches of yarn from the old warp and gets the yarn of the new warp after completion of *pajani*. While doing this process the other members of the house hold prepare the weft yarn, which is called *badhi*. Then they colour the required portion. This process also takes around five to six man-hours. The joining of the warp yarn usually takes 8-10 hrs. After completing *phanijura* the weavers again take the warp beam to an open field and get the warp straightened and keep it in hanging position parallel to the ground. They move the wooden brush (*kunchi*) over the straightened warp and put bamboo sticks called *kami* inside the warp. Here, they check all the

threads of the warp properly and after that with the help of five/six fellow weavers they roll the warp in the beam and take to the house. This process is called *tanasara*. Both the *tanasara* and the *pajani* are done in the open field on the sunny days only in order to dry the threads properly. The process of *tanasara* usually takes one day and two persons remain engaged with this work and 13 man-hours is spent on this work. On completion of *tanasara* the weaver fits the new warp beam in his loom and joins the border *bandha* before getting the warp ready for weaving. However, at the same time the female member of the household get the weft materials ready by winding up the *bandhi* yarn in *asaries (nateies)*. After doing this, the lady members of the house usually reel the yarn from the *nateis* into the *pirns* or *kandas* with the help of a *charkha* or *rahanta* everyday as per the requirement of weaver working in the loom. The ladies usually spend two to three hours every day on reeling, where as the male members exclusively operate the loom, do design works by operating the *jala* sticks with the help of graph designs drawn earlier in a piece of paper. While weaving the popular *Bomkei* design in the end border or *anchal* they take the assistance of a small child or another male or female person to lift the *jala* strings of the *jala* sticks and to operate the *salita* or reeled silk yarns of different colours inside the warp threads to make various figures.

2.6. TECHNIQUE OF WEAVING:

Most of the weavers work in throw shuttle pit looms. There are generally two handles used in this type of looms. The healds (Nylon twine/boi) raise or depress each alternate warp strand at the same time and they are raised up and down by the legs. Two ropes attached to one heald are hung into the pit. The weaver sits at the edge of the pit by hanging his legs down into the pit. By peddling his feet inside the bit, he simultaneously pulls the rope attached to the even heald and releases the other attached to the odd heald to raise the odd threads and depress the even threads. In this way an opening is produced, which is called the shed through which the shuttle is shot rapidly with a single motion with the help of a wooden propeller fitted in the loom by

rope between these threads and the rest. Thus, the mechanism for raising and lowering the heddles is to produce shed and counter shed for the passage of the weft. To weave floral, animal and various line designs on the side border and barrier (Anchal) separate heald of required numbers are used in addition to the two main heald. In this case the loops of the two main heald cling to only warp strands of the body of the cloth, whereas the loops of those for floral designs encircle the warp threads of the side borders of the cloth. These separate additional heddles are raised or depressed by hand according to their requirement. For making Jala design in the end border separate heddles or jacquards fitted with number of strong threads or strings get affixed in the loom.

Each time the paddle is raised or depressed, one pick of the weft yarn is shot through the shed. Each pick of the weft yarn after being shot by the shuttle, it gets beaten up pressed by a pronged instrument called reed (a comb/pania). The strands of the warp pass through the intervening spaces of the teeth of the comb. This comb is fixed in a swinging batten or wooden frame (tanta), which swings immediately in front of the two main heddles. The comb helps in beating the weft threads and also keeps the warp threads apart. Even the density of the clothes determined by the number of teeth in the comb and according to the number of teeth in the comb the threads to be used for the warp are laid accordingly. If the teeth of the comb are laid thinly the cloth is thinly woven; whereas if they are laid thickly then it is thickly woven. The shuttle used for the purpose of weaving is charged with weft thread by means of pirn (nali or kanda).

Cloth in the handloom is, thus, woven by keeping the warp (tani) stretched and extended by artificial means while the weft threads (bharani) are interwoven with it. The warp is attached at the end near the weaver or operator to a cloth beam and at the other to a yarn beam. In order to economize the space of the loom shed, the warp is found wound up in the yarn beam and some portion of it is extended on the frame of the loom (tanta) and it is kept tightly stretched by means of a rope. This rope is tied

to the yarn beam at one end and at the other to a firm pole or pillar raised on the ground of the loom shed. The warp is set in a horizontal plane. The cloth beam is kept motionless by means of two pegs slantingly stuck on the ground. Of these two pegs one is of forked type and the other one is pointed at the end. Hole is made at one end of the beam to affix that portion with the sharper peg and the other end portion of the beam is placed in the forked peg. The weaver after weaving a certain length stops and exposes a shorter length of warp from the yarn beam and rolls up the finished cloth upon the cloth beam and then continues weaving. It is also found that at Sonapur weaver weaving silk sarees of deha bandha or Jala design takes the help of a child or an adult to weave weft yarn suitably and also to lift the Jala threads at regular intervals for making various designs at the time of weaving. Usually, the child or any other person who assists the main weaver sits beside him at his left side.

2.7. CASTE STRUCTURE

The weaver population of the district is mainly Bhulia by sub-caste and among all the weaver sub-castes of Orissa, the Bhulias are most skillful with a higher social status in the caste hierarchy and they are the originators of tie and dye weaving works in Orissa. Almost all the weavers in this cluster have now acquired the art of weaving modern silk sarees in their country-made looms and the design of silk sarees presently woven by them is popularly known as *Bomkei Jala* or *Sonepuri Patas*. It is also noticed that with the introduction of Sambalpuri silk sarees in some of the villages of Western Orissa in the early eighties, the economic condition of weavers residing there has started improving as compared to earlier years, their living conditions in the sixties and the seventies. As a result, many of the Bhulia weavers, of late, have switched over to the weaving of silk sarees in place of traditional cotton Sambalpuri sarees of finer varieties in which they have specialization. It is because of the high market demand of silk sarees, the looms of the weavers at the cluster keep running throughout the year and thus, in order to eke out their livings by learning the skill of weaving of silk

sarees in *Bomkei Jala* design. The other dominant sub-castes are '*Kosthas*' and '*Debang*'.

2.8. ENTRY BARRIER: The entry barrier is high. Weaving in the handloom, especially cloths of artistic designs is an intricate process. The weaver acquires the technique of weaving including various types of preparatory work as a member of the weaver household since his childhood. The adult members of the household teach their children, both males and females and make them acquainted with the various stages of weaving work by utilizing their services at various stages of operations. As a result, handloom weaving in the country has remained more or less a traditional caste and family based occupation. Very few members of other non-traditional weaving castes are found engaged in this sector despite high rate of unemployment in the economy and scope of earning a minimum level of livelihood in the handloom industry with a little sum of capital investment. The entrance of such class, besides the aforesaid reasons, has been due to selfish interest of the Master Weavers/Trader-Entrepreneurs who think that in the process there is very little chance of leakage of information on designs and the monopoly of weavers shall minimize.

Chapter – III

Sketch of SMSEs and other Cluster Actors

3.1. Weavers

A weaver is either a job worker-receiving yarn or design, handing over a woven product and receiving wages – or a businessman in his own right. There are also a class of weavers who purchase yarn by own and convert it according to their own design and sell the products by own risk. But they are few in numbers.

3.2. Master Weavers

Decades back, this category was itself engaged in the weaving occupation but today they are mainly traders who undertake the overall responsibility of taking orders and getting them executed. They own looms and get weaving done on contractual basis. Usually, directly or indirectly, they control anything from 5-10 looms to about 30-40 looms. They supply the weaver with raw material, which is dyed under their supervision, and the design briefs. They pay for the charges incurred by the weaver both for warping as well as for weaving.

3.3. COOPERATIVES:

Before the Industrial Revolution handlooms had a lions share in the textile market. Subsequently, on advent of technology, power looms and Mills began to dominate the market. At the post World War II era, a scheme was in force by the GoI called Control cloth Scheme by which Yarn Distribution Cooperatives were formed which were subsequently converted into Weavers' Cooperative Society (WCS). An apex body of the WCS was formed named 'Boyanika' in 1956. The introduction of Janata Scheme made the WCS more dependent on subsidies which though helped the better living standards of the weavers but also damaged their conditions of becoming independent. There are 99 Weavers' Cooperative Societies in the cluster, out of this, 37 are working, 53 are moribund and 9 WCS are now found totally closed and defunct. 17,125 members are enrolled in the cooperatives. In 2004-2005 the

sales turnover of the societies is Rs.1334.63 lakhs out of which silk materials had a share of Rs.1090 lakhs and cotton products Rs.243.07 lakhs.

3.4. Specialized job workers - *the Reed Fillers, Winders and the Designers*

Together they form a specialized group but are also a part of the weaver's family. They perform the pre-weaving tasks, which are not only laborious but also time consuming. They are not specially paid for this activity.

3.5. Traders

The traders have been the mainstay of marketing of Sonepur Sarees. Mainly Meher caste is involved in it. The Traders are presently an affluent class with other means of income as well. The big ones also own large number of looms themselves i.e. 100 to 250 looms. This is an "upwardly mobile class". They have good marketing contacts, a fairly good sense of design innovation and a self built capital base. They have directed part of their capital into up-gradation of looms and design, and partly in sectors other than weaving. The Traders however seem to be oblivious to the hardships of the Weavers and are largely concerned with their own survival and growth. They also remain secretive about their designs and trading activities. Nevertheless, this group of core actors can prove to be instrumental in bringing about capacity building of the Weavers provided their outlook is made more holistic. For instance they do not acknowledge the contribution of the weaver's family, particularly the women weavers who not only weave but also perform winding, weeding and warp joining activities. This attitude needs to be changed.

3.6. Meher's

Meher's is the largest show room of silk sarees in Bhubaneswar. This firm started in late'80s after obtaining a Bank loan of Rs.21 lakhs and before that they worked as an agent of Orissa Handloom Development Corporation. The founder of the firm Mr. Chaturbhuj Meher has been awarded 'Padmasree' by the President of India. Sri Meher was the initiator of the silk saree which bears combination of *Ikat* as well as Bomkai designs. The firm has own

producing unit with 60 looms. Till 2000A.D. the turn over reached more than Rs.10 Crores and after that because of market slow down the turn over has slide down to Rs.6 crores last year. They are presently working with 500 weavers in Sonapur, Bargarh, Boudh and Bolangir district of which they have a large presence in Sonapur. About 100 small traders after being detached from the Meher's have started operating on their own. They are instrumental in bringing in non traditional weavers into the activity. They have a huge net work of businessmen across the countries who also export. They at present have got their first export order which is yet to be complete. They are one of the leading producers of dress material items and silk cloths etc. They are the only producer to have fitted Jacquard to their looms and producing all the designs in those machines contrary to the general weaving of the area.

3.7. Master Weavers (Mahajans/Sahukars):

The Master Weavers popularly termed as Mahajans in the local area do not weave; but supply raw material and pay wages to the weavers. They themselves take the marketing.

The Mahajans generally supply yarn to the weavers and some basic inputs occasionally about the colour, design and pattern based on the market trends and information that they receive from their customers. There is mistrust among the cluster actors, which can be clear from the following:

- Societies (PWCS) too follow this system, but as the weaver immediately needs the money he submits it back to the society, only if the society is in a financially healthy condition, i.e. he is sure that he will immediately get his wages, other wise he sells it off to private Mahajans.
- Some weavers take the raw material from one Mahajan and sell the product to others.
- Some weavers have developed the tendency to cheat by not adopting the suitable weaving standards i.e. lower the Reed and Pick
- Instances have also noticed when polyester warps were detected woven in place of silk warp.

A case study of a large trader is described as follows.

Radheshyam Meher:

This firm is one among the existing five big traders of silk products which is associated with the trade since last thirty years. He himself does not weave but supply raw materials to 80 weavers of the district most of them belong to Baidyanath village. Their present annual turn over as stated by the trader is about Rs.30 lakhs last year. Though looked reluctant to divulge the information with me yet gave some idea of their operation style. They, at present, don't supply raw materials in crude form rather they process it up to dyeing level and supply the material along with the design. They procure yarn from large traders at Bargarh, a neighbouring district. Sometimes they procure raw materials from Bangalore and Sonapur local market also. As per their opinion the labour charge is very high at Sonapur and for last three years the domestic market outside Orissa has shrunk considerably. Many reasons could be attributed to the causes such as the designs are copied and sarees sold at a less or rate produced from power looms. The materials are heavy and thus consume good deal of raw materials making the product costly. Sarees are mainly used during festive occasion and not conducive for use during all seasons particularly in summer. Sarees also has been replaced by other dresses very fast as design.

3.8. Preparatory Work Force: Handlooms basically have a lot of preparatory work, which is highly skilful and manpower oriented. Especially in case of silk weaving there are number of activities, which few persons have taken them up as full time work. The details are

- **Warp Beam Makers:** In Sonapur the weavers have a practice of preparing Warp beam for a minimum 40- 50 Saris at a time. And this work is done at the homes of few weaver households and 15 families have taken up this work as a full time assignment on cost basis. Depending upon the pattern they charge. There are four patterns. The least that they charge is Rs 13/- per saree and the Highest is 23/- per

saree. The rates fluctuate from season to season and pattern to pattern.

- **Tie-dyeing:** In Sonapur the weavers have a practice of doing the tie-dyeing on the Weft i.e Buna in their local language. The Warp beam yarn is generally a single colour plain dyed one, which is done independently at each and every household. But the main art and skill is in generating a good tie-dye design on the weft. The Tie & Dye activity for some of the routine normal traditional motifs are being practised by almost all the weaver households but the activity of tie & dye for some specific designs has been taken up by persons as a full time work on cost basis. There are 20 different exclusive Warp dyers and 20 Different Weft Dyers. The charges for dyeing activities changes as per the Colour, Season and the tie-dye pattern. The other details are as under:
- **Financial and Quantitative Dynamics in the process of Dyeing:**
For warp at a time, these persons dye a minimum of 2 Kgs and a maximum of 4 Kgs and their charges for light colours are in the range of Rs 25 to 80 per Kg of Yarn, whereas for the dark colours the range is Rs 25 to 90 per kg of yarn. The rates are on the higher side during the Marriage and festive season.
- Similarly for the weft at a time, these persons dye a standard quantity of 1.5 Kgs and their charges for light colours are in the range of Rs 60 to 80 per Kg of Yarn, whereas for the dark colours the rate is fixed at Rs 80 per kg of yarn. The rates are on the higher side during the Marriage and festive season

3.9. Yarn Suppliers:

The cluster has been a potential place for the Tussar Silk and that today weavers have diversified to Mulberry silk. The availability of Mulberry Silk is

very poor and that all the consumed raw material mostly procured from Bangalore and other places. The different key yarn traders and suppliers are as under:

- **O.S.H.W.C.S.Ltd i.e. Boyanika:** The apex marketing body has a system to support the weavers and the societies with the raw materials requirements and later market their produces. It has a yarn depot, which maintains stocks of cotton, mercerized cotton, and silk. Both the Bangalore and the Malda silk is made available to the weavers at this depot. As this body has not been able to maintain the payments in time to the societies and other weavers, so as a result the activities of yarn collection and marketing of produces are on low profile.
- **Bangalore Supplies:** Most of the societies and the Private yarn traders have been procuring the warp yarn from Bangalore through bank, some times by post, some times by courier service and some times by transport. They communicate through phone and place their orders to certified parties/suppliers on panel of SERIFED, a Karnataka Silk federation.
- **Yarn Retailers:** As such in the clusters there are no wholesale yarn traders, but there are 10 retailers doing the retail business apart from the above stated doing their retail business of yarn supplies and also involved in the collection cum trading of finished produce.
- **N.H.D.C:** This is a central government undertaking under the D.C. Handlooms for the supply of the basic raw material to the weavers of the handloom sector at the Mill gate prices without charging any transportation charges and the other local taxes. This institute had in the past taken up the cluster development programme and had supplemented the weaver societies with some good designs and other requirements. But as on date very few weavers take supplies through this institute as it was told the private parties are able to sell at a

lesser price than the NHDC and in terms of Quality they find the product to be inferior.

3.10. Weavers Service Centre: This is a Govt. of India organisation meant for the training and skill up gradation of weavers, and located at Bhubaneswar. This organisation has Design, weaving, Dyeing, Printing, Photography, Library & Documentation sections for carrying out the design development, design adoption, design dissemination, technical inputs in the form of research in looms, dyes, dyeing techniques and in innovations in appliances and accessories used by the weavers. Most of the cluster actors have been taking only the training at this institute and later their linkage with this organisation is found to be very poor.

3.11. Textiles Committee: It is a statutory body under the ministry of textiles set up for promoting quality and excellence in the Indian Textiles Industry to make it globally competitive, and to provide basic infrastructure and guidance to support and enhance quality in the textile industry. This office has initiated the Cluster development programme. The state Apex marketing body is presently availing the services from the implementation of ISO-9001, QMS at their organisation.

3.12. Assistant Director of Textiles & Handlooms: It is a state government office to assist and audit the performance of the W.C.S. in the co-operative model set All the state and central schemes are routed through them for implementation.

3.13. Institute of Textiles Technology: The institute has a community programme development cell supported by some meager amount of grant for taking up few community programmes among the weaving cluster places. Apart from the above the human resource would be of immense help in changing the course of the cluster in quality, technology related issues. Apart from the community development programmes they have taken one state

level awareness programme for weavers in educating them to know about the count of yarn and accessing its quality. The institute has good testing laboratory which has not been made to use.

3.14. Commercial Banks and Financial Institutions: There are three banks in the cluster and from the business point of view the SBI is regularly and sincerely delivers the service of a bank. Loans are given under PMRY and are paid back timely. But the worst of the fact is seen at the Bolangir Anchalik Gramya Bank/District Central Co-Operative Bank. All the funds of the O.S.C.B were routed through the local Cooperative Bank branch for the co-operative sector. Financial institutions like NABARD and SIDBI are located at Bhubaneswar and they are supporting developmental activities.

3.15. ORMAS: It is an autonomous body constituted by the Panchayati Raj Deptt, Government of Orissa, as a marketing society for the rural development of the state. They have formed 159 SHGs with 1738 members (665 male and 1073 women) extending Rs.15.90 lakhs and linked with banks for loan port folio of Rs. 43.48 lakhs.

NGOs

There are many NGOs in operation in Sonepur out of which as reported by the ADT only five NGOs have worked with weavers up to the extent of forming SHGs, linking them with banks and training them in regulatory aspects and other group building measures. The five NGOs are *RARE, NRDC, CPSD, ACDC and Dr. Ambedkar Voluntary Organization.*

Chapter – IV Analysis of Business Operations

4.1. Production Process

The main product of cluster is silk sarees with width 48'' mainly employing 3 Ply organised and 4 Ply Charkha yarn and cotton tie & dye sarees.

- a) Plain variety with bomkai anchal by employing by extra weft
- b) Silk sarees with single or double Ikat designed anchal/border.
- c) Cotte sarees on bomkai design

Such sarees costs around Rs 1600/- to Rs 4000/- and above.

Sequencing of activities

The process of weaving involves a number of activities like warping, sizing, winding, dyeing, preparation Bandha, and designing of Graphs etc.

Cotton as well as silk yarns procured in shape of hank on English count/Denier.

4.1.1. Preparation of warp

The hank yarn is first transferred to Natai (a traditional winding device) and then it is wound around the warping frame in relation to the length of the warp. This activity is normally performed by the non-weaving members of the family mostly by ladies. Then it is wound around the warping frame. After that sizing is done by making the warps straight before it is taken to loom. Now a day's silk yarn are also available in shape of warp measuring 13 meters for preparation of two sarees.

4.1.2. Preparation of weft

In weaving of Bomkai Sarees there is a weft preparation process as the border of the Bomkai sarees are tied and dyed to get a prominent border. In such process the hank yarn are transferred to "Natai" and then wounded on a device locally known as "Bandhi Pura" as per width of the sarees to be woven. Then the border portion is tied and dyed as per the width of the border followed with prin winding.

4.1.3. Sizing

Sizing is done to strengthen the warp yarn and make little stiffer so as to withstand the beating of the reed during the weaving process. It also gives

the fabric an even weaving and sound look. Sizing is done only for cotton yarn by using residue after rice.

Preparation called "Mud" in local language by help of a sizing brush locally termed as "Kunchi". The sizing is normally done in the free space nearer to the weaver cottage in the village. The weaver used to do this with the help of female member of his families.

4.1.4. Preparation of Bandha

Before the yarn is tied as per the design, the white yarn is straightened by the help of a wooden frame named "Kamada". Prior to this, the yarn is warped according to the desired length. The ends are set separately in portions known as Ganthis. Now the Ganthis are tied as per the design and whole of the tied/untied yarns known as "Chhanda" are dipped in to the colour bath. The colour thus penetrates in to the untied portion. Subsequently the coloured portions are untied to dye with a different colour as the design requires. Such process of Tying & Dying is repeated till the Chhanda gets its Bandha design. After dying is completed, the Chhanda are completely dried, all tied portions are untied and strengthen to make it ready for weaving.

4.1.5. Dying

The weavers in their cottage dyed both the cotton as well as silk yarn. Normally 2/4 pieces are dyed at time. Cotton dying is basically done with vat, naphtha dyes where as silk yarns are dyed with acid dyes. The silk yarn prior to dying passes through another process called degumming, for removing its seracin (A coating of impurities).

4.1.6. Preparation of Looms

Preparation of looms are involves the following activities in case of a newly installed looms or a loom changing its warp count. In case of old loom where productions were going on with same count of the warp, the warp threads are simple to the end portion of the large sarees by hand twisting.

4.1.7. Drafting

The process of passing the warp yarns through the heald of the loom as per the designing to be woven is known as drafting. This help in further process of weaving when a broken yarn become easy due to the heald and also help in design the process. In Sonapur cluster, the heald is no more in use and replace by nylon twine which performs the same function as that of wire/ varnish heald.

4.1.8. Denting

The reed is the technique term but known as "pania" in the local language is filled with the yarns by the weavers. Reed plays the role to place the pick yarns on the fall of the cloth during the beating process. The reed used in the cluster is mainly made in the steel. It is changed as per the count of the yarn.

4.1.9. Design Setting

The setting of designing is done either by "Jala" or by "Dobby" or by both. Jala used to extra weft threat where as Dobby performs the role of putting extra warp threat as the design envisages.

4.2. Nature of production activities

As per the field level survey conducted by ADT office Sonapur, the total no of looms operational in the cluster is about 12000. Out of which 6320 looms are under cooperative societies. There are more than 50 master weavers are operational in the Sonapur cluster. Although there are lots of cooperative societies formed by the efforts of ADT office but most of them are either not functioning well or the benefits are trapped by the dominant members. So weavers are prefers to work with the master weavers. There are also few independent weavers who purchase raw material by own, convert it into sari and sell it to market by own. General prevailing practices in the cluster are society/master weaver supply yarn to the weavers. They will carry out de-

gumming, dyeing, weaving preparatory work and weaving at their home. To complete this, weavers will take minimum 12-15 days, for which entire family member will get engage. For two sari weavers will get on an average Rs 1500 to 3000 as conversion charges. The rate will be vary from design to design. Few of master weavers are manufacturer have their own market outlets in metros like Bhubaneswar and Mumbai. (eg. Padamshri Chaturbhuj Meher have outlet at Bhubaneswar named Meher's handloom private limited).

4.3. Products

Sonepur cluster have specialty in tie & dye and Bomkai design in sari. The other products of this cluster are plain cotton sari, plain silk sari with bandha design and ladies dress material.

4.4. Raw Material

The handloom sector needs raw material in the form of yarn, colour, zari etc. Cluster is specialized for tie and dye and Jala (Bomkai) technique. Weaving work is also operational in interior part of village. Weavers belonging village collect yarn from master weavers or from the yarn traders. These yarn traders are available in the block head quarter. Mostly yarn traders/master weavers bring cotton from Bargard which is 80 km from Sonepur. Yarn traders bring silk yarn from coiambatoor, mysore and Bangalore and dyes from Mumbai and zari from Gujarat.

4.5. Design

Sonepur is famous for Tie and Dye and Jala (Bomkai) techniques. To make design in the weft, Jala technique is used. In the process of tie and dye, wherever colour is not required in the yarn, the yarn bundle will be tied with rubber strip before going for dyeing. Vat and Naphthal are use for dyeing process according to the requirement of the yarn bundle. Over the years this cluster is manufacturing tie and dye and Bomkai design sari mostly in geometric designs. Some old designed are also continuing. Only limited efforts are made in adopting new designs. The computer and internet

facilities are not used in the cluster. The cluster actors are not realized the importance of these facilities and utilization of CAD for design making.

4.6. Quality

The cluster SMEs does not have much knowledge and know how of the different parameter of the quality and its testing. They do not have concepts of quality checking to the end products. Products are subject to physical checking by the point of view to decide the conversion charge to be paid to the weavers and for cost calculation. It is also observe that the Sonapur silk sari is not giving rich look as comparison to other silk sari like Kanchipuram, Banarasi etc. It is not also not durable and available in some old design.

4.7. Marketing

Master Weaver and mahajan / sahumars are the major actor of the cluster in marketing the products. Weavers are working as job worker under master weaver or Mahajans / Sahukars. They procure raw material to weavers and after conversion of raw material into product; the weavers got their wages at the same day or on monthly basis. But these weavers have less bargaining power regarding their wages.

There are also independent weavers operational in the cluster. As their economic condition is not well so, once the finished product of a sari is ready, it must find a buyers. Due to weak economic condition they need return immediately. They can not wait for the sale of products for a longtime. In fact the frequency with which he sales products determines his economic well being. Of the weaver spends around two weeks to produce a cloth and wait for four weeks to sell it, the precious labour, time and his working capital is held up. This will create not only economic and social pressures to sell the products at low price or through under cut so as to survive him and the family. The weaver is under pressure to sell his product at a non-remunerative price to avoid cumulative and just to keep him engaged in weaving.

4.8. Modernization and up-gradation of skill/equipments

Weaving is the inherent traditional skill by the weavers. This skill is transmitted generation to generation without much diversification and technique. Even though efforts were made for loom as well for skill improvement by the BDS, it has not been benefited due to traditional mind setup of weaves.

4.9. Infrastructure

Most of weaving activities are operational in interior village. Some of these villages have not even road connectivity. They do weaving in dark and dummy room. Few SMEs established in district head quarter or block head quarter have communication facilities limited to phone. Only few of them have fax facilities. They even not realized the utilization of computer and internet. CAD is not introduced in the clusters.

4.10. Common Issues and Problems ??

Inherent problems in production process

- **Use of traditional looms:** use of traditional throw shuttle pit looms, Jala technique & short warping consumes more times which increase the cost of production which makes the Sonepur fabric more expensive.
- **Traditional preparatory work:** pre weaving process such as priming, peg warping, loom setting, and sizing consumes more time and manpower. Whole weaver's family involves during the process. This could be reduce by doing the pre weaving work for more then 8 sari at a time & there is also scope for reduced the consumption of time during the process.
- **Poor Dyeing:** colour fastness is the major problem in cotton sari if exposed to sun or continuous hand washing. It was found that in cotton sari, the boarder and anchal portion fade while the body colour of the sari is intact. Colour bleeding is the major problem with silk sari. The reason behind it is the decentralized dyeing in traditional process. These can be reduce by using quality dye stuffs, maintaining appropriate dying parameters, use of standard quality yarn, maintaining degumming quality, logical management on percentage of shade etc.

Design

- **Inadequate design development:** There is lack of conscious efforts for design development. They are continuing with all most the same traditional design which already has been out dated. Handloom sectors required innovative and continuous new design development to sustain in the market.
- **Weaver's reluctance:** It is also experience that the weavers not agreed to weave new design if they receive less remuneration in weaving it.
- **Lack of introduction of new design dev. technology (CAD):** the cluster still have not using CAD for developing the design which put a limitation to the supply of design.

Technology

- **Limitations of tie-dye weaving:** There is no intervention for production of tie-dye in modern looms and almost the same technology is being used which was in the process since long. This is the main obstacle in raising the productivity per loom. Looms are mostly of 52'' width and widely used for production of sarees / dress material having maximum width of 48''. Tie-dye productions have also some limitations for colour combination scope for product diversifications under such condition become limited.
- **Floating thread:** In tie-dye (Saree as well as in running materials), it is a common feature that the weft threads on which Bandha design are made floats on the reverse side of the boarder. The customer, who spends good money in purchasing a qualitative tie-dye material, does not like it.
- **Use of modern attachments:** Use of Jala and Dobby are in vogue for production of Bomkai designed fabrics and doobby is used for boarder of tie and dye fabrics, but jacquard is yet to be employed. Use of Jacquard in long run can provide more benefit in design diversification and get designs involving more repeats.

Credit Issues

The cash credit finance by the District Central Cooperative Bank has almost stopped. The bankers have no inclination to provide credit to the individual weavers as a result of which the out turn under Swarojgar credit card and artisan credit cards is very poor.

Seven SHGs have been provided with Rs 10, 75,000/- towards working capital out of which 50% are subsidy.

Similarly 12 WSC of this cluster have availed 141.

54 lacs as cash credit from district Central Cooperative Bank toward working capital and defaulted in payment thereby causing a total outstanding of Rs 221.94 lacs at present.

Two of the industrial cooperative societies have defaulted Rs 36.79 lacs with DCCB, Balangir, Sonapur Branch towards cash credit outstanding.

Marketing Issues

- **Competitions from power loom:** Now a day the power loom cloths are printed alike the tie-dye as well as Bomkai design fabrics and cost much less than the original fabrics. Though in long run, it does not give as satisfactory services as the original one still it is able to

- capture a big market share and also deteriorate the market potentiality of the cluster.
- **Seasonal demand of the product:** The fabrics are mostly sold locally. The price structure of the fabrics does not permit a normal customer to use it for the domestic purposes as such the fabrics have demand for sale during festival occasion and marriage season.
 - **Poor communication / linkages with big traders:** The cluster is in the interior of the state and production is taken up in the village area. Communication takes much time to this place. No infrastructure is available to meet a comfortable stay for the big wholesaler purchasers/ Exporters. As such the fabric are sold to the big traders at their business place and best, the big traders visits Bhubaneswar for such marketing purposes, that too to few leading master weavers who have establishment / outlets at Bhubaneswar.
 - **Credit sale:** The fabric sale mostly on credit basis, which has a direct effect on the sale value of the product.
 - **Changing mind set up of the new Generations:** The product of this cluster is meant for ladies. But the school/collage going girls, have no inclination in favour of the handloom sarees. The sarees of this cluster is not only costly but also not conducive in summer use. As the region is hotter, only winter is the idle season to use such fabrics. All these parameters go against the prospect of a better marketing and therefore show decline in the local market trend and hence there idea need to move to the niche market.
 - **Effect of pricing:** The cluster has no fixed pricing structure. For same designing and quality, the product price may vary from weavers to weaver, master weaver to master weaver and trader to traders.

Unhealthy competition

Often it is observe that the master weavers do not hesitate to highlight demerits of another master weaver to get a market share from trader with whom the earlier one is trading. To go against the competitors sometimes they used to sale the fabrics under value which adverse the market.

Adulterations

Sometimes small master weavers and weavers used to insert some polyester yarns in warp / weft of a plain silk sarees and sale relatively less price terming it as silk sarees.

Organizational Issues

- **Primary WCS:** The cluster has 12 primary weavers cooperative societies out of which 6 are defunct. The main reasons are the poor financial condition. Almost all WCS are under loss and also not getting adequate support from the apex financial Organization. Blockage of funds with various agencies towards cloths dues, subsidies etc have posed the main problem in running its looms satisfaction. Besides management problem, problem from EPF commissioner are some of the other issue.

Non- Governmental Organization

There are several NGOs operating in the cluster in handloom sectors. Their role has so far confined only with the formation of SHGs. However ORMAS has organised its activities to a satisfactory level by organizing ten weavers training programme, organizing / making SHGs to participate in exhibitions and exposure visit. Similarly another NGOs namely CPSD has organised a weaving training programme for skill up-gradation of handloom weavers in association with weavers training centre under IHTP.

Chapter – V

Inter-firm Industrial Organization

Value chain Analysis

Sonepur cluster have specialty in tie and dye design and Bomkai technique. The products are artistic in nurture and lots of value additions are done during the process. The major products of Sonepur clusters are: -

- Plain silk sari (Tie and dye / Bomkai Anchal)
- Plain silk sari with double Ikat
- Silk sari with extra warp and extra weft body design
- Silk sari with zari works
- Silk sari with tie and dye and bomkai design on single ikat and on double Ikat
- Cotton sari with plain design as well as bomkai design.

The figure (Please see Annexure II) depicts the value chain analysis of silk sari of Sonepur cluster. It describes the degree of value additions at each stage of processing. The main activities involved here are: -

- De-gumming
- Tie and Dye
- Winding, denting and beaming
- Loaming and weaving

The price of the hank yarn available in the market is in Rs 1200/- per kg (2/80 count). The impurities with the hank yarn are removed through de-gumming process. During the process, hank yarns are boiled with soap.

After de-gumming 700 gm yarn cost Rs 1220/-

After de-gumming, yarns are dried and take through the process of tie and dye.

The cost incurred in dyeing operation is Rs 125/- per kg. Also the dyeing is not done professionally resulting loss in dye stuffs.

The labour cost of winding, denting beaming is about Rs100/- .

After this process yarn is taken into loom and the process is called looming. After looming weaving process starts and it continues up-to 10 days. The whole family member involves in the process. The labour cost of the weaving and looming ranges from Rs 700/- to Rs 1000/-, depending upon the design. So the cost of production of silk sari varies from Rs 2150/- to Rs 2450/- and these sari is available in the market in Rs 2500/-

Institutional matrix

There is weak institutional coordination in the cluster at the same time the overall effect on the weaver population is very thin. The line departments also do not coordinate among themselves. The current institutional matrix depicts the relationship among the various stakeholders in the Sonapur handloom cluster. The nature of relationship between these cluster actors is not always very clear and direct. Some of them have very remote relationship and it is limited to the extent of organizing some programmes, providing certain marginal services and sometimes conducting informal meetings or some seminars and conferences.

Based on the role of these various support institutions, associations and strength of their inter-linkages and cooperation, they are given a score in a point scale. The score "L" indicates that there is very little cooperation among this cluster actors whereas the score "H" indicates that there is strong inter-linkages and responsiveness among the cluster actors. This cooperation may be expressed in terms of joint planning, bulk purchasing of raw material and inputs, solving each others problems, taking up pertinent issues to various Govt. depts., organizing seminars and conferences, implementing programmes jointly and reviewing the progress of the cluster through organizing periodic meetings. The current institutional matrix delineating the scores in the above table.

The core department is Director of Textile represented by ADT. Though they have relationships with organizations like WSC and NHDC which are Govt organizations yet the coordination is not perfectly done to benefit the weavers to the utmost extent. They also conduct sporadic actions without followup

properly. ITT has the only full fledged quality control laboratory but its services are not used at all though it is also Govt. Organization under Directorate of Textiles. ORMAS is an institute originally formed by Govt. of Orissa for marketing of rural products. But unfortunately, in Sonapur ORMAS is involve in a project where they formed SHGs only and link them with banks and provide them revolving funds channelised from DRDA but the irony is that other line departments do not have much of information about ORMAS achievements and there is not much of transparency exists. Boyanika, a Govt. outfit was formed for all round support of weavers through cooperatives. But down the years efficiency of the organization has gone down drastically. Their operations run through ADT. Traders and cooperatives have business transactions directly also. Boyanika needs revitalization. The same situation lies with Sambalpuri Vastralaya. NHDC supplies raw material but they are also costly and their capacity to cater to the total need is also limited. NGOs as usual form SHGs as a regulation activity without going into the intricacies of the weavers business. Last but not least cooperatives at one point worked as life line for weavers. They could not benefits the weavers socially and economically, and the main achievement was the period between late seventies and cooperatives for their personal benefits and made the weavers works under them as wage earners. If all the organizations cooperate and activated properly it could help the weavers immensely.

Chapter – VI

SWOT Analysis

Strength

Finance

- Existence of Bankers, DFIs and MFIs in the region
- Good Govt. support

Market

- Product with adequate absorbing potential in domestic market
- The product has got almost brand equity in the sari market
- High ratio of value addition to investments

Production

- Having handsome handloom capacity
- Custer attributed to the deft weaving skill possessed by the weavers
- No/less power utilization in production process

Weakness**Finance**

- Low profitability and margin of weavers and which results in bankers being wary of supporting small units
- High default ratio with banks.
- Absence of financial, statistical, records and maintenance of necessary records as to facilitate institutional finance.
- SMEs largely do not come together for bulk purchase of inputs as to benefits from quality discounts
- Poor financial condition
- Inadequate institutional credit flow leading to exploitative lending.

Market

- Detrimental price based and non-innovation & differentiation based competition amongst manufactures.
- Unfair competition, often one master weaver does not hesitate to disclose the demerits of the other master weaver in order to trap the market segment.
- Inadequate attempt to add value to the products
- Insufficient market promotion efforts for the end products at domestic as well in export market.
- Non adoption of innovative design in keeping with changing market expectations
- Lack of market information and knowledge
- Low awareness level / brand initiatives for Sonapur fabrics / products
- Targeting on traditional market segments
- Inadequate market intelligence
- Large dependency on Govt. scheme.

Products

- Limited colour range
- Low productive and out dated production facilities
- The weavers undergo a lot of drudgery and suffer from low productivity because of traditional looms.
- No / less linkages with service providers
- No exposure to IT
- Absence of adequate production and other management.
- Systems public and private service providers are largely not available in this initiative.

Opportunities**Finance**

- Common financing to facilitate cheaper institutional finance (Eg. Credit Guarantee Fund (MCGF))

- Common finance to facilitate common facility centre and common raw material purchase

Market

- Common product display centre
- Trade fair participation
- Potential buyers as well as market is yet to be tapped.
- Duty exemption on the garments will give scope to capture new market share by introducing new products and ready to wear items.
- Improve market opportunities due to opening up and quota phase out
- Promotion of collective brand / supplier brand could enhance opportunities

Production

- Common small raw material purchase consortium to reduce cost
- Scope for diversification into value added products
- Scope for reduction in cost of production by bulk purchase of raw material and best dyeing practices
- Scope for training, intervention among SMEs

Threats

Finance

- Non proactive Bankers may not support development plan of SMEs
- Low or nil margin amongst tiny entrepreneurs may affect sustainability
- Financial reforms may reduce Govt. patronage

Market

- Fast changing taste and priorities of the consumer due to effect of fashion
- Non-tariff barriers faced by exporters to major import countries
- Non-exploration of new markets on systematic basis

Production

- High illiteracy rate to adjust with the changed scenario

- Non-up-gradation of process technology may effect sustainability
- Absence of private, public partnership to promote R&D value added production and new markets

Vision statement

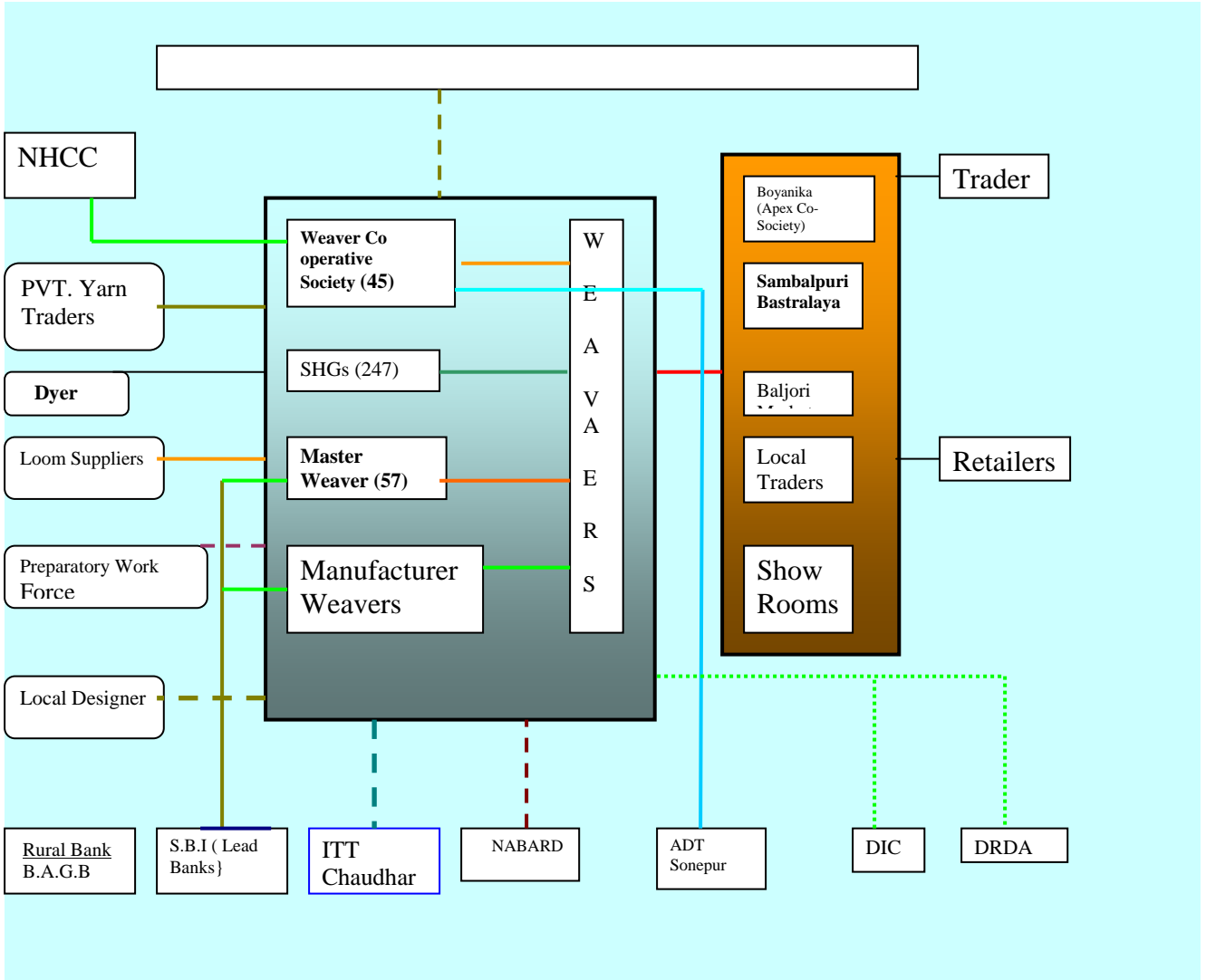
Sonepur Handloom cluster will establish brand image and offer high unique value added fabrics.

The turn over of cluster will increase by 20% through strong market base in domestic and international market by 2010.

Strategy

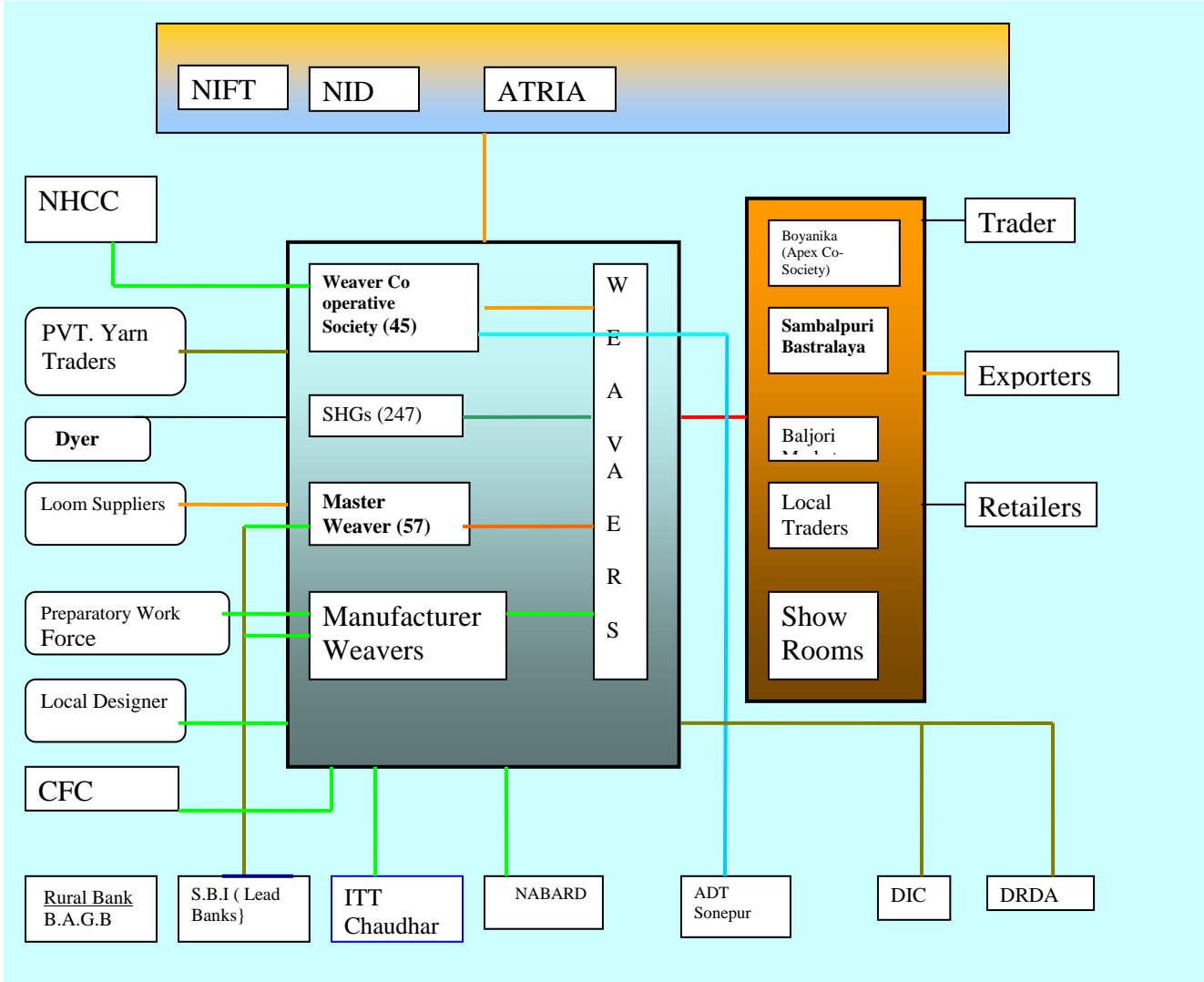
- Building of consensus for cooperative initiation on procurement, production & marketing front
- Establishment of CFC for Dyeing and preparatory work
- Inputs (training & workshop) contributing for product diversification
- Promotion of GI
- Protecting from fake product
- Training on dyeing & preparatory work for productivity enhancement
- Streamline of credit linkages by mFIs.
- Convergence of various government schemes.

**Cluster Map
(Pre-Intervention)**



(---) Dotted line indicates weak association
 (—) Bold Line indicates Strong relation

**Cluster Map
(Post-Intervention)**



(---) Dotted line indicates weak association
 (—) Bold Line indicates Strong relation

Institutional Matrix : (Pre-intervention)

	COOPERATIVES	ADT	NHDC	WSC	ORMAS	NGOs	DIC	TRADERS	SAMBALPURI BASTRALAYA	BOYANIK A	ITT
COOPERATIVES	-	M	L	L	M	M	-	H	M	H	-
ADT	H	-	H	M	M	M	L	M	M	H	L
NHDC	M	L	-	L	-	-	-	-	-	-	-
WSC	M	M	L	-	-	-	-	-	-	-	-
ORMAS	M	M	-	-	L	L	M	-	-	-	-
NGOs	M	L	-	-	M	-	M	-	-	-	-
DIC	L	L	-	-	-	M	-	M	-	-	-
TRADERS	H	M	-	-	-	-	M	M	M	H	-
SAMBALPURI BASTRALAYA	M	L	-	-	-	-	-	H	-	H	-
BOYANIK A	H	H	-	-	-	-	-	-	H	-	-
ITT	L	L	-	-	-	-	-	-	-	-	-

There is a weak Institutional coordination in the cluster at the same time the overall effect on the weaver population is very thin.

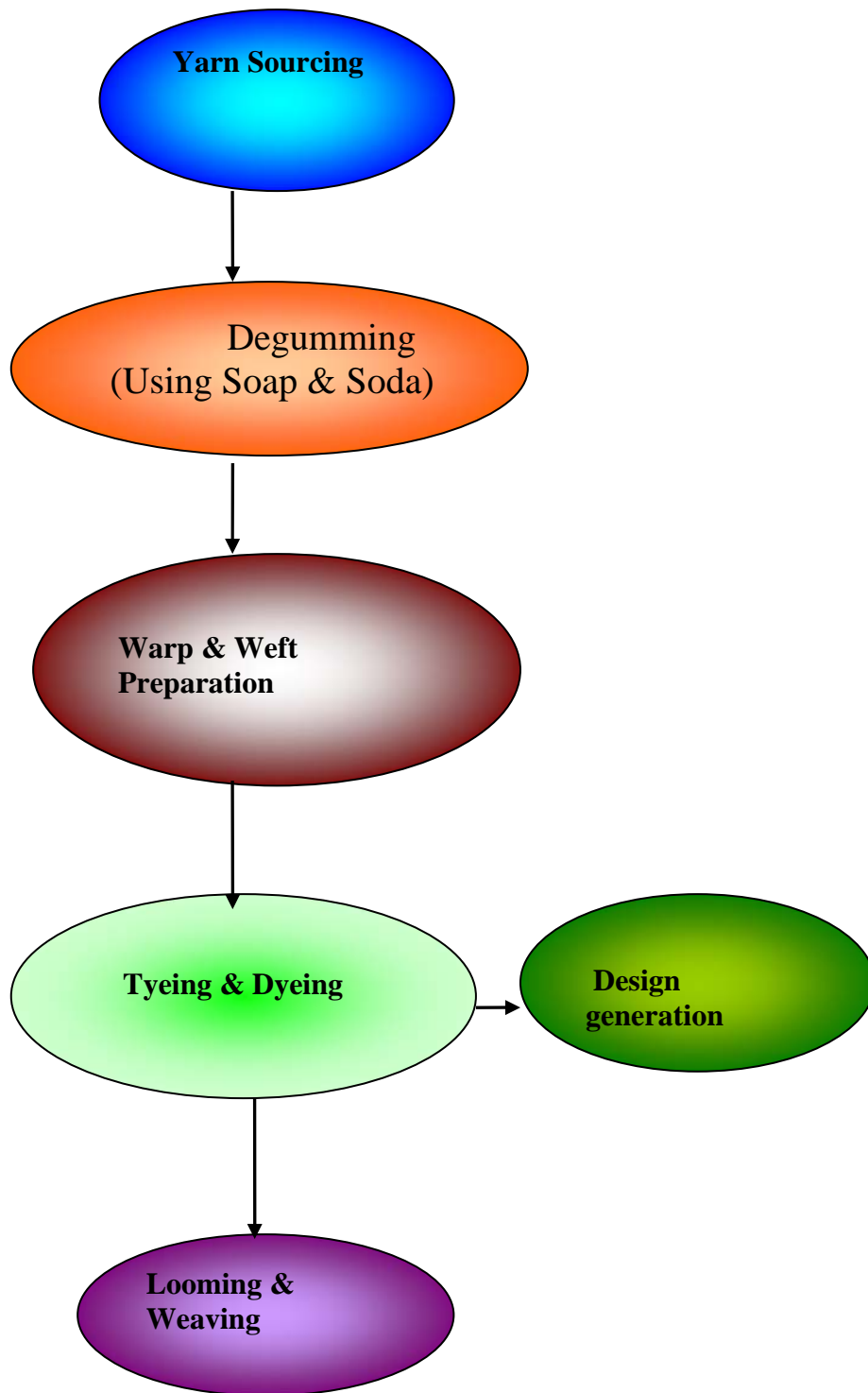
Institutional Matrix : (Post-intervention)

	COOPERATIVES	ADT	NHDC	WSC	ORMAS	NGOs	DIC	TRADERS	SAMBALPURI BASTRALAYA	BOYANIK A	ITT
COOPERATIVES	-	M	M	M	M	M	M	H	M	H	H
ADT	H	-	H	M	M	M	M	M	M	H	M
NHDC	M	M	-	H	-	-	-	-	-	-	-
WSC	M	M	H	-	-	-	-	-	-	-	-
ORMAS	M	M	-	-	-	L	M	-	-	-	-
NGOs	M	L	-	-	M	-	M	-	-	-	-
DIC	L	L	-	-	-	M	-	M	-	-	-
TRADERS	H	M	-	-	-	-	M	M	M	H	-
SAMBALPURI BASTRALAYA	M	H	-	-	-	-	-	H	-	H	-

AYA											
BOYANIK A	H	H	-	-	-	-	-	-	H	-	-
ITT	L	M	-	-	-	-	-		-	-	-

There is a weak Institutional coordination in the cluster at the same time the overall effect on the weaver population is very thin

Process Flow Chart



Annexure

2 Value Chain Analysis (Bomkai Design)

Raw material:
Silk Yarn: Rs.1200/- per Kg.

Degumming / Soap boiling: loss of 300gm. Exp.Rs.20/-

After degumming:
700gm of yarn costs Rs.1220/-

Cost of Dyeing operation = Rs. 125/- per kg.
{Not professionally done resulting in loss of Dyestuff}

Dyed yarn(originally from 1 kg. of yarn): Rs. 1345/-

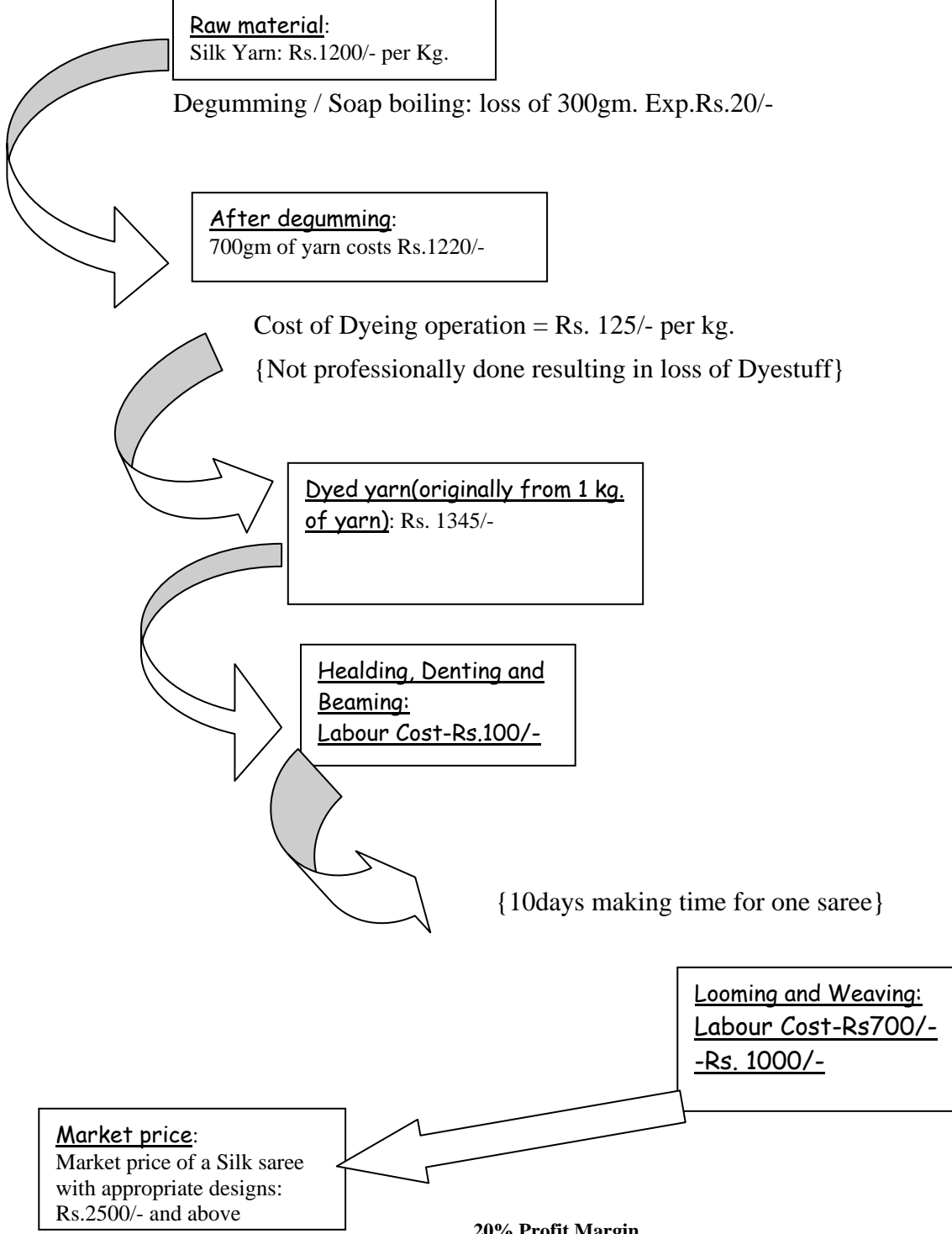
Healding, Denting and Beaming:
Labour Cost-Rs.100/-

{ 10days making time for one saree }

Looming and Weaving:
Labour Cost-Rs700/-
-Rs. 1000/-

Market price:
Market price of a Silk saree with appropriate designs:
Rs.2500/- and above

20% Profit Margin



2 Value Chain Analysis

Raw material:

Cotton Yarn (2/120 count):
Rs.1800/- per Bundle =
4.5Kg.

Degumming / Scouring/Alkali Treatment: (loss 5% i.e. due to removal of oily substances) Exp.Rs.20/-

After degumming:

4.225kg. of yarn costs
Rs.1820/-

Cost of Dyeing operation = Rs. 430/- per bundle.

{Not professionally done resulting in loss of Dyestuff}

**Dyed yarn(originally from
1 bundle of yarn):**

Rs. 2250/-

**Winding, warping,Healding,
Denting and Beaming:**

Labour Cost-Rs.500/-

Market price:

Market price of a saree
(400gm) with
appropriate designs:
Rs.400/- and above

[10 sarees from One bundle of yarn
in two months]

Looming and Weaving:

Labour Cost-
Rs200/- toRs. 500/-
/per saree

20% Profit Margin

