

SOLAN PINE NEEDLE CLUSTER



CLUSTER DIAGNOSTIC STUDY REPORT



Proposal Submitted to:

MINISTRY OF RURAL DEVELOPMENT
GOVERNMENT OF INDIA



Proposal Submitted to:

HIMACHAL PRADESH RURAL LIVELIHOOD MISSION (HPSRLM)
GOVERNMENT OF HIMACHAL PRADESH

Abbreviations & Acronyms

Term	Definition
CC	Community Coordinator
CDE	Cluster Development Executive
CIF	Community Investment Fund
CLF	Cluster Level Federation
DIC	District Industry Center
DMMU	District Mission Management Unit
DRDA	Department of Rural Development Agency
FI's	Financial Institutions
HH's	Households
HMA	Handloom Marketing Assistance
HPHDC	Himachal Pradesh Handloom and Handicraft Development Corporation
HPSRLM	Himachal Pradesh Rural Livelihood Mission
IRJMSH	International Research Journal of Management & Humanity
KVIB	Khadi & Village Industry Board
MCDP	Mega Cluster Development Program
MMSY	Mukhya Mantri Swavlamban Yojna
NHDP	National Handloom Development Program
NID	National Institute for Design
NIESBUD	The National Institute for Entrepreneurship & Small Business Development
NIFT	National Institute for Fashion Technology
NMMU	National Mission Management Unit
NRETP	National Rural Economic Transformation Project
PE	Producer Enterprise
PMEGP	Prime Minister Employment Generation Program
RF	Revolving Fund
SCDP	Small Cluster Development Program
SHG	Self-Help Groups
SMMU	State Mission Management Unit
SOP	Standard Operative Procedures
TSA	Technical Services Agency
VC	Value Chain
VO	Village Organization
WSC	Weavers Service Center
YoY	Year over Year

Table of Content

Executive Summary	4
1. Background & Understanding the Cluster	6
1.1. Handicrafts in Himachal Pradesh	6
1.2. Policy and Country Context	8
1.3. History of Cluster	10
1.4. Geography of the Cluster.....	11
1.5. SHG Penetration in Cluster	11
1.6. Rationale for Selection of Solan Pine Needle Cluster.....	12
1.7. Present Status of the Cluster	13
2. Problem Analysis in the Cluster	22
2.1. Gap Analysis along the Value Chain	22
2.2. SWOT Analysis	28
2.3. Need for an Integrated Value Chain Development	28
3. Proposed Strategy & Intervention Areas for the Cluster	31
3.1. Objectives	31
3.2. Key Intervention Areas/Deliverables	31
3.3. Key Outcomes- Post Intervention.....	32
3.4. Target Beneficiary Group	35
4. Value Proposition.....	37
4.1. PE's Value Proposition	37
5. Intervention Plan	39
5.1. Proposed Strategy	39
5.2. Proposed Interventions	41
5.3. PE's Marketing Strategy.....	51
5.4. Location of the Physical infrastructure.....	61
5.5. Licenses and permits	61
5.6. Proposed Operation & Management Structure of PE	61
5.7. PE's Key Processes	63
6. Operational Plan for Solan Pine Needle Cluster.....	66
6.1. Project Roll out Plan with timelines	66
6.2. Implementation Framework	68
6.3. Roles & Responsibilities	68
6.4. Reporting & Monitoring Mechanism	69
7. Risk Assessment & Mitigation	71
8. Budget & Financial Plan for Proposed PE	73
8.1. Proposed Budget	73
8.2. Budget Composition	74
8.3. PE Financing and Funding Support	74
8.4. Financial Plan for Proposed PE	76
8.5. Projected Financial Statements- 4 years.....	82
8.6. Sensitivity Analysis	84

9. Proposed Program Impact	85
9.1. Economic Impact of Program	85
9.2. Other Benefits of Program	85
9.3. Benefit Cost Ratio (BCR)	87
9.4. Internal Rate of Return (IRR) for the PE Business	87
10. Convergence & Sustainability Measures	89
10.1. Sustainability Plan	89
10.2. Exit Strategy	92
11. Annexures	93

Executive Summary

Pine needle art is one of the oldest art forms, dating back to almost 9,000 years. Artists boil, dry, and remove the caps from pine needles, then bundle them together in tight spirals. They build new rows upon the preceding ones and bind the rows together with strong raffia, nylon, or rayon threads

Pine needlework, also known as "Chir Pine Craft," has gained popularity in parts of India, particularly in the Himalayan regions where pine trees are abundant. Here's an overview of pine needlework in India:

Geographical Context: Pine needlecraft is prevalent in states like Uttarakhand, Himachal Pradesh, and parts of Jammu and Kashmir where chir pine trees (*Pinus roxburghii*) are found in abundance.

Traditional Craft: Pine needlecraft has been practiced by indigenous communities in these regions for generations. It holds cultural significance and often carries traditional motifs and designs.

Economic Importance: Pine needlecraft provides an additional source of income for local communities, especially in rural areas where alternative livelihood options may be limited. It empowers women in particular, as they are often the primary artisans involved in this craft.

Materials and Techniques: The craft involves weaving or coiling pine needles to create various items such as baskets, trays, mats, coasters, and decorative objects. The needles are cleaned, sorted, and sometimes dyed before use. Artisans employ traditional techniques passed down through generations, often using basic tools such as needles, scissors, and sometimes a mold to shape the items.

Market and Recognition: Pine needlecraft products have gained recognition both domestically and internationally for their intricate designs and eco-friendly nature. Efforts have been made to promote and market these products to a wider audience, including through government initiatives and NGOs working in the region.

Challenges: Despite its potential, pine needlecraft faces challenges such as limited access to markets, lack of infrastructure, and competition from cheaper, mass-produced alternatives. Additionally, environmental factors such as forest degradation and changes in land use patterns can impact the availability of pine needles.

Sustainable Development: There is growing interest in promoting pine needlecraft as a sustainable livelihood option that also contributes to forest conservation efforts. Initiatives aimed at skill development, market linkages, and sustainable forest management are being undertaken to support the growth of this craft.

Overall, pine needlecraft in India represents not only a traditional art form but also a pathway to sustainable development and empowerment for communities in the Himalayan region.

Although pine needle basket weaving has been practiced for many years, it is still a cheap, natural, and distinctive craft of Himachal Pradesh. The ladies of Solan (and the nearby villages) are receiving training to use this readily accessible raw material to create novel items. Cotton yarn (warp) is weaved with pine needles (weft) to create highly intriguing goods like coasters, table mats, window accents, etc. One can dye cotton thread any colour they like, and then weave with the needles in that colour. Many villages around Solan produce a large number of goods related to pine

Pine is present as an abundant forest resource in the cluster area. But despite having such a huge resource, it was not exploited for a long time. For the last 5-6 years, with the initiative of the Forest Department in the state, it is being used as a means of livelihood for women in rural areas. Women in rural areas are making many handicraft products from pine leaves like cutlery, containers, serving trays, home décor, pieces, Rakhi and jewelry. Seeing these efforts of the Forest Department and other departments of the state, women from rural areas started being trained in pine needle. In this sequence, the Rural Development Department gave training to women from different villages of 2 blocks Solan and Kandaghat of Solan district. Due to easy availability of raw materials, women have also made pine needle works a means of their livelihood

Based on the observations, the intervention has been designed, which has been summarized below:

Geographic Area	Name of District	Name of Development Blocks		No. of Villages
		Solan	Solan, Kandaghat & Dharampur	
Total Artisans to be covered	525 (226 Primary Artisans, 299 Ancillary Artisans)			
Expected Turnover (in Rs. Lakhs)	Y1	Y2	T3	Y4
	75.63	83.37	91.64	100.73
Year of PE Break-even	4th year of PE Operations			
Key Interventions	Procurement of Raw Material, Raw Material Bank, PE Formation and Operation, Skill Development, Product and Design Development, Marketing Initiative, Quality Control, Order Sourcing and Fulfillment			
Total Budget (in Rs. Lakhs)	Direct Support to PE	TSA Cost	Total	
	281.20	40.00	281.20	
Per Capita Investment (In Rupees)	53,562.00			
Benefits to the Artisans (Incremental Annual Income 4th Year)	New Income post-intervention (4 th Year): Existing Income pre-intervention: Net Increment in Artisans Income:			
TSA	The National Institute for Entrepreneurship and Small Business Development (NIESBUD)			

The PE will graduate from a turnover of Rs 75.63 lakhs in 1st year to 100.73 lakhs in 4th year. Business will break-even in 4th year with a PBT of around Rs 29.79 lakhs at end of 4th year. The revenue model, break-even analysis, manpower required, cash flow, operative expenses and capital expenditure, cost structures have been detailed in the subsequent chapters.

1. Background & Understanding the Cluster

1.1. Pine Needle in Himachal Pradesh

Pine needlework, also known as pine needle craft or pine needle weaving, is a traditional handicraft practiced in various regions, including Himachal Pradesh. In Himachal Pradesh, pine needles are often collected from the abundant pine forests and used to create various handicrafts such as baskets, mats, coasters, and decorative items.

The craft of pine needlework involves weaving or coiling the pine needles together with threads or other natural fibers to create intricate patterns and designs. It requires skill and creativity to manipulate the pine needles into different shapes and forms.

Pine needlework not only provides a source of income for local artisans but also promotes the sustainable use of natural resources and preserves traditional craft techniques. Additionally, it helps in the conservation of forests by utilizing pine needles that might otherwise be considered waste.

Many local communities in Himachal Pradesh engage in pine needlework as a means of livelihood, and their creations are often sold in local markets or to tourists visiting the region. This craft not only showcases the cultural heritage of Himachal Pradesh but also contributes to the economic empowerment of rural artisans.

1.1.1. Pine Needle Coverage in Himachal Pradesh:

Pine needlework is a traditional artisanal practice found in certain regions of Himachal Pradesh, particularly in areas with abundant pine forests. Artisans in these regions collect pine needles and use them to create a variety of handicrafts, including baskets, mats, decorative items, and even furniture.

The coverage of pine needle artisans in Himachal Pradesh can vary depending on factors such as the accessibility of pine forests, the presence of supportive infrastructure and markets, and the level of community engagement in preserving and promoting traditional crafts.

Efforts by government agencies, NGOs, and local communities to support sustainable livelihoods and preserve traditional crafts can also influence the presence and visibility of pine needle artisans in the region.

While I don't have specific data on the exact coverage of pine needle artisans in Himachal Pradesh, their craftwork contributes to the cultural heritage and economic sustainability of communities in the state.

1.1.2. Handicrafts in Himachal Pradesh:

The major Handicraft products and their production centers from the state are listed below:

Handicraft Products	Locations
Chamba Rumaal	Chamba
Miniature Painting	Kangra
Metal Craft	Chamba, Kangra, Shimla, Kinnaur, Sirmaur
Jewelry	Chamba, Kangra, Mandi, Solan, Kinnaur, Shimla, Lahaul & Spiti
Stone Carving	Kangra, Mandi, Bilaspur, Sirmaur, Chamba, Solan, Kinnaur, Lahaul & Spiti

Pullas	Mandi, Shimla, Solan
Wood Carving	Shimla, Mandi, Kinnaur, Sirmaur

The various kinds of handicrafts available in Himachal Pradesh include woodwork, leather embroidery, metal wares, carpets, painting and woolen textiles. The range of handicrafts found in Himachal is unique to the state. The crafts of this state are vast and portray the artistic skill of the craftsmen.

Thangka is an intricate and brightly colored painting done on cloth –a very famous art of Tibetan artisans. These paintings mostly depict Buddha as well as other gods and goddess. This art is very popular especially with foreign tourists

Himachal also specializes in making fine shawls. Moreover, accessories, embroidery, woolen garments and leather craft of Himachal is extremely precious and popular.

Being rich in forests, wood is abundant in Himachal Pradesh and so **woodcarving** is still a living tradition of the state. Earlier this craft was mostly used in building temples and palaces. However, at present artisans creates intricate designs used in building houses, and also for making other things like low benches, spinning wheels, smoking pipe, cradles, low settees, boxes, serving spoon, rolling pins, wooden utensils, and much more. Moreover, other interesting things like fruit bowls, beer mugs, wooden jewellery, decorative boxes and carved images can also be found carved out of wood.

Like most other states in India, Himachal Pradesh is also rich in **traditional paintings**. You can see the miniature paintings in art galleries and museums in Himachal, but the true picture of the traditional paintings can be seen in most village houses. The women of the house paint their floors and walls. Moreover, they draw illustrative designs called yantras on the doorstep on ceremonial occasions. The floors are decorated with a white paste made of rice, whereas the walls are painted with colors, which they collect from daily used things such as turmeric powder, red clay, kumkum (a liquid used for makeup) and so on.

Thangkas are brightly coloured cloth paintings, which are mostly used as ritual paintings exhibited during some Buddhist festivals. International tourists love these paintings. They generally depict lord Buddha and other deities as well as the wheel of life.

Rugs, Carpets are significant part of furnishing in Himachal Pradesh. Available in brilliant colors and traditional motifs these items look amazingly beautiful in appearance. Moreover, Blankets made with wool weaved out of sheep and goats are also available in plenty.

Garments & Accessories used by People of Himachal are very colorful. Their traditional attire is bedecked with delicate embroidery with circular and linear patterns. They are also fond of all sorts of accessories like colorful scarves, bangles, rings, hand knit woollen socks, gloves, mufflers, caps and grass shoes. Women in Himachal like to pass their time in the afternoon by working on **embroidery** work with needle and thread. They make beautiful pieces of clothing like scarves, coverlets, hand fans, caps, cholis (bodices), gaumukhi (prayer gloves) and so on. The richly embroidered colorful silk rumals (scarves) of Chamba have traditionally been made since the last 1000 years. Himachali women use these small shawls as head coverings.

Like Kashmir, Himachal also produces fine and precious **Shawls**, which are in high demand by tourists from all over the world. These shawls are weaved in the cottage industries of Himachal and are available in plain and patterned.

Leather craft is another significant craft of the state. The traditional chappals (slippers) of Chamba are not only beautiful but very comfortable as well. They are embroidered with colorful threads and at times with Zari (golden thread). You will also find a range of shoes, sandals, socks and belts.

Jewelry of Himachal Pradesh consists of beads and metals, which are worn by the local people with their traditional attire. These include pendants, necklaces, rings and so on. The metals used in metalwork or **metal carving** are brass, copper, iron, tin and bell metal. These are used to make exquisite statuettes, lamps, incense burners, low settees of silver or brass, vessels and musical instruments mostly used in temples. Moreover, some objects are also made for daily use at home.

Stone carving is another such craft, which was mostly used for temples in the early days. You can see splendid samples of the stone carving in various temples in Himachal.

To combat changing market scenario within the country and abroad, there is a provision to provide assistance to improve the design quality of the Handicraft. Designer may be engaged from reputed institute such as National Institute of Design (NID), National Institute of Fashion Technology (NIFT) or Design Consultants/Freelance Designers etc. Publicity assistance such as, advertisement, printing of brochures/catalogues, market research as well as production of films for promotion of sales of Handicraft products may be provided to the artisans. Marketing support may be provided to the artisans. At the end a legal entity may be form to the artisan, the result they may be work under an umbrella organization. This may also protect the interests of the artisans.

To enable such holistic, integrated development along the value chain within the major Handicraft clusters across the State, HPSRLM intends to initiate effective interventions under the National Rural Economic Transformation Project (NRETP) in the major clusters in the State.

1.2. Policy and country context

Leading to enhanced quality of lifestyle and increased incomes for the artisans in the State. Both- Central and State Governments have launched various initiatives for the promotion of the handicraft sector. These initiatives have been compiled below:

1.2.1. Central Government (National Level) Policy/ Incentives

The Government has introduced several schemes and policies to support growth of the sector. Various initiatives taken by the government are directed towards areas such as cluster development, availability of credit, promotion of exports, supporting environmental compliances, provisions of social welfare schemes for handicraft, infrastructure development, availability of raw materials, brand building, marketing and R&D.

The Government of India has introduced various schemes and made interventions to preserve the rich heritage of the Indian Handicraft industry and promote its culture. A brief overview of the key programmes introduced over the years by the government is provided below:

S. No.	Scheme	Area	Key Objective	Intervention
1.	National Handcraft Development Programme (SCDP)	Product Development, Skill-up gradation, exposure visits, basic inputs, design development	The main focus area of the schemes is to bring every handicraft artisan into a mainstream while preserving & ensuring continuation of prestigious crafts of the country by providing marketing platforms for handicraft products, resilient infrastructure support, and skilling new entrants through numerous kinds of design and skill training programmes and thus focus on capacity building for the sector.	No activity conducted under the scheme in the Project area.
2.	Marketing Support & Services (MSS)	Domestic Marketing Promotion, Handicraft Export Promotion, Setting up of Urban Haats, Financial Assistance	To Develop and promote marketing channels in domestic and export markets in a holistic and integrated manner to bring greater visibility to the sector and ensure commensurate remuneration to Artisans.	No activity conducted under the scheme in the Project area.
4.	Ambedkar Hastshilp Vikas Yojna (AHVY)	Cluster Development Interventions	To ensure income growth of the clusters artisans, and increase entrepreneurial spirit and give a push to formalization to the sector, formation of artisan producer to be done.	No activity conducted under the scheme in the Project area.
4.	Direct Benefit Transfer	Monitory support to the handicraft artisans	This component is for facilitating credit access for handicraft artisans by providing interest subvention of 6% subject to actual for artisans availing MUDRA loan from scheduled commercial banks. Maximum benefits of Rs. 1.00 lakhs for the period of 3	No activity conducted under the scheme in the Project area.

			years are admissible. The subsidy amount will be reimbursed to lending bank on lodging the claim on the portal of nodal bank.	
5.	Infrastructure & Technology support	Urban Haat, Emporia, Craft Based Resource Center, Marketing & sourcing hubs, common facility center, Raw Material Depot	The objective of this component is to setup a permanent marketing infrastructure in towns/ metropolitan cities to provide direct marketing facilities to the handicrafts artisans.	No activity conducted under the scheme in the Project area.
6.	Technology up gradation assistance to exporters/ entrepreneurs	Financial Assistance, Craft Village,	The objective is to extend the technological up gradation facility to exporters/entrepreneurs.	No activity conducted under the scheme in the Project area.

1.2.2. To provide the required inputs to the Handicraft sector in the State, Government of Himachal Pradesh has undertaken various policy initiatives for promotion of artisans:

S. No.	Policy	Focus Area
1.	Hast Shilp Vikas Yojna	Under this scheme, the corporation provides working capital assistance up to Rs. 15,000.00 to the artisans. The artisans can form a Group/Society/Association for availing working capital from the corporation. An individual artisan is also eligible for this scheme..

In the absence of effective implementing partners and agencies, the desired results of the above mentioned incentives and schemes have not reached the grassroots level. Therefore, producer-owned institutions should lead and collectivize the efforts envisaged under various Central and State Governments. There is a need to take programs and policy measures to increase the income level of artisans.

1.3. History of Cluster

Pine needle art is an outgrowth of an ancient material culture tradition in North Carolina. For several millennia, the Native Americans living in the region that became North Carolina fashioned utilitarian and decorative objects from the trees and plants surrounding them. The abundance of pine trees in the region led to the use of pine needles to make baskets and other objects. Pine needle objects made with coiled techniques have European, African, and Native American origins.

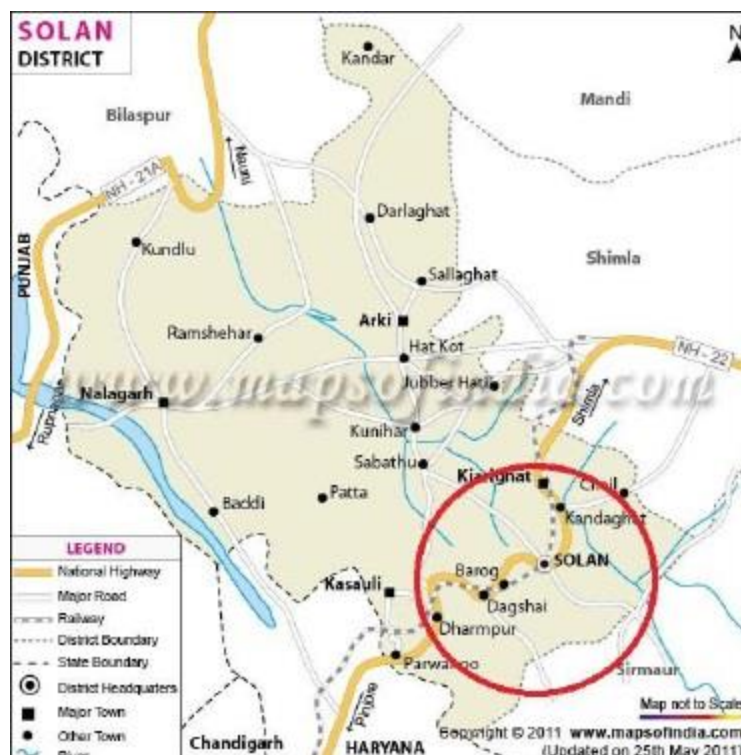
Pine needle art uses the leaf of the pine tree. After boiling, drying, and removing the caps from the pine needles, the artist bundles together the needles. Coiling them in tight spirals, the artist builds each new row upon the preceding one, and binds the rows together with strong raffia, nylon, or rayon threads. The artist often adds a coating of shellac or clear acrylic to protect the finished object.

The Himalayan states are rich in pine forests which are highly inflammable. Many times the main cause of fire in Himalayan forests is fallen pine leaves. In view of this problem, the Himalayan states made a lot of efforts to exploit pine leaves and its value addition. Pine needle craft is a traditional craft in some districts in Uttarakhand. In some rural areas of Tehri

district of Uttarakhand, baskets are made from pine needles. But it is not being used as a livelihood on a large scale. Efforts are being made by the Uttarakhand government to produce bio-fuel, paper and electricity from pine leaves. Himachal government is also making efforts to make coal from pine leaves in some districts. But in all these efforts, the possibilities of direct employment for rural people are very less. For the last five years, with the efforts of Forest Department and Himachal Rural Development Department, Pine Needle has been developed as a craft and rural women have been trained in it. At present, more than 2000 women in Solan, Shimla and Chamba districts of Himachal Pradesh are directly enhancing their livelihood through pine needle craft. In Solan district alone, more than 500 women are earning their livelihood from pine craft.

1.4. Geography of the Cluster

The District is bounded by Shimla district in the North and by Ropar District of Punjab and Ambala district of Harayana in the south, by Sirmaur District in the east and by Bilaspur district in the west. Mandi District touches the boundary of Solan district in north-east. The shape of the district is rectangular with slight bulge on the northern side intruding towards Mandi district. It is located between the longitudes 76.42 and 77.20 degree and latitudes 30.05 and 31.15 degree north. The elevation of the district ranges from 300 to 3,000 metres above sea level. The mountain ranges lie in the outer Himalayas and are a part of Shivalik ranges. The mountains of lower elevation are found in western-southern parts of the district comprising of Nalagarh and Arki tehsils while higher ranges start from central region and extend upto north-eastern corner of the District comprising Solan tehsil and parts of Arki tehsil, Kasauli tehsil and Kandaghat tehsil which are located in north-eastern direction of the district and are having the highest ranges of the District.



There are no regular flights from other major cities of the country to Solan. Nearest airport is Chandigarh Airport. Solan is well connected to other major cities of the country via regular trains. Anyone can easily get regular buses to Solan from other major cities.

1.5. SHG Penetration in Cluster

HPSRLM has been working in the cluster for a long and it has good penetration within three blocks, as can be seen from the table below:

Name of Block	Solan	Kandaghat	Dharampur
No. of SHG's	466	493	254
No. of Member of SHG's	3963	3793	2097
No. of V.O.'s in the Cluster	6	17	2

No. of CLF in the Cluster	1	11	0
No. of SHG's in the Cluster	78	88	5
No. of SHG's Member in the Cluster	175	200	50

Source: NRLM Database

1.6. Rationale for Selection of Solan Handicraft Cluster

HPSRLM conducted cluster scoping studies across the major clusters in the state and shortlisted some of these for detailed value chain assessments. NIRDPR completed a scoping study for the Solan Pine Needle Craft Cluster Handicraft Cluster and it was approved by NRLM. The major criteria for selecting the cluster and assessment of the cluster based on these criteria are mentioned below:

S. No.	Selection Criteria	Rationale
1.	Active Involvement of women artisans	Women are actively working as pine needle craft in the cluster. The interventions of this project will increase the income of women artisans.
2.	The optimum number of rural artisans actively engaged in the production to ensure optimum scale & economic viability	There are a substantial number of artisans who are working on pine needle regularly. The provision of an institutional framework supports for utilization of the unused capacity of artisans by enabling systems and processes and easing constraints like capital, new product development, and marketing.
3.	HPSRLM Outreach	
	<ul style="list-style-type: none"> Mobilization Saturation 	HPSRLM has mobilized 2,937 HHs in Solan district and formed 312 SHGs. The target HHs under proposed project would comprise of members from these SHGs.
	<ul style="list-style-type: none"> Capitalization through RF/CIF 	As on date, of the 312 SHGs in the three blocks the capitalization status is as follows: <ul style="list-style-type: none"> No. of SHGs received RF: 262 No. of SHGs received CIF: 137 No. of SHGs linked to Bank: 312
4.	most of the artisans belong to BPL families	Most of the artisans belong to agricultural families. Due to limited income from agriculture in the area, artisans have adopted pine needle as a livelihood.
5.	Potential market demand for cluster project	As evident from the Demand Analysis section, there is good market potential for products- in the regional and domestic markets.
6.	Eco-Friendly Products	The main raw material available in the cluster is naturally available. Which, being highly inflammable, also causes fire in jungles. The women of the cluster are making eco-friendly products from pine needles. Presently they are making their small contribution in reducing the problem of forest fires.

Based on the above exercise, the Solan Pine Needle Craft Cluster of three blocks of Solan District has been identified for preparing the Cluster Diagnostic Study Report. Based on the developments and learning's from the activities being undertaken to date, HPSRLM is keen to adopt an integrated value chain development approach by promoting a Cooperative Society along with provision for various artisan enterprise development and market access interventions for the Solan pine needle artisans in the identified catchment area.

In this context, HPSRLM has prepared a Cluster Diagnostic Study Report (CDSR) for integrated value chain development through setting up a cooperative society for the Solan Pine Needle artisans in Solan, Kandaghat & dharampur blocks of Solan district. This CDSR has been prepared after undertaking multiple field visits and understanding

the current scenario, to propose possible interventions to develop the cluster as a major hub for the supply of Handicraft products.

1.6.1. Methodology Adopted

The scope of the CDSR is to develop the concept, strategy, and interventions for the promotion of a cooperative society based on a value chain analysis and need assessment of the identified catchment area in the Solan, Kandaghat & dharampur blocks of Solan District in particular. This report has been prepared based on detailed primary research supplemented by secondary research:

- NIESBUD team went around three Two Blocks in the Solan district and conducted extensive stakeholder consultation and one-on-one meetings with the existing groups and their members, field visits, and community-level focus group discussions to figure out the needs and aspirations of the community.
- The secondary research involved the consultation of past documentation of the activities undertaken to date by HPSRLM. Some of the other reports consulted include publications/ reports of Development Commissioner-Handicraft (MoT), Himachal Pradesh Handloom and Handicraft Development Corporation – Government of Himachal Pradesh, etc.

Based on the foregoing analysis, a concept and structural framework for interventions have been worked out along with estimated investments, phasing, and institutional structure.

1.7. Present Status of the Cluster

1.7.1. Background- Solan Pine Needle Cluster

Agriculture, Horticulture and Animal Husbandry is the prominent feature of Solan district. It is the main occupation of the inhabitants of Solan district and about 60 per cent of people are dependent on their livelihood on agriculture and its allied activities.

The Himalayan states are rich in pine forests which are highly inflammable. Many times the main cause of fire in Himalayan forests is fallen pine leaves. In view of this problem, the Himalayan states made a lot of efforts to exploit pine leaves and its value addition. Pine needle craft is a traditional craft in some districts in Uttarakhand. In some rural areas of Tehri district of Uttarakhand, baskets are made from pine needles. But it is not being used as a livelihood on a large scale. Efforts are being made by the Uttarakhand government to produce bio-fuel, paper and electricity from pine leaves. Himachal government is also making efforts to make coal from pine leaves in some districts. But in all these efforts, the possibilities of direct employment for rural people are very less. For the last five years, with the efforts of Forest Department and Himachal Rural Development Department, Pine Needle has been developed as a craft and rural women have been trained in it. At present, more than 2000 women in Solan, Shimla and Chamba districts of Himachal Pradesh are directly enhancing their livelihood through pine needle craft. In Solan district alone, more than 600 women are earning their livelihood from pine craft.

Solan Pine Needle Craft Value Chain in picture:

Solan Pine Needle Value Chain



Figure 1. Value Chain of Solan Pine Needle Cluster

Pine needle work in the cluster is mostly done by women artisans. The collection of raw materials is done by women members of self-help groups. The skilled artisans in the cluster are those women who have become experts in weaving and finishing the products and the semi-skilled women are the beginners in weaving and finishing the products.

The government & other development agencies, through their various initiatives, have supported to uplifting Solan Pine Needle Crafts. Various agencies like HPSRLM, DRDA, DC (Handicraft), etc. have been active in the region. Some of their interventions have been around livelihood promotion through supporting Handicraft activities like Strengthening of working capital base for Primary Artisans' Co-operative societies to develop modernization of looms, accessories, training of Artisans, marketing support and design interventions, Organization of Handicraft clusters for implementation of developmental skills to boost production and sales of Handicraft fabrics through the members of the societies, Promotion of Handicraft exports, Raw Material and Inventory Storage, Health packages to Artisans. However, the identified project block has limited access to these schemes.

1.7.2. Solan Handicraft Cluster Products

Solan Handicraft Cluster products can be broadly classified into four categories:

Category	Products	Products Image
Pine Needle Crafts:	Jewelry	
	Utility Products	
	Blended Products	

Figure 2. Product range of Solan Pine Needle Cluster

1.7.3. Value Chain Assessment of Solan Pine Needle Cluster

The report explores various aspects of the cluster like the existing value chain, gaps, and interventions planned. It gives a framework for developing the cluster into a vibrant hub of production of sustainable and attractive Handicraft products.

1.7.3.1. Principal Stakeholders: Functional Analysis

The core cluster actors in the Solan Pine Needle cluster consist of Artisans, Ancillary Artisans, & Raw Material Suppliers.

A. The Primary Artisans:

The artisans belonging to Solan, largely carries out the Pine Needle Craft activity in the cluster. All the artisans are very hard working and good percentage of them have been struggling to provide a good living standard to their families, i.e. in providing education or necessary consumables.

B. Ancillary Artisans:

Semi-skilled artisans are beginner artisans, by training them the productivity of the cluster can be Increase.

C. Raw material suppliers:

Pine leaves are the main raw material in the cluster and cotton threads are the secondary raw material. Cotton thread is used for weaving pine. Cotton Threads are supplied to the individual Handicraft Artisans of the cluster through local suppliers sourcing from Ludiana.



Figure 3. Raw Material

D. Marketing Channel Partner:

Pine Needle Cluster is an emerging industry in the area. Therefore, its marketing channels are negligible at present. Because the products are eco-friendly and whatever products the artisans are making from pine needles, all the products are consumer durable and a large number of customers live in urban areas. They are not yet aware of these eco-friendly products. Therefore, the cluster's products have immense potential to become marketing and marketing channels for products in the future.

1.7.3.2. Principal Stakeholders: Structural Analysis

The nature of production system engaged in the Solan pine needle cluster has been detailed below:

- **Source of Work:** The cluster is creating a new type of handicraft products. Therefore, at present all the artisans in the cluster are working as entrepreneurs and there is a strong possibility of these products having a huge market in the future.
- **Input/Raw Material Supply:** The raw material is naturally available in abundance in the cluster and the only cost involved is washing by labor to bring the raw material from the forest to the cluster. At some places, the artisans wash and bring the raw material from the forests themselves. Other raw materials like pine needle and cotton threads are also easily available in the market.
- **Production Setup in Solan:** Mostly pine needles are set up at the homes of all the active artisans where all members of the HHs are involved in either the primary or ancillary production activities.

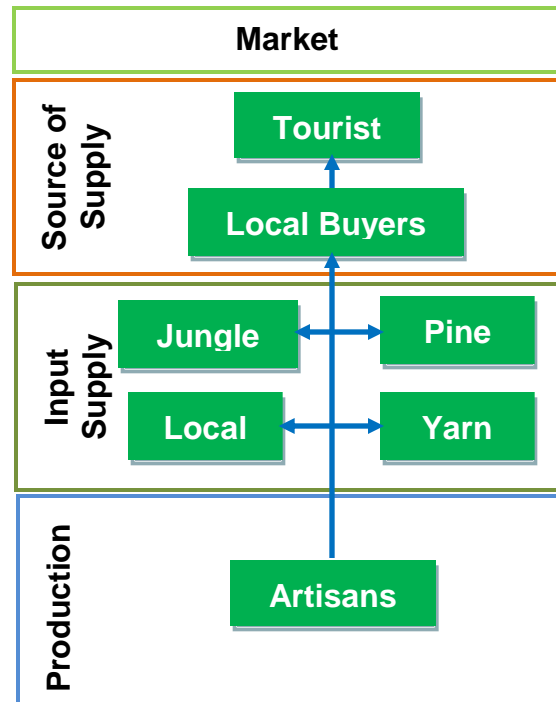


Figure 4. Relationship between various value chain actors

1.7.3.3. Other Cluster Stakeholders

The other cluster actors of Solan Pine Needle cluster as follows:

- Himachal Pradesh Handloom and Handicraft Development Corporation (HPHHDC):** HPHHDC is support institution for promotion of developmental works in Handloom and handicraft area and mostly into execution of various schemes, projects and activities. But presence of this institution is not constructive for the cluster.
- Khdhi and Village Industries Board (KVIB):** KVIB in Solan has been encouraging local unemployed youths to take up Handloom weaving activities for self-employment and earning potentiality and they also provide training for local artisans
- District Industries Centre:** District Industries Centre, Solan district is helping setting up new Handicraft units under several schemes like Prime Minister Employment Generation Programme (PMEGP), Mukhyamantri Swablamban Yojna (MMSY) and other self-employment schemes in the cluster area.
- Forest Department:** Himachal Pradesh Forest Department is running many programs to promote pine needle business. Under which there are pine needle collection programs, awareness programs, subsidies and incentives and research and development in collaboration with government and non-government organizations, etc.

E. Financial Institution: Several financial institutions like Nationalized Banks and State and District Cooperative Bank had been extending small amount of loan in running the business units of the Artisans in the cluster.

F. District Rural Development Agency (DRDA): it is an agency engaged in promoting developmental activities in the district working through Block development Officer. It has so far shown only a little involvement with the cluster Artisans by implementing few developmental schemes for the development of the cluster location.

1.7.4. Artisan Engagement & Activity Calendar for Solan Handicraft Cluster

A. Artisan Engagement

Almost complete primary and ancillary (beginner) production activities raw material collection, dyeing and finishing is done by the artisans at their respective households.

The activity-wise distributions of artisans engaged in the cluster are as follows:

Activity Types	Commercial	Semi-Commercial
Pine Needle	226	0
Ancillary Artisans	0	299
Total	226	299

B. Skill level of Artisans

Based on preliminary assessment of skill levels of the producers engaged in the cluster is as follows:

Skill Level	% Composition
Highly Skilled	43%
Semi-Skilled	57%

C. Production and selling seasons

While the production happens round the year, the level of activity varies across months.

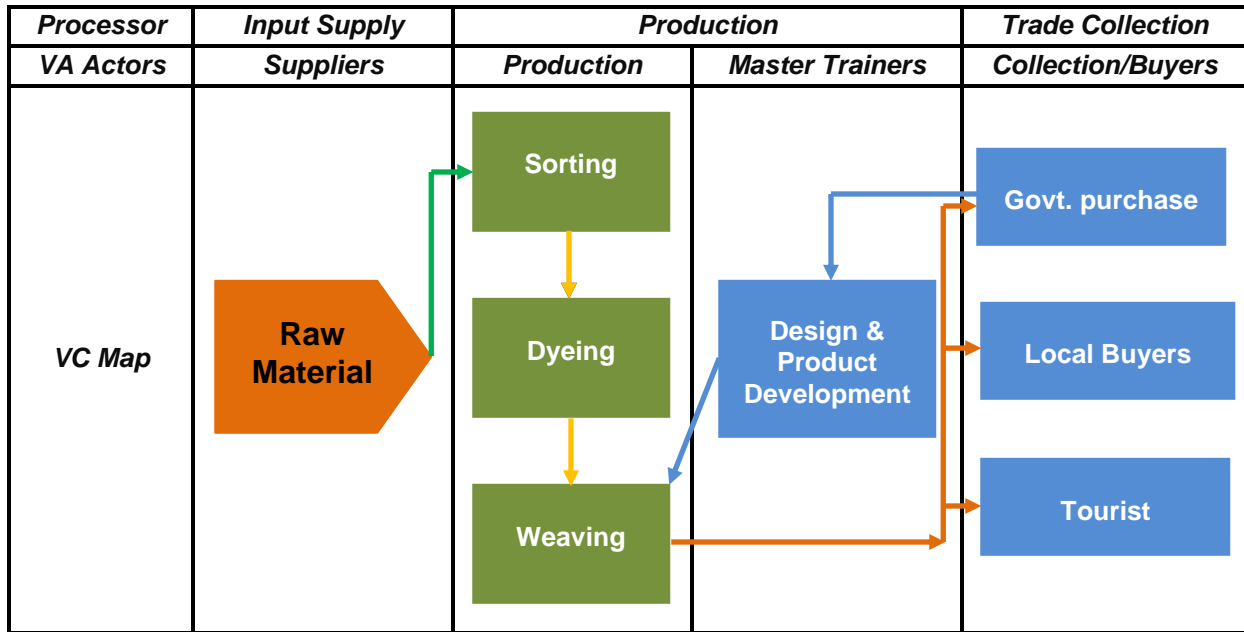
- **High Activity Months:** The activity level is maximum in the months of Oct-Feb. This is in anticipation of festive seasons and Exhibitions.
- **Medium Activity Months:** The months of Mar-Apr and Sep are medium activity months. The activity in Mar-Apr is lower due to sowing season and increasing heat which makes it difficult to work in sheds. In Sep, it's lower due to coming out of the rainy season.
- **Low Activity Months:** May- Aug is broadly low activity months. The activity in May June is lower due to summer and then followed by the rainy season.

Activity Months	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Production Levels	High	High	Med	Med	Low	Low	Low	Low	Med	High	High	High

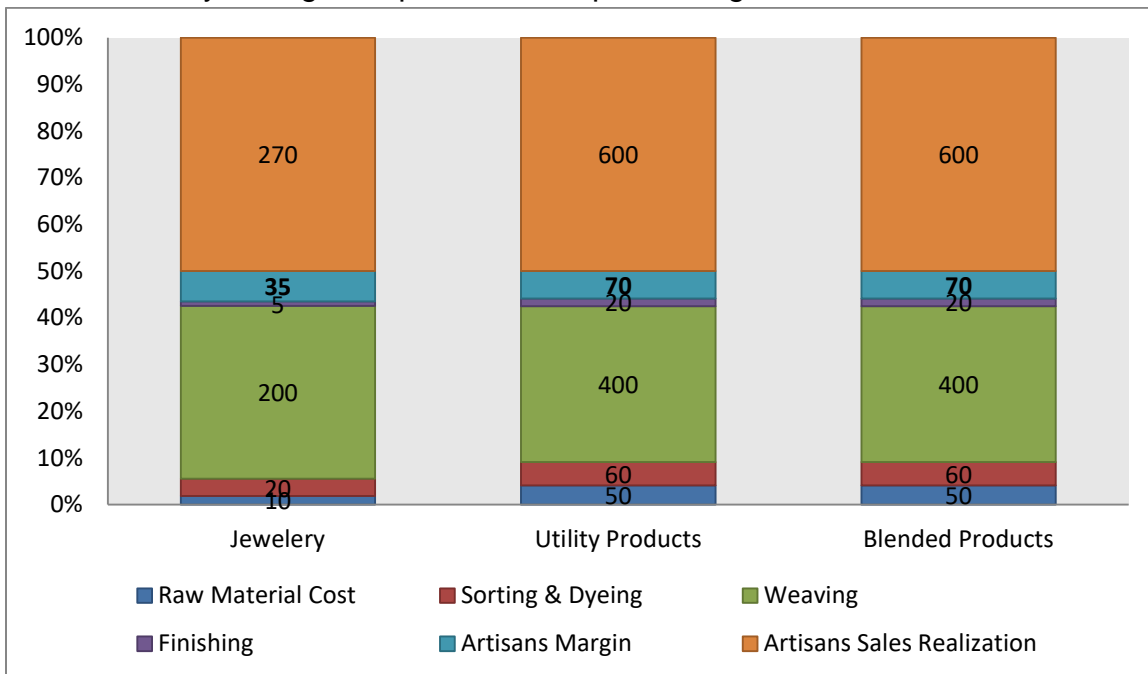
1.7.5. Price Build-up across existing value chain

Value chain mapping exercise was done in cluster to understand the share of artisans in price realized and value captured by other stakeholders.

The mapping is shown for representative products: Handicraft Products



As seen from the graph below, artisans get 12% as profit of the price realized in current scenario. Since all the work of manufacturing the products is done by hand weaving, it takes a lot of time to make any one product, the weaving wages are very low in comparison to this and the awareness of the products is still not reached even to the big buyers. Therefore, artisans are currently selling their products at a profit margin.



#	Jewellery (Rs.)	%	Utility Products (Rs.)	%	Blended Products (Rs.)	%
Raw Material Cost	10	3	50	8	50	8
Sorting & Dyeing	20	7	60	10	60	10
Weaving	200	67	400	67	400	67

Finishing	5	2	20	3	20	3
Artisans Margin	35	12	70	12	70	12
Artisans Sales Realization	270	100	600	100	600	100

1.7.6. Demand for Cluster Products

1.7.6.1. Extensive domestic demand

Pine needles are utilized by artisans and craftspeople to create a wide range of products such as baskets, mats, decorative items, and furniture. These handicrafts have a niche market and are appreciated for their aesthetic appeal and eco-friendliness. In regions where pine forests are abundant, pine needle products are often marketed as souvenirs or eco-friendly alternatives in the tourism and hospitality sectors. Items like pine needle sachets, potpourri, and candles are popular among tourists seeking environmentally conscious products. The demand for pine needle products in the Indian market is expected to continue growing as consumers become more conscious of environmental issues and seek sustainable alternatives in various sectors such as energy, agriculture, tourism, and handicrafts.

1.7.6.2. Export potential for cluster products

The export potential for pine needle products from India is promising, driven by increasing global demand for sustainable and eco-friendly alternatives across various industries. However, effective marketing, quality assurance, and compliance with international standards and regulations will be essential for tapping into overseas markets successfully.

1.7.6.3. Market Trends for cluster products

Market trends for pine needle products in India are influenced by various factors, including changing consumer preferences, environmental awareness, government policies, and technological advancements. Here are some key market trends:

- **Growing Demand for Eco-Friendly Products:** There is a rising demand for eco-friendly and sustainable products in India, driven by increasing environmental consciousness among consumers. Pine needle products, being natural and renewable, align well with this trend. Consumers are increasingly seeking products that minimize environmental impact and support sustainable practices.
- **Diverse Applications in Different Sectors:** Pine needle products find applications in diverse sectors such as handicrafts, renewable energy, agriculture, tourism, and healthcare. This versatility contributes to their market growth as they cater to a wide range of consumer needs and preferences.
- **Government Initiatives and Support:** Government initiatives promoting sustainable forest management, rural livelihoods, and entrepreneurship contribute to the growth of the pine needle products market. Subsidies, incentives, and support programs provided by the government encourage entrepreneurs and communities to engage in pine needle collection, processing, and value-addition activities.
- **Innovations and Value Addition:** Innovations in product design, processing techniques, and value addition have expanded the market for pine needle products.

Manufacturers are exploring new ways to utilize pine needles in product development, leading to the creation of innovative and high-value offerings that appeal to consumers.

- **Export Opportunities:** While the domestic market for pine needle products is growing, there is also significant potential for exports. Overseas markets, especially in regions with a strong demand for eco-friendly and sustainable products, offer opportunities for Indian exporters of pine needle-based goods.
- **Consumer Education and Awareness:** Increasing consumer education and awareness campaigns about the benefits of pine needle products contribute to market expansion. Educating consumers about the environmental advantages, economic opportunities, and applications of pine needle products helps in creating demand and building market traction.

1.7.7. Benchmark Cluster for identified crafts in the Cluster

The mapping of benchmark cluster in the country for the key handicraft products being produced in the Solan Pine Needle Cluster has been done. Brief insights into some of these benchmark clusters have provided below:

Benchmark Cluster for Solan Pine Needle Cluster

HPSRLM took the initiative for a scoping study for the pine needle cluster. pine needle is a forest-based waste material harmful to the environment. But HPSRLM and other state government departments trying to convert this waste into utility products. As a result of the effort of most of the members of SHG with the help of HPSRLM, this waste becomes a source of livelihood for the artisans.

There isn't a standardized benchmark specifically tailored for Solan pine needle craft. However, here are some general benchmarks and indicators that can be used to assess the success and quality of Solan pine needlecraft initiatives:

Quality of Craftsmanship: The craftsmanship of Solan pine needle products can be assessed based on factors such as precision, intricacy, durability, and eco-friendliness. High-quality craftsmanship reflects skilled artisans and can command higher prices in the market.

Innovation and Creativity: Benchmarking Solan pine needlecraft initiatives can also involve assessing the level of innovation and creativity demonstrated in product designs and techniques. Unique and innovative products are more likely to attract attention and stand out in the market.

Market Demand and Sales Performance: The demand for Solan pine needle products and their sales performance in domestic and international markets can serve as indicators of success. Increasing demand and sustained sales growth demonstrate the effectiveness of marketing strategies and product appeal.

Sustainability Practices: Benchmarking may also include evaluating the sustainability practices employed in Solan pine needle craft initiatives. This can involve assessing the sourcing of pine needles, eco-friendly production processes, and adherence to environmental regulations.

Community Empowerment and Livelihood Improvement: Solan pine needlecraft initiatives often aim to empower local communities and improve livelihoods. Benchmarking may involve evaluating the socioeconomic impact of these initiatives, including income generation, skill development, and social welfare improvements for artisans and communities involved.

Recognition and Awards: Recognition and awards received by Solan pine needlecraft initiatives from government bodies, industry associations, or other organizations can serve as benchmarks of excellence and achievement in the field.

Collaborations and Partnerships: Benchmarking may also consider the extent of collaborations and partnerships established by Solan Pine Needle craft initiatives with other stakeholders such as government agencies, NGOs, businesses, and academic institutions. Collaborations can enhance market access, resource mobilization, and knowledge exchange.

2. Problem Analysis in the Cluster

Based on the value chain assessment and the situational analysis of Pine Needle cluster in Solan, the following critical gaps have been identified:

2.1. Gap Analysis along the Value Chain

Based on the initial field visits and interaction with the stakeholder, a gap analysis for the Cluster was conducted. In accordance to this assessment, interventions shall be proposed to overcome the critical gaps & challenges being faced by the artisans.

The following are the major impediments along the existing value chain faced by the artisans engaged in the cluster at present:

Gap Areas/Processes	Solan Handicraft Cluster
Infrastructure	Geographical Connectivity
	Absence of Institutional Structure
	Insufficient Common Service Areas
	Poor Working Condition
Input Supply	Low capacity for bulk storage of Raw Material
	Lack of storage of finished goods
	Higher price due to small order quantity
	The use of cotton thread in weaving, due to which thread fibers are visible in finished products.
Production System and Quality	More time taken in production due to hand woven
	The products are unique but still lack innovation
	Presence of flammable substances and presence of odor in pine products
Design and Product	Limitation in Design Intervention
	Need of Product Innovation and Diversification
Marketing	dependent on tourist traffic
	Eco-friendly buyer
	Urban buyers do not have awareness of pine needle products
	No branding efforts and presence in the upcoming marketing trends
Capital	Working capital of artisans are not sufficient for bulk order
	Lack of awareness about the schemes run by the Central/State government

These gaps have been summarized below under the following heads:

2.1.1. Lack of Adequate Production Infrastructure

- A. Geographical Location:** Geographically Solan Pine Needle Cluster is connected to Shimla-Chandigarh National Highway. Therefore, the common facility center of the cluster should be near this national highway. So that all the artisans have ease of commuting and transportation of products
- B. Absence of Institutional Structure:** As the production base is extremely fragmented consisting largely of home-based workers, there is an absence of any form of institutional structure. This has led to complete **dependence of the artisans on the govt.** for any kind of inputs or market linkages. Most artisans are still working as per local demand.

- C. Insufficient Common Services:** General services like sorting, dyeing and finishing are limited in the cluster. Therefore, the artisans are not able to try to become entrepreneurs and this also limits the creativity of the artisans in working on their designs and products.
- D. Poor working Condition:** Most of the artisans depend on natural light for production which makes the working sheds poorly illuminated and very uncomfortable to work during extreme winters or summers. All the looms are placed in artisans' homes.



Figure 5. Artisans working in natural light

The illumination is not suitable for working in the evening or night. Lack of storage facility for raw material.



Figure 6. Raw Material in artisans house

2.1.2. Input Supply

The following issues were found related to raw materials and other input supplies:

- A. Absence of Raw Material Depot for Artisans:** in areas like Solan, Himachal Pradesh, where pine forests are abundant, it's typical for local communities to collect pine needles directly from the forests. These pine needles are then used for various crafts and products, including baskets, mats, and other handicrafts.
- B.** While there may not be a centralized depot exclusively for Solan pine needle crafts, there could be local cooperatives, self-help groups, or government-supported initiatives where pine needle collectors gather their raw materials or sell them to local artisans and craftspersons.
- C.** These initiatives often serve as focal points for the collection, processing, and distribution of raw materials, and they may also provide training, support, and market linkages for artisans involved in pine needle crafts.
- d.** If you're looking for specific information about the status of raw material depots or initiatives for Solan pine needle crafts, I'd recommend reaching out to local government authorities, forest departments, or artisan associations in the Solan region for the most up-to-date information. They can provide insights into any ongoing initiatives, programs, or support mechanisms available for pine needle crafts in the area.
- E. Quality:** The quality of pine needle crafts products in Solan, like in any region, can vary depending on various factors. Here are some aspects that may influence the quality of pine needle crafts products in Solan:
- **Artisan Skill and Experience:** The skill and experience of the artisans in Solan play a significant role in determining the quality of pine needle crafts products. Experienced artisans who are proficient in weaving, stitching, and finishing techniques can create high-quality and visually appealing products.
 - **Raw Material Selection:** The quality of the pine needles used as raw material is crucial. In Solan, where pine forests are abundant, artisans may have access to fresh and high-quality pine needles. Proper selection and preparation of pine needles ensure that the final products are durable and aesthetically pleasing.
 - **Design Innovation:** Artisans in Solan may incorporate innovative designs and patterns into their pine needle crafts products. Unique designs and creative use of colors can enhance the appeal and quality of the products, making them stand out in the market.
 - **Attention to Detail:** Attention to detail during the crafting process is essential for ensuring the quality of pine needle crafts products. Artisans in Solan may pay close attention to stitching techniques, finishing touches, and overall craftsmanship to produce high-quality items.
 - **Durability and Functionality:** Pine needle crafts products in Solan are expected to be durable and functional. Artisans may use techniques to reinforce the structure of the products, ensuring that they withstand regular use and maintain their integrity over time.
 - **Market Demand and Consumer Preferences:** Artisans in Solan may tailor their products to meet the demands and preferences of the local market. Understanding

consumer preferences and incorporating feedback can help improve the quality and relevance of pine needle crafts products.

- **Environmental Sustainability:** Given the emphasis on environmental sustainability, artisans in Solan may prioritize eco-friendly practices and materials in their crafting process. Products made from sustainably sourced pine needles and natural dyes may be perceived as higher quality by environmentally conscious consumers.
- **Experience:** Many Solan pine needle artisans inherit their craft from previous generations, accumulating decades of experience. This expertise allows them to produce intricate designs with precision and efficiency.
- **Creativity:** Solan pine needle artisans often showcase remarkable creativity in their work, exploring diverse designs, patterns, and color combinations. Their ability to innovate while staying true to traditional techniques sets them apart.
- **Attention to Detail:** Attention to detail is a hallmark of Solan pine needle artisans. They meticulously select and prepare pine needles, ensuring uniformity in size and quality. Every stitch and weave is executed with care, resulting in finely crafted products.
- **Adaptability:** While rooted in tradition, Solan pine needle artisans are also adaptable, incorporating modern elements into their designs to meet contemporary demands. This adaptability allows them to cater to diverse tastes and preferences.
- **Commitment to Quality:** Quality is paramount for Solan pine needle artisans. They take pride in their workmanship, striving for excellence in every piece they create. From raw material selection to finishing touches, artisans uphold high standards to deliver exceptional products.
- **Community Engagement:** Solan pine needle artisans are often deeply connected to their communities, participating in local events, workshops, and exhibitions to showcase their craft. They actively collaborate with fellow artisans, sharing knowledge and skills to preserve and promote their cultural heritage.
- **Sustainability Practices:** Many Solan pine needle artisans prioritize sustainability, sourcing materials responsibly and employing eco-friendly practices in their craft. By respecting the environment, they ensure the longevity of their craft for future generations.

2.1.3. Production System and Quality

A. More time taken in production due to working by hand: Most of the Solan Pine Needle artisans are still working by hand. Due to which their productivity is taking more time. Disposal of which is very important and there should be awareness about it among the artisans.

B. Still working with Hand: During the survey it was found that most of the artisans are still working by Hand. But handmade pine needle products are the identity of this cluster.

2.1.4. Design & Product

A. Learned designs: The products made in the cluster have designs learned from various department training or workshops, which are reutilized and a have steady market within the state. The designs don't have the advantage when reaching the new markets of

national brands and e-commerce. To capture this market the cluster, needs new designs that are as per the market trends keeping the solan weaving design sense.

B. Lack of Product Diversification: The cluster has the potential to develop new product lines that have seen increasing demand trends and suit urban customers' needs better. The current product offerings from the cluster are not amenable for sale in the mainstream markets for such products. For this, the cluster will need to work with professional designers, who can suggest the best products. Also, working with B2B buyers will expand their understanding of current market demand.

2.1.5. Market Related

A. Presence of Mediators

The only means of access to the market are mediators/traders. They are only providing wage employment to the artisans. The main market of the cluster is the entire state. The mediators/traders remain the link between the Artisans, buyers/suppliers. Due to which these middlemen/big traders are taking advantage of the major part of the profit and the artisans have to be satisfied with the wages.

This system creates a single dependency on the mediators/traders' network to generate sufficient work for the cluster artisans, which is highly risky and also defined by the mediators/trader's will to increase wages or control the Artisan's earners as deemed fit to his impulses. Therefore, it can be said that there is a huge market access gap and multipronged efforts are needed to ensure regular work for women.

B. Limited institutional buyers

Cluster's Artisans have Institutional buyer networks have not been much explored to bring Solan pine needle products to the national market, just as hand woven products from North India have created a significant market share for themselves in the national market. Regarding the presence of institutional buyers, only state-promoted Him Crafts is present in the market. There is immense potential for future market demand for the cluster's products. Thus, the cluster potential can be further unlocked by accessing new market channels and players.

C. No branding efforts and presence in the upcoming marketing trends

The Solan Pine Needle products have a unique identity in the Himachal Pradesh markets. The Solan Pine Needle design is based on the unique geometrical pattern of the traditional culture and intricately designed products are expensive in comparison to pine needle products or similar products. To keep the uniqueness, and intricate design intact the Solan Pine Needle products need to reach the premium handmade product section, which requires a great deal of storytelling and effort put behind making a single piece of art depicting designs. Therefore, the products need to be seen not just as handmade but also the story behind it which is missing due to the lack of branding efforts in this direction.

TSA has made a provision for the formation of a producer enterprise for artisans in the cluster. A management committee selected by the artisans will work in the producer enterprise and all 525 women artisans will be associated with the producer enterprise as active members. As per the guidelines of the producer enterprise, the members of the management committee will be selected from time to time by the 525 artisans active in the producer enterprise.

But in Solan district, the government has formed about 7 cooperative societies for the welfare of handloom &

handcrafts artisans. As per government data, out of these, 2 cooperative societies are active, 3 cooperative societies are inactive and 2 cooperative societies have been closed. In the context of Solan pine needle cluster, the pros and cons of the above cooperative societies are as follows:

Pros:

1. All these cooperative societies are registered under the cooperative department of the state government; hence they enjoy the protection of the state government.
2. All these cooperative societies receive grants or loans from the state government from time to time for their operations.
3. From time to time, the government provides raw material, machinery and equipment and marketing support to these cooperative societies.
4. Co-operative societies have to get their committee audited every year under the supervision of a government official and submit an annual report to the government. The cost of which is less as compared to getting the audit done by a private auditor.

Cons:

1. Cooperative societies already formed by the government should have a minimum of 10 members as per the state government guidelines. During the baseline survey by TSA, it was observed that most cooperative societies have a minimum of 10 members and a maximum of 25 members.
2. It has also been observed in these cooperative societies that men are playing the main role in the management committee of the societies and women are working only as members.
3. During the baseline survey, it has also been observed that the educational level of the members of most of the cooperative societies is average. Due to this, there is a lack of awareness among them and the artisans are not able to take proper advantage of the cooperative societies. No scheme of the state government to educate these members of cooperative societies has been seen at the ground level. Therefore, it has been observed in the area that only those cooperative societies are growing whose members are well educated and active.
4. Most of the cooperative societies are still dependent on government grants and their members are not yet capable of running the cooperative societies on their own.
5. In most of the cooperative societies, women are not in the main role and are working part-time for the cooperative societies. In many places, it has also been observed that women artisans do not even know whether they are members of any cooperative society or not.
6. All these cooperative societies are provided financial grants by the state government under some scheme or the other for the purchase of raw materials, machinery and equipment. But that too is very less in the present context. Most of the cooperative societies are facing financial problems and they are finding it difficult to pay the daily wages of their members.
7. Himachal Pradesh Handloom and Handicraft Development Corporation, which is an institution of the Himachal Pradesh Government, have its own manufacturing plants and sales outlets in the state. But the objective of the above corporation is to provide sales and marketing support to these co-operative societies. But in view of the production capacity and sales of the corporation itself, these co-operative societies are also able to give limited benefits.

2.1.6. Capital

A. Working capital of artisans are not sufficient for bulk order

These artisans don't venture out to capture bigger value from the complete value chain. To solve this problem, the Master artisans/traders could lend out support but they are reluctant as it would hamper their own growth and business expansion. It is short-sightedness in the hands of the master artisans as they are not able to see the new market channels where they can explore and expand their business volumes and value. This expansion would require a bigger investment and professional engagement which could be manageable if the aggregation of the artisans happens to take a bigger portion of the growing market. Currently, they are facing capital constraints and will to achieve this.

B. Lack of awareness about the schemes run by the Central/State government

The Government of India, through the State Governments, is running various financial assistance schemes for artisans like PMEGP, MMSY and Artisans MUDRA Loan. But the state government industry is still unable to deliver these schemes properly to the artisans.

There is a need to give proper information about these schemes to the artisans so that they can know about the schemes being run for them and can avail their benefits.

2.2. SWOT Analysis

SWOT analysis is required to understand the traits of the business that are currently present in the cluster and which are lacking and how we could leverage these strengths while limiting the exposure to the threats being faced by the cluster. In this regard, the analysis has been carried out with the following findings:-

Strength	Weakness
<ul style="list-style-type: none"> ➤ Pine needle as raw material is abundantly available. Products made are completely handcrafted, and thus make them valuable. ➤ After survey done, products of pine needles hold a factor uniqueness as urban buyers are not aware of the material. And introducing a new material with sturdiness and various other helps in the up liftmen. ➤ Pine needle in a new material that has been recently introduced in the market, and because of this it doesn't face a lot of competition in the market material, like cane, bamboo give this material a competition but pine needles uniqueness helps it to be different from others. ➤ Pine needle products are durable and washable like any other products. This craft may also helping the solan district to reduce forest fire by making a potential use of abundantly available material. 	<ul style="list-style-type: none"> ➤ Pine needle craft lack advertisement and awareness among urban marketers and buyers. Craft needs proper advertising strategies and marketing strategies to earn revenue. ➤ This craft doesn't really have collaboration with associations and lack funds. To uplift what the artisans have initiated, a good funding source is required. ➤ Serving the wrong target audience. Artisans working and plain needle cannot afford heavy machinery like dye house, soaking plant. These artisans belong to small villages, and communications have a massive barrier.
Opportunities	Threats
<ul style="list-style-type: none"> ➤ Raw Material and Products are unique; therefore, pine needle craft can capture a big market. ➤ Scope for diversification to value added products. ➤ Improvement in product design. ➤ Scope for training and interventions among SME's. ➤ Artisans are willing to change. ➤ Building of pine needle brand Image to enhance market opportunities. ➤ Exploration of New Markets for potential buyers in untapped market. ➤ To increase the export market, this has good demand for pine needle products. ➤ Common Product display centre. ➤ Common financing to facilitate cheaper institutional finances likes Mutual Credit Guarantee Scheme. 	<ul style="list-style-type: none"> ➤ People who are practicing right now are on the verge of abandoning the craft as they see no future or profit at the moment. ➤ Interstate competition with Uttarakhand and Jammu & Kashmir as well as inter-district competition with Shimla. ➤ Absence of public-private partnership to promote R&D value added production. ➤ Bankers are not proactive for development plan of SMEs.

Based on the SWOT analysis, the next section has been prepared to develop the strategic matrix for the most critical gaps identified and in the next step to propose specific interventions which can address these problems.

2.3. Need for an Integrated Value Chain Development

The impediments, as mentioned in the above section, compound the need to address the critical needs through an Integrated Value Chain Development Program to ensure holistic

development of the Solan artisans along with enhancing the competitiveness and branding of the Solan Pine Needle cluster.

The proposed program should have provisions for undertaking the following key interventions:

Value Chain	Critical Gaps	Intervention Area
Infrastructure	<ul style="list-style-type: none"> Inadequate support Infrastructure Lack of Institutional Structure 	<ul style="list-style-type: none"> CFC with proper facilities Formation of Consortium for the Artisans
Raw Material Supply	<ul style="list-style-type: none"> Inadequate support Infrastructure Lack of Institutional Structure 	<ul style="list-style-type: none"> Provision for Yarn Depot Quality Control System Raw Material Storage
Production System & Quality	<ul style="list-style-type: none"> Limited Product Capacity No Training Support No Quality Control 	<ul style="list-style-type: none"> Engagement of Professional Production Staff Quality Control
Design & Product	<ul style="list-style-type: none"> Traditional Design No product diversification and Innovation Limited product offering 	<ul style="list-style-type: none"> Engaging designer and product experts Provision for value addition facility
Marketing	<ul style="list-style-type: none"> Dependency on Govt. Purchase Lack of Brand Building Initiative 	<ul style="list-style-type: none"> Linkage with new marketing channels Professional Sales and Marketing Support Brand Building Initiative
Capital	<ul style="list-style-type: none"> Inability to serve steady large orders due to working capital constraints. 	<ul style="list-style-type: none"> Provision for working capital support

Figure 7. Value Chain Gaps and Intervention Mapping

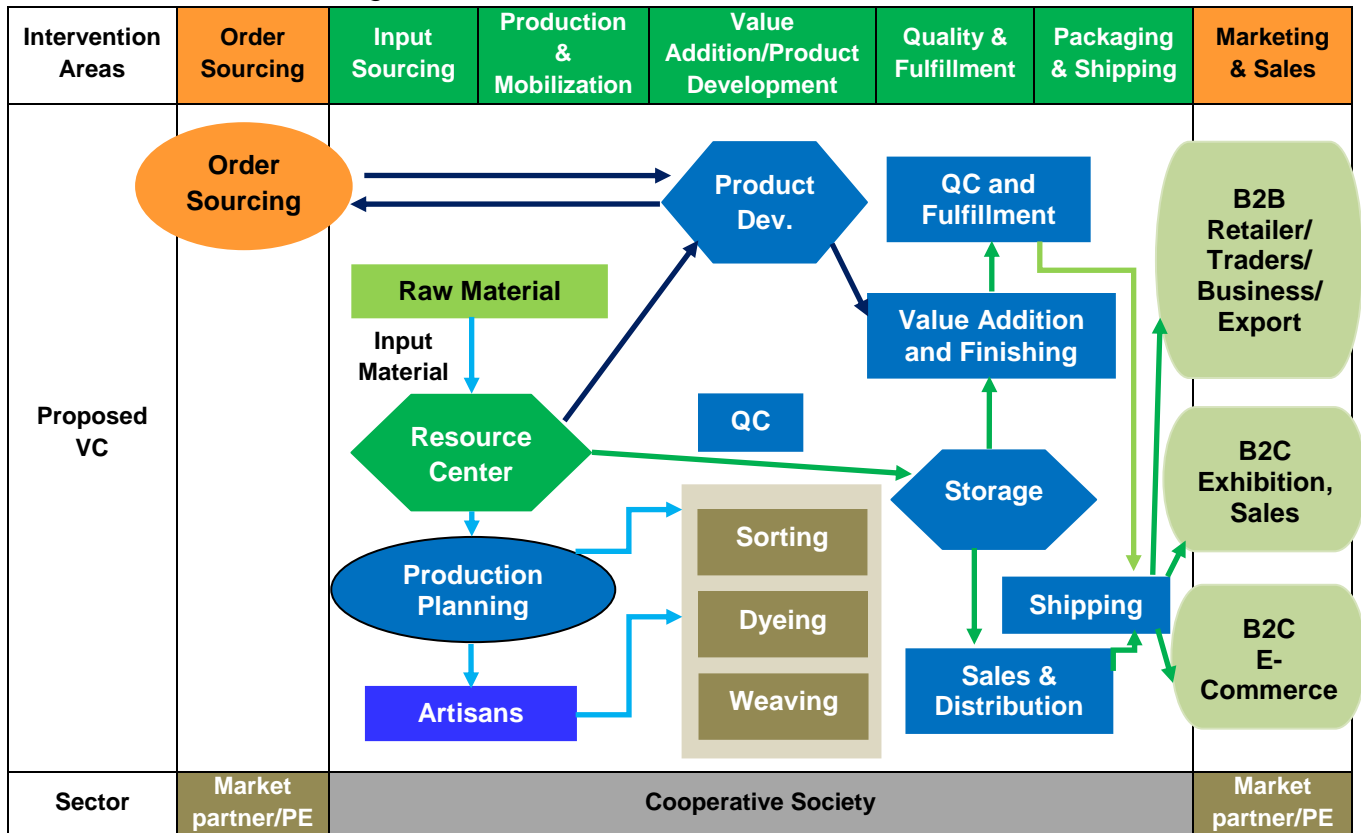
To ensure the proposed integrated value chain development, it is imperative to promote a women producer-owned collective- a cooperative society, which shall ensure aggregation and effective implementation of the artisan development initiatives and interventions being planned. This institution shall function as a network of production units to create effective provisions for adequately equipped workspaces to undertake production at a larger scale across the cluster.

The proposed cooperative society would strive towards:

- ✚ providing fair remuneration to its member producers;
- ✚ increasing their effective engagement i.e. number of work-days per annum;
- ✚ enhancing per-member productivity and overall production capacity;
- ✚ supply chain integration to minimize costs & maximize efficiency along the value chain;

- ✚ enhanced share of value realization per product through direct market access;
- ✚ give an identity to Solan Pine Needle Handicraft by putting efforts into brand-building exercises;

To achieve the above, it is being proposed that the existing value chain would be re-structured in the following manner:



The resultant re-structuring shall create an amenable ecosystem to adopt a market-led approach towards the creation of commercially viable PE which shall drive the cluster's holistic development to ensure equitable returns and higher incomes to the women producers engaged in the Solan Handicraft cluster.

The proposed key interventions along with the post-intervention value chain have been detailed in the next section to provide clarity on the key changes along the VC through the proposed project.

3. Proposed Strategy & Intervention Areas for the Cluster

3.1. Objectives

The key objectives of the proposed integrated value chain development program for the Solan Handicraft cluster are as follows:

- ✚ **Preserving and promotion of unique craft:** Preserving and promoting unique craftsmanship and designs and might encourage innovation and adaptation to modern consumer demands while maintaining uniqueness and authenticity. Ensuring overall development of the Pine Needle Handicraft sector and Artisans in the region.
- ✚ **Enhanced income levels for artisans:-** To improve the standard of living conditions of the community.
- ✚ **Regular income for artisans:-** to generate additional livelihood opportunities to ensure sustained increase of the incomes and standard of living of artisans in the cluster.
- ✚ **Creation of supporting infrastructure:-** to provide critical production & commercial infrastructure, design, marketing support, capacity building, and product diversification, to build competitiveness and ensure sustainable development of the cluster to fill the resource gaps which results in increasing earning capacity and building a wealth creation opportunity for the women.
- ✚ **Establishment of women producer:-** owned commercial entity to ensure the sustainability of program intervention beyond the program duration. Therefore, the presence of the cluster products in the market can be Increase and the commercial entities of the artisans can be directly linked with the big buyers of the market, and might be foster cooperation among artisans, cooperative societies, government institutions and other institutions to improve efficiency and competitiveness.

3.2. Key Intervention Areas/Deliverables

The key areas of interventions being proposed under the programs have been identified along the value chain:

Process Interventions	
Interventions Area	Solan Pine Needle Cluster
Input Supply	Procurement of Raw Material
	Raw Material Bank
	Inventory Management
	Poor Working Condition
Production System and Technology	Raw Material quality Check
	Quality Control
	Dyeing Plant
	Skill Training
	Lean production system
Design and Product	Up-gradation of machineries and equipment
	Design Workshop
	Exposure Visit
Marketing	Engagement of Designer and Product Experts
	Linkage with multiple market channels and establishing new market linkages
	Branding and Promotion Initiatives
	Partnership with big players and export houses
	E-commerce readiness

Institutional Structure & PE O&M	Promotion & registration of consortium
	SOP development and implementation
	Professional Management support for centralized operation decisions
	Capacity building of Consortium governance (for Management Committee) & PE Operations (for Staff)
Capital	ERP Integration
	Provision for working capital
	Benefit through other govt. schemes

Infra-related interventions		
Interventions Area	Solan Pine Needle Cluster	
Infra/equipment interventions	Setting up of Common Facility Center (Hub), for coordinated production, mobilization, and order fulfillment: <ul style="list-style-type: none"> 1 Common Facility Center (CFC) 	
	Common Facility Center (CFC)	
	Cooperative society office	Products innovation and diversification
	CDE office	Value Addition & Finishing (Dyeing and Finishing Plant)
	Meeting. Training Room	QC & Order Fulfillment
	Input Material Store/ Warehouse Yarn Bank	Inventory House
	Product & Design Development	Inspection tables, packing tools
	Provision of Sales Outlets	
	If a common facility center may be proposed in the center point of Solan & Kandaghat Blocks nearby the Shimla-Chandigarh National Highways.	

3.3. Key Outcomes- Post Intervention

The Producer Enterprise through the proposed interventions is expected to enable the creation of additional capacities and enhanced productivity & quality of output thereby generating an additional number of effective engagement days for its member producers.

The expected impact of the proposed interventions on the key output indicators has been summarized below:

#	Activity Type	Interventions	Indicator	Pre-interventions	Post-interventions
1.	Pine Needle	Dyeing	Time to set up loom	1 day/4 artisans	0.5 day/2 artisans
		Hand Weaving	Number of Artisans	0	229

These interventions would result in expected enhancement in their production capacities and effective number of engagement days in the following manner:

#	Artisan Type	Artisans production Capacity (Product/day)		Effective eng. Days	
		Pre-interventions	Post-interventions	Pre-interventions	Post-interventions
1	Artisans	43%	1	225	525
2	Ancillary Artisans	-	57%	229	525

In addition to the above-mentioned expected outputs, the proposed PE-led interventions shall ensure in achievement of the following desirable outputs across the value chain:-

Output Mapping	Solan Pine Needle Cluster
Input Supply	High quality and uninterrupted raw material inflow
	Reduced input cost
Production System and	Increased number of work-days
	Higher efficiency

Technology	Better techniques and system of activities with enhanced production capacity
Product, Design, Quality & Market	Higher Price Realization
	Diversified product portfolio
	Better finishing
Marketing	Linkage with multiple market channels and establishing new market linkages
	Product development & order fulfillment facility
	Modern Designs with traditional ethics
	Market ready products
	Improved market access
	Higher value realization for the artisans
Institutional Structure & PE O&M	Enhanced efficiency & effective operational capacity
	Artisan's ownership and profit sharing
	Enhance aggregation and production capacities

The proposed value chain post-intervention has been illustrated below to provide clarity on the key changes along the VC:

3.3.1. Re-structured Value Chain Map- Post Intervention

The key player involved in the re-structured value chain post-intervention of Solan would be the proposed PE which shall aggregate the cluster production and market it on behalf of its women artisan members.

The below figure illustrates the re-structured value chain map (post-intervention) for products being produced by the cluster artisans.

It may be observed that the PE would focus on marketing primarily through two main channels- Business-to-Businesses (B2B) and Business-to-Customer (B2C). The key driver for adopting the new marketing channels would be to earn higher margins and secure bulk orders to ensure sufficient work for the member producers- thereby ensuring higher artisan incomes and sustainability for the PE:

- I. B2C: PE>> Artisans>> PE>>Customer
- II. B2B: PE>> Artisans>> PE >>Trader/Institutional Buyer/Retailer >> Customer
- III. B2B: PE>> Artisans>> PE >>B2B Partner/Export Houses >> Customer

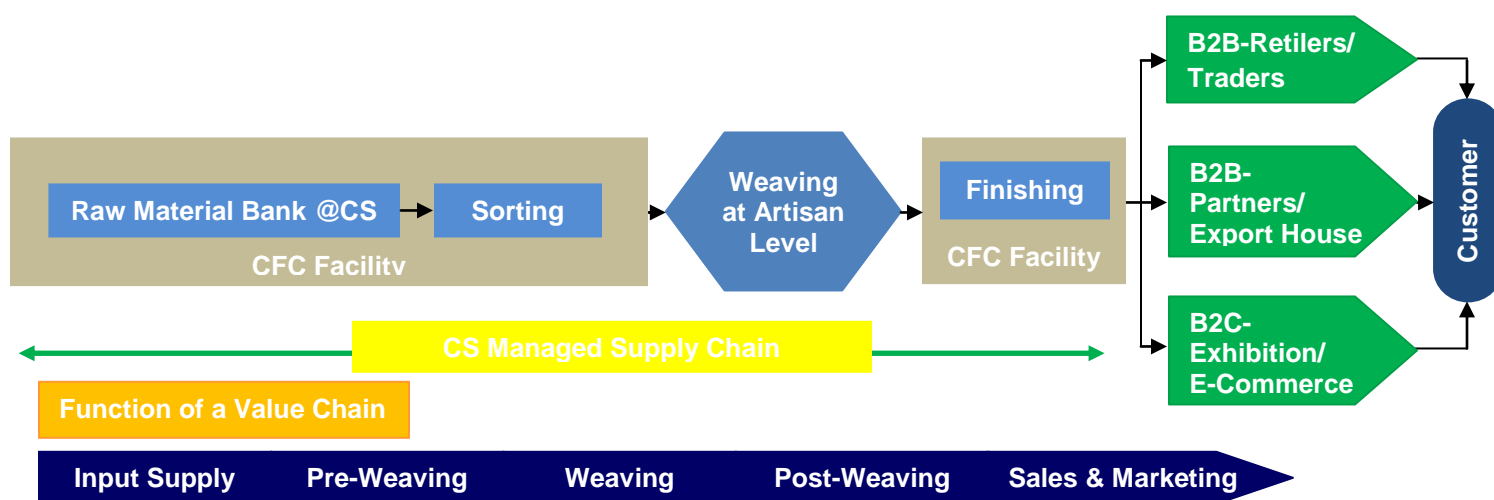


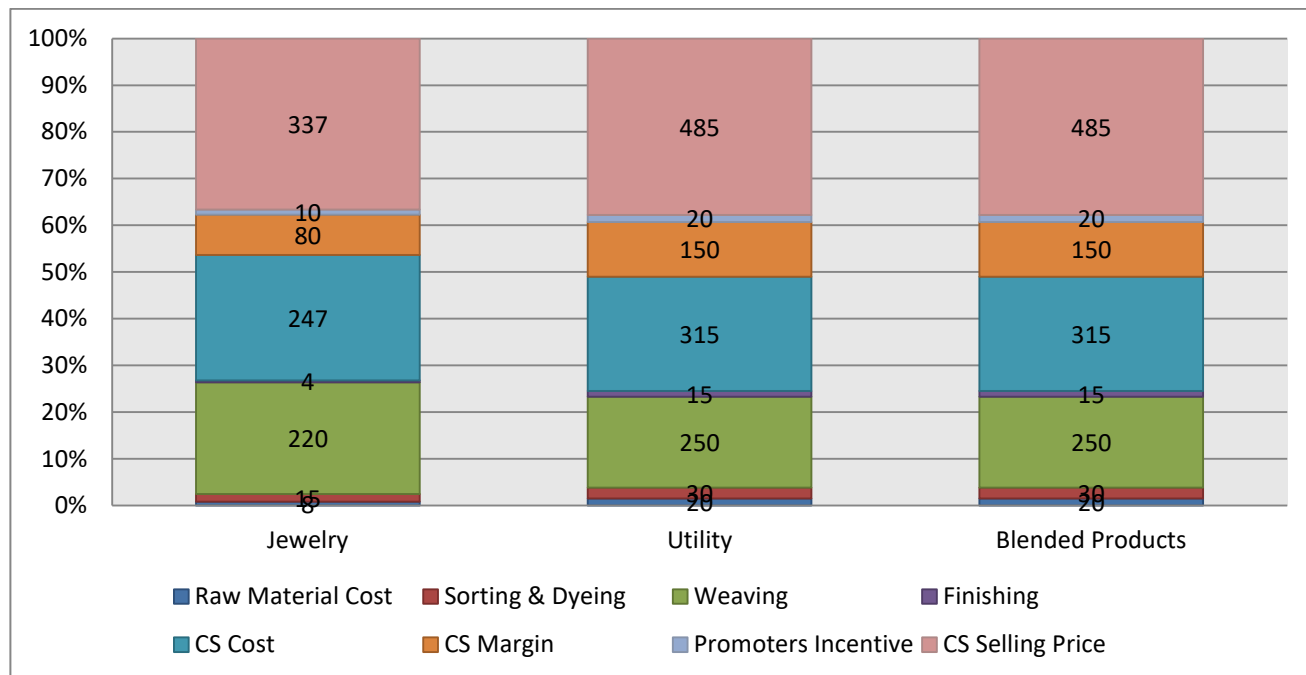
Figure 9. Value chain map post intervention

3.3.2. Price Build-up along the re-structured VC- Post Intervention

The channel-wise price-build in the post-intervention value chain of Solan Handicraft products from the cluster has been given below.

In the proposed B2B channel, around 20% of the product cost is the cost of the raw material- signifying the use of quality materials for value-added products.

A. Price built-up for Solan Pine Needle Products (B2B)



Under the revised VC structure, the artisans would be provided remunerative wages- forming about 21% to 25% of total product price including share members incentives, further increasing their remuneration from the craft.

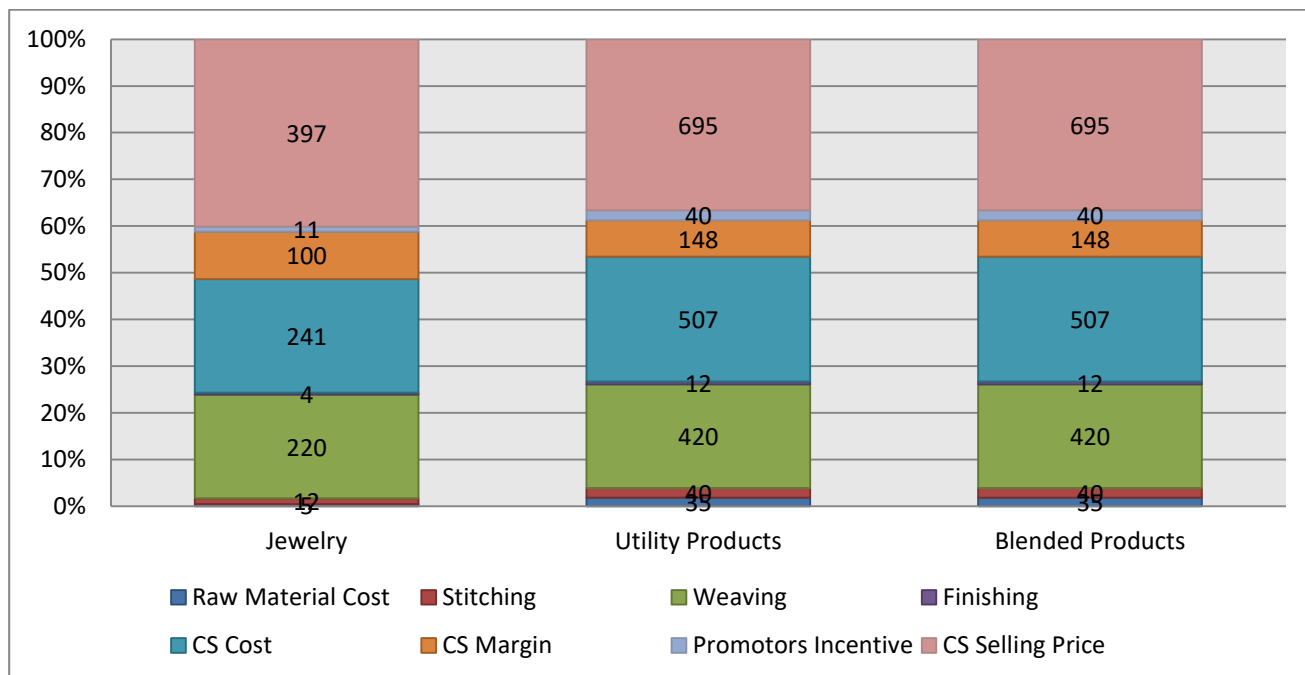
B2B Price Built-Up for Solan Pine Needle Products						
B2B Price Built-Up for Solan Pine Needle Products	Jewelry (Rs.)	%	Utility Products (Rs.)	%	Blended Products (Rs.)	%
Raw Material Cost	8	2	20	4	20	4
Sorting & Dyeing	15	4	30	6	30	6
Weaving	220	65	250	52	250	52
Finishing	4	1	15	3	15	3
PE Cost	247	73	315	65	315	65
PE Margin	80	24	150	31	150	31
Promoters Incentive	10	3	20	4	20	4
PE Selling Price	337	100	485	100	485	100

Thus, from above analysis, it is evident that the income realization for the artisans is much higher under the proposed VC post-intervention.

B. Price built-up for Solan Pine Needle Products (B2C)

In the proposed B2C channel, around 55% to 60% of the product cost is the cost of the raw material- signifying use of quality materials for value added products.

The price buildup of Handicraft products post intervention is shown below:



Under the revised VC structure, the artisans would be provided remunerative wages- forming about 55% to 60% of total product price. The PE has a transaction cost of 61% to 71% to achieve higher market reach, PE Earnings is at 21% to 37% which would be used to further increasing market reach and developing new design and product innovation and a part of which will be paid back to artisans as bonus, thus increasing their net income realization.

B2B Price Built-Up for Solan Pine Products						
B2B Price Built-Up for Solan Pine Needle Products	Jewelry	%	Utility Products	2%	Blended Products	3%
Raw Material Cost	5	1	35	5	35	5
Sorting & Dyeing	12	3	40	6	40	6
Weaving	220	55	420	60	420	60
Finishing	4	1	12	2	12	2
PE Cost	241	61	507	73	507	73
PE Margin	100	25	148	21	148	21
Promoters' Incentive	11	3	40	6	40	6
PE Selling Price	397	100	695	100	695	100

3.4. Target Beneficiaries

3.4.1. Program Coverage

Name of District	Solan
No. of Block covered	Solan, Kandaghat & Dharampur (3 Blocks)
No. of Artisans Covered	525
Artisan's Break-ups	
Primary Artisans	225
Sorting & Dyeing	217
QC/Finishing	83
Village	No. of Artisans linked with Handicraft works

Basha	25
Bisha	21
Chail	35
Mahi	72
Mumleeg	53
Nagli	50
Sainj	45
Sakouri	22
Satrol	44
Sirinagar	21
Anji	24
Barog	13
Salogra	25
Devathi	12
Oachghat	12
Dharampur	51
Total	525

3.4.2. Beneficiaries Profile

Under the baseline survey was conducted by TSA (NIESBUD) as part for the development of project CDSR in Solan District. The survey provided critical insights on the profile of the Handicraft artisans engaged in Solan.

I. Community

The artisans mainly belong to Solan Community, which is traditional community in the business of Solan Handicraft weaving in India.

II. Gender Break up

Only women are engaged in the craft activity and it involves complete household for the production of the Handicraft products.

III. Socio-Economic Status

1. The socio-economic status of Solan pine needle artisans has improved significantly due to their involvement in the pine needle handicraft industry.
2. The women artisans have become self-sufficient and have gained social status by making pine needle products for daily use. They have also earned a livelihood in their native place through skill-based employment training programs.
3. The project has helped them earn a livelihood and has also provided them with a sense of responsibility towards the environment.
4. The pine needle handicraft industry has also helped the women artisans to connect with the region's fragile ecology and has raised their awareness of the importance of conserving the environment.

4. Value Proposition

4.1. PE's Value Proposition

The proposed PE's value proposition over the existing value chain structure in the Solan Pine Needle Cluster has an advantage as its ability to reduce production cost and bulk transactions will enable better price realization for the PE.

The proposition offered to the two key stakeholders- member producers and consumers/ buyers has been detailed below.

4.1.1. Value Proposition for Producers

The proposition to the producers is **centered on the provision of access to mainstream markets through achieving the right products, right prices, right markets, right finance, and right skills for successful global trade.** The major benefits are summarized below:

- Empowering grassroots producers specifically to become the owners and managers of the enterprise;
- Greater access to potential domestic and international markets;
- Increased bargaining power & higher realization of consumer rupee spent on product-greater livelihood security and vulnerability reduction;
- More focused collaborative product development with buyers who know the market demand;
- Improved wages and working conditions;
- Support for distribution & financial processing of sold products;
- Skill development through access to best practices, knowledge, and training;
- Access to the best finance available and other Government schemes & entitlements;

Quantification of Benefits

The proposed project interventions would maximize the earning potential of the producer HHs being covered under the project. The estimated benefits through increased earnings of the producer HHs at the post-intervention stage have been quantified below:

#	HH Type	Activity Type	Output/ Products	Output unit	Engagement Days P. A.	Unit Sold by HH	Per unit Revenue	HH Realization	Net HH Income
1	Pine Needle HH	Pine Needle	Pine Needle Products	1 No.	200	60	400	24,000	24,000

The comparative analysis of the pre & post intervention income scenario is as follows:

#	HH Type	Activity Type	Output/ Products	Output unit	Engagement Days P. A.	Unit Sold by HH	Per unit Revenue	HH Realization	Net HH Income
1	Pine Needle HH	Pine Needle	Pine Needle Products	1 No.	300	100	500	50,000	50,000

4.1.2. Value Proposition for Consumers/Buyers

- The core focus of the PE's value proposition to the consumers/ buyers is upon the benefits of attracting more customers who seek to acquire authentic hand-Handicraft products, reach new production bases & make innovative products with minimal effort & a guarantee on product quality. The major benefits are summarized below:
- Direct access to authentic hand-loom products produced by traditional craftsmen;

- Greater access to a wider group of producers and products;
- Ensuring fairer returns to producers;
- Secure and easy payment of goods;
- Collaborative product development with producers;
- Enhanced fulfillment support:-
 - ✚ Guarantee of quality & product standards;
 - ✚ Guarantee of timely and accurate delivery of goods;
- Access to larger quantities of products;
- Higher accuracy regarding traceability of origin/ manufacturer of the product;

5. Intervention Plan

5.1. Proposed Strategy

The Handicraft value chain in Solan Pine Needle Handicraft cluster has limited market linkage access to institutional buyers and doesn't have aggregation among the artisans to achieve economies of scale. The current value is controlled by institutions capturing the maximum value.

The proposed intervention strategy for the integrated development of Solan Pine Needle cluster has been designed on a sustainable livelihoods framework that ensures that a Producer Enterprise (PE) is established on a commercially viable model leading to long-term socio-economic benefits for its producer members.

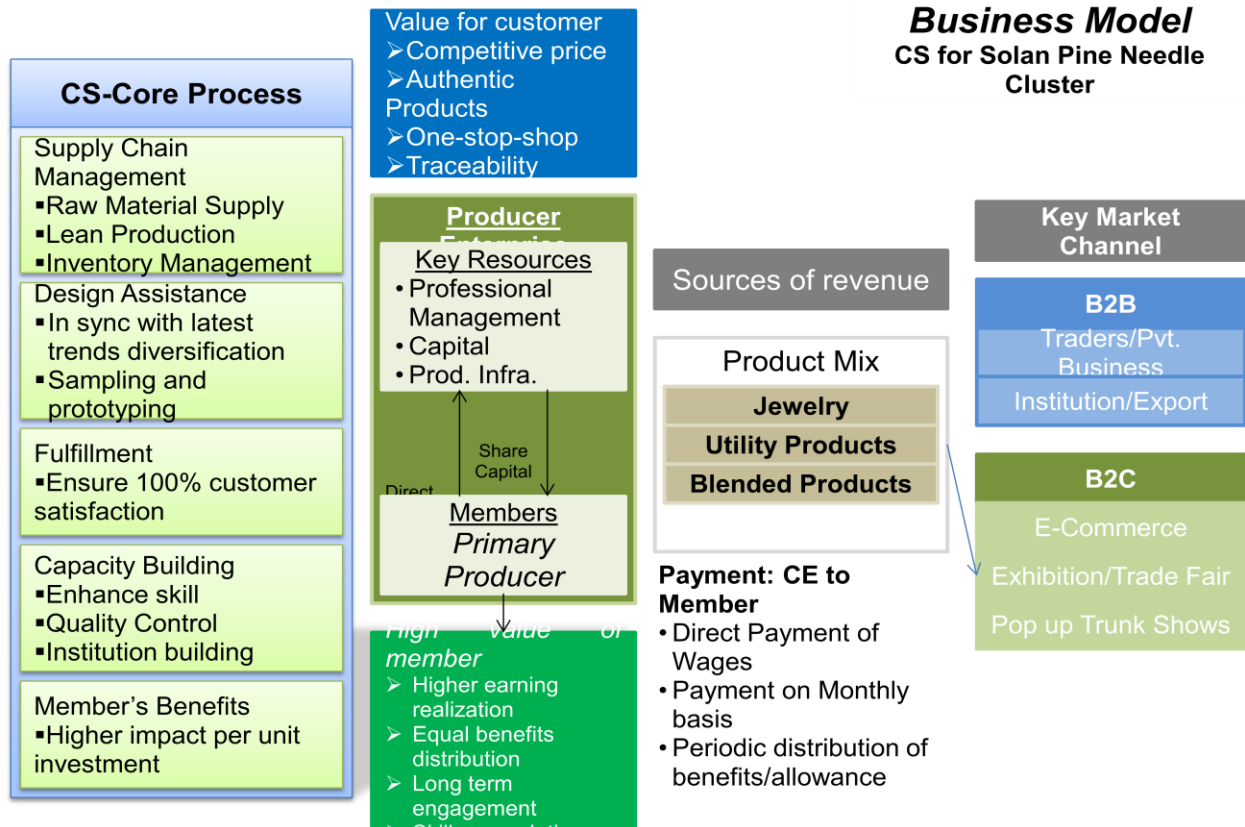
5.2. Proposed Business Model of PE

The proposed PE for the Pine Needle cluster in Solan would be in the business of aggregating the artisans and developing new market channels and product lines, with an intent to provide socio-economic empowerment to the members of the producer enterprise. This will be realized by creating market linkages in the 2 main channels- Business-to-Business (B2B) and Business-to-Customer (B2C) segments. The proposed PE for Solan Pine Needle Cluster would primarily focus on the following key activities:

Business Activities			Support Activities
Input Supply	Value Addition	Sales & Marketing	Handholding to Member
<ul style="list-style-type: none"> Raw material procurement & backward linkage Yarn Bank Quality Assurance of raw material Proper utilization of Artisans 	<ul style="list-style-type: none"> Design development Product diversification & innovation Product manufacturing & Finishing Production Coordination Quality Assurance 	<ul style="list-style-type: none"> Order sourcing & merchandising Sales through e-commerce platforms & exhibitions Order fulfillment & shipping Branding & promotion forward linkage with institutions and export houses 	<ul style="list-style-type: none"> Productivity enhancement through skill up gradation and access to improvised tools Working capital support Access to production infra Quality monitoring & compliance

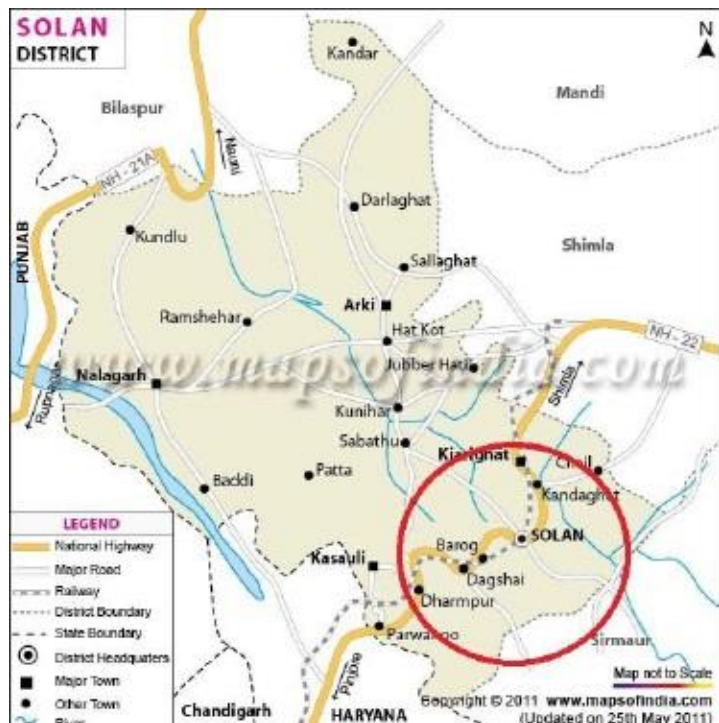
The PE is expected to sell its products for regional, national, and international/ export markets. The final product would be positioned as direct from the producer, authentically Handicraft made, utility-based, ethnic products from the rural women of India.

The proposed business model for the Solan Handicraft Cluster PE has been illustrated below:



5.1.2. Decentralized Aggregation Approach

It is envisaged that the proposed PE-led integrated value chain development of Solan Pine Needle Cluster will be based on an inclusive model of building Solan, Kandaghat & Dharampur blocks into production and sourcing hubs for value-added Solan Pine Needle products. The proposed PE will ensure aggregation and effective implementation of various interventions in an integrated structure; The Common Facility Center will be the main operational center and the PE will be responsible for the management of the Common Facility Centre, to ensure the establishment of integrated supply chain systems along the identified value chains. This will include the installation of the following:



Common Facility Center (CFC): All artisans will use the Common Facility Center for general use and will be free to work from their homes. However, they will have to come to the

common facility from time to time for special meetings, workshops, raw material requirements, dyeing, finishing and packaging and sales.

This would enable the creation of adequately equipped workspaces to undertake the production of value-added products at a larger scale.

5.3. Proposed Interventions

To ensure integrated value chain development it is imperative to promote a Producer Enterprise which shall ensure aggregation and effective implementation of the artisan development initiatives. The PE will act as a platform to pool resources, coordinate production, and integrate marketing for Handicraft units operating in the villages. To achieve above mentioned goals, setting up a producer enterprise would be the intervention strategy implementation plan.



Figure 9. Key components in planned intervention

5.2.1. Community Capacity Building & Institution Building

5.2.1.1. Mobilizing & organizing Primary Producers/Beneficiaries

The first intervention would be to organize the community of all the existing producers under a common collective enterprise having its resources. This would provide them with better bargaining power and reach with suppliers and markets. It would also reduce their overall transaction costs as input raw material supply would be done at a large scale. To ensure the establishment of a robust institutional framework for the proposed PE, a comprehensive mobilization plan would be drawn up for the proposed program. The key activities to be undertaken under this plan are illustrated below:

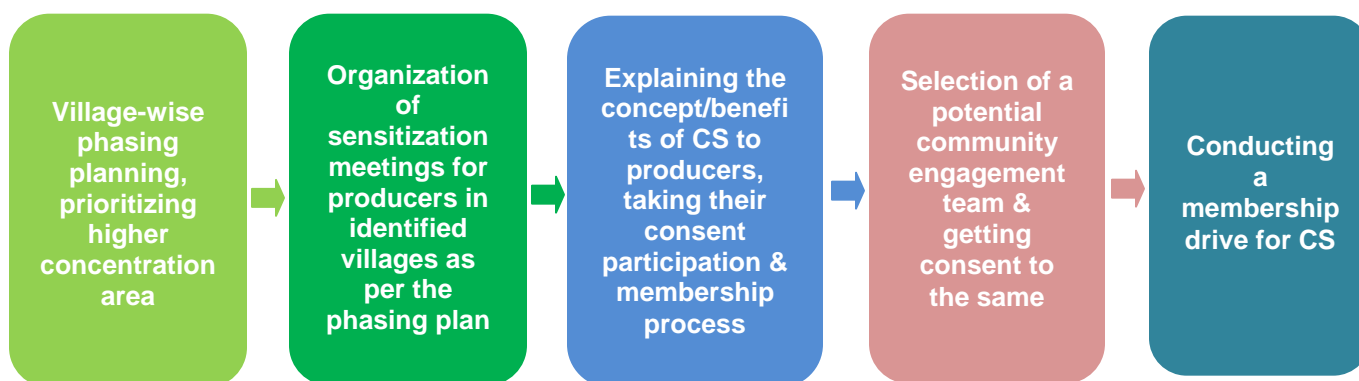


Figure 10. mobilization and organizing Primary/beneficiaries

It is proposed that a saturation model shall be adopted, wherein villages with higher concentrations of artisans shall be prioritized. The indicative village-wise phasing has been provided below:

Phasing Plan	Y1	Y2	Y3	Y4
No. of Artisans Engaged	226	300	400	525

5.2.1.2. Institutional Building

To establish better productivity and market connections, a strong institution needs to be established that would focus on the welfare of the producers along with achieving the business efficacy of a profit-making entity. For this, the intervention would be to establish and practice strong SOP-driven internal processes along with regular knowledge up gradation of the PE members to build strong decision-making principles for the enterprise.

An indicative phasing of the institution-building activities has been provided below:

Pre-incorporation	Incorporation	Post-incorporation
Pre-Launch consultations with key-stakeholder of the PE	Documents required for the first subscribers and directors	Support for driving member enrollment phase
Support for identifications of First subscribers	Applying the name of PE	Support in conducting initial management committee meeting and first chair-person
Discussion on Draft MoA and AoA/Bye-Laws	PE incorporation related documentation (MoA & AoA)	Conduct orientation programme and give demonstration key function of PE
Conduct orientation programme for the first subscribers	Apply for Incorporation	Capacity building for internal stakeholders training modules and demonstrations

Management and decision-making training for the management committee would take place. The Strategy and Business Planning exercise for the key functionaries shall be done to streamline the management and operations structure of the PE.

5.2.1.3. Management Committee & Capacity Building

PE's management committee or key functionaries shall be selected from the member producers, who shall require a higher order of handholding on understanding their roles and responsibilities along with various functions that they would be expected to discharge while serving as management committee members.

In addition to these, the PE's Staff would also be trained on various aspects of procurement, administration, production, operations, legal & financial compliances so that they can scale up operations, handle larger volumes of production, and service orders timely and efficiently.

5.2.1.4. Skill assessment & up gradation trainings

A. Skill-Gap Assessment

The skill gap assessment is a training need analysis for the cluster stakeholders which would be primarily derived from an understanding of the core competencies of the producers required to undertake production for their respective processes, and the status of the current practices being followed in the cluster. The skill gap assessment would cover both technical as well as behavioral/community-oriented aspects including their future learning abilities through a combination of dexterity, aptitude, and behavioral tests.

Suitable templates/ tests would be developed for the collection of the relevant data from the producers. The data collated would be analyzed and specific training needs for the respective producers would be prepared.

B. Content Development

To ensure the effective transfer of knowledge and sustained use of best practices being adopted by the PE, provisions shall be made to develop appropriate training content such efforts through a mixed media approach (print, digital, AV, case studies, etc.) based on the skill-gap assessment conducted in the cluster. This shall ensure that all key stakeholders including PE members, staff, and SRLM shall have access to this knowledge base for the years to come and retain the ability to replicate it elsewhere. The proposed content would cover both technical as well as soft skills- essential to effectively function in a community-driven model.

The proposed training content development shall be done in consultation with various leading relevant technical & research institutions such as HPHHDC, WSCs & NIFT, etc. on the improvised production practices to be adopted in the clusters across processes. It would be ensured that the content created under the project would conform to the curriculum & standards under nationally accredited frameworks.

The training modules for which suitable curriculum and content already exist and are available in the market, the same may be adopted.

C. Skill Up gradation Training

The overall institutional capacity and the capacity of the individual member will determine the future growth potential of the PE; therefore, a comprehensive skill up gradation training program is being proposed.

The proposed skill upgrade training programs would be delivered by the CRPs & VOs who have undergone the respective TOTs. The proposed training delivery would entail a blended model comprising classroom training as well as Practical & Demonstration training will be conducted, followed by a summative assessment. Based on the skill assessment conducted for mapping the existing skill sets of the women artisans, 2 types of training programs are proposed:

I. Basic skill up gradation training:

This training will be essential to scale up the number of Artisans who are capable of producing quality products. Training shall be given to batches of 25 semi-skilled artisans which will be conducted by the master-artisans for 30 days. The trained artisans will work full-time with the PE post the skill upgrade training.

II. Advance training on Value Addition:

A group of hand-picked artisans from the Cluster will be trained on higher value addition in different pattern and weaving techniques and tailoring- to work on high-value products for institutional clients. These artisans will be trained in various aspects of weaving techniques, pattern making, tie & dye techniques, color theory, fabric handling, treatments, ornamentation, product construction, and assembling.

The skill development activity shall be rolled out in the following manner:

Skill Assessment & Grading	Training Curriculum & Content Development
Training delivery in batches of 25 artisans through a blended model comprising of classroom training as well as practical & demonstration training	
Post-training assessment	

5.2.2. Knowledge & Technology Transfer

In addition to skill training, focus shall be given to documentation of best practices through SOPs and conducting exposure visits for the PE members:

5.2.2.1. SOP Development & Implementation

To ensure the smooth and seamless function of the PE, detailed standard operating procedures (SOPs) shall be developed and laid out for the day-to-day management of the PE based on documented best practices in line with industry norms. This shall ensure its enhanced functionality and sustainability.

The rollout of the SOPs for the relevant critical functions shall supported, and the required personnel shall be trained on them. Effective systems shall be put in place to monitor total compliance to these SOPs in the day-to-day functioning of the PE.

5.2.2.2. Exposure Visit

Exposure visits are a very effective way to transfer learning’s on market requirements, efficient operations, and management best practices. For the artisans in the cluster, exposure to mainstream production hubs and markets is very limited. To empower the grassroots leaders & artisans to strengthen their local institutions in sync with the industry requirements, it is critical to provide adequate exposure to the leading production centers to familiarize themselves with the best practices that are currently being followed in the industry.

5.2.2.3. Resource Management

To ensure adequate availability of raw material – woolen yarn, a provision for Yarn Bank is kept. The yarn bank would supply the yarn to all artisans and non-members to create an input service to the cluster and as per the production plan to the members. The yarn would be sourced from the local market as well as direct linkages with the mills or local suppliers for bulk procurement. The dye color would be also procured in bulk quantity and would be further distributed to the artisans as per the order requirements. This would enable the production of

better-quality and efficiently managed resource management, amenable for making diversified & value-added products, and improve the production output significantly ensuring a round-year supply of the raw material as required.

5.2.3. Development of community nodes

The existing groups in the cluster are operating as independent and self-sufficient units. The only need is to organize the cluster together into a single entity so that they may coordinate to manage orders, cut down costs, and create a unified brand.

Given the geographical spread of the cluster, and the need to create an effective outreach model for skill up gradation, production supervision, and quality control- it is imperative to adopt an integrated common facility center. This will enable the creation of adequate infrastructure support for the PE operations and artisans' requirements within their vicinity.

5.2.3.1. Setting up PE Operational Infrastructure

I. Common Facility Center (CFC)

The Common Facility Center or CFC setup shall act as the nodal point for the PE operations, based at one of the bigger villages having easy accessibility and logistical services. This will be around a 2000 sq ft facility with provisions for admin works, raw material storage, Yarn Bank, sampling activity, dyeing unit, finishing unit, etc.

One of the critical functions of the CFC would be the distribution & aggregation of raw materials and finished goods respectively. Other critical functions would be to enable pre-production and post-production activities support such as Dyeing, Warping, Winding, etc. This would help eliminate fluctuation in quality measures and enable PEs to produce standardized products for their customers. It will also be a center for production planning and forecasting with regular improvement.

The core functions of the CFC facility would be:

- **Input Mobilization:** Bulk purchase of quality material at competitive prices & inventory management;
- **Product & Design Development:** Provision for the development of new designs and diversified product ranges along with prototyping & sampling;
- **Merchandising & Marketing:** Mobilization of bulk orders from buyers as well as channeling direct customer sales;
- **Production Systems:** Implementation & oversight for lean manufacturing, and dyeing through CFC centers;
- **Sampling & Production:** Development of samples as per customization requests and supervised production;
- **Order Fulfillment:** Quality assurance and timely shipping of finished goods.

Details of CFC			
#	Section	Process	Equipment
1	Input Supply	Yarn, Colors	Weighing Scale, Storage Racks
2	Production	Pine Needle Accessories	Needle, Ring etc.
3	Value Addition & Designing unit	Weaving, Designing unit	Finishing and Designing Equipment
4	Storage	Input Store	Racks for segregated storage of input material and graded cluster produce
		Woolen Yarn	
		Inspected Products	

Details of CFC			
#	Section	Process	Equipment
1	Quality	QC	Inspection Table, ASU Machine
		Fulfillment	Tag guns, Loop Pins, Storage Racks
2	Facilities	Lighting	LED lights, Inverter, Battery
		System	Desktop, UPS, Printer
3	Admin./Accounts	Office	Furniture & fixtures, Tablets, computer systems

5.2.3.2. Deployment of Professional Manpower & Community Cadre

A. Engagement of Cluster Development Executive (CDE)

It is proposed to identify competent personnel from the local artisan community who will be inducted as Cluster Development Executives (CDEs) who will be recruited and trained in various aspects of procurement, production, operations and quality compliance so that they manage the operations. and handle large volumes of orders and service orders timely and efficiently. Additionally, CDE will coordinate between PE, TSA and SRLM and will also report on the progress of the cluster. The CDE will be linked to village units and will be responsible for the management of village-level production.

5.2.2.3. IT System Integration

The program shall ensure the adoption of an integrated IT system to automate various processes and reduce drudgery & manual intervention for streamlining the O&M of the PE. Appropriate software and applications for ERP management, design shall be adopted by the PE.

As the Handicraft enterprise deals with hundreds of varieties of designs and products, the software will also provide support for inventory tracking, member enrollment, and management to the PE.

5.2.2.4. Legal & Statutory Compliance

In order for the PE to function efficiently, provisions have been made to facilitate various compliances and obtaining necessary licenses as mandated under Government and Industry Norms for minimizing associated risks and penalties. The key compliances to be covered under this are listed below:

Statutory Auditor	Internal Auditor
Secretarial Services	Accounting Services (Tax & GST Filing)
Factories Act, Labour Laws	Shops & Establishments Act

5.2.4. Production Infrastructure & Design Development

5.2.4.1. Infrastructure Development

Handicraft activity is mostly done in homes or small centers which are spread over a large area. PE will need its infrastructure to connect the decentralized production system and transform it into a coordinated production system. For the encouragement of artisans, provision of work shed has been made as basic infrastructure for the artisans of BPL families.

5.2.4.2. Production Planning

A. Artisan Enrolled: As mentioned earlier, PE operations will be based on CFC models. The CFC will be established within the first three months.

The center where connectivity and mobile network will be good will be called CFC. It will also have admin, finishing and packaging facilities, storage, etc.

B. Artisans effectively engaged: The PE will enroll women as members during the membership drive. As the engagement of CDE, members will be mapped. The first month will be dedicated to training after which they will be on boarded and engaged in production. The numbers and availability of women artisans including primary and ancillary are estimated as below:

Engagement	1	2	3	4
Member Enrolled	226	300	400	525
No. of Production Days	200	240	270	300

C. Productivity: Handicraft practiced in Solan Pine Needle Cluster involves a lot of manual work, which is difficult to mechanize. The productivity of artisans depends upon their experience and skill level. The productivity for various projects is mentioned below:

Product	Pre-Production (Work day req.)	Production (Work day req.)	Post Production (Work day req.)	Total Time
Pine Needle Products				
Pine Needle Products	2.25	3	0.75	6

D. Capacity Utilization: The production is planned in line with the existing production cycle of the cluster and demand estimates. April onwards is the lean season for Solan Pine Needle artisans as the summer is rising and then the start of the rainy season till July. The production starts picking up during September to provide regular supply for the businesses. Its peak continues till February. The rest months are of medium production levels

The resulting production cycle of PE appears as below:

Activity Months	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Production Levels	High	High	High	High	Med	Med	Med	High	High	High	High	High

E. Artisans Allocation: As detailed previously, the CE has main product categories viz. Woolen Fashionable Products. The product share is decided based on products prepared in the cluster currently and the scope for introducing new products. The artisans are allocated keeping in view the product portfolio decided. Initially, more artisans are dedicated to existing Pine needle products, another major upcoming product line being Jewelry, Utility Products, Blended Products. It turns out to be as below:

Product line	Year 1		Year 2		Year 3 Onwards	
Jewelry	50%	10%	60%	10%	70%	10%
Utility Products	30%	10%	40%	10%	50%	10%
Blended Products	20%	30%	30%	40%	40%	60%

F. Production units: The production units are arrived at as a product of multiple factors mentioned above: factors mentioned above:

$$\left| \begin{array}{c} \text{Unit Produced} \\ \text{of a product} \\ \text{line per year} \end{array} \right| = \left| \begin{array}{c} \text{No. of} \\ \text{active} \\ \text{working} \\ \text{days} \end{array} \right| \times \left| \begin{array}{c} \text{Artisans} \\ \text{Allocated} \\ \text{for products} \end{array} \right| \times \left| \begin{array}{c} \text{Productivity} \end{array} \right|$$

Adding up per month production of units for different products, the following volumes are estimated based on our projections:

Units	1	2	3	4	5	6	7	8	9	10
Jewelry	4200	4400	4600	4800	5000	5000	5000	5000	5000	5000
Utility Products	4490	4500	4600	4700	4800	4900	5000	5000	5000	5000
Blended Products	1900	2000	2000	2100	2200	2300	2400	2500	2500	2500

5.2.4.3. Design Development & Product Innovation

Currently, the product and design innovation in the cluster is highly restricted and being pursued in a very constrained manner, the development of new designs and products is minimal. The cluster has not been able to optimize its forward linkages that could have been explored by further strengthening the collective capacity of the production base. An integrated design and technical development initiative will be initiated during the project. Appropriate designers shall be identified to conduct workshops in the cluster to develop many new exquisite product ranges covering different color patterns and market segments.

The PE's approach towards product development across focus craft categories being produced in the cluster is as follows:

Jewelry	Utility Products	Blended Products
Material Sourcing, Cleaning and Preparation, Design Conceptualization, Prototyping, Testing and Refinement, Quality Control, Feedback and Iteration, Sustainability Considerations.	Material Sourcing, Cleaning and Preparation, Design Conceptualization, Prototyping, Testing and Refinement, Quality Control, Feedback and Iteration, Sustainability Considerations.	Material Sourcing, Cleaning and Preparation, Design Conceptualization, Prototyping, Testing and Refinement, Quality Control, Feedback and Iteration, Sustainability Considerations.

For fostering design development & product diversification of cluster products during the initial years of the PE, a module-based approach is proposed. This would entail organizing a 30-day design workshop conducted by a designer (from NIFT, Design Professionals or Design Houses, etc.) and supported by a master Artisan. The designer is expected to develop a set of new design prototypes during the workshops along with the artisans- for which designs shall be developed based on market research & trend forecasting.

The PE can also make use of advanced design development software like Digi-Bunai developed by DIC-Digital India Corporation- an open-source CAD Tool to optimize the pre-loom loading process of design creation, and generation of graphs along with punching the jacquard cards for the weaving.

5.2.4.4. Inventory Management Plan

Inventory management can be very crucial for PE, as too much stock will lock up working capital and, too little may result in production delays or loss of sales opportunity.

A. Raw Material: The PE will procure raw materials once every quarter, based on raw material requirements for the next three months. PE will maintain its inventory in the Storage room which will be part of CFC. The storage area will be disinfected and cleaned to avoid fungus or pest growth. The CFC will also be secured by a security person to avoid pilferage. The artisans will keep a minimum inventory, just sufficient to complete the ongoing order. To manage price risk, PE can enter into rate contracts with suppliers. The raw material will be issued by the store in charge (the production manager will manage stores) post approval from the Chairman.

B. Work-in-progress: Once issued from the store, the raw material will be distributed among the artisans, and managed by supervisors. As the artisans are located near the CFC, the distribution can happen on the same day. The supervisor will keep the stocks in the CFC and issue them to artisans as per the production schedule. The women may take 8-10 days to complete the batch, after which they will return the WIP inventory to the supervisor and collect the next batch. The supervisor, in turn, will aggregate the batches from different artisans and keep them back to CFC, where tailoring, finishing & packaging work will be completed. Thus, it may take 20-25 days from the issue of raw material to the completion of the batch.

C. Finished Goods Inventory: The stock of finished goods inventory will be stored in CFC. In the case of B2B orders, they can be aggregated till the order is completed or shipped to the buyer in batches. In the case of retail channels, the stock will be maintained, awaiting sales to happen. While e-commerce sales are expected to happen regularly, sales through fairs and exhibitions will peak in the second half of the year, when most of the exhibitions happen.

5.2.5. Market Access Initiative:

5.2.5.1. Omni-Channel Marketing Approach:

To develop direct access to mainstream markets, it is imperative to adopt an Omni-channel marketing strategy for risk management- a portfolio of marketing channels ranging from wholesale orders to retail sales through exhibitions, local sales, and e-commerce platforms.

The TSA (NIESBUD) engaged for the Solan Pine Needle Cluster would support in establishing linkages and source orders from the institutional buyers, Govt. Emporia, leading retailers, exporters, etc. In addition to these, provisions have been made for the following B2C marketing activities with the support of TSA (NIESBUD):

- Participation in leading regional and national Handicraft & handicraft fairs/exhibitions.
- Organizing exclusive buyer's seller meetings for bulk sale.
- Promotion of sales through e-commerce and other digital/ social media platforms.

5.2.5.2. E-commerce readiness:

To ensure e-commerce readiness in PE, it is proposed that activities like product photo shoots, cataloguing, content writing, pricing and inventory management be done on an ongoing basis. Along with this, e-commerce website of PE will also be developed. The fulfillment center will also support these activities to enable higher order preparation and maximize the customer experience of purchasing PE products.

5.2.5.3. Branding & Promotion

The PE plans to market and sell its product under its brand by promotion in a holistic manner. Branding experts will be hired to create suitable branding for the cluster products along with the packaging for the same.

5.2.5.4. Website development & digital marketing

It is expected to leverage the boom in e-commerce by setting up an online marketing platform that shall enable consumers to directly access authentic and high-quality woolen Handicraft products sitting in the comfort of their homes. Along with the website, various digital marketing tools and campaigns shall also be engaged to maximize customer acquisition and promote PE's brand.

5.2.5.5. Credibility Certification and Marks

To ensure consumer fulfillment requirements there is a need for product certification which shall ensure denoting genuine Handicraft produce, conforming to minimum standards & norms for labeling the product as a handicraft product, and increasing consumer awareness of distinct Handicraft and dyeing traditions. Such certifications would include Craft-mark, Fair Trade, etc.

5.2.6. Working Capital Support

To support & sustain the operational expenditure of the PE, a provision for the working capital grant is being proposed. This grant would be utilized for raw material procurement, paying for its raw material, work-in-progress inventory, finished goods, etc.

5.3. PE's Marketing Strategy

Based on initial visits to the Solan Pine Needle Cluster and discussions with the Artisans, the following analysis has been done to understand the present marketing strategy adopted by the Cluster.

Currently, it has been observed that the cluster is working mostly on Handicraft products which are consumed locally, and mediators/traders capturing the maximum value realization of the product. As the products are being prepared for the local market it is not in sync with the latest trends and demands of new and contemporary products, we plan to focus on product diversification through various practices as part of the marketing initiative.

The Merchandise mix will focus on the introduction of the fashion accessories section as a larger section of the entire product plan at 50% and home furnishing at 10% in Year 1 and gradually aligning it as per plan. The home furnishings section will focus on value-added products such as Utility Products, Home Décor, Fashion Accessories, Blended Products etc.

It is imperative to maintain the identity of the craft through the usage of traditional colors and patterns, yet contemporize the same with better placements, high-performing yarn blends, and counts. The collection of products will develop its own identity and a design signature in the world of the Indian Fashion & Home Retail sector, fetching regular and better income generation opportunities for the artisans from Solan Pine Needle Cluster.

The marketing strategy for the Solan Pine Needle Products Cluster has been detailed below.

Market Feedback- Existing Cluster Products:

Brands Spoken to	Feedback Received
Him-Crafts, Tribes India, Fab-India, Khadi India	Brands have confirmed a high demand of Pine Needle Products due to its eco-friendly nature
	Pine needle crafts also contribute to the preservation of cultural heritage and traditional knowledge, and may be a source of income for local communities.
	Pine needle craft is a cleaner, more sustainable and ecological activity than industrial activities.
	Pine needle craft may also provide an ideal opportunity for young entrepreneurs and a great skill. The economic benefits of handicrafts are particularly significant in rural areas, where they can be considered as the second source of income.

Competition with similar crafts

Pine Needle products are a unique and innovative idea of the artisans of the cluster. Therefore, there is no major competitor of these products in the market right now.

5.3.1. STP Analysis

I. Segmentation

- A. **Product Categories:** Major products of the Solan Pine Needle cluster are hand-woven pine needle products made using finer yarn. 40% of the total production comprises Utility Products and 40% Blended Products, and the remaining 20% comprises the diversified products like Jewelries, Rakhi, etc.

II. Positioning

A. Price: The artisans fulfill the orders of the wholesalers and receive only wages for weaving. It has also been seen in most of the places that the mediators are buying the products from the artisans at low prices and selling them in the market at high prices.

B. Current retail market price of the cluster products:

Product	Description	Retail Price	Remarks
Jewelry	Per pc	Rs. 50/- to 350/-	Tentative selling prices vary based on the buyer and the complexity of the design.
Utility Products	Per pc	Rs. 300/- to 900/-	Tentative selling prices vary based on the buyer and the complexity of the design.
Blended Products	Per pc	Rs. 100/- to 250/-	Tentative selling prices vary based on the buyer and the complexity of the design.

C. Buying Behavior: The products are related to the environment and hence are being liked the most among such customers. Who are interested in environment, culture and rural development. Pine needle products have not yet been introduced for urban consumers and there are strong possibilities that a large market is available for pine needle products.

III. Target Market:

A. People and Place:

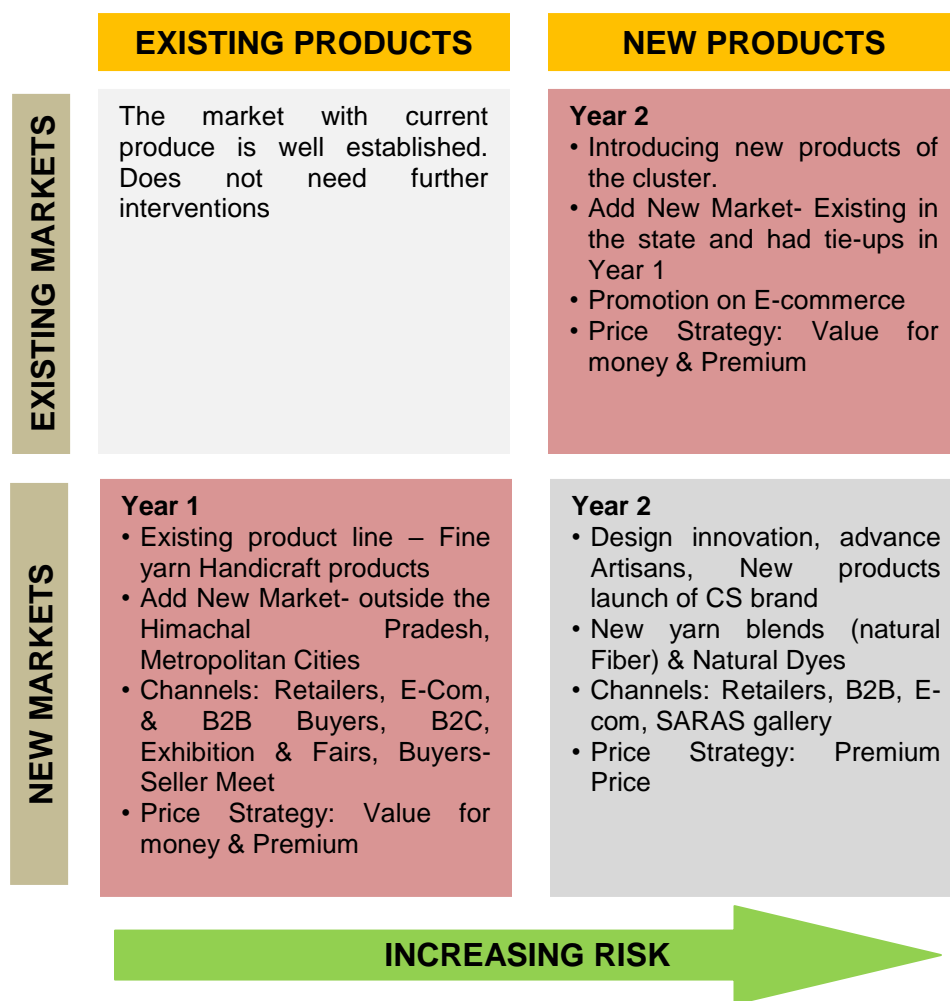
Place

- Retail Market-Local retailers and traders placing and buying back for local consumptions
- Wholesale Market – due to tourist movement some Wholesalers are available in the cluster

People

- Urban Consumers
- Men & Women -Age Group 18-65

5.3.2. Product Market Expansion Strategy



5.3.3. Sales Channels

The below matrix explains the year-on-year addition of sales channels as per the Marketing Strategy.

SALES CHANNELS: the below matrix explains the year-on-year addition of sales channels as per the Marketing Strategy

Year	B2B	E-Com	B2C	Institutional
Yr 1	Retailers- within the state <ul style="list-style-type: none"> State Emporium Tribes India Khadi India 	<ul style="list-style-type: none"> Saras E-com Go Coop Udyamkart 	<ul style="list-style-type: none"> Saras Mela Local fairs & Carnivals 	Corporate and Institutional Sales
Yr 2	Retailers & whole sellers within the state & acquired in year 1	All in Year 1+ <ul style="list-style-type: none"> Amazone Karigar Flipkart Samarth PE E-com 	All in year 1+ <ul style="list-style-type: none"> Delhi Haat Other State exhibition 	Corporate and Institutional Sales
Yr 3	Retailers of nearby cities <ul style="list-style-type: none"> Max Retailers Export Market 	All in year 2+ <ul style="list-style-type: none"> Ajio Artisans Crafts-villa 	All in year 2+ <ul style="list-style-type: none"> Private Exhibitions 	Corporate and Institutional Sales

5.3.4. Existing market scenario

As the consumption is equivalent to or more than the supply in the existing market and the value chain is well developed within the state of Himachal Pradesh for Solan Pine Needle Products, external Intervention is not needed here. Currently, it is observed that most of the weaving is being controlled by govt. institutions, based on his experience and confidence he will be able to sell a certain volume as he understands the demand of the local market trends. Going forward as the strategy is also to maintain the sanctity of the craft in its original form, the introductions to Design variations will be thoughtful.



Figure 11. Solan Pine Needle: Look Board

4 P's at Current Market Scenario

Product	Jewelries, Rakhi, Utility Products and Blended products
Price	Currently the core retailing at INR 300 to 900 in local markets.
Place	Local markets itself are effective enough for complete consumption of the current supply chain.
Promotion	The core product has very high environmental & emotional reputé within the state.

5.3.1. Market Development-Year 1

Entering new markets with existing products means expanding to new geographic locations and various sales channels such as B2B, B2C, E-commerce, and Institutional Sales, focusing mainly on 2 types of Customer segments based on pricing strategy.

- Value for Money – Upper Middle Class
- Niche Premium – Upper Elite Class

At the onset of entering new markets, the USP of the Product is, that it is Indigenous to the region, and based on the preliminary market feedback received that Solan Pine Needle Artisans also has a very high emotional repute within the state of Himachal Pradesh and has an also demand in the Hilly States of north India too.

Further chances of success to promote and penetrate new markets are high as consumers in other locations especially urban areas possess good disposable income and consumer behavior does not deviate too far from the consumers in existing markets in almost similar products from other regions.

4 P's of Market Development Stage: Year 1

Product	Utility Products, Fashion & Accessories, a new range development will be planned with slight variations in colors & motifs. A small section of Home Line will be introduced with the addition of colors to the existing color palate, similar to existing motif explorations and other value additions
Price	Price strategy for both categories will be as follows Value for Money <ul style="list-style-type: none"> • Targeting Middle Class & Upper Middle class Premium • Targeting Upper Elite Class
Place	National Brands, Retailers, and B2B & B2C channels will be explored, including E-commerce forums. Initiating to explore Export market
Promotion	Aggressive social media, Digital Promotion & Print promotion through journals, Magazines, etc.

The Market Development Strategy will involve following approaches:

- Catering to a different customer segment
- Entering into a new Domestic Market (Expanding Regionally)
- Entering into Export market

5.3.6. Product Development

As mentioned before the design signature of the craft will be maintained, and product development will be done on existing weave structures, with an introduction to coarser yarn counts especially for home furnishing categories and new but similar design motifs based on the same technique, and taking it to exist & new markets with value-added product category fetching higher sales & income generation opportunities for the PE.

Product Diversification & Design Development

The addition of the Home Furnishings category is premeditated based on the market trends of substantial growth in the Soft Home section all over the Country. The move will involve extensive research, development, and expansion of the product range focusing more on the width of the design range rather than the depth. The Product Development strategy will be employed based on the market trends and will be able to provide innovative solutions to meet the needs of the existing market.

The strategy here can be implemented in various ways:

- R & D to develop a new product range to cater to existing markets without disturbing the work rhythm of the Artisans.
- Merging resources with competition to meet the needs of the existing market.
- Forming Strategic Partnerships with companies to gain access to each partner's distribution channels or Brands or consumers.

4 Ps at Product Development Stage: Year 2

Product	Utility Products, Fashion & Accessories & Blended Products a new range development will be planned with slight variations in colors & motifs. A small section of Home Line will be introduced with the addition of colors to the existing color palate, similar to existing motif explorations and other value additions
Price	Price strategy for both categories will be as follows Value for Money – Targeting Middle Class & Upper Middle class Premium – Targeting Upper Elite Class
Place	Retailers & Whole-sellers in Himachal Pradesh itself , State Emporiums, E-com Portals, B2C exhibitions & Institutional sales. Setting up sales outlets of PE
Promotion	In store campaigns, & Melas, Aggressive social media, Digital Promotion & Print promotion through journals, Magazines, etc.

5.3.7. 4Ps at Products Diversification Stage- Year 3

Product diversification Strategy will entail entering new markets with an altogether new product. The PE will be significantly working on developing a Brand/ Design signature specific to the location & technique involved.

Although this strategy is Risky, as both Market Development & Product development are required, the risk can be mitigated somewhat through related diversification. Also, a diversification strategy may offer great potential for increased revenues as it opens an entirely new revenue stream for the PE, this accesses consumer spending in Existing & New markets which the PE did not have earlier with their current product line.

Diversification can be employed on 2 levels:

1. **Related Diversification:** We work on the same technique, yarn counts, colors & motifs but take the fabric to new product categories such as modern outfits. Here the Synergies can be realized between the Existing market and the new product category.
2. **Launch of PE Brand:** Developing a Brand Name, logo, and taglines specific to PE.

4 Ps at Product Diversification Stage: Year 3

Product	Diversified Utility Products, Fashion & Accessories, a new range development will be planned with slight variations in colors & motifs. A small section of Home Line will be introduced with the addition of colors to the existing color palate, similar to existing motif explorations and other value additions
Price	Price strategy for both categories will be as follows: Premium – Targeting Upper Elite Class
Place	National Brands, Retailers, B2B & B2C channels will be explored, including E com forums. Initiating to explore Export markets
Promotion	Aggressive Social-Media, Digital Promotion & Print promotion through journals, Magazines etc.

5.3.8. 4Ps at Products Diversification Stage- Year 4

Product diversification Strategy will entail entering new markets with an altogether new product. The PE will be significantly working on developing a Brand/ Design signature specific to the location & technique involved.

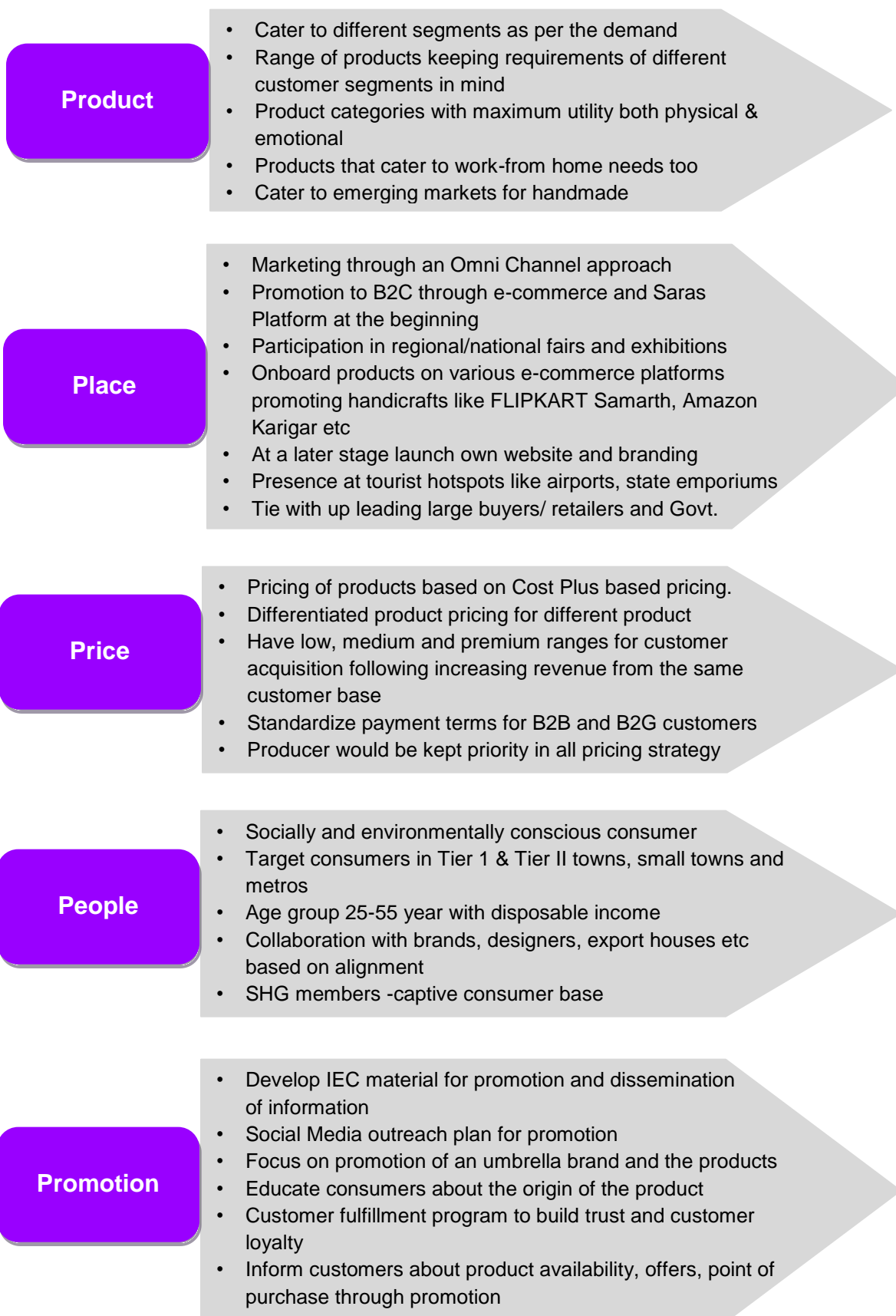
Although this strategy is Risky, as both Market Development & Product development are required, the risk can be mitigated somewhat through related diversification. Also, a diversification strategy may offer great potential for increased revenues as it opens an entirely new revenue stream for the PE, this accesses consumer spending in Existing & New markets which the PE did not have earlier with their current product line.

Diversification can be employed on 2 levels:

4 Ps at Product Diversification Stage: Year 4

Product	Focus will be laid on Developing the Home Line with introduction to more colors to the existing color palate, coarser yarn counts, new motif explorations and other value additions.
Price	Price strategy for both categories will be as follows: Premium – Targeting Upper Elite Class
Place	National Brands, Retailers, B2B & B2C channels will be explored, including E com forums. Initiating to explore Export markets
Promotion	Aggressive Social-Media, Digital Promotion & Print promotion through journals, Magazines etc.

5.3.9. Product Positioning



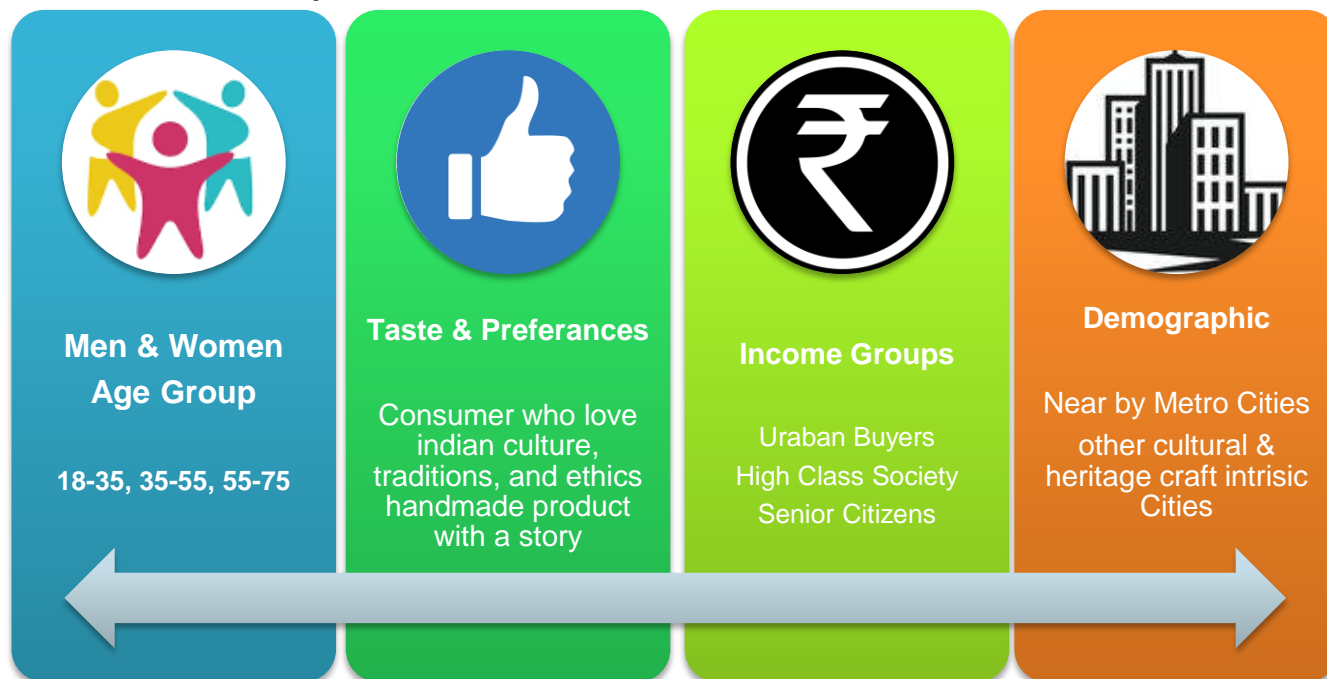
The team would also prepare a media outreach plan for undertaking publicity and broadcasting of the developed outreach & promotional material.

Promotional Plan	Key Inputs
Identify target customer	<ul style="list-style-type: none"> Understand the demographics and preferences of potential customers interested in Handicraft products Target tourists visiting Shimla & Solan, as well as online shoppers interested in authentic handcrafted items.
Brand Positioning	<ul style="list-style-type: none"> Emphasize the uniqueness and authenticity of Solan Handicraft products. Highlight the traditional craftsmanship and cultural significance of these products.
Offline Promotion	<ul style="list-style-type: none"> Local events and fair: participate in local fairs, exhibitions, and cultural events to showcase Solan Pine Needle products. Collaboration: Partner with local hotels, resorts, and travel agencies to promote Solan Pine Needle products to tourists. Pop-up Shops: Set up temporary pop-up shops in high-traffic tourist areas to attract visitors. Sales outlets: setting up of permanent sales outlets near hill stations in the region
Online promotion	<ul style="list-style-type: none"> Website: Develop a user-friendly website featuring an online store where customers can browse and purchase Solan Pine Needle products. Social Media: Create engaging content on platforms like Instagram, Facebook, and Pinterest to showcase Solan Pine Needle products. Use visually appealing images and videos to attract attention. Influencer marketing: Partner with influencers or bloggers who have an interest in traditional crafts and textiles to promote Solan Pine Needle products to their followers. Online Marketplace: List Solan Pine Needle products on popular online marketplaces such as Etsy, Amazon Handmade, and IndiaMart to reach a wider audience.
Content Marketing	<ul style="list-style-type: none"> Blogs & Articles: Publish blog posts and articles on topics related to Solan Pine Needle, such as its history, weaving techniques, and significance in the local culture. Video Tutorial: Create video tutorials demonstrating how Solan Pine Needle products are made, showcasing the craftsmanship involved.
Email Marketing	<ul style="list-style-type: none"> Build an email list of customers and subscribers interested in Handicraft products. Send out regular newsletters featuring new product launches, special promotions, and behind-the-scenes glimpses of the weaving process.
Customer Engagement	<ul style="list-style-type: none"> Encourage customer reviews and testimonials to build trust and credibility. Offer loyalty programs or discounts for repeat customers to encourage repeat purchases.
Collaboration & Sponsorship	<ul style="list-style-type: none"> Partner with fashion designers, boutiques, or retail stores to showcase Solan Handicraft products in their collections or displays. Sponsor local cultural events or fashion shows to increase brand visibility and association with traditional craftsmanship.
Measuring success	<ul style="list-style-type: none"> Track key metrics such as website traffic, social media engagement, sales conversions, and customer feedback to evaluate the effectiveness of the promotional efforts. Use analytics tools to gain insights into customer behavior and preferences, and adjust the promotional strategies accordingly.

By implementing a well-rounded promotional plan encompassing offline and online channels, Solan Pine Needle products can gain visibility and attract customers who appreciate the beauty and cultural heritage of these traditional textiles.

5.3.10. Business Plan

Based on the above year by year plan, a business plan with Product mix & sales channels have been planned for the PE



Channel Mix	1	2	3	4	5	6	7	8	9	10
B2B-Retailers										
Jewelry	10%	20%	30%	30%	30%	40%	40%	40%	40%	40%
Utility Products	0%	5%	10%	10%	10%	20%	20%	20%	20%	20%
Blended Products	10%	20%	30%	30%	30%	40%	40%	40%	40%	40%
B2B-Trader										
Jewelry	0%	10%	20%	20%	20%	20%	20%	20%	20%	10%
Utility Products	0%	10%	20%	20%	20%	20%	20%	20%	20%	10%
Blended Products	0%	10%	20%	20%	20%	20%	20%	20%	20%	10%
B2C-SARAS										
Jewelry	25%	25%	20%	20%	15%	15%	15%	15%	15%	15%
Utility Products	10%	10%	5%	5%	5%	5%	5%	5%	5%	5%
Blended Products	25%	25%	20%	20%	15%	15%	15%	15%	15%	15%

Channel Mix	1	2	3	4	5	6	7	8	9	10
B2C-Exhibition										
Jewelry	40%	40%	40%	20%	20%	20%	10%	10%	10%	10%
Utility Products	10%	10%	10%	5%	5%	5%	5%	5%	5%	5%
Blended Products	40%	40%	40%	20%	20%	20%	10%	10%	10%	10%

B2C- E-Com										
Jewelry	5%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Utility Products	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Blended Products	5%	20%	20%	20%	20%	20%	20%	20%	20%	20%

5.4. Location of the Physical infrastructure

The locations of the physical infrastructure proposed to be established under the project (1 CFC and 2 Sales Outlets) will be identified based on the following key parameters:

For CFC

- The proximity of respective infra location to the highest concentration of producer HHs.
- Connectivity with the road via public transportation
- Easy accessibility to the road connecting Solan and Kandaghat blocks of the Solan district.
- Access to critical input requirements for production, logistics & other service providers.
- Availability of existing Govt. infrastructure.
- Adequate space.

Based on the above parameters the following locations have been identified:

For CFC

- Available Govt. buildings in the center of Solan-Kandaghat near Shimla-Chandigarh National Highway.

It is proposed that the above cluster infrastructure would be established at available buildings/ commercial spaces, ideal for repurposing them to suit the infra requirement of the proposed facilities, in the selected locations. These spaces would be taken on a long-term lease (rental basis). Adequate support would also be extended by the District Administration for the provisioning of existing under-utilized Government buildings in these areas, which shall be leased out to the PE for operating them.

However, the finalization of locations for setting up the CFC and Sales outlets shall be required to be done on a detailed feasibility assessment (availability of suitable space, type of construction, rental cost, etc.) which would be scheduled alongside the mobilization activity.

5.5. Licenses and permits

In order for the PE to function efficiently, provisions have been made to facilitate various compliances and obtaining necessary licenses as mandated under Government and Industry Norms for minimizing associated risks and penalties. Some of these compliances have been listed below:

Statutory Auditor	Internal Auditor
Secretarial Services	Accounting Services (Tax & GST Filing)
Factories Act, Labour Laws	Shops & Establishments Act

5.6. Proposed Operation & Management Structure of PE

5.6.1. Proposed Management Structure

The governance & management of the proposed PE would involve 3 key stakeholders:

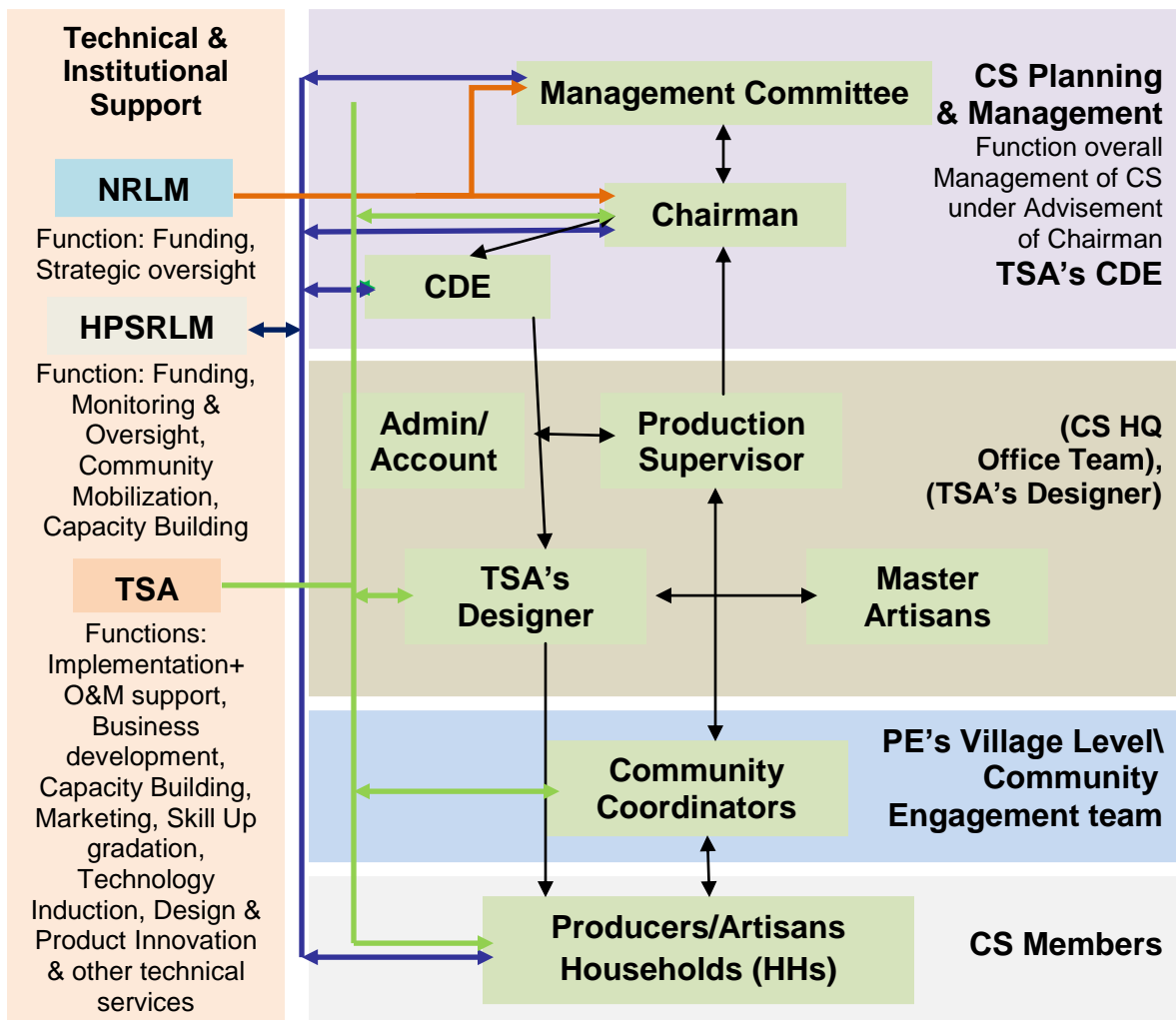
S. No.	Stakeholder	Description
1	Members (Artisans)	Artisans who have acquired membership in the PE by contribution of a membership fee. The Artisans as a

		member has a right to elect their governing body/management committee and Chairman of PE.
2	Governing Body/Management Committee	Elected by members and may act collectively only in meetings responsible for management oversight of the PE with the assistance of the appointed Chairman.
3	PE Staff (Office Bearers)	Professionals hired by the PE management to conduct day-to-day operations of the PE such as the Chairman, Production Managers, etc.

To ensure effective implementation, O&M, and commercial sustainability of the proposed PE, there would be various agencies such as NRLM, HPSRLM, TSAs, etc. who would extend technical & institutional support to the PE.

The TSA for the project is The National Institute for Entrepreneurship & Small Business Development (NIESBUD).

An overview of the proposed management structure of the proposed PE has been illustrated below:



5.7. PE's Key Process

The PE shall strive to put robust systems and processes in place to ensure maximum operational efficacy and sustainability of the institution. Detailed SOPs shall be developed for each of these processes to ensure adherence to these processes by all stakeholders.

5.7.1. Pre-Production Processes

The key pre-production processes to be established under the PE would be channel-specific. For the B2B channel, the PE shall establish robust systems to manage Order Sourcing and Product Development processes to facilitate order bookings for customized product offerings to key institutional clients. Various critical processes for B2C channels such as Market Trend Analysis and Design Development would also be established to ensure the development of products keeping in mind the traditional techniques and nuances of the craft as well as the current/emerging trends and requirements of the modern urban consumer.

All the Pre-Production Processes would be managed at the CFC level under close supervision of the PE Chairman, Design Experts, and Marketing Partners.

5.7.2. Production Processes

The Production Processes would be common to both channels and would be managed at the CFC level, with production execution at the Community Coordinator, under close supervision of the PE Chairman, Production, Finishing, and QC Teams.

- A. Bulk Input Aggregation:** The PE shall have provisions for ensuring the timely availability of quality raw materials at optimal prices for the member artisans. The raw materials as per the design specifications set in the previous process shall be procured directly from manufacturers or wholesale suppliers in Himachal Pradesh, the northern yarn market to avail bulk discounts- thereby ensuring optimum availability and reducing input prices for the PE.
- B. Production Planning & Aggregation:** One of the critical tasks for managing efficient production systems at the PE would be production planning- which shall help in organizing, segregating, and assigning the production to member artisans at the Community Coordinators as per the available skill sets and product requirements. The planning is done at the CFC level in coordination with Community Coordinators. The Community Coordinators team would undertake periodic supervision and monitoring of work- to resolve critical issues, mistakes, etc., and to maintain delivery timelines as specified in the Production Plan. The embroidered fabrics are collected at the Community Coordinators, washed, and sent back to the CFC for further value addition and finishing.
- C. Value Addition & Finishing:** The Handicraft products received from the Community Coordinators would require a final QC check and conversion into further products or minor tailoring- as per product specifications. The CFC facility would be equipped with a value addition and tailoring unit- comprising 10 m/c's along with finishing tables. The finished goods would then be sent for a final QC check before being labeled and packed.

D. QC & Compliance: Quality control & compliance is of utmost importance to building a strong brand and creating long-term relationships with our customers. In a completely manual process like weaving, quality control becomes even more important as minor defects can reduce the price of a product drastically or result in its outright rejection.

E. Labeling, Packing & Shipping: One of the critical requirements for ensuring effective product purchase and marketing is to label the products to identify the type, size, product composition, product line, manufacturer, wash-care or handling instruction, etc. Therefore, the products produced by the PE shall be labeled following the market requirements under the branding developed for the PE products.

5.7.3. Post- Production Processes

The key post-production processes to be established under the PE would be channel specific. For B2B channel, the PE shall provide post-shipment Client Fulfillment support to the buyers/ clients on various aspects as per their requirements. Various critical processes for B2C channels such as Point-of-Sale Management (sub-channel wise), Customer Fulfillment, etc. would also be established.

All the Post-Production Processes would be managed at the CFC level under close supervision of the Chairman, PE, Sales Team and Marketing Partners.

5.7.4. Other PE Process

In addition to these critical processes, some of the other processes that shall be built in the PE are as follows:

- a) Administration:** The PE will have a team of professionals for admin work, which will include recording administrative data, arranging board meetings and general body meetings, communicating with HPSRLM, managing exposure visits and training schedules, etc. While the PE will have the assistance of TSA (NIESBUD) initially to manage such activities, it will hire its staff to support the leadership in subsequent years.
- b) Accounts & Finance:** Being a professional organization, the PE will follow best practices in accounting as per industry standards for providing accurate information for strategic decision-making to the management as well as complying with statutory requirements. While the PE will have its own Finance and Accounts Executive, the TSA (NIESBUD) will also assist a finance expert during the initial years.
- c) Member Engagement:** Being a community-based organization, engaging with the women artisans will be a major support activity for the PE. It will include initial member registration, collection of share capital, patronage distribution, general communication, grievance redressal, convergence with other schemes, etc. The management committee, PE will act as a link between artisan members and PE professional staff for facilitating all such activity.

In addition to these activities, the PE would also facilitate access to relevant Government schemes and entitlements such as Artisan ID cards, insurance, credit, etc. for the cluster artisans engaged with the PE.

5.7.5. Process Responsibility Matrix

Process	Point	Person Responsible
Product Related		
Order Sourcing	CFC	Chairman, PE, Design Experts and Marketing Partners
Market Trend Analysis		
Design Development		
Product Development		
Bulk Input Aggregation	CFC, CC's	Chairman, PE, Production Supervisor
Production Aggregation	CFC, CC's	Production Supervisor & Artisans
Value Addition & Finishing	CFC	Production Supervisor
QC & Compliance	CFC, CC's	Technical Executive - QC
Labeling, Packing & Shipping	CFC	Production Supervisor
Point-of-Sale Management	CFC	Chairman, PE,, Sales Team and Marketing Partners
Customer Fulfillment		
Client Fulfillment		
Others		
Administration	CFC	Chairman, PE
Accounts & Finance	CFC	Chairman, PE
Member Engagement	CFC	Chairman, PE

6. Operational Plan for Solan Handicraft Cluster

6.1. Project Roll Out Plan with timelines

The proposed timelines for the key activities planned for the Solan Handicraft Cluster are illustrated below:

Interventions		Year 1`				Year 2				Year3				Year 4			
Particulars		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
A	Community Capacity Building & Institutional Building																
A1	Beneficiaries Mobilization	■	■														
A2	Pre-Incorporation & Incorporation of Consortium			■	■												
A3	Training & Capacity Building of PE Key Functionaries & Staff			■	■			■	■			■	■				
A4	Skill Assessment & Training Initiative	■	■			■	■										
B	Knowledge & Technology Transfer																
B1	Documentation of Best Practices			■			■				■					■	
B2	Exposure Visits				■			■				■					■
B3	Skill Up-gradation			■	■			■	■								
C	Development of Community Nodes																
C1	Support for hiring professionals for managing the PE			■	■	■	■	■	■	■	■	■	■	■	■	■	■
C2	Remuneration for the village/community level Supervisors			■	■	■	■	■	■	■	■	■	■	■	■	■	■
C3	Setting up of CFC			■	■	■	■										
C4	Production equipment for CFC				■	■	■										
C5	Expenses for PE			■	■	■	■	■	■	■	■	■	■	■	■	■	■
C6	Integrated IT System for PE			■	■	■	■										
C7	Legal and Compliances for PE			■	■	■	■										
D	Working Capital			■	■	■	■	■									

6.2. Implementation Framework

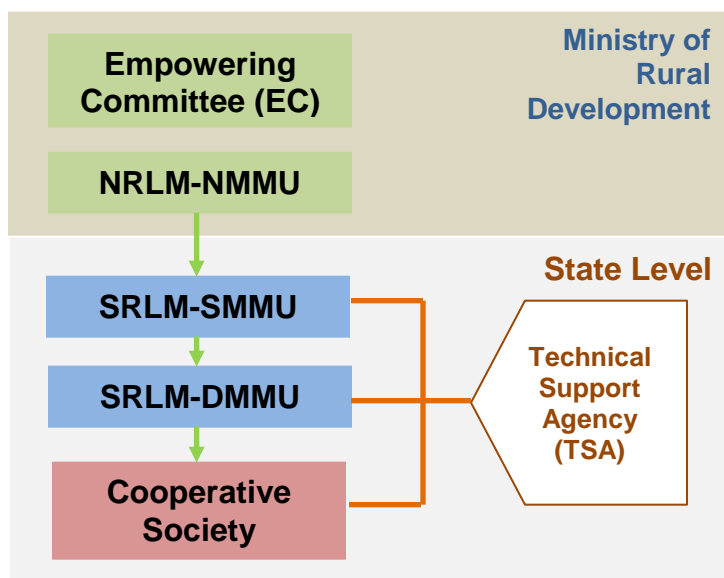
The implementation framework for the cluster has been prepared in line with the cluster guidelines shared by the NMMU.

The project will extend over 4 years and will involve close -coordination between HPSRLM, TSA (NIESBUD), and PE with oversight of NMMU and Empowered Committee.

Alongside is the graphical representation of the various agencies involved and their mutual relationships.

The detailing of roles and responsibilities of HPSRLM and TSA

(NIESBUD) would conform with Cluster Scheme Guidelines. The listing of their respective roles & responsibilities has been done below:



6.3. Roles & Responsibilities

HPSRLM

- A. TSA Training: Once the TSA is on-boarded, the TSA Team will need to attend a training organized by NMMU on sensitizing the TSA Team on NRLM’s community network and cadres, HPSRLM structure at district/block levels and develop in-depth understanding of the proposed project components & it’s expected outcomes
- B. Support TSA to mobilize cluster stakeholders
- C. Approve and review action plan developed by TSA
- D. Monitoring of cluster activities:-
 - Organize review meetings with TSA and representatives of cluster members / cluster enterprises at regular intervals.
 - Regular tracking of cluster activities through SMMU.
 - Regular (minimum at annual intervals) monitoring of the financial and process audit of the CSs established in the cluster.
- E. Support TSA for mobilizing artisans into CS and assist them in the registration process
- F. Provide support for ensuring cluster sustainability-
 - Issue guidelines / policy for operations of the cluster
 - Lead institution building activities in the cluster to strengthen institutional platform for joint / collective actions
 - Identify and facilitate setting up of training / production spaces such as Common Facility Centers as well as other cluster assets as required based on diagnostic study and intervention plan
 - Ensure institution and capacity building of the cluster governance structure and the office bearers of the producer collectives supported
 - Ensure convergence with other government schemes to enhance profitability of the cluster enterprises

TSA (NIESBUD)

- A. Implement action plans for the year and achieve the approved outcomes including-
 - Support HPSRLM in institutionalizing the cluster artisans into CS with appropriate registration in due course. The TSA will also ensure that the formalities for registration are complied with
 - Undertake skill up gradation and capacity building for the target group of artisans on the production of marketable products with substantially improved quality
 - Drive product development & training to
 - increase the range of products, and develop fresh, innovative, and marketable designs that are attractive to urban consumers and create opportunities to establish new B2B and B2C linkages; and
 - improve the quality of the existing product portfolio
 - Facilitate production by providing incubation support and techno-managerial services in the entire production chain
 - Developing market linkages for the CS and its member artisans by sourcing orders, facilitating participation fairs/exhibitions/sales, promotion & branding (including collaterals) of cluster and CS products, developing promotional material such as product catalogs, etc.
 - Advisory support to HPSRLM & CS across all project interventions
- B. Assist HPSRLM in preparing guidelines/policies for cluster sustainability
 - Institutional: Positioning board of directors through selection or election based on predetermined criteria; preparing governance manual for CS with detailed SOPs for how decisions are to be made, who should make what type of decisions; and overseeing their capacity building
 - Operational: Recruiting all necessary CS staff in consultation with HPSRLM; Preparing operational manual for CS with detailed Standard Operating Procedures (SOPs) for all operations; establishing partnerships with technical partners/ institutions in marketing, skilling, designing, etc.
 - Financial: Ensuring stable financial health of the CS; facilitating adequate documentation to seek favorable institutional financing from banks and FIs for funding expansion or any other ad hoc requirements
- C. Get an action plan and targeted outcome for subsequent years approved by HPSRLM / NRLM and implement the same
- D. Get the action plan, exit strategy, and targeted outcome for the last year approved by HPSRLM / NRLM and implement the same
- E. Prepare an Exit Strategy from the cluster including the PE's business plan for the next 4 years having details of skill development activities, design development activities, managerial training, supply chain activities, key investments, exposure visits, marketing strategy, and business building activities, etc. to ensure that the CS would have a clear roadmap beyond the project period
- F. Learn from similar initiatives in other clusters
- G. Participate in all review meetings organized by NRLM or HPSRLM
- H. Create at least 5 case studies and get approved by HPSRLM
- I. Create quarterly & annual reports for each year- approved by HPSRLM and NRLM
- J. Participate in review meetings organized by the HPSRLM and provide regular reports on the performance of supported enterprises as per agreed terms

6.4. Reporting and Monitoring Mechanism

The proposed Monitoring & Evaluation (M&E) framework being adopted for the programs shall be done at two levels:

1. Project M&E
2. PE M&E

6.4.1. Project M&E

The M&E framework as specified in the 'Guideline for Promoting Artisan Clusters' shall be adhered to for monitoring and review of the project/program will be done at two levels i.e. at the Central-level by the NMMU and at the State-level by the SRLM.

A Project Management Committee (PMC) set up at the State level shall have overall responsibility of review, monitoring and evaluation of the project and support the producer companies in effective implementation of the project. The PMC should meet at least once in a month.

The committee shall comprise the following members:

- A. State Mission Director, HPSRLM
- B. Nominated Member of NRLM
- C. Nominated Member of TSA (NIESBUD)
- D. Chief Executive of the supported Producer Enterprise
- E. SPM-Livelihood, HPRLM
- F. Head -Finance, HPRLM

The responsibility of the Project Management Committee (PMC) should not be delegated/sub delegated in whatsoever manner to district administration.

The Project Management Committee should review the progress on financial, physical & procurement of goods/services of each producer company quarterly or as per the immediate requirement. Monitoring and evaluation, along with reporting will be a key responsibility of the PMC. Even as they will have the primary responsibility of such periodic exercises it is expected that other stakeholders will also be involved with the process.

A 3rd party specialist agency for M&E and community monitoring will also form part of the oversight of the project. The frequency, periodicity, monitored indicators and levels of detail would vary depending of actual requirements.

6.4.2. PE M&E

To ensure optimum functioning and operations at the PE level, provisions would be made for providing them with appropriate tools and capability to record crucial data for regular monitoring, strategizing and course correction.

The collection of data can be done through multiple mobile apps/hand-held devices which can feed them into an IT-enabled system. For monitoring, the IT system can be used to generate periodical reports with crucial metrics delivered to the concerned stakeholders

7. Risk Assessment & Mitigation

The PE would be exposed to various systemic and systematic risks like any other business enterprise. They are broad-based risks emanating from the business cycle and events that are beyond the control of a single entity. We would focus our efforts on reducing the unsystematic or idiosyncratic risk associated with the industry we operate in and our operations.

The risk assessment and mitigation framework for the PE has been provided below:

Risk	Mitigation
Project Initiation Risks	
Business Model Risk	Initially to mitigate this risk small number of producers would be on-boarded to establish the operational systems and efficiency and accordingly fine the model in congruence with the market.
Funding Risk	PE would plan in advance for the funding requirements and also keep SRLM and financial linkage in loop to avoid funding crunch scenario
Project delays	There could be scenarios where project milestones could be delayed. PE professional staff will regularly update the concerned authority about the delays and milestones and timelines could be adjusted accordingly.
Community Risks	
Non participation due to cultural difference	PE would establish transparent norms and spread awareness among community members while mobilizing producers.
Operational Risks	
Experience and Capabilities	Experienced and management graduate and professionals will be involved to take care business process of PE.
Quality Risk	PE would deploy quality assistance along with Quality checks SOP to ensure the preferred quality is achieved
Production loss	Production unit will be made to operation to obtain industry standard output; further continuous improvisation would be taken up to get better output. Experienced professionals and technology would be utilized to get desired result.
Producer Dropout	Producers trained at the project could drop out or move elsewhere which could lead to wastage of resources. PE staff have kept sufficient welfare funds for producer's engagement and have factored in for training new hires by keeping overall productivity at a lower estimate from the optimum level
Working Capital Risk	PE could run out of cash if working capital cycle is not maintained. PE has kept sufficient WC provision in the project for the initial years. Subsequently PE would raise working capital through market as and when requirements arise.
Order fulfillment rejections and delays	To avoid any order fulfillment delays, sufficient lead time would be sought from the buyer and multiple checks would be placed in the complete production cycle.
Inventory Risk	Insurance coverage will be made. Further order based zero Just in Time stock policy will be followed to reduce the risk.
Legal Risks	
Compliance Risk	PE professional staff will ensure that PE is fully compliant to legal compliance.
Marketing Risk	
Competitive Risk	PE would work in different product portfolio to avoid clash with the existing players
Credit Risk	PE will be dealing business on advance basis or on bank guarantee basis to offset this risk and would maintain a cash surplus to avoid credit risks
Market Scenario change Risk	PE would have a progressive studio with support from technical expertise to track the upcoming trends for the production planning
Achievement of expected B2C sales	If PE could not achieve its B2C sales target and left with unsold inventory in the last month. Priority would be given to clear the remaining stock at discounted price bulk sales and freeing the cash flow for the next season demand. A provision has been built in the project projection sales figures to incorporate the discounting pricing.

Achievement of Revenue Target	<p>The inability of the PE to achieve the revenue targets is a risk and its ramifications would be on the PE's bottom line. Monitoring of the key financial matrices of the PE would be done in a periodic manner (monthly/ quarterly/ half yearly), to determine its performance.</p> <p>The shortfall in revenue targets, when detected, would primarily occur due to:</p> <ol style="list-style-type: none"> 1) production deficit, or 2) PE's inability to market the PE produce. The PE would ensure that it takes adequate measures to minimize the impact on the bottom line. <p>Some of these measures are as follows:</p>	
	Production Deficit	PE's inability to market
	<ul style="list-style-type: none"> ▪ Implementation of dynamic production planning in line with the confirmed orders and realigning the revenue projections as per the production ▪ Enrollment and engagement of additional producers under the PE ▪ Streamline productivity and efficiencies along the production line ▪ PE would only take up production for Gross Contribution (+) product lines 	<ul style="list-style-type: none"> ▪ PE would undertake sales of undersold stock at a discounted price and targeted promotional events ▪ PE would focus on constant exploration of potential revenue sources with existing as well as new/ emerging channels ▪ PE would ensure cost control measures across the organization ▪ PE's focus of PE would be on booking future orders to maintain a regular workflow
Environmental Risks		
Fire & Safety Risk	Proper insurance coverage will take care of this risk.	
Other Risk		
Policy change risk	PE would review and update itself on the policy field development yearly and make amendments accordingly in consultation with the technical experts and SRLM experts	

8. Budget & Financial Plan for proposed cluster

8.1. The total budget for the Integrated Value Chain Development of the Solan Pine Needle Cluster in Solan district is Rs. 321.20 Lakhs over the project duration of 4 years.

The head-wise break-up of the budget has been provided below:

S. No.	Budget Heads	Y1	Y2	Y3	Y4	Total
A	Community Capacity Building & Institutional Building	13.75	0.00	0.00	0.00	13.75
A1	Beneficiaries Mobilization	3.00	0.00	0.00	0.00	3.00
A2	Pre-Incorporation & Incorporation of Consortium	3.50	0.00	0.00	0.00	3.50
A3	Training & Capacity Building of PE Key Functionaries & Staff	4.25	0.00	0.00	0.00	4.25
A4	Skill Assessment & Training Initiative	3.00	0.00	0.00	0.00	3.00
B	Knowledge & Technology Transfer	20.00	17.00	3.00	3.00	43.00
B1	Documentation of Best Practices	0.00	2.00	1.00	1.00	4.00
B2	Exposure Visits	0.00	0.00	2.00	2.00	4.00
B3	Skill Up-gradation	20.00	15.00	0.00	0.00	35.00
C	Development of Community Nodes	0.00	54.00	22.50	14.50	91.00
C1	Support for hiring professionals for managing the PE	0.00	12.00	2.00	2.00	16.00
C2	Remuneration for the village/community level Supervisors	0.00	3.00	8.00	8.00	19.00
C3	Setting up of CFC	0.00	20.00	0.00	0.00	20.00
C4	Production equipment for CFC	0.00	10.00	8.00	0.00	18.00
C5	Admin Expenses for PE	0.00	3.00	3.00	3.00	9.00
C6	Integrated IT System for PE	0.00	3.00	0.00	0.00	3.00
C7	Legal and Compliances for PE	0.00	3.00	1.50	1.50	6.00
D	Working Capital	0.00	15.00	7.50	0.00	22.50
E	Branding/Advertisement	0.00	14.75	10.50	8.00	33.25
E1	Brand Development (Logo, tags, brochure layout, website, packaging)	0.00	2.00	2.00	2.00	6.00
E2	Promotional Material - Print (printing of catalogue, posters, banners)	0.00	2.00	2.00	2.00	6.00
E3	Promotion material- Digital (Social and email campaign)	0.00	2.00	2.00	1.00	5.00
E4	Digital marketing (paid/organic search, display ads, native ads)	0.00	2.00	2.00	1.00	5.00
E5	E-Commerce Readiness (photoshoot, cataloguing/product content, aggreg. ads)	0.00	2.00	2.00	1.50	5.50
E6	Development of e-Commerce Website of PE	0.00	4.25	0.00	0.00	4.25
E7	Credibility Certification and Marks	0.00	0.50	0.50	0.50	1.50
F	Marketing	0.00	9.80	9.80	9.80	29.40
F1	Participation in Trade/Fair and Exhibition	0.00	2.00	2.00	2.00	6.00
F2	Organizing exclusive exhibitions (pop-up shows), Buyers Seller Meet	0.00	3.00	3.00	3.00	9.00

F3	Engagement of Marketing Executive	0.00	4.80	4.80	4.80	14.40
G	Cost of Processing & Value Addition	8.50	13.30	13.30	9.70	44.80
G1	Value Addition Equipment for PE	2.50	2.50	2.50	2.50	10.00
G2	Design Development Initiative	6.00	6.00	6.00	2.40	20.40
G3	Engagement of Cluster Development Executive	0.00	4.80	4.80	4.80	14.40
H	Monitoring & Evaluation	1.00	1.00	1.00	0.50	3.50
I	Cost of TSA (NIESBUD)	10.00	10.00	10.00	10.00	40.00
	Total Budget	53.25	134.85	77.60	55.50	321.20

8.2. Budget Composition

S. No.	Budget Heads	%
A	Community Capacity Building & Institution Building	4%
B	Cost of Knowledge & Technology Transfer	13%
C	Cost of Developing Community Nodes	28%
D	Working Capital	7%
E	Cost of Branding/Advertising	10%
F	Cost of Marketing	9%
G	Cost of processing and value addition	14%
H	Monitoring and Evaluation	1%
I	Technical Support Agency (NIESBUD)	12%
	Total %	100%

8.3. PE Financing & Funding support

To support and sustain the PE, a financial assistance has been sought under the NRETP scheme of Ministry of Rural Development for the initial 4 years of the PE operations.

The PE costs (only for the initial 4 years of PE operations) that would be covered under this funding support are as follows:

- Mobilization and incorporation of PE
- Training Cost for PE Management Committee, Staff, and Producer Members
- Infra Rental for CFC-Sales Outlets

- Equipment for CFC-Sales Outlets
- Repair & Maintenance for CFC-Sales Outlets
- Administrative Cost for CFC-Sales Outlets
- Utility Cost for CFC-Sales Outlets
- Design Development Cost
- Marketing and Promotion Cost
- Compliance Cost
- PE Manpower Cost
- Working Capital support

In addition to the above, funding support for the TSA (NIESBUD) cost for 4 years would also be sought. A detailed break-up of the required funding for the PE has been provided above, in Section 8.1 Proposed Budget.

As per the financial projections, the PE would break even in the 4th year of its operations and would generate sufficient revenues to meet its annual operating expenses. To ensure the sustained operations of the PE, the proposed TSA for the project (i.e. NIESBUD), would continue to provide technical handholding and support to the PE beyond the project period of 4 years.

The PE would not require additional financial support beyond a project period of 4 years, and all fund requirements would be met from its internal accruals and revenues. In case of any shortfalls, appropriate financing would be sought by the PE from suitable financial institutions with the support of HPSRLM.

8.4. Financial Plan for PE

8.4.1. Key Operation and Financial Assumptions

While planning out the intervention, the following assumptions have been made:

- Working Hours: To plan the human-power requirement & corresponding wage structure, one human day will be assumed to be equivalent to 6 hours.
- No. of days in a year: the PE will engage women artisans for around 200 days in the first year as it will take time to build a strong foundation and streamline processes. In the initial years, women will have to be involved in activities like registration, meetings, training, and exposure visits, which will reduce the number of production days. This will be gradually increased and reach up to 300 days in 4th year.
- Members enrolled: PE will initially start working with the women artisans actively working in the cluster which is approximately 226 in number and add to its member base over subsequent years reaching 525 in 4th year.
- No. of members engaged: It is assumed that on average, 85% of artisanal working capacity will be utilized, given that all women may not be available all the time, due to multiple obligations.

Working days per annum	
Working hours per day	6 hrs.

Engagement	Y1	Y2	Y3	Y4
No. of production days p.a.	200	240	270	300
Member Enrolled	226	300	400	525

8.4.2. Phasing Plan

The whole activity plan has been divided into four phases which focus on 4 key aspects viz. Initiate, Streamline, Standardize, and Sustain. In the initial years, the idea would be to build a strong foundation, inculcating a feeling of ownership among members by investing in their skill development, getting them regular work, and providing compensation fairly and transparently.

8.4.3. Year wise Production Capacity

Based on the key assumptions mentioned above, an estimate of the production volume of each product is made. This is calculated based on the formula below:

$$\text{Production Unit} = \frac{\text{Total Human Hours available for the Activity}}{\text{Turn-around-Time}}$$

As discussed before, in the proposed intervention, the PE will engage artisans for Pine Needle crafts production. The rationale for dividing the available artisans among the three craft activities will depend on: As discussed before, in the proposed intervention, the PE will engage artisans for Pine Needle crafts production. The rationale for dividing the available artisans among the three craft activities will depend on:

- No artisans currently practicing the activities
- No. of machinery and equipment available in the cluster for Pine Needlework.
- Potential market for products and scope for expansion

Considering the above factors, the available artisanal strength is divided among various products as below:

Product Mix	Indicative Products	Percent of Artisans Working			
		Year 1	Year 2	Year 3	Year 4 Onwards
Pine Needle Craft					
Jewelry	Jewelry Items	10%	10%	10%	20%
Utility Products	Storage Baskets	10%	10%	10%	20%
Blended Products	Décor Items	30%	40%	60%	60%

Units	Y1	Y2	Y3	Y4
Jewelry	6000	6600	7256	7980
Utility Products	5400	5940	6530	7183
Blended products	2400	2640	2900	3180

Product line	Year 1		Year 2		Year 3		Year 4 Onwards	
Jewelry	50%	10%	60%	10%	70%	10%	70%	10%
Utility Products	30%	10%	40%	10%	50%	10%	50%	10%
Blended products	20%	30%	30%	40%	40%	60%	40%	60%

8.4.4. Cost of Goods Sold (COGS)

The COGS for each product has been calculated by considering the cost of raw material, and wages paid by PE to artisans and ancillary workers engaged in aggregating, sorting, weaving, dyeing, and finishing activities.

Products	Raw Material	Storing & Dyeing	Weaving	Finishing	Total Input Cost
Pine Needle Craft					
Jewelry	10	20	200	5	235
Utility Products	50	60	400	20	530
Blended Products	50	60	400	20	530

8.4.5. Product Mix

The Product Mix, as mentioned in section Product. The PE will identify the exact landing cost of each product and then decide which products are most profitable. New product lines may be added in the future based on insights received from the market.

Channel mix (B2B retailers)	Y1	Y2	Y3	Y4
Jewelry	10%	20%	30%	30%
Utility Products	0%	5%	10%	10%
Blended Products	10%	20%	30%	30%

B2B-Trader	Y1	Y2	Y3	Y4
Jewelry	0%	10%	20%	20%
Utility Products	0%	10%	20%	20%
Blended Products	0%	10%	20%	20%

B2C-SARAS	Y1	Y2	Y3	Y4
Jewelry	25%	25%	20%	20%
Utility Products	10%	10%	5%	5%
Blended Products	25%	25%	20%	20%

B2C-Exhibition	Y1	Y2	Y3	Y4
Jewelry	40%	40%	40%	20%
Utility Products	10%	10%	10%	5%
Blended Products	40%	40%	40%	20%

B2C- E-Com	Y1	Y2	Y3	Y4
Jewelry	5%	20%	20%	20%
Utility Products	5%	5%	5%	5%
Blended Products	5%	20%	20%	20%

8.4.6. Product Cost

B2B Price Built-Up for Solan Handicraft Products						
Particular	Jewelry	%	Utility Products	%	Blended Products	%
Raw Material Cost	8	2	40	6	40	6
Sorting & Dyeing	15	4	50	7	50	7
Weaving	220	63	420	62	420	62
Finishing	4	1	15	2	15	2
PE Cost	247	71	525	78	525	78
PE Margin	100	29	150	22	150	22
Promoters Incentive	10	3	20	3	20	3
PE Selling Price	357	103	695	103	695	103

B2C Price Built-Up for Solan Handicraft Products						
Particular	Jewelry	%	Utility Products	%	Blended Products	%
Raw Material Cost	5	1	35	5	35	5
Storing & Dyeing	12	3	40	6	40	6
Weaving	220	55	420	60	420	60
Finishing	4	1	12	2	12	2
PE Cost	241	61	507	73	507	73
PE Margin	145	37	148	21	148	21
Promoters Incentive	11	3	40	6	40	6
PE Selling Price	397	100	695	100	695	100

8.4.7. Selling, General and Administrative Expenses

A. PE Manpower Cost

The PE will hire its professional staff to help the company grow as an enterprise, strengthen its institutional structure, and create a fair & transparent system. In addition to its on-roll employees, PE will also engage members of the community as Centre Managers to coordinate with artisans on a day-to-day basis.

Manpower	Y1	Y2	Y3	Y4
Remuneration for the village/community level Supervisors	0.00	3.00	8.00	8.00
Total Manpower Cost	0	3	8	8

B. Operating Cost

Expenses	Y1	Y2	Y3	Y4	TOTAL
Community Capacity Building & Institutional Building	13.75	-	-	-	13.75
Beneficiaries Mobilization	3.00	0.00	0.00	0.00	3.00
Pre-Incorporation & Incorporation of Consortium	3.50	0.00	0.00	0.00	3.50
Training & Capacity Building of CS Key Functionaries & Staff	4.25	0.00	0.00	0.00	4.25
Skill Assessment & Training Initiative	3.00	0.00	0.00	0.00	3.00
					-
Knowledge & Technology Transfer	20.00	17.00	3.00	3.00	43.00
Documentation of Best Practices	0.00	2.00	1.00	1.00	4.00
Exposure Visits	0.00	0.00	2.00	2.00	4.00
Skill Up-gradation	20.00	15.00	0.00	0.00	35.00
Development of Community Nodes	-	54.00	22.50	14.50	91.00
Support for hiring professionals for managing the PE	0.00	12.00	2.00	2.00	16.00
Remuneration for the village/community level Supervisors	0.00	3.00	8.00	8.00	19.00
Setting up of CFC	0.00	20.00	0.00	0.00	20.00
Production equipment for CFC	0.00	10.00	8.00	0.00	18.00

Expenses for PE	0.00	3.00	3.00	3.00	9.00
Integrated IT System for PE	0.00	3.00	0.00	0.00	3.00
Legal and Compliances for PE	0.00	3.00	1.50	1.50	6.00

C. Branding/Advertisement & Marketing Cost

As marketing will be a major component of the intervention in the cluster, PE will invest in marketing products through multiple channels. While some of the expenses are linked directly to sales like listing on e-commerce, participating in fares, packaging, etc, others are mainly brand promotion-related activities.

Expenses	Y1	Y2	Y3	Y4	
	-	14.75	10.50	8.00	33.25
Brand Development (Logo, tags, brochure layout, packaging)	0.00	2.00	2.00	2.00	6.00
Promotional Material - Print (printing of catalogue, posters, banners)	0.00	2.00	2.00	2.00	6.00
Promotion material- Digital (Social and email campaign)	0.00	2.00	2.00	1.00	5.00
Digital marketing (paid/organic search, display ads, native ads)	0.00	2.00	2.00	1.00	5.00
E-Commerce Readiness (photoshoot, cataloguing/product content, aggreg. ads)	0.00	2.00	2.00	1.50	5.50
Development of e-Commerce Website of PE	0.00	4.25	0.00	0.00	4.25
Credibility Certification and Marks	0.00	0.50	0.50	0.50	1.50

Marketing	-	5.00	5.00	5.00	15.00
Participation in Trade/Fair and Exhibition	0.00	2.00	2.00	2.00	6.00
Organizing exclusive exhibitions (pop-up shows), Buyers Seller Meet	0.00	3.00	3.00	3.00	9.00
Engagement of Marketing Executive	0.00	4.80	4.80	4.80	14.40

D. Other Expenses

Cost of Processing & Value Addition	8.50	13.30	13.30	9.70	44.80
Value Addition Equipment for PE (Included CATD System)	2.50	2.50	2.50	2.50	10.00
Engagement of Designer	6.00	6.00	6.00	2.40	20.40
Product Design & Diversification	0.00	4.80	4.80	4.80	14.40

Monitoring & Evaluation	1.00	1.00	1.00	0.50	3.50
-------------------------	------	------	------	------	------

Cost of TSA (NIESBUD)	10.00	10.00	10.00	10.00	40.00
Working Capital	7.50	7.50	7.50	0.00	22.50

8.4.8. Working Capital Requirement

The working capital (WC) requirement has been calculated based on the following assumptions:

- ❖ Average Stock of Raw Material (RM) to be maintained for 6 months
- ❖ Average Stock of Finished Goods (FG) to be held for 2 months
- ❖ Average Work-in-Progress (WIP) to be maintained for:
 - Raw material for 4 months
 - Wages & other labor cost for 2 months

Calculation of Working Capital in Rs Lks							
1	Current Assets-CA	Assumptions		Y1	Y2	Y3	Y4
A	Inventory						
	Stock of RM	Avg. RM Stock in Months	8	3.03	3.64	4.36	5.24
	Stock of WIP	Average WIP in Months	4	1.81	2.17	2.61	3.13
		Wages (100%) annual	100%	2.40	2.88	3.46	4.15
Stock of FG	Average FG in Months	2	8.00	9.60	11.52	13.82	
B	Receivables	Average Receivables		6.60	7.92	9.50	11.40
C	Cash in Hand	Average Cash in Hand		5.64	6.77	8.12	9.75
D	Prepaid Expenses	Avg Prepaid Expenses		-	-	-	-
	Gross WC			27.48	32.98	39.57	47.49
2	Current Liabilities-CL						
	Payables for RM	Avg Payable RM in Months	0%	4.62	5.08	5.59	6.15
	Outstanding Exp	NIL		0.40	0.44	0.48	0.53
				5.02	5.52	6.07	6.68
3	Excess of CA over CL			22.46	27.45	33.50	40.80
	Net WC Requirement			22.46	27.45	33.50	40.80

As evident in the above table, the highest WC requirement is 4th year. Therefore, a working capital requirement of Rs 40.80 lakhs has been provisioned.

8.5. Projected Financial Statements- 4 years

The Projected Profit & Loss Statement and Cash Flow Statement for the PE have been given below:

8.5.1. Profit and Loss Statement

The Profit and Loss statement, given below, captures the aggregate of the revenue and expenses of the PE.

P&L (in INR Lakhs)	Year 1	Year 2	Year 3	Year 4
Sales Revenue	75.63	83.37	91.64	100.73
COGS	55.44	60.98	67.03	73.68
Gross Profit	20.19	22.39	24.61	27.05
PE Expenses				
Selling, General & Admin Expenses	4.00	4.20	4.41	4.63
	5.54	(6.10)	(6.70)	(7.37)
	7.56	8.34	9.16	10.07
EBIDTA	3.08	15.95	26.90	29.79
	-	-	-	-
Depreciation	-	-	-	-
Provision: Incentives to PE Members	-	-	-	-
Profit Before Taxes (PBT)	3.08	15.95	26.90	29.79

8.5.2. Cash Flow Statement

Cash Flow Statement				
Particulars	Year 1	Year 2	Year 3	Year 4
Cash Flow from Operating Activities				
Net Profit for the Year	3.08	15.95	26.90	29.79
Add/Less	-	-	-	-
<i>Depreciation</i>	-	-	-	-
<i>Amortization</i>	-	-	-	-
<i>Changes in working Capital</i>	Knowledge & Technology Transfer	20.00	-	-
<i>Changes in Closing Stock</i>	(15.13)	(1.55)	(1.65)	(1.82)
<i>Interest</i>	-	-	-	-
<i>Payment of Interest on Working Capital Loan</i>	-	-	-	-
	-	-	-	-
Cash Flow from Operating Activities	(12.04)	34.40	25.25	27.97

Cash Flow from Investing Activities	-	-	-	-
<i>Acquisition of Assets</i>	-	-	-	-
<i>Sale of Assets</i>	-	-	-	-
	-	-	-	-
Net Cash Flow from Investing Activities	-	-	-	-
	-	-	-	-
Cash Flow from Financing Activities	-	-	-	-
<i>Receipt of Cash from Members towards Share Capital</i>	1.13	1.50	2.00	2.63
<i>Receipt of Grant</i>	461.15			-
	-	-	-	-
Net cash flow from Financing Activities	462.28	1.50	2.00	2.63
<i>Add: Opening Cash Balance</i>	-	450.24	486.14	513.38
<i>Cash Movements During the Year</i>	450.24	35.90	27.25	30.59
<i>Closing Cash Balance</i>	450.24	486.14	513.38	543.98

8.5.3. Balance Sheet

Balance Sheet									
Liabilities	Year 1	Year 2	Year 3	Year 4	Assets	Year 1	Year 2	Year 3	Year 4
Non-Current Liabilities					Non-Current Assets				
Share Capital					Machinery				
<u>Paid Up</u>					Gross Block	-	-	-	-
<i>Share Capital @500 Each</i>	1.13	2.63	4.63	7.26	Depreciation	-	-	-	-
<i>Profit & Loss</i>	3.08	19.03	45.93	75.72	Net Block	-	-	-	-
	-	-	-	-		-	-	-	-
Government Grant	461.15	461.15	461.15	461.15		-	-	-	-
	-	-	-	-		-	-	-	-
Total Non-Current Liabilities	465.36	482.81	511.71	544.12	Total Non-Current Assets	-	-	-	-
Current Liabilities		-	-	-	Current Assets	-	-	-	-
Provisions	0.33	0.35	0.37	0.39	Sundry Debtors	5.04	5.56	6.11	6.72
Trade Creditors	4.62	5.08	5.59	6.14	Closing Stock	15.13	16.67	18.33	20.15
Outstanding Expenses	0.07	0.07	0.07	0.08	Cash and Bank	476.24	479.33	513.78	551.58

Other Current Liabilities	26.03	13.25	20.48	27.71			-	-	-
						-	-	-	-
Total Current Liabilities	31.05	18.75	26.51	34.31	Total Current Assets	496.41	501.56	538.22	578.44
	-	-	-	-		-	-	-	-
Total	496.41	501.56	538.22	578.44	Total	496.41	501.56	538.22	578.44

8.5.4. Break-even Analysis

The break-even point for the PE is calculated based on the contribution margin and fixed cost estimation. The PE can break even by the 4th year of PE operations.

8.6. Sensitivity Analysis

The following sensitivity analysis shows the variance of EBITDA, PAT, and break-even year concerning changes in revenue and raw material cost. The analysis shows a high dependence of EBITDA on raw material costs.

Sensitivity Analysis	EBITDA- Y4	PAT-Y4	Break-even Year
Current (for Y4 in Rs lakhs)	11.67	9.72	4 th Year
Revenues decrease by 10%	5.73	3.78	4 th Year
Revenues increase by 10%	17.61	15.66	3 rd Year
Raw Material (RM) cost decrease by 10% (revenue remaining constant)	16.04	14.09	4 th Year
RM cost increase by 10% (revenue remaining constant)	7.29	5.34	4 th Year
Revenue decreases by 10%, RM increase by 10%	10.4	8.75	4 th Year

9. Proposed Programme Impact

The program has been conceptualized to create a livelihood model for the generation of gainful employment and enhanced income levels- through optimal use of natural resource base in the area, development of local macro-enterprises, enhancement of skills for employment, and ensuring the sustainability of various interventions.

The key components of the model are:

- A. Creating a diversified model for livelihoods promotion through nurturing local craft traditions through appropriate interventions ranging from design innovation, upgradation of technology, and facilitating market linkage.
- B. Establishment of a community-owned Producer Enterprise to lead the integrated value chain development for the entire cluster.
- C. Creation of production-related infrastructure for enhancing the cluster output and productivity.

9.1.1. Economic Impact of Program

The Solan Pine Needle Cluster Integrated Value Chain Development program is expected to generate total direct employment for 525 beneficiaries within the project area.

It is estimated that the various interventions plan across the focus sub-sectors shall result in a cumulative income generation of about Rs. 29.79 lakhs, and generating a turnover of Rs. 100.73 lakhs (PE's) at the end of the 4th year of project implementation.

Indicators	Existing	Proposed (Year 5)
Artisan Wages (per day)	400	500
No of Engagement Days	200	300
Artisan Income	Rs 24,000 p.a.	Rs 50,000 p.a.*
Additional income through incentives	NIL	Rs. 5,000 p.a.
Net Artisan Income	Rs 24,000 p.a.	Rs. 55,000 p.a.

* Assuming 85% availability of artisan for PE work.

9.2. Other benefits of program

In addition to the economic impacts, there are other benefits which are accrued due to program interventions at various levels across the value chain. These benefits have been listed below:

Stakeholder Level	Key Benefits
Producers	Ease of direct selling & market access
	Access to entitlements & convergence under Govt. initiatives
	Access to easy financing through PE support
	Enhancement in skill levels and productivity
	Access to design innovation & new products
	Lower costs (economies of scale)

Buyers/ Consumers	Ease of direct buying from producers
	Access to quality product at optimum pricing
	Greater social impact footprint

9.3. Cost Benefits Ratios

The total incremental benefits at the Project Culmination i.e. 5th year of PE operations have been computed based on the total contribution of the project, through the PE operations, and towards the income of the weavers. For the calculation of net incremental benefits- the Total Cumulative Benefits minus the total wages to be earned by artisans as per existing conditions during the same period have been considered:

Benefits	Adjustments
1. Wage earnings of artisans 2. Net earnings of the Producer Enterprise (PE) including incentives	1. Estimated earnings of the artisans at present scenario Rs 24,000 p.a. (wage @Rs 400/day for 200 days of annual engagement) *

The YoY benefits accrued under the project have been detailed below:

Particular	Y1	Y2	Y3	Y4
No of Producers	226	300	400	525
Existing Income from Wages (present Scenario)				
No of days of engagement	200	240	270	300
Wage per day	300	300	300	300
Total Wages (Present Scenario) in lakh	135.60	216.00	324.00	472.50
Incremental Wages	135.60	80.40	108.00	148.50

BCR Calculation: Net Incremental Benefits divided by Total Project Cost		
1	Total Project Cost	329.3
2	Net Incremental Benefits	472.50
BCR at Year 4th of PE Operations (Culmination Year)		1.43

As evident in the above table, the project BCR stands at 1.43 at the end of project duration i.e. 4th year; higher than the required rate of 1.25.

9.1. Internal Rate of Return (IRR) for the PE Business

The internal rate of return (IRR) for the proposed PE business has been calculated based on the Net Cash Flow of the business for 4th years of PE operations.

IRR Using PE Cash flows

IRR Calculation	Y0	Y1	Y2	Y3	Y4
Net PE Cash flow		17.95	10.41	16.81	17.32
Terminal Value of Assets		0	0	0	0
Cash Flow for 4 years		17.95	10.41	16.81	17.32
Total Project Cost	(329.30)				
IRR at Y4	5.63%				

IRR Using Incremental Benefits

IRR Calculation	Y0	Y1	Y2	Y3	Y4
Net Profit		17.95	10.41	16.81	17.32
Incremental Wages		135.60	80.40	108.00	148.50
Terminal Value of Assets		-	-	-	-
Cash Flow for 4 years	(278.50)	153.55	90.81	124.81	165.82
IRR at Y4	31.74%				

10. Convergence & Sustainability Measures

To ensure the effectiveness and continuance of program interventions, efforts have been taken to build sustainability into project design and plan for exit from the project's inception. Thus, the sustainability plan (elements of project design that promote sustainability) and the exit strategy (operational and logistical plan for withdrawal) are both elements of the implementing organization's approach to ensuring the continuation of project

10.1. Sustainability Plan

As mentioned in the previous sections, the community institutional architecture proposed for the integrated value chain development program would be to organize the women producer beneficiaries under a Producer Enterprise (PE). This PE would primarily be responsible for ensuring the sustainability of the program interventions in the cluster beyond the project period. The HPSRLM would continue to provide oversight and monitor the PE's operations. The critical aspects for ensuring the sustainability of activities, outcomes, and impacts envisaged under the project led by the PE are illustrated in the figure alongside:

10.1.1. Convergence- Linkages to Governmental Organizations and/or Other Support Entities

It is imperative that to ensure active involvement of the community, the support of government structures & welfare schemes along with support agencies be leveraged. This would be crucial for enabling the community to carry the impact forward and continuous efforts will be made towards that.

Under the proposed program, the following areas of convergence have been proposed:

Partners	Proposed Convergence
State Government	<ul style="list-style-type: none"> Industry Department, GoHP: HPSRLM has an agreement with HPHHDC to promote and facilitate additional support to producers Dept. of Rural Development-HPSRLM: HPSRLM with the support of the District Administrative shall identify and provision suitable buildings/premises to be adequately utilized by the proposed PE to establish the CFC at the village/block level, wherever available. District Administration, Solan: District administration to extend the feasible support required for the development of the cluster.
NIFT	<p>DAY-NRLM already has a tie-up with NIFT, which can be leveraged to seek support from NIFT, Kangra in the areas of:</p> <ul style="list-style-type: none"> Product Innovation Design Development Craft documentation & promotional material development

In addition to these, other avenues for convergence that would be explored are as follows:

Partners	Proposed Convergence
Central Government	<p>Various Central Govt.'s can be leveraged; some of these are:</p> <ol style="list-style-type: none"> For Integrated livelihood and Infra related: <ul style="list-style-type: none"> Rurban (ICDS), Ministry of RD NHDP, DC (Handicraft), Ministry of Textile SFURTI, ASPIRE, Ministry of MSME STEPS, Ministry of WCD

	2. For Credit Linkage: <ul style="list-style-type: none"> • NABARD • SIDBI
Private Sector participation	The corporate of the public and private sectors can support the proposed initiatives by way of providing additional financial support and professional operations & management to the PEs as part of their CSR. Private sector investments can be mobilized to develop critical infra across the value chains dedicated to service PE operations, such as finishing centers, retail operations, etc.

10.1.2. Sustain source of Resource

The key resource requirement for the proposed PE as against the measures taken to ensure optimum availability for the same has been provided below:

Resources requirement	Provision for sustain availability
<ul style="list-style-type: none"> • Purchase of Raw Material • Wage to Artisans • Cost of Value Addition • Transportation & Logistics • Marketing Costs • PE Manpower Cost 	<ol style="list-style-type: none"> 1. Working Capital Support is provisioned for funding in the project budget; a subsequent round of WC requirement is to be leveraged from credit & financial institutions. 2. Provision of General Reserves in the PE's financial model to meet resource requirements in the subsequent years of operations. 3. Self-sustaining cash flow generation through sales of finished goods as ascertained through the proposed business plan for the PE.

10.1.3. Sustained Technical & Managerial Capacity

The next critical factor determining the sustained growth of PE and continuation of the project interventions being implemented under the proposed program is the strengthening of the technical and managerial capabilities & capacities of the key stakeholders.

The key technical/managerial competence requirement for the proposed PE and measures that would be built into the program to ensure this has been listed below:

Stakeholder	Core Competencies	Provision for Strengthened Capacity
Technical Capacity		
Artisans	Artisans Skill Level	Provision for conducting periodic up skilling training for member artisans on various critical aspects of the production of new and diversified product ranges through the engagement of master craftsmen and specialized training partners.
	Technology Induction	Adequately equipped common production infrastructure created at both CFC & community levels
	Product Quality	Constant supervision and technical support on product quality standards through community coordinator
PE	Product Innovation	Periodic design development & product innovation through design workshops and mentorship support through in-house designers and specialized marketing partners
	Technology Induction	Adequately equipped common production infrastructure created at both CFC & community

		level
	Quality Compliance	Provision & processes established at PE for QC & Compliance under the supervision of the Production Manager and QC Supervisor
Managerial Capacity		
Artisans	PE Governance	<ul style="list-style-type: none"> • Periodic training of the BOD members on aspects of governance, management, and their key roles & responsibilities towards the PE • Exposure visits to other leading clusters for understanding and adoption of best practices within their PE
	Sales & Marketing	Participation at fairs and exhibitions will enable the artisans to understand customer preferences, the importance of quality standards along with hands-on training on sales mechanisms, customer engagement, and marketing techniques
PE	Marketing	Omni-channel marketing strategy has been adopted with funding support for the initial 4 years. Focus has been given to adopting emerging marketing opportunities through e-commerce platforms. In addition, marketing support through MoRD's SARAS platform shall also be provided to the PE. In addition to these measures, the PE would establish various partnerships with specialized marketing partners to drive their sales
	O&M	<ul style="list-style-type: none"> • Periodic training of the PE Staff on aspects of SOPs, production management, and their key roles & responsibilities • Exposure visits to other leading PEs for understanding and adoption of best practices • Adoption of Integrated IT systems for ERP and Accounting would enhance the PE Staff's operational efficiency
	State/ Legal Compliances	Provisions have been made to ensure compliance with various legal and statutory regulations and licenses
HPSRLM	PE Scale-up	The HPSRLM team would closely monitor and review the implementation of the project, which shall enable them to understand and facilitate any future requirements of the PE or cluster.

10.1.4. Sustained Motivation (of Beneficiaries & Partners/Service Providers)

The motivation to continue with the cluster interventions and activities under the proposed program would come from the primary beneficiaries' recognition of improvements in income and livelihood opportunities as a result of increased production and sales in the cluster driven by the PE. In addition to the beneficiaries, certain attention would also need to be given to the critical partners/service providers engaged with the PE to retain their cooperation and support beyond the project duration.

The key measures that would be adopted for ensuring sustained motivation have been listed below:

Stakeholder	Measures for Sustained Motivation
Beneficiaries	<ol style="list-style-type: none"> 1. Effective mobilization and sensitization program at the project inception to ensure robust on boarding processes by 2. minimizing future drop-outs 3. Artisans' earnings are fixed at competitive rates, ensuring sustained and incremental livelihoods 4. Provision for equitable distribution of profits with member artisans on an incremental basis (YoY) 5. Periodic up-skilling training for member artisans on various critical aspects of the production of new, value-added products 6. Introduction of new designs and products at the cluster level 7. Ensuring timely (bi/monthly) payments through digital modes 8. Real-time connect with PE through CFC centers to ensure timely grievance redress
Marketing Partner	<ol style="list-style-type: none"> 1. Timely delivery of quality-assured products 2. Certification for authentic, Handicraft products 3. The reliable source for social complaint, ethically-produced goods 4. Periodic design development & product innovation through design workshops give them a vibrant and vast collection to choose from; in addition to the product customization services 5. ERP system would enable producer-level traceability of products 6. Provision for a dedicated fulfillment team to ensure absolute customer satisfaction and complaint redress- thereby reducing the marketing partner's liability toward the customer
Input Suppliers/ Logistic Service Provision	<ol style="list-style-type: none"> 1. The focus would be on long-term engagement through contracts 2. Accounting processes would ensure timely payments to the vendors

10.2. Exit Strategy

It is envisaged that a gradual process of exit would widely contribute to the programs' sustainability. The project has been designed in a manner that promotes maximum ownership of the community through the PE since the inception phase.

Therefore, various key components of the project would be handed over to the community or member producers to assume complete operation control for the same.

Activity	Timeframe	Responsibility Matrix
Mobilization & Member Registration	1 st year	HPSRLM, TSA (NIESBUD)
PE Formation	0-3 months from project inception	HPSRLM, TSA (NIESBUD)
Infra setup- CFC & Sales outlets	1 st year	TSA (NIESBUD), PE
Complete Hand Over	Q4, 4 th Year	TSA (NIESBUD), PE
TSA (NIESBUD) Exit	Q4, 4 th Year	HPSRLM, TSA (NIESBUD), PE

A detailed plan for the proposed exit strategy would be provided in Action Plan.

11. Annexure-1

1. List of Person Interviewed

Name	Designation/Organization
Mr. Priyanka	DPM, HPSRLM,
Mr. Bhawika	BLC, Block: Kandaghat
Ms. Kamakshi	Mission Executive, Solan
Ms. Suresh	ALC, Block: Solan
Ms. Anju davi	Artisans, Kandaghat
Ms. Sakshi Verma	Artisans, Kandaghat
Ms. Anita Kumari	Artisans, Kandaghat
Ms. Nirjala	Artisans, Kandaghat
Ms. Gaytri	Artisans, Kandaghat
Ms. Kiran jaswal	Artisans, Kandaghat
Ms. Suman	Artisans, Kandaghat
Ms. Kamla	Artisans, Kandaghat
Ms. Bhojkumari	Artisans, Kandaghat
Ms. Dimple	Artisans, Kandaghat
Ms. Nirmal Sharma	Artisans, Kandaghat
Ms. Hema	Artisans, Solan
Ms. Rekha Thakur	Artisans, Solan
Ms. Hema kumari	Artisans, Solan
Ms. Suman devi	Artisans, Solan
Ms. Chanchal Thakur	Artisans, Solan
Ms. Mamta	Artisans, Solan
Ms. Neeta devi	Artisans, Solan
Ms. Bimla devi	Artisans, Solan
Ms. Harita	Artisans, Solan
Ms. Kamla devi	Artisans, Solan
Ms. Hema kumari	Artisans, Solan

2. Matrix of suggestions from validation meeting and response to suggestions

Stakeholder	Suggestion	Response
Mr. Surender Kumar, GM, DIC	Solan Handicraft could be open to working together to promote livelihood.	The scope to invest can be taken up in the future.
Yarn Supplier	All varieties of yarn can be made available for cluster as required.	Can be contacted when production is to be started.

Annexure-2
(Month-wise Action-Plan)

Interventions		Year 1											
		Month 1st	Month 2nd	Month 3rd	Month 4th	Month 5th	Month 6th	Month 7th	Month 8th	Month 9th	Month 10th	Month 11th	Month 12th
A	Community Capacity Building & Institutional Building												
A1	Beneficiaries Mobilization												
A2	Pre-Incorporation & Incorporation of Consortium												
A3	Training & Capacity Building of PE Key Functionaries & Staff												
A4	Skill Assessment & Training Initiative												
B	Knowledge & Technology Transfer												
B1	Documentation of Best Practices												
B2	Exposure Visits												
B3	Skill Up-gradation												
C	Development of Community Nodes												
C1	Support for hiring professionals for managing the PE												
C2	Remuneration for the village/community level Supervisors												
C3	Setting up of CFC												
C4	Production equipment for CFC												
C5	Expenses for PE												
C6	Integrated IT System for PE												
C7	Legal and Compliances for PE												
D	Working Capital												
E	Branding/Advertisement												
E1	Brand Development (Logo, tags, brochure layout, packaging)												

E2	Promotional Material - Print (printing of catalogue, posters, banners)												
E3	Promotion material- Digital (Social and email campaign)												
E4	Digital marketing (paid/organic search, display ads, native ads)												
E5	E-Commerce Readiness (photoshoot, cataloguing/product content, aggreg. ads)												
E6	Development of e-Commerce Website of PE												
E7	Credibility Certification and Marks												
F	Marketing												
F1	Participation in Trade/Fair and Exhibition												
F2	Organizing exclusive exhibitions (pop-up shows), Buyers Seller Meet												
F3	Engagement of Marketing Executive												
G	Cost of Processing & Value Addition												
G1	Value Addition Equipment for PE (Included CATD System)												
G2	Engagement of Designer												
G3	Product Design & Diversification												
G4	Engagement of Cluster Development Executive												
H	Monitoring & Evaluation												

Solon Pine Needle Cluster Diagnostic Study Report

Interventions		Year 2											
		Month 1st	Month 2nd	Month 3rd	Month 4th	Month 5th	Month 6th	Month 7th	Month 8th	Month 9th	Month 10th	Month 11th	Month 12th
A	Community Capacity Building & Institutional Building												
A1	Beneficiaries Mobilization												
A2	Pre-Incorporation & Incorporation of Consortium												
A3	Training & Capacity Building of PE Key Functionaries & Staff												
A4	Skill Assessment & Training Initiative												
B	Knowledge & Technology Transfer												
B1	Documentation of Best Practices												
B2	Exposure Visits												
B3	Skill Up-gradation												
C	Development of Community Nodes												
C1	Support for hiring professionals for managing the PE												
C2	Remuneration for the village/community level Supervisors												
C3	Setting up of CFC												
C4	Production equipment for CFC												
C5	Expenses for PE												
C6	Integrated IT System for PE												
C7	Legal and Compliances for PE												
D	Working Capital												
E	Branding/Advertisement												
E1	Brand Development (Logo, tags, brochure layout, packaging)												
E2	Promotional Material - Print (printing of catalogue, posters, banners)												

E3	Promotion material- Digital (Social and email campaign)												
E4	Digital marketing (paid/organic search, display ads, native ads)												
E5	E-Commerce Readiness (photoshoot, cataloguing/product content, aggreg. ads)												
E6	Development of e-Commerce Website of PE												
E7	Credibility Certification and Marks												
F	Marketing												
F1	Participation in Trade/Fair and Exhibition												
F2	Organizing exclusive exhibitions (pop-up shows), Buyers Seller Meet												
F3	Engagement of Marketing Executive												
G	Cost of Processing & Value Addition												
G1	Value Addition Equipment for PE (Included CATD System)												
G2	Engagement of Designer												
G3	Product Design & Diversification												
G4	Engagement of Cluster Development Executive												
H	Monitoring & Evaluation												

Solon Pine Needle Cluster Diagnostic Study Report

Interventions		Year3											
		Month 1st	Month 2nd	Month 3rd	Month 4th	Month 5th	Month 6th	Month 7th	Month 8th	Month 9th	Month 10th	Month 11th	Month 12th
A	Community Capacity Building & Institutional Building												
A1	Beneficiaries Mobilization												
A2	Pre-Incorporation & Incorporation of Consortium												
A3	Training & Capacity Building of PE Key Functionaries & Staff												
A4	Skill Assessment & Training Initiative												
B	Knowledge & Technology Transfer												
B1	Documentation of Best Practices												
B2	Exposure Visits												
B3	Skill Up-gradation												
C	Development of Community Nodes												
C1	Support for hiring professionals for managing the PE												
C2	Remuneration for the village/community level Supervisors												
C3	Setting up of CFC												
C4	Production equipment for CFC												
C5	Expenses for PE												
C6	Integrated IT System for PE												
C7	Legal and Compliances for PE												
D	Working Capital												
E	Branding/Advertisement												
E1	Brand Development (Logo, tags, brochure layout, packaging)												
E2	Promotional Material - Print (printing of catalogue, posters, banners)												

E3	Promotion material- Digital (Social and email campaign)												
E4	Digital marketing (paid/organic search, display ads, native ads)												
E5	E-Commerce Readiness (photoshoot, cataloguing/product content, aggreg. ads)												
E6	Development of e-Commerce Website of PE												
E7	Credibility Certification and Marks												
F	Marketing												
F1	Participation in Trade/Fair and Exhibition												
F2	Organizing exclusive exhibitions (pop-up shows), Buyers Seller Meet												
F3	Engagement of Marketing Executive												
G	Cost of Processing & Value Addition												
G1	Value Addition Equipment for PE (Included CATD System)												
G2	Engagement of Designer												
G3	Product Design & Diversification												
G4	Engagement of Cluster Development Executive												
H	Monitoring & Evaluation												

Solon Pine Needle Cluster Diagnostic Study Report

Interventions		Year 4											
		Month 1st	Month 2nd	Month 3rd	Month 4th	Month 5th	Month 6th	Month 7th	Month 8th	Month 9th	Month 10th	Month 11th	Month 12th
A	Community Capacity Building & Institutional Building												
A1	Beneficiaries Mobilization												
A2	Pre-Incorporation & Incorporation of Consortium												
A3	Training & Capacity Building of PE Key Functionaries & Staff												
A4	Skill Assessment & Training Initiative												
B	Knowledge & Technology Transfer												
B1	Documentation of Best Practices												
B2	Exposure Visits												
B3	Skill Up-gradation												
C	Development of Community Nodes												
C1	Support for hiring professionals for managing the PE												
C2	Remuneration for the village/community level Supervisors												
C3	Setting up of CFC												
C4	Production equipment for CFC												
C5	Expenses for PE												
C6	Integrated IT System for PE												
C7	Legal and Compliances for PE												
D	Working Capital												
E	Branding/Advertisement												
E1	Brand Development (Logo, tags, brochure layout, packaging)												
E2	Promotional Material - Print (printing of catalogue, posters, banners)												

E3	Promotion material- Digital (Social and email campaign)												
E4	Digital marketing (paid/organic search, display ads, native ads)												
E5	E-Commerce Readiness (photoshoot, cataloguing/product content, aggreg. ads)												
E6	Development of e-Commerce Website of PE												
E7	Credibility Certification and Marks												
F	Marketing												
F1	Participation in Trade/Fair and Exhibition												
F2	Organizing exclusive exhibitions (pop-up shows), Buyers Seller Meet												
F3	Engagement of Marketing Executive												
G	Cost of Processing & Value Addition												
G1	Value Addition Equipment for PE (Included CATD System)												
G2	Engagement of Designer												
G3	Product Design & Diversification												
G4	Engagement of Cluster Development Executive												
H	Monitoring & Evaluation												

Annexure-3 (Case Studies-1)

Original Research Paper

Volume-8 | Issue-12 | December-2018 | PRINT ISSN No 2249-555X



Fashion Technology

ASSOCIATION OF THE TRADITIONAL PINE NEEDLE CRAFT WITH MODERN TECHNIQUES OF COMMUNICATION

Aashima Negi	National Institute of Fashion Technology, Kangra
Abhir Avasthi	National Institute of Fashion Technology, Kangra
Amandeep Sandhu	National Institute of Fashion Technology, Kangra
Kartik Arya	National Institute of Fashion Technology, Kangra
Shivangi Verma	National Institute of Fashion Technology, Kangra
Shruti	National Institute of Fashion Technology, Kangra
Mrs. Apla Shrivastava*	Associate Professor, National Institute of Fashion Technology, Kangra *Corresponding Author

ABSTRACT This research paper is designed to associate traditional local craft with modern techniques of communication in order to sustain the traditional crafts of Himachal Pradesh.

This research is being executed in the **Mahi Panchayat of District Solan, Himachal Pradesh where the main problem is lack of manifestation, representation and promotion of the local craft and the village tourism.**

The Mahi Panchayat is bound to the sensibilities and promotion of **Pine needle products, its local cuisine and the village tourism** as a whole. Himachal Pradesh, has attracted 19.6 million tourists last year, as per the state's Economic Survey 2017-18 due to which the Central Government has approved a tourism infrastructure development project of **Rs 1,900 crore on June 14th, 2018** under which the following project is being carried out.

The suitable solutions for bridging the gaps identified will include:

- a) **Training techniques for product range diversification.**
- b) **Packaging**
- c) **Promotion techniques which include : Brochures, posters, tags, exhibition collaterals and space design.**
- d) **Beautification and awareness which includes : Wall art, posters and signages.**
- e) **Opening of a retail outlet which will include all the handicrafts of Himachal Pradesh under one roof.**

The outcome will help the development of the local craft, both as practice and as discipline, increase sales of the artisans making Mahi Panchayat a noticeable village tourism destination, thus for advancing craft as a discipline that is viable and relevant for the future.

KEYWORDS : Pine needle Craft, Sustainability, Promotion

Literature Review: The arts and craft of any region is the reflection of its environment, people, traditions and so is in Himachal Pradesh. Several kinds of handicrafts are the cultural heritage of Himachali people. According to the book "*Crafts of Himachal Pradesh*", in the pre-independence days, secondary occupations like handicraft, were most common throughout the state.

Crafts can be an important contributor to a country's economy, employing artisans that are preserving cultural heritage, while generating an important source of income through the informal sector. **Mahi** is a village in Kandaghat Tehsil of Solan District in Himachal Pradesh, India with an extensive growth of pine trees. It lies on the border of the Solan District and Shimla District. **Though pine needle weaving is a centuries-old craft, it is still as inexpensive, natural and unique. The women of the self help group of Mahi Panchayat, of Himachal Pradesh are being trained to work with this abundantly available raw material and make innovative products. Pine needles are woven, coiled or braided to make products.** The cold climate of the state is prevalent for the growth of pine trees, which fulfills the necessity of the pine needle products.

The modern emerging communication techniques have a big impact on the promotion of these indigenous crafts and their sustainability. The traditional practices adopted by artisans need to be protected and promoted in order to be preserved and sustained according to the current market trends. The realisation of the potential of these crafts to generate employment for the self help group and to sustain the traditional crafts and artisans for future will be fulfilled through the means of modern communication techniques.

OBJECTIVES:

1. To identify the role of modern communication techniques in promoting the pine needle handicraft as an ideal craft of Himachal Pradesh.

2. To increase sales of the products and make a better livelihood for the artisans.

Scope of the study: The focus of the study is on pine needle craft. The study will cover artisans at Mahi Panchayat and the sales from the handicraft. The scope of the study will be restricted to regions of Solan, Kandaghat and Shimla of the state of Himachal Pradesh. The study was carried out for a period of two months.

Need for the study: India being a country rich in culture, it is of highest importance to preserve its myriad kinds of crafts and other wares. Now, with technology and globalisation, people are offered cheaper and often poorer quality mechanised products, leaving the craftsmen struggling to make ends meet. Mahi panchayat artisans are no different. It is the only work they know besides household activities to lead their lives. As tourists often like to take home souvenirs that represent the culture of the places they visit, the pine needle craft can be revived and promoted only through better promotional programs.

METHODOLOGY

To collect the primary data the locale selected was Mahi Panchayat as it is a major source of manufacturing of pine needle products. A seminar organised by Himachal Tourism in Mahi was attended in order to collect primary data and secondary data which included various facts generated by the department.

The tool used was **interview schedule** which was framed in **open and close ended form** and **participation observation technique** to collect data at the workplace of the artisans.

Qualitative data collection method:

1. The qualitative data collection method used was **focus groups** where a group of artisans were interviewed about the production process and their sale as a result of which suitable promotional techniques could be derived.

2. Interview Analysis

Anita Thakur, (age 39 years) is a resident of Mahi Panchayat, District Solan, Himachal Pradesh. Initially, she was a housewife working in the fields and doing activities like knitting as her pass time.

Due to the suitable climatic conditions there is an extensive growth of pine trees in this region of Himachal. In February 2018, the Tourism Department saw this as an opportunity to encourage women of Mahi in making pine needle products and enhancing self dependence.

Anita Thakur started by saying “I had been considering setting up a household business to become self dependent for a number of years and tried agriculture and knitting but couldn't succeed. With limited knowledge, funds and experience myself I decided to sign up for an intensive training of making pine needle products organised by the Tourism Department which would at least allow me to understand the basic techniques of making the products.”

She started working with various designs and ideas that were provided by the training department itself and in turn started training other rural blocks nearby. The exhibitions organised by Himachal Tourism in Shimla had her products exhibited and she earned a profit of approximately 7,000 out of them.

She stills wants to continue by exploring new ideas and designs because she was able to earn a profit of approximately 30-35,000 during these 8 months with negligible investment (as the raw material is free of cost) and wants to enhance her sales in future.

Quantitative data collection method:

1. Questionnaire (Using Likert Scale)

Data was collected from 30 respondents from among the **tourists of Shimla** through questionnaire method.

Questionnaires were prepared in a structured style, using Likert Scale.

Sample size

A sample of 60 was taken from among the tourists and locals of Shimla.

Sampling Technique

Convenient sampling technique: This technique was used because of the convenient accessibility and proximity to us and for detecting relationships among different phenomena. **Tourists and locals were chosen based on convenience.**

Findings

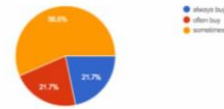
Tourists Questionnaire

- a) Majority of the respondents were in the age group 20-30 years (11 of them) and 30-40 years (9 of them). Also, the male respondents were 20 and the female respondents were 10.
- b) 6 of respondents always buy souvenirs at the end of their tour, 9 often buy and 15 sometimes buy.
- c) 17 of the respondents believe that handicrafts are very important in symbolising a region's culture, 8 of them say it is important and 5 say that it of little importance.
- d) It is also proved in the study when all 30 of the respondents agree that pine needles a beautiful and ideal craft of Himachal Pradesh.
- e) 17 of respondents sometimes purchase handicrafts as souvenir, 9 often purchase and 3 of them always do so.
- f) While 15 of the respondents disagree that there is not enough variety in pine needle crafts, 15 say that the variety is good enough.
- g) Only 7 of the respondents believe that handicrafts are easily available for tourists to purchase in the region of their production, while the remaining 23 either disagree (21) or strongly disagree (2) to the statement
- h) All of the respondents agree that promotional activities are required to sustain pine needle as a craft in Himachal and so that the products are available to tourists easily. (19 strongly Agree and 11 agree)
- i) 29 of the respondents believe that increase in promotional activities will increase sales of the handicraft and will be beneficial to the artisans.
- j) All of the respondents agree (63% strongly agree) that there is scope for retail outlets to increase sales of handicrafts.
- k) 29 of the respondents believe that increased sales will improve livelihood of artisans.

Locals questionnaire

Do you buy souvenirs at the end of your tour?

22 responses



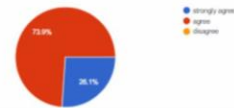
Are handicrafts important in symbolizing a regions culture?

22 responses



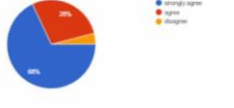
Pine needle is an ideal craft of Himachal Pradesh:

22 responses



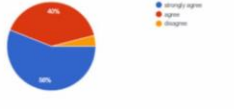
Are promotional activities required to sustain pine needle craft?

22 responses



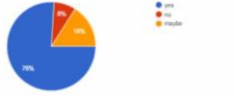
Will increase in promotion lead to increase in sales of the handicraft?

22 responses



Is there a scope of retail outlets to increase of the handicraft?

22 responses



Analysis

Chi Square analysis

	Strongly Agree	Agree	Disagree	Total
TOURISTS	19	9	2	30
LOCALS	10	7	3	20

Chi Square Value: 2.4
Degree of Freedom: 2

Since the value is **4.65** there is no difference in the opinions of tourists and locals, both the categories considering promotion as an important tool to increase the revival of the handicraft which results in increase in sales of the pine needle products.

Interview findings

1. Due to the extensive growth of pine trees in the Mahi region the opportunity to utilise the natural resource in order to make pine needle products which can be an ideal handicraft of Himachal Pradesh.
2. The housewives of Mahi are getting an opportunity to become self dependant and it will also make the panchayat a prominent

tourism destination.

3. The figure of the profit margin determines the increase in sales by the manufacture of these products, hence can be taken to an extensive level for further sales growth of the handicraft.

Suggestions and solutions:

1. After the study, it was understood that many tourists as well as locals were not well-informed about the pine needle crafts, its quality and its variety. They are still hesitant to make a purchase of the crafts. Promotional techniques such as brochures, posters, tags, exhibition collaterals and space design can be made to increase the awareness of the craft and therefore increase sales.
2. Also, many of them suggested that the product range diversification should increase which can be accomplished by providing proper training techniques.

Scope for future study:

There is a scope to extend the study to include the handicraft in retail outlets which can act as one roof for all handicrafts of Himachal making it easier for the tourists to buy products and increase the sales of the products which would result in better livelihood of the artisans.

(Case Studies-2)



NABARD
NABARD Sponsored

ONLINE MULTI-DISCIPLINARY NATIONAL SEMINAR
On
**NABARD:
Empowering Women through SHG's**



18th September 2021

**INTERNATIONAL JOURNAL OF
MULTI DISCIPLINARY RESEARCH AND TECHNOLOGY**

IJMRT ISSN 2582-7359 peer reviewed Impact factor 6.328

Editor-in-Chief : Dr. Minu Madlani

Organised By
Department of Commerce
Smt.P.D.Hinduja Trust
KPB Hinduja College of Commerce
Charni Road, Mumbai
NAAC Re-Accredited with A+, CGPA: 3.59

Sponsored By
National Bank for Agriculture and
Rural Development (NABARD)



New Trends for Business in SHGs: A Case Study of Mahi Panchayat of Kandaghat Block, District Solan, (HP) SHGs for Women.

Navita Gautam, MPhil. in Economics,

Principal (Retd.)

Government Degree College, Kandaghat,

Department of Education, Himachal Pradesh University

Introduction

Self Help Groups have been a part of rural employment in India since 1985 (Nair,2015). While the purpose of these groups is to employ and empower rural populations, especially individuals that either have no economic means; or those who are employed in non- economic activities, their success rate so far has been debatable(Deininger and Liu, 2019).

In 2021, on the occasion of the Fiftieth Anniversary of Statehood, the Government of Himachal Pradesh attempted to reboot the Self Help Groups in various rural pockets throughout the state, with a special focus on reviving handicrafts, while providing money and economic incentives to rural women. The present case study attempts to analyse this new trend for self-help groups in business with respect to women of Mahi Panchayat of the Kandaghat Block of District Solan, where women of 13 Self Help Groups of Mahi Gram Panchayat have been employed in basketry using pine needles.

For the purpose of this study several individual members of the said SHGs were personally interviewed and supervising authorities were consulted. Also, the data records with these groups and in charge of Himachal State Emporium was accessed. Through this study, therefore, an attempt has been made to understand how successful this endeavor has been in the economic emancipation of the women involved and how sustainable this venture is in terms of raw materials used and objects made.

What is a Self Help Group?

In order to evaluate the success of the Self Help Groups in question, it first becomes imperative to understand what a Self Help Group is and what marks its beginning in the Indian economic scenario. A Self Help Group (hitherto abbreviated to SHG) can be defined as a self-governed, peer controlled information group of people with similar socio-economic background and having a desire to collectively perform common purpose (cf. Kabeer, 2005). Most SHGs are found in India and other Southeast Asian countries, where they generally consist of a group of people, who work on daily wages in a loose grouping or union. The underlying idea of these groups is to encourage self-employment and poverty alleviation.

In SHGS, members may also make small regular savings contributions over a few months until there is enough money in the group to begin lending. Funds may then be lent back to the members or to others in the village for any purpose. In India, many SHGs are linked with banks for the delivery of micro-credit, thus, allegedly serving as a vehicle of change for the poor and marginalised.

The history of SHGs dates back to 1985 from the actions undertaken by the Mysore Resettlement and Area Development Agency(MYRADA) (Fernandez,2006). The SHG Movement, under MYRADA, started in the southern states. There is general awareness in these states, especially among women, regarding thrift and importance of cheap credit. By 1986-87 there were around 300 SHGs in MYRADA Projects. Over time several agencies like the National Bank for Agricultural and Rural Development, the RBI, leading NGOs, as well as

**Online Multidisciplinary National Seminar on
NABARD: Empowering Women through SHG's
Sponsored by NABARD**

multilateral agencies like International Fund for Agricultural Development (IFAD) helped in the growth of the SHGs. The history of SHGs can be broadly studied in two phases:

Phase-I (1987-1992): In this phase, NABARD was the main agency for helping out SHGs. NABARD undertook measures to assist MYRADA through a grant of Rs. 1 Million in 1987.

Phase-II (1992-present): In this phase, the linkage of SHGs and banks was done, with the unstinting support of RBI as well as IFAD, by March 2005, credit had been extended to about 1,628,456 SHGs, with a cumulative membership of about 24 Million families. In 1999, Government of India, introduced Swarn Jayanti Gram Swarozgar Yojana (SGSY) to promote self-employment in rural areas through formation and skilling of SHGs. The programme evolved as a national movement in 2011 and became National Rural Livelihoods Mission (NRLM) – world's largest poverty alleviation programme. Today, State Rural Livelihood Missions (SRLMs) are operational in 29 states and 5 UTs (except Delhi and Chandigarh). NRLM facilitated universal access to the affordable cost-effective reliable financial services to the poor like financial literacy, bank account, savings, credit, insurance, remittance, pension and counselling on financial services (Fernandez,2006).

Having discussed the history and the underlying notions of SHGs, it is now important to understand the relevance of these microfinance bodies for women, before evaluating how it becomes relevant for the case study in question.

Women and Self Help Groups in India

Numerous studies have debated the significance of SHGs for the economic empowerment of women, especially in the case of India, where, on an average, rural women have little or no access to economic means. Most rural women are still dependent on male counterparts for economic sustenance and are still largely self-employed or employed as casual labour in agriculture (Srivastava and Srivastava,2010).

Economic empowerment through SHGs, provides women the confidence for participation in decision making affairs at the household-level as well as at the community-level. It has been observed that SHGs have been beneficial in the effective mobilisation of unutilized and underutilized resources of the community (Kapoor,2019). Leaders and members of successful SHGs bear the potentiality to act as resource persons for different community developmental initiatives. Active involvement in different SHG-initiatives helps members to grow leadership skills. Evidence also shows that often women SHG leaders are chosen as potential candidates for Panchayat Pradhans or representatives to Panchayati Raj Institution (PRI) (Mohindra et al., 2008). Besides this, it has been observed that SHGs multiplier effect in improving women's status in society as well as in the family leading to improvement in their socio-economic condition and also enhances their self-esteem. Thus, while SHGs in India suffer from several challenges, such as, lack of proper knowledge or backlash from patriarchal mindset of the rural societies, occasionally compounded by problems of lack of rural banking facilities (only 1.2 lakh bank branches and over 6 lakh villages), on an average, such groups have had a positive impact on the socio-psychological growth of women in India and their significance in women empowerment cannot be entirely overlooked. With this analysis in focus, the next section will look at the case study of the SHGs in Kandaghat and evaluate its benefits as well as the challenges its members face, especially given the pandemic situation. For the purpose of this, several members of the SHGs were interviewed to form a thorough understanding of the advantages of SHGs in this regard, beyond the textual analysis of existing body of research from similar studies elsewhere in India.

Case Study of the Pine Needle Weaving SHGs in Kandaghat Block

Before discussing the case study, it is imperative to note that similar SHGs, involved in the same activity, that is, basketry using pine needles, has been promoted and encouraged all over the state under the aegis of the State Government of Himachal Pradesh and Himachal Emporium from January 2021. Under this initiative, women are initially trained and then encouraged to sell their ware, either locally in temporary stalls or through

intermediaries like Himachal Emporium and the Tourism Department in a fashion similar to rural cooperative societies. The present study narrows down its focus to groups located in the Kandaghat block of Solan District, in southern Himachal Pradesh.

Kandaghat is a block as well as a tehsil of Solan District, located along 30.983°N 77.117°E. It is an administrative subdivision also. It mainly consists of sub-mountainous region, with an altitude varying from 1500 to 3000 meters. The Block Headquarters is situated at a distance of 16 kms from the District Headquarters and 30 kms from the State Headquarters. The National Highway also serves some parts of this block. Kandaghat Block has 260 villages, with a total geographical area of 20120 hectares. According to the Primary Data Abstract Tables of Himachal Pradesh, compiled by the Office of the Registrar General and Census Commissioner, India Ministry of Home Affairs, Government of India in 2021, the total population of Kandaghat Block is 40,529 out of which 20957 are male and 19572 are female. From this block, the area of Mahi Gram Panchayat was selected for the purpose of this paper and the following subsection will discuss its socioeconomic profile.

Socio Economic Profile of Mahi Gram Panchayat in Kandaghat Block

The area was selected because SHGs were running successfully in this region with this new trend of making artefacts with pine needles, a cost-free raw material, available locally due to the abundance of pine forests in the region. The sample consisted of 124 women of 13 SHGs. Each SHG has 10-15 members. All SHGs meet on 17th of every month in the Gram Panchayat of Mahi, Kandaghat Block to discuss the agenda of loan distribution and collection of savings, which is Rs. 50 per month. These SHGs are linked to United Commercial Bank, Kandaghat, District Solan. The UCO Bank charges 12% rate of interest on its loan to the members and the SHG charges only 2% rate of interest from the members. However, the SHG can finance a small amount of loan to the members not more than Rs. 10,000. For a bigger amount the members have to approach the linked bank i.e. UCO bank through the local *Pradhan* of the SHGs. Interview with the *Pradhan* revealed that this project was started in 2016 in the area, with 20 women by the Tourism Department. The instructor imparted 5 days' training to the women and they purchased the products made by the trainees themselves. From time to time the Department contacts the group for the exhibition and the stalls to be installed in various fairs and festivals and arranges for their boarding and lodging and stalls. However, where the local fairs and festivals are concerned, they have to bear all expenses, which they meet with the interest money and other savings, like the unspent amount which the SHGs received from the government for infrastructural expenditure for their workplace. Upon interviewing the instructor of the project, it was learnt that the entire experience of learning and imparting training was beneficial to many women, including her. Most rural women in the region barely matriculate and have no exposure beyond rural life. However, this new trend in business has enabled village women to earn as well as gain the practical knowledge of marketing in real life situations, thus empowering them both economically and socially. Rural women do not get the opportunity to see the world outside and they remain in their shells throughout their lives. However, through involvement and participation in the SHGs, they happen to learn new things and earn enough to help their families in times of need.

Adding to this is the easy availability of pine needles and the fact that women incur no costs in obtaining the raw material required. Pine needles are available in the forest, where these women go daily for fodder for their cattle and wood for fuel. Also, since pine needles are the main cause of forest fires in the region, their use by women for basket-weaving reduces the threat, albeit marginally. Pine needle weaving does not require expensive, technical training and the resultant products are environmentally friendly, bio-degradable and non-toxic for storage of foodgrains and cooked foodstuff. Additionally, their unique shapes and designs, as well as the wide range of products made by these women using pine needles, ranging from *chapati* boxes to pen stands and even rakhis has a wide appeal for tourists and local urban consumers. Thus, the case study reveals that not only was this new business trend useful in bringing a cheap and bio-degradable substitute for plastic products in

market, it also had the far reaching benefits of empowerment and self-sustaining employment for hithertofore economically excluded rural women.

Conclusion

The present case study clearly reveals that with the help of new trends in their product, the monthly incomes of the members of SHGs have increased. The art of making artefacts from pine needles is less technical, easy to make, no cost is involved in making it and it is easily marketable. The labour invested in making pine needles products gives them total benefit. They can easily procure the raw material and work on it while teaching their children. They are earning because of this and their attitude towards better living has changed.

With the help of SHGs and this art they have strengthened their household income and increased their purchasing power. Awareness about family health and nutrition has improved. They are active participants in outdoor activities and social and national functions. They use mobile phones and see YouTube to get new ideas for their artefacts. They have managed to sell their products in the open market through a vendor who they pay commission to from a certain amount of their sale. These women are not only making their livelihood but also creating employability for the others. Also the easy marketability of pine products as opposed to food products like pickles and chutneys, that do not have much market in the absence of food standardisation and on account of suspiciousness of the consumers with respect to their quality and hygiene, is an added benefit in the women's favour.

The case study would be remiss in its scope if it does not discuss the problems faced by these rural women entrepreneurs. The members of the SHGs are not able to arrange for a shop without the help of administration. In the open market, the rent is too high to afford for them. So, they need Government help but so far, they have not been successful. If they get a sale point, it would be easy for them to sell their product and increase their income.

Secondly, the interest rate given to them on their small savings is 3-4% whereas the interest rate charged on their loans is 12% by the linked bank. At the time of opening accounts of the members of SHGs, the bank had promised to charge interest at 7% with a return rate of 5%, which sadly has not been honoured yet.

Nevertheless, despite access to proper marketing facilities, the SHGs of Mahi Gram Panchayat of Kandaghat have fared well for themselves and are constantly striving to popularise their ware and reach out to more potential customers.

Acknowledgments

This study would not have been possible without the assistance and insights of Mr Praveen Kumar Sharma, In-Charge of the Himachal Emporium, Solan, who helped me contact the formidable ladies of the Pine Needle SHGs and happily supplied the data he had with him. I am also extremely indebted to Ms. Indira Thakur, resident of one of the villages of Mahi Gram Panchayat, who is the Pradhan of the 13 SHGs engaged in pine needle weaving and basketry and an incredibly well-informed and driven young woman. I am also immensely grateful to the insights provided by Ms. Anita Thakur, the Instructor of the Project, who candidly shared with me the problems the groups face and the way this enterprise has helped rural women economically and socially. Lastly, I am forever grateful to several members of the Pine Needle SHGs, who could not be named but whose warmth, candidness and simplicity is their biggest strength and the main driving factor behind the successes these groups have achieved.

Bibliography

General Readings

1. Banerjee, T. and Ghosh, C., 2012. What factors play a role in empowering women? A study of SHG members from India. *Gender, Technology and Development*, 16(3), pp.329-355.

Annexure-4

Points of HPSRLM	Clarification
<p>Define marketing channels in detail (E-commerce, Retails, and others) with detailed strategy</p>	<p>Marketing Channels in the Pine Needle Handicraft Marketing channels in the pine needle handicraft encompass various avenues through which PE reach their customers to promote and sell their products. In the context of the pine needle handicraft, these channels play a crucial role in distributing sustainable products like Jewelry, Utility Items, Blended Products, tableware and cutlery made from pine needles. Here is a detailed strategy for marketing channels in the pine needle handicraft, focusing on e-commerce, retail, and other relevant avenues:</p> <p>E-Commerce Strategy: E-commerce channels are vital for the pine needle handicraft to reach a broader audience and facilitate online sales. The strategy involves:</p> <ul style="list-style-type: none"> • Online Platforms: Utilize e-commerce platforms like the PE's website, Amazon, or other online marketplaces to showcase and sell pine needle products. • Digital Marketing: Implement targeted digital marketing campaigns to drive traffic to the e-commerce platforms, leveraging social media, search engine marketing, and email marketing. • Customer Engagement: Enhance customer engagement through personalized recommendations, reviews, and interactive content to build brand loyalty. • Logistics: Ensure efficient logistics and delivery services to provide a seamless online shopping experience for customers. <p>Retail Strategy: Retail channels are essential for reaching customers who prefer physical stores for their purchases. The strategy includes:</p> <ul style="list-style-type: none"> • Physical Stores: Collaborate with retail partners to display and sell pine needle products in brick-and-mortar stores, eco-friendly boutiques, or sustainable living stores. • Visual Merchandising: Create visually appealing displays that highlight the eco-friendly nature of pine needle products to attract environmentally conscious consumers. • In-Store Promotions: Offer in-store promotions, demonstrations, or sampling events to educate customers about the benefits of using sustainable pine needle products. • Customer Experience: Focus on providing a positive customer experience in retail outlets, emphasizing the unique selling points of pine needle products. <p>Other Marketing Channels: Apart from e-commerce and retail, other marketing channels can further enhance the reach and visibility of pine needle products. The strategy may include:</p> <ul style="list-style-type: none"> • Partnerships: Collaborate with eco-conscious brands, influencers, or environmental organizations to amplify the message of sustainability and increase brand awareness. • Events and Exhibitions: Participate in sustainability events, trade fairs, or exhibitions to showcase pine needle products and connect with a wider audience. • Educational Campaigns: Conduct educational campaigns to raise awareness about the benefits of using pine needle products, emphasizing their sustainability and environmental impact. <p>By implementing a comprehensive marketing channel strategy encompassing e-commerce, retail, and other avenues, companies in the pine needle handicrafts</p>

	<p>may effectively promote their sustainable products, reach a diverse customer base, and contribute to environmental conservation efforts.</p>
<p>Define e-commerce platforms and digital marketing in detail</p>	<p>E-commerce platforms and digital marketing are crucial components of the modern business landscape, particularly in the context of electronic commerce (e-commerce). Here's a detailed definition and overview of both concepts:</p> <p>E-commerce Platforms E-commerce platforms are software solutions that enable businesses to manage their online presence, sell products or services, and interact with customers across various channels. These platforms are designed to facilitate the buying and selling of goods and services over the internet, making it easier for businesses to reach a broader customer base and expand their operations. E-commerce platforms typically provide a range of features and tools, including:</p> <ul style="list-style-type: none"> • Content Management System (CMS): Allows businesses to manage and update their website content, including text, images, and videos. • Commerce Engine: Enables the management of product catalogs, orders, and inventory, as well as the processing of payments and shipping. • Omni-channel Marketing: Supports the integration of marketing strategies across multiple channels, including social media, email, and search engines. • Analytics and Reporting: Provides insights into customer behavior, sales trends, and other key performance indicators to help businesses optimize their strategies. <p>Types of E-commerce Platforms There are several types of e-commerce platforms, each catering to different business needs and preferences:</p> <ul style="list-style-type: none"> • Open-Source Platforms: These platforms are free and open-source, allowing businesses to customize and modify the code to suit their specific requirements. Examples include Magento and Woo-Commerce. • Software as a Service (SaaS) Platforms: These platforms are cloud-based and offer a subscription-based model, where businesses pay a recurring fee for access to the platform's features and tools. Examples include Shopify and Big-Commerce. • Headless Platforms: These platforms decouple the shopping cart from the CMS, allowing for greater flexibility and customization in the front-end design and user experience. Examples include Optimizely DXP and Adobe Commerce. <p>Digital Marketing Digital marketing is the process of promoting and advertising products or services using digital channels, such as search engines, social media, email, and mobile devices. The primary goal of digital marketing is to drive awareness, generate leads, and ultimately convert customers through various marketing strategies and tactics.</p> <p>Types of Digital Marketing There are several types of digital marketing strategies and tactics, including:</p> <ul style="list-style-type: none"> • Content Marketing: Creating and sharing valuable content, such as blog posts, videos, and social media posts, to attract and engage with target audiences. • Search Engine Optimization (SEO): Optimizing website content and structure to improve search engine rankings and drive organic traffic. • Pay-Per-Click (PPC) Advertising: Creating and managing paid advertisements on search engines and other platforms, where businesses pay for each click on their ads. • Email Marketing: Sending targeted and personalized messages to customers and prospects through email campaigns.

	<ul style="list-style-type: none"> • Social Media Marketing: Using social media platforms to promote products, engage with customers, and build brand awareness. <p>Importance of E-commerce Platforms and Digital Marketing E-commerce platforms and digital marketing are critical components of a successful e-commerce strategy. By leveraging these tools and strategies, businesses can:</p> <ul style="list-style-type: none"> • Increase Online Visibility: Reach a broader audience and improve brand recognition through targeted marketing efforts. • Enhance Customer Experience: Provide a seamless and personalized shopping experience across multiple channels. • Drive Sales and Revenue: Convert website visitors into customers through effective marketing and sales strategies. • Gain Insights and Analytics: Track customer behavior, sales trends, and other key performance indicators to optimize business decisions. <p>In summary, e-commerce platforms and digital marketing are essential for businesses looking to establish a strong online presence, engage with customers, and drive sales and revenue. By understanding the different types of e-commerce platforms and digital marketing strategies, businesses can develop a comprehensive e-commerce strategy that meets their unique needs and goals.</p>
Detailed explanation and elaboration of every point mentioned in the DSR whether for budget, marketing, product development etc.	The details of the budget are mentioned in detail in the DSR and the budget composition is also given. The budget also gives a detailed description of the items on which the expenditure will be made for marketing, branding and promotion.
Add new products which can be taken under CFCs.	Apart from the existing pine needle products in the Common Facility Centre, new products of the cluster like tableware, charcoal, etc. made from pine needles are being studied and the expenditure has been kept for product development and diversification.
Raw material procurement process with cost breakup (Transportation, labour, etc.)	The cost of raw material procurement process will depend on the distance of the common facility center from the approach road. Storage facility is extremely important for storing raw material at Solan Pine Needle Cluster Common Facility Centre because collection of pine needles is very difficult during rainy and summer seasons.
Details of empaneled training institutions	During cluster intervention, certain specialized institutes may be empanelled for product development and design, training support, etc. Such as: <ul style="list-style-type: none"> • NIFT Kangra for Design Interventions • IIT Mandi for New Product Development • DRDA for Training support • DC (Handicraft) for Artisans Welfare • Khadi & Village Industry Commission (KVIC) for Handholding support etc.
Product details of Pine Needle (Fiber, Bricks, etc.), quality of thread & other	During the baseline survey, it was observed that in some places in the cluster, Kusha grass is being used instead of pine needles as raw material in utility products, which can be used as a raw material in the utility products of the cluster. During the intervention, work will be done on replacement of thread used for weaving