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1.1 ABOUT THE PROGRAMME

The Digital Cluster Programme is being initiated by DEF with financial support from Microsoft to develop a traditional skill based cluster as an integrated digitally enabled cluster to empower artisans, weavers and entrepreneurs for socio-economic prosperity. The project is being implemented in Hanur village of Kollegal Taluk in Chamraj Nagara district of Karnataka state.

The main objectives of the programme are:

1. **Setup of a Cluster Resource Centre** with physical space, infrastructure, and equipment.

2. **Cluster Wireless Network Development** for establishment and provisioning of wireless Internet basic infrastructure and access within and outside the cluster community to connect individual houses, businesses, schools, health centres and Anganwadi centres to the Internet.

3. **Cluster Core Skills Development** focusing on primary skill development of cluster occupants focusing on training programs related to digital literacy, digital designing for weavers and others.

4. **Cluster Periphery and Tertiary Skills Development** to impart knowledge and skills to enhance employability, income and living conditions of the beneficiaries.

5. **Cluster Enterprise Development** to start product designing, creation and sale and provide digital and information services to the community.

6. **Cluster Market Development** to develop e-Commerce portal and offline market linkages for the cluster to connect the weavers and sell their products in the national and international market.

1.2 ABOUT KOLLEGAL

Kollegal town is the Taluk Head Quarters in Chamrajnagar District of Karnataka State and it is 140 kms away from Bangalore and only 60 kms away from Sathyamangalam of Tamil Nadu.

It is famous for its handloom silk saree industry.
1.3 SILK INDUSTRY

Silk weaving was the traditional and native occupation of Kollegal. Kollegal silk sarees are very unique for their design and originality. Kollegal sarees are basically soft silk. Most of the silk sarees are produced in pit looms. Kollegal was once famous for Navil (Peacock) border saree but today it is not under production.
Kollegal is famous for reeling and twisting of silk and produces its own raw silk. Weavers are capable to weave with 240 hooks Jacquard for producing elaborate designs with solid colour pallau using tie & dye warp with “Reku Pulling Technique”.

Devangas and Padmasalvis are the two major weaving communities engaged in silk weaving in the area. All the weavers in the cluster work with master weavers of Sathyamanagalam in Tamil Nadu as Kollegal is on the border and very close to Tamil Nadu. There are about 200 looms producing silk sarees and silk to cotton sarees using fly shuttle. Pit looms with 120 Hooks.
In total there are approx 100 looms out of which 50 are throw shuttle pit looms producing Jamakalams (carpets), 25 frame looms produce door mats majorly from waste material & 25 looms producing silk dress material.
1.4 FIELD STUDY

In March 2017, DEF team conducted a field study to survey the on-ground scenario in the weaving villages in Kollegal cluster from the aspects of technology intervention, livelihood, weaving background, market trends, market knowledge of weaving community, living conditions of weaving community and challenges faced by them.

1.4.1 VILLAGES VISITED FOR SURVEY

<table>
<thead>
<tr>
<th>Village Name</th>
<th>Number of looms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kollegal Town</td>
<td>15+</td>
</tr>
<tr>
<td>Manjunatha Nagar</td>
<td>100+</td>
</tr>
<tr>
<td>Hannur</td>
<td>26+</td>
</tr>
<tr>
<td>Kanchihalli</td>
<td>70+</td>
</tr>
<tr>
<td>Ajipura</td>
<td>60+</td>
</tr>
</tbody>
</table>

In general there are about 300 looms in the cluster. The weavers in the cluster work as wage earners for the master weavers in Sathyamangalam, Bhavani and Salem area in Tamil Nadu. Each weaver household make an average monthly income of INR 15,000.00 per month. In each village the weavers work in a group and each village has its own society that works for the collective development of the weaving community in the area.

1.4.2 RECOMMENDATION OF HANUR BLOCK WEAVING VILLAGES FOR SETTING UP CLUSTER RESOURCE CENTRE (CRC)

As a result of the field study in Kollegal cluster, Hanur block was selected for project intervention. Hanur was about 20 kms from the main Kollegal town. The weavers live in very basic housings. The village lack proper roads and sanitation facilities.

The internet accessibility and mobile network are very poor. The households are not exposed to smart phones or computer or internet, thus creating a digital divide.

The weavers have to go to the town to get orders, collect raw materials, supply the sarees and collect the wages since most of them are working under the private traders.

Though the village lies on the state highway, well connected by road, the village is underdeveloped. There is no pucca road inside the village. Sanitation and drinking water facility is also poor.

Hence, setting up CRC in this block will help the weavers get empowered by exposing them to internet, new designs, market linkages; connecting them to both domestic and international market, helping them access the market, enhancing production according to the changing needs of domestic and international silk lovers and in long run, stay self-sustained.
There is a possibility of getting some common space in the community. The weavers are willing to explore such options. Rural and silk route tourism can be potentially planned in the cluster. The weavers in Yeola are open for a new association if it supports them to sustain in the weaving industry.

Hence setting up CRC in this block will help the weavers in 5-6 underdeveloped villages get empowered by exposing them to internet, new designs, market linkages, connecting them to both domestic and international market, helping them access the market, enhancing production according to the changing needs of domestic and international silk lovers and in long run, stay self-sustained.
2.1 ABOUT THE SURVEY
A baseline survey was conducted in order to understand the situation on ground before proceeding with project design and planning. The survey was conducted in and around Kollegal to fulfill the following objectives. The main objectives of the programme are:

1. Identify villages for intervention and thus to conduct the baseline survey
2. Understand demographic details of villages near Kollegal and needs and wishes of local community to help define realistic targets for project activities
3. Get geographical coordinates and other details of ISP and locations for feasibility study of Wireless Internet setup
4. Find possible locations for centre setup in one of the selected villages

2.2 METHODOLOGY
This methodology focuses on the famous handloom silk saree industry.

1. General info. Of the person interviewed and household
2. Information & Communication Technology (ICT) related info. such as use of smartphones, Internet availability etc.
3. Content-related info. like content accessed on phone, Govt. schemes info. available etc.
4. ICT Skills related info. like computer usage skills and interest in learning computers
5. Weaving community info. of individual weavers and the village as a whole.
6. General village info like population, households, no. of schools etc.
7. Technical info. For Internet setup

The detailed survey form was created in Open Data KitCollect, an open source data collection tool that runs on Android devices. 26 households were surveyed and from each household one weaver was taken as a sample.
KEY FINDINGS

3.1 ABOUT THE SELECTED VILLAGES

Demographics of Hanur

Kannada is the Local Language here.

<table>
<thead>
<tr>
<th>Panchayat</th>
<th>Area of panchayat</th>
<th>Population</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hanur</td>
<td>1069 Hectares</td>
<td>9253</td>
<td>4761</td>
<td>4492</td>
</tr>
</tbody>
</table>

The baseline survey was conducted in Hanur Panchayat in Kollegal cluster. Devangapet and R. S. Doddi are the two weaving villages of Hanur selected for project intervention. The panchayat had a population of approx. 9253 according to the 2011 census. For selecting the respondents, random sampling technique was used.
Until very recently the major occupation of the villages was silk weaving. Today only a total of about 26 looms are active.

<table>
<thead>
<tr>
<th>Village</th>
<th>Total no. of households</th>
<th>Households surveyed</th>
<th>No. of active looms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Devangapet</td>
<td>50</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>R.S. Doddi</td>
<td>20</td>
<td>11</td>
<td>11</td>
</tr>
</tbody>
</table>

There are four primary school, two high school and two PU colleges in the panchayat. There is one clinic and one Govt. health centre in the panchayat.

### 3.2 GENERAL RESPONSES FROM THE WEAVER COMMUNITY

#### 3.2.1 DEMOGRAPHIC DETAILS

<table>
<thead>
<tr>
<th>Age (in Years)</th>
<th>Male</th>
<th>Female</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 20</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>21-25</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>26-30</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>31-35</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>8.00%</td>
</tr>
<tr>
<td>36-40</td>
<td>5</td>
<td>0</td>
<td>5</td>
<td>20.00%</td>
</tr>
<tr>
<td>41-45</td>
<td>7</td>
<td>1</td>
<td>8</td>
<td>32.00%</td>
</tr>
<tr>
<td>46-50</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>16.00%</td>
</tr>
<tr>
<td>51-55</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>16.00%</td>
</tr>
<tr>
<td>Above 55</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>8.00%</td>
</tr>
<tr>
<td>No response</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

*Most of the people interviewed were in the age group of 41 – 45 years.*
3.2.2 EDUCATIONAL BACKGROUND

* Majority of the population are literates and 31% have completed secondary class

3.2.3 LANGUAGE

* Majority of the population speak, read and write Kannada and about 50% population speak Tamil and Telugu. None of them read, write or speak English
3.2.4 INCOME DETAILS

Average monthly income of a weaver family is about INR 10,000.00

3.2.5 HOUSE OWNERSHIP

* Majority of the population speak, read and write Kannada and about 50% population speak Tamil and Telugu. None of them read, write or speak English
3.2.6 HOUSE TYPE

1. About 20% people live in kuccha houses and another 30% people live in semi pucca and 50% of population live in pucca houses. All of them have toilet facilities at home.

2. Transportation: Hanur is well connected with public road transport. About 60% of people use two-wheeler and cycles and 40% of people use public transport.

3. Water facilities: 50% of people use municipal water services and the other 50% of households use bore-well and tube-well for the water needs.

4. Electricity availability: Electricity is available on an average of 16 hours per day.
Mobile phones:

98% of the households visited had a mobile phone being used for personal as well as business needs and 70% of them were basic phones and 30% were smart phones.

Internet:

25% of the population is aware of Internet and have been exposed to it. The Internet connectivity is also good. Youth use smart phones but they are not into weaving.

4.1 CONTENT-RELATED INFORMATION

Content: More than 99% people prefer to access content in their local language Kannada. More than 50% information is obtained via newspapers while radio, television, family and friends are others means through which information related to health, education etc. is obtained by the community people.

*Govt. schemes info is not accessible to more than 70% of the population.
4.2 ICT SKILLS RELATED INFORMATION

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Training taken by the family member</td>
<td>25%</td>
</tr>
<tr>
<td>Willingness for the Computer center at their Locality</td>
<td>100.00 %</td>
</tr>
</tbody>
</table>

4.3 WEAVING COMMUNITY INFORMATION

Weavers work in group & are under the weavers society run by the village. The society helps in government linkage, providing housing, regular works, etc.

- Types of looms in use: 100% handlooms is found in Hanur area with following types

<table>
<thead>
<tr>
<th>DOBBY LOOMS</th>
<th>JACQUARD LOOMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>10%</td>
<td>90%</td>
</tr>
<tr>
<td>R.S. Doddi</td>
<td>20</td>
</tr>
</tbody>
</table>

- Types of clothes made: 100% silk sarees are made in the looms of Hanur.
- Raw material is supplied by the Traders and directly from the market. Silk comes from Bangalore and Zari from Surat.
• Pattern designing is done by hand. Designers and weavers are not exposed to digital designing.

• Youth in weaving: As per the information collected, almost 90% of the youth are not engaged in the weaving but in alternate occupations. However, the women in the region are interested in weaving training and recently the women weaver number is increasing.

• Types of clothes made: 100% silk sarees are made on looms of Hanur.

• Raw material is supplied to weavers by traders or directly from the market. Silk comes from Bangalore and Zari from Surat.

**SALE OF PRODUCTS:**
The weavers are selling the products by

**Participation in Handloom expos/festivals:** A few weavers who are heading the society have good exposure to handloom festivals and expos. The participation rate is also very good.

**CHOICES OF ALTERNATE OCCUPATIONS**

- Farming: 30%
- Handicrafts: 10.48%
- Labour work: 20%
- Job in native Place: 10%
- Move out for Job: 40%
- Other: 4.12%
The immediate and essential requirements of Kollegal silk are careful nurturing of the local ecosystem and development of a plan for facing market competition. The production of these sarees is achieved through labour-oriented methods by artisans/master craftsmen whose expertise and skills are handed down from one generation to the next, creating a distinctive regional identity and characteristics unique to the region.

The use of modern technology is absent has the potential to generate massive employment and raise the standard of living. The handloom production even though it, under cottage industries, is carried out from households. As a production unit, a combination of land, labour, capital and entrepreneurial skills are required in order to manage the economic activities.

As the handlooms sector is totally decentralised, individual weavers and craftsmen face difficulties in procuring finance and raw material or marketing their produce. The wages of weavers are so meager that they are not in a position to invest in any kind of change or improvement either in technology or in product diversification.

Introducing modern touch to traditional designs through CAD/CAM will ensure new weaving patterns and product diversification. Providing Jacquard looms/Jacquard designs to the weavers, can help to enhance monthly income. Increasing online and offline market linkages can help provide continuous work to the weavers, thus increasing their monthly incomes.

Pattern designing is done by hand. Weavers don’t have direct access to the designers, nor do they know how to make designs. Also, it takes 5-10 times more time to create a design by hand than on a computer and rework needs to be done for even minute changes. Weavers and designers can be trained to make contemporary designs and archive traditional designs using suitable CAD/CAM software. This will improve pattern designs and also reduce work time and hence designing costs.

Due to lack of information about Govt. schemes specifically designed for weavers, they are unable to accrue benefits from the same.
By setting up a Cluster Resource Centre, Govt. schemes information can be disseminated across the community to enable access to benefits from the Govt. Also, some community members will be trained in facilitating of information dissemination so to maintain sustainability of work even after project timeline is over. Due to poor income and intensive labor methods, children of weavers are uninterested and even discouraged by their parents to continue in this occupation. They prefer to migrate outside for other unskilled jobs.

By developing interest of the youth through digital literacy, modern designing techniques on computer, introducing new and fresh product range for Kollegal silk and other interventions, youth migration can be reduced and more weavers can be prepared for the future. The traditional art can thus be preserved.