CASE STUDY 7:
Sample Diagnostic Study: Handlooms Cluster – UNIDO Cluster Development Project in Ethiopia
"Unleashing the Potential of MSMEs in Ethiopia"

CDP - Handlooms Cluster

DIAGNOSTIC STUDY REPORT
(Draft)

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Introduction

This diagnostic study of the Handloom weaving cluster is planned to be undertaken in order to get more in-depth knowledge of the cluster and to set how the cluster development approach is to be implemented. It is good to conduct the diagnostic study before the practical intervention is started.

Acknowledgements

I would like to thank all the cluster actors who have extended their unreserved cooperation by providing the relevant information in the interview process. I would also like to extend my gratitude to the cooperative leaders and the Co-CDA for devoting their time with me during the field work.

Objectives

The three major objectives of Diagnostic Study are identified as follows

1. To understand and identify the overall environment that the Handloom Weaving Cluster is operating in.
2. To identify the most influential points for intervention in the programme
3. To establish a baseline information in the cluster for future monitoring of progress and impact of the programme.

Methodology

I have conducted this diagnostic study with close cooperation of the Co-CDA. In information and data gathering process, we use questionnaires and open discussions with cluster actors and other stakeholders.

I have developed different data collection formats for each of the major cluster actors, which are

- Core Firms(A) - Weavers
- Enterprises Doing Business with the weavers(B) - Suppliers, Buyers, etc
- Supporting Institutions(C)

Accordingly, I have interviewed 31 weavers, 16 enterprises doing business with weavers and 14 institutions in this diagnostic study process. The selection of the aforementioned cluster actors is based on the sample selection criteria developed and agreed by all the UNIDO - CDP Team here in Addis.

I have also reviewed the secondary data and information compiled by different institutions. The data collection format and the sample interviewee selection criteria are annexed with this report.
Background

The Weaving Industry in Ethiopia

Weaving production in Ethiopia has traditionally been a key home industry activity in both rural and urban areas. Shiro Meda, a sub-district located in the northern part of Addis Ababa, at the foot of the Entoto Hills is home to some of Ethiopia’s most respected weavers. Over the last 60 years, several weavers have migrated from the southern part of Ethiopia to Shiro Meda in an area now known as Kebele 19, 20 and 21. Shiro Meda, and Addisu Gebeya being the center of traditional weaving in Addis Ababa, are the most entry points for UNIDO- Cluster Development Pilot Programme in the Addis Ababa City Administration.

The traditional weaving industry is categorized by the Federal Democratic Republic of Ethiopia, Central Statistical Authorities (CSA) as Cottage /Handicraft Manufacturing Industry. Cottage /Handicraft Industries are defined as manufacturing establishments:

- Where goods are produced for sale
- Which predominantly do not use power driven machines during the manufacturing process
- Where employment is limited to the owner and in some cases may extend to family members.

Usually the Cottage/ Handicraft establishments are located in households or small workshops. Such establishments are mainly household type enterprises.

As per the Federal Democratic Republic of Ethiopia Central Statistical Authority(CSA) survey on Cottage /Handicraft Manufacturing Industries (CSA Report, Addis Ababa, Sept., 2003, pp.6), the number of Cottage/Handicraft businesses in Ethiopia was estimated as 974,676 of which 63.27% were in rural areas and the rest (36.73%) in urban areas in 2002. The same year CSA report figured out Cottage Industries in Ethiopia as follows.
Cottage Industries in Ethiopia.

<table>
<thead>
<tr>
<th>No</th>
<th>Industrial Groups</th>
<th>Establishments No.</th>
<th>%</th>
<th>Employment No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Food and Beverages</td>
<td>524172</td>
<td>53.8%</td>
<td>720,895</td>
<td>55.2%</td>
</tr>
<tr>
<td>2</td>
<td>Textiles</td>
<td>221848</td>
<td>22.8%</td>
<td>296737</td>
<td>22.7%</td>
</tr>
<tr>
<td>3</td>
<td>Wearing apparel</td>
<td>24137</td>
<td>2.5%</td>
<td>32401</td>
<td>2.5%</td>
</tr>
<tr>
<td>4</td>
<td>Non-metallic mineral products</td>
<td>92403</td>
<td>9.5%</td>
<td>109783</td>
<td>8.4%</td>
</tr>
<tr>
<td>5</td>
<td>Wood and saw milling, etc</td>
<td>60462</td>
<td>6.2%</td>
<td>70137</td>
<td>5.4%</td>
</tr>
<tr>
<td>6</td>
<td>Fabricated metals.</td>
<td>20788</td>
<td>2.1%</td>
<td>33535</td>
<td>2.6%</td>
</tr>
<tr>
<td>7</td>
<td>Furniture</td>
<td>16561</td>
<td>1.7%</td>
<td>24830</td>
<td>1.9%</td>
</tr>
<tr>
<td>8</td>
<td>Tanning and dressing of leather</td>
<td>12025</td>
<td>1.2%</td>
<td>15068</td>
<td>1.2%</td>
</tr>
<tr>
<td>9</td>
<td>Chemicals</td>
<td>1117</td>
<td>0.1%</td>
<td>2125</td>
<td>0.2%</td>
</tr>
<tr>
<td>10</td>
<td>Tobacco</td>
<td>966</td>
<td>0.1%</td>
<td>1116</td>
<td>0.1%</td>
</tr>
<tr>
<td>11</td>
<td>Publishing Printing, etc.</td>
<td>197</td>
<td>0.02%</td>
<td>240</td>
<td>0.02%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>974676</td>
<td>100</td>
<td>1306867</td>
<td>100</td>
</tr>
</tbody>
</table>


With regard to the weavers demographics in Ethiopia, in the CSA 2002 report it is indicated that in 2002 there were 221,848 weaving establishments in the country. Assuming the increase in number to be half of population growth (2.7%), the number of weavers in 2005 was expected to be 230,000.

The following table illustrates the development and location of establishments using the following assumptions.

- The number of weaving establishment may increase by half of the population growth or 1.35%
- Urban weavers (both male and female) are estimated to constitute 45% of total weavers in the country whilst the rest, 55%, are situated in rural areas.
- The female representation in the sector is 39%.
No. of Weavers in the Informal Sector in Ethiopia

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Weavers</th>
<th>Gender</th>
<th>Weaving Establishments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2002</td>
<td>296,737</td>
<td>115727 181010</td>
</tr>
<tr>
<td>2</td>
<td>2003</td>
<td>300,743</td>
<td>117290 183453</td>
</tr>
<tr>
<td>3</td>
<td>2004</td>
<td>304,803</td>
<td>118873 185930</td>
</tr>
<tr>
<td>4</td>
<td>2005</td>
<td>308,918</td>
<td>120478 188440</td>
</tr>
</tbody>
</table>

Source: Value Chain Analysis for women weaving Products in Shiromeda Area, Consultants Report

It could be possible to at least project the No. of weavers in Addis Ababa, apart from the general figures mentioned by the ReMSEDA and other stakeholders based on the following assumptions.

- The cities population growth is 2.9%
- the weaving population & establishments growth is 1.35%
- About 20% of weavers are found in Addis Ababa.
- Urban weavers constitute 45% of the total weaving population.
- Women weavers constitute 39% of the total weaving population

No. of Weavers and Weaving Establishments in Addis Ababa City Administration

<table>
<thead>
<tr>
<th>Year</th>
<th>Addis Total Population ('000)</th>
<th>No. of Weavers</th>
<th>Gender (Addis)</th>
<th>Weaving Establishments in Addis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2642</td>
<td>296,737</td>
<td>23145 36202</td>
<td>44207</td>
</tr>
<tr>
<td>2</td>
<td>2719</td>
<td>300,743</td>
<td>23458 36691</td>
<td>44804</td>
</tr>
<tr>
<td>3</td>
<td>2797</td>
<td>304,803</td>
<td>23775 37186</td>
<td>45409</td>
</tr>
<tr>
<td>4</td>
<td>2879</td>
<td>308,918</td>
<td>24096 37688</td>
<td>46022</td>
</tr>
<tr>
<td>5</td>
<td>2962</td>
<td>313088</td>
<td>24421 38197</td>
<td>46643</td>
</tr>
<tr>
<td>6</td>
<td>3048</td>
<td>317315</td>
<td>24751 38712</td>
<td>47273</td>
</tr>
<tr>
<td>7</td>
<td>3136</td>
<td>321599</td>
<td>25085 39235</td>
<td>47911</td>
</tr>
<tr>
<td>8</td>
<td>3227</td>
<td>325940</td>
<td>25423 39765</td>
<td>48558</td>
</tr>
<tr>
<td>9</td>
<td>3321</td>
<td>330341</td>
<td>25767 40302</td>
<td>49213</td>
</tr>
</tbody>
</table>

In general, most traditional weavers are within the informal sector. They are almost all self-employed and operate from homes, have no formal training, do not pay taxes and have almost no access to modern finance in whatever form.
Handloom Weaving Cluster and its progress

Weaving has a long history in Ethiopia with diverse traditional handloom products. It absorbed so many employments and is a significant source of livelihood income for a large number of people both in rural and urban areas of Ethiopia.

The handloom weaving cluster has economic and development importance in terms of very high employment potential and linkages with agriculture (cotton) economy. Availability of raw materials locally, traditional skills, increasing global market for niche hand Woven home furnishings and the advantages of export market access.

Among the estimated number of weavers, more than 60% are found in the Gulele sub-city of the Addis Ababa Administration. In general these weavers could be broadly classified as

- Weavers who are working in their houses.
- Weavers who are members of cooperatives as well as using working sheds for production.

The working premises are arranged by the City Administration. Of course the plan is to construct 100 multi-storied blocks (of G+4 each) capable of accommodating around 10,000 looms, and allocate them to the weavers at a monthly rent. While the construction of such permanent work sheds is in progress, the city government has identified vacant sheds at two locations-Adisu Gebeya and Shiromeda- with-in the sub city of Gulele. The weavers in the two locations have organized themselves in to 18 cooperatives. Each of these cooperative member weavers was facilitated by the city administration to acquire the improved loom.

Apart from some of relatively big enterprises in the weaving sector, major products of the cluster are fabrics meant for traditional Ethiopian dresses, bed sheets, curtains, and other home furnishings etc. The products are sold to the traders who in turn sell to the retailers in the domestic market.

Though there has been improvisation of loom by the FeMSEDA and PIC, it was only with respect to the material i.e. wooden frame is replaced by metal frame to make it easy to dismantle, reassemble and move from one place to another place. Other than this, there are no technical improvements to enhance productivity and design diversity.

Hand woven products are becoming important both in the domestic and international markets. It is also important to see relatively big weaving enterprises are becoming into the business. In this regard MUYA PLC could be mentioned as relatively doing successful export business. There is also a good development in terms of establishing vertical linkages in the cluster. This beginning helped the weavers to improve their productivity and quality as well as increase their income from weaving operation.

The 306 weavers at Adisu Gebeya and about 196 weavers in the Shiromeda area have organized themselves in 11 & 7 cooperatives cooperatives/networks. The primary responsibility of the cooperatives is to Advocate and lobby for the interests of their members. This form of networks is very helpful for interventions, like UNIDO -CDP, to make an impact for the development of
the Handloom cluster in general. Currently, even though, the cooperatives are like a living-dead type of institutions, the members have established an organizing committee which could work the ground work for the establishment of cooperative unions in each locations.

**Current Process and its functioning systems**

**Raw Materials:**

Raw Materials are the major inputs of any product and Production Process. Similarly individual weaves and enterprises who are engaged in the Handloom Weaving sub-sector are using different types of raw materials in their production activities.

The main raw materials used in Handloom Weaving are

- Yarns for weft
- Different types and colors of threads (The weavers name them as Salayish, China, Wool, etc)
- "MAG" for warp

The aforementioned raw materials are available from local sources. Of course Yarns and Mag are manufactured locally and the threads are imported with different colors. The sources of these raw materials are Local Manufacturers (in the case of Yarns) and importers in the case of different types & colors of threads. The weavers are buying these raw materials from retailers, and even re-retailers. The channel of raw material acquisition is depicted as follows.

![Channel of raw material acquisition diagram](image)

Based on the information obtained during the interview, and considering the average retail price the cost of required raw materials is indicated in the value analysis section of this report.

One can imagine that the actual cost of raw materials will be high for the weavers because as it is indicated in the flaw chart above the channel is long and at each step there are mark-ups.

Most of the weavers interviewed for this diagnostic study purpose expressed their complaints on the quality of the domestically manufactured Yarns and Mag raw materials in the way that sometimes the raw materials are not to the standard strength to be comfortable and strong in the weaving process and also sometimes there is a problem in bleaching them in maintaining their appropriate white colour.

There is no problem with regard to the availability of the main raw materials. Specifically, the Re-Retailers are found very around and/or near to the weavers working premises or residence,
where they also work in their residence. Most of the big Retailers and wholesalers are located in Merkato area.

I have discussed in detail with the Manager of Getaneh PLC, which is the major distributor of the locally produced raw materials, i.e., Yarn. From the discussion I have understood that they are willing and of course have a plan to assist the weavers in terms of promoting their products for the purpose of securing wider market locally. The company is distributing the raw materials to the wholesalers in all parts of the country. Further more the manager also expressed that his private company is also willing to distribute the required raw materials for weaving to the Networks of weavers (Cooperative) directly if they could manage to make relatively a bulk purchase.

**Production:**

**Products**

There are a wide range of products produced in the Handloom Weaving Cluster. The types of products produced in the cluster could be broadly classified as Traditional Cloth Fabrics and relatively modern Accessories. As some of the Handloom Buyers and exporters call them the accessories could also be divided as Home accessories and Fashions.

1. Traditional Cloth Fabrics & Dressings: This major category of Handloom Weaving includes those fabrics produced for Traditional Clothes like Gabi, Netela, Kemis, Tibeb, and Shema. Every weaver can produce all the products under this category except Tibeb.

2. Modern Accessories: It has two sub-categories
   a. Home Accessories like Pillow Cover, Runners, Wall Hygiene, Napkins, Bed Spreads, Table Covers, and
   b. Fashions like Hand Bag, Scarves, Shawls, Fabrics for Shirts & Boxer

**Production Process & Layout**

It is known that every production process starts with sourcing of the inputs required to produce a given output. Likewise the Handloom Weaving production process begins with the acquisition of the raw materials.

The weavers are buying the raw materials from around their working area and out of their working area like from retailers in merkato and other places. But most of the time they are buying the required raw materials from around their production areas from Retailers and Re-Retailers.

The detail production of the handloom Weaving is depicted by the following production process layout figure.
With regard to the production layout of the weaving process, generally it can be said that there is no clear layout of the process as far as each individual Handloom weaver is concerned. It can also be mentioned that the Handloom weavers are not very much aware of the necessity of proper layout of their production process for saving their production time and increasing their efficiency. As such relatively meaningful machinery layout can be observed with the handlooms installed in the temporary production shade arranged by the Addis Ababa Administration MSEDA for members of weaving cooperatives. But those Handloom Weavers who are working in their premises are using their living room as production unit, dinning, sleeping, kids' entertainment, etc. Generally their residence is everything for them. Everything & property in the home can be found around the handloom weaving.

The temporary production shade arranged by the ReMSEDA is accommodating not more than a total of 600 weavers and those who could have access to get a place in this temporary working shade should be members of the cooperatives. Of course big buildings (G+4) are in the process of construction as production and marketing complexes. It is believed that these new buildings will accommodate more than 90% of the Handloom Weavers and marketers of their products.

**Working Premise:**

Unavailability of the working premise is the major problem for most of the micro enterprises operators in Ethiopia, in general. This general problem is also prevalent in the Handloom weaving sub-sector. As it is mentioned in the preamble section of this diagnostic study report, there are more than 20,000 handloom weavers in Addis Ababa Administration alone. Of course, the Addis Ababa Administration MSEDA is doing its very best effort in order to alleviate this problem. As a fruitful effort that can be mentioned in this regard is availing of the temporary work shades for the Shiromeda and Adisu Gebeya Area Weavers' Cooperatives Societies. Even though the weavers entered into commitment with the Addis ReMSEDA to pay a rent for the availed temporary working premise, currently they did not start paying the committed monthly rent, which is Birr 2 per metre square. 4 Sq. Metre is allocated for each weaver.
The ReMSEDA is working strongly to alleviate working premises related problems permanently. To this effect, they are constructing the G+4 working and marketing premises in most sub cities of the Addis Ababa Administration, including Gulele. And the constructions are expected to be completed in the coming year.

The following table summarizes the comparative advantages of using separate working premises for weaving.
<table>
<thead>
<tr>
<th>S. No</th>
<th>Description</th>
<th>Home</th>
<th>Working premises</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Extra Rent</td>
<td>None</td>
<td>There is extra rent</td>
</tr>
<tr>
<td>2</td>
<td>Transport cost</td>
<td>None</td>
<td>There is transport expense</td>
</tr>
<tr>
<td>3</td>
<td>Household management (for women weavers)</td>
<td>Easy</td>
<td>Not so easy</td>
</tr>
<tr>
<td>4</td>
<td>Rest</td>
<td>Can be taken as necessary</td>
<td>Normally rest is regulated and is taken with others at specified time.</td>
</tr>
<tr>
<td>5</td>
<td>Meals and snacks</td>
<td>Can be taken fresh</td>
<td>Cold food taken from home</td>
</tr>
<tr>
<td>6</td>
<td>Child rearing (women weavers)</td>
<td>Own care, with interference of work</td>
<td>Possibly joint childcare unit involving cost, but little work interference</td>
</tr>
<tr>
<td>7</td>
<td>Access to market</td>
<td>Difficult and restricted</td>
<td>Better access to market</td>
</tr>
<tr>
<td>8</td>
<td>Ventilation and lighting</td>
<td>Likely to be poor</td>
<td>Likely to be suitable</td>
</tr>
<tr>
<td>9</td>
<td>Possibility of installing improved looms</td>
<td>Place unlikely to be suitable</td>
<td>Easy</td>
</tr>
<tr>
<td>10</td>
<td>Safety and health</td>
<td>Poor</td>
<td>Better. Possibility for improvements</td>
</tr>
<tr>
<td>11</td>
<td>Traceability for exportable products¹</td>
<td>Bad</td>
<td>Good</td>
</tr>
<tr>
<td>12</td>
<td>Opportunities for trainings</td>
<td>Poor</td>
<td>Better</td>
</tr>
<tr>
<td>13</td>
<td>Learning from one another</td>
<td>Remote</td>
<td>Likely</td>
</tr>
<tr>
<td>14</td>
<td>Flexible operations time</td>
<td>Possible.</td>
<td>Possible if arrangements are made, regulated</td>
</tr>
<tr>
<td>15</td>
<td>Absence from work due to cultural causes, like prolonged cultural post funeral mournings, days dedicated to saints, etc</td>
<td>high probability</td>
<td>Minimized.</td>
</tr>
</tbody>
</table>
**Quality Management System**

Most of individual weavers who are working in their premises and using the temporary working shade do not undertake as such systematized and/or deliberate quality management or inspection activities. The most they are doing is that they will take sometime to oversee how they are going according to the so called specification while weaving.

But in the case of well organized weaving industries like Muya PLC and Menbi's Design, there is a well established quality management system and every product at the finishing point will be checked by a Quality Inspector and confirmation is given by the inspector.

**Marketing & Distribution**

Handloom Woven traditional products are destined for both domestic and Foreign markets. However the major portion of the handloom products is consumed domestically. Ethiopians in abroad mainly and other foreigners are the users of these hand woven non-garment product items like tablecloths, pillow covers, etc.,

Reports have also been received that shop owners in different parts of the country are placing substantial orders for products that can be manufactured locally by the cluster weavers.

Now it is observed that a good opportunity for bulk order in the domestic market and export is coming into place for the cluster weavers.

So here we can see that, based on the target market, Handloom Weaving products could be classified as those produced for domestic market and those which are targeted for international market. Handloom Weavers in this cluster area are using the following major marketing and distribution channels for their products. Products for domestic market are Netela, Kemis, Gabi and Kuta. Handloom Weaving Products for International Markets include Table cloths, (table cloth, table center, napkin, table runner, etc), Decorative wear (sharps, scarves, etc.), Bed furnishings (bed spread, quilt center, pillow case, etc), Window coverings (curtains and draperies, etc) and Wall and ceiling coverings (for aesthetic and functional purposes including noise absorption.

Handloom Weavers in the cluster sale their products using (Distribution System);

- An open market (mostly week ends)
- Receiving orders from Master Weavers and sometimes from some individuals who have an interest to export these products. Master Weavers are the used to be weavers who have relatively successful in this business and graduated themselves to the level of receiving and giving bulk orders of Hand woven products. Most of them have their own permanent relationship with selected weavers (both individuals and Cooperative members) and of course some of the master weavers have their own employed weavers.
Taking Sub-Contracts from other well organized Enterprises and engaged in exporting of Handloom Weaving products, Like Menbi's Design. this sub-contracting arrangement is functioning in such a way that some times the weavers will also be given with the required raw materials and mostly with down payments. This shows that there is a good vertical linkage with the big firms in this Handloom Weaving Industry.

Orders from individual users of their products. This is widely observed in the case of Gabi and Netela type of Traditional Cloths in the domestic market.

Traditional Cloths sales shops. The shop owners are sometimes give orders to the weavers with specifications for a specific item they want to buy. this is true in the case of those traditional cloth shops located in Shiromeda cluster area. But in the case of others who are located out of this area, the master weavers are their suppliers of the finished hand woven products.

"Flying Traders" These are people who are simply collecting the hand woven products under normal market circumstances and during good opportunities for them to get the products in low price, and supply to the traditional cloths shops or other interested parties. They are not master weavers and even most of them do not have understandings of the weaving. They simply use incidents in the market. I call them flying Traders because it is difficult to tress them in the actual operation and distribution process of the cluster products.

Product Pricing and Strategies

Conventionally the price of a given product is determined based on the cost of production, competitors' price, buyers' capacity to pay, producers margin and other factors. But in the case of almost all of the individual weavers in this handloom weaving cluster, it is almost impossible to observe such a practice in exercised in determining the price of their products. There is absolutely no structured pricing system for their products in individual and cooperative weavers in the cluster.

Consequently most of the individual/cooperative weavers do not have a clear strategy applied for pricing their products. They are price takers, which mean most of the time they simply take the price that the master weavers, individual users, sub-contractors or any other buyer of their products offer to them. Due to this scenario there is a wide fluctuation of prices. The average price lists are summarized in the value analysis section of this report.

In the case of relatively well organized weaving enterprises, like Menbi's design and Muya PLC, I became to understand that there is clear pricing system and strategies in price setting for each handloom product.
**Technology**

With regard to the level of the loom technology, it is obvious that it is not a power loom. Originally the Handloom machinery is traditionally designed by the weavers themselves. This traditional handloom is not convenient for weavers and it affects their productivity, health and safety. There are consecutive efforts made by the ReMSEDA, FeMSEDA and other stakeholders to improve the level of technology of this traditional handloom and as a result substantial improvements could be observed. These improvements in the machine help the weavers to produce safely and basically increase their productivity & quality of their products.

The first substantial improvement made with the loom is the change of the wood frame to metal one. This change helps the frame to be strong so that the weavers could be easy and quick in the weaving process. And also it helped the weavers to be able to weave their legs being out of a whole, which they used to work with the wooden framed traditional handloom. The following picture depicts such improvement made on the handloom. There are still more improvements need to be made in this machine.

The other major technological improvement made in such handloom is that of improving the shuttling work. Previously the weavers are throwing the shuttle right and left using their right and left hands. But the improved one avoids throwing of the shuttle horizontally by using their both right and left hands, which is basically saving their effort and time, and consequently improve their productivity and quality of the product.

The spare parts for the handloom are supplied by private suppliers and/or some weavers as well. Weavers explained that there is no as such a frequent need for the supply of handloom spare parts, but the shuttle is the one which is relatively needs frequent replacement because it is usually exposed to be broken in the weaving process.

It is tested in the MUYA PLC that the machine technology cost can be significantly minimized by using the wooden frame unlike the metallic frame which costs about Br. 2000 per each. This improvement is done & became successful with no negative effect on the productivity of the weavers in the aforementioned handloom weaving PLC.

**Sources of Finance**

The Addis Credit and Saving S.C.(which is a micro Financing Institute) is the major source of finance to buy the relatively improved Handloom for those weavers who are members of Weavers' cooperatives. Basically because of the lack of collateral, the weavers are not able to get loans for working capital from any financial institute. Rather they are obliged to take money from individual lenders with high amount of interest, if they are urgently in need of it; otherwise contribute their own limited income as working capital.

During the interview, most of the weavers explained that they have an informal saving association, which is called "EQUB". In this EQUB, all interested members contribute some defined amount of money and give the collected money to one member at a time. This is as such a revolving type of fund that all the members will get the saved amount at different time in turn.
Training

Generally training could be classified as Technical and Business management trainings in the context of Handloom Weaving Business. So with regard to the technical training the weavers in this cluster get the weaving skill informally from their ancestors and/or informal employers. It can be concluded that none of them attend formal technical skill trainings to begin the weaving business. Of course they have attended different weaving skill up-grading trainings (design, color matching, weaving with the improved Handloom, etc) sponsored and organized by different stakeholders.

With regard to Business management related trainings, some of the interviewee explained that they have attended trainings like CEFE and even though, they have also expressed that the training was helpful, I found that most of them are not exercising to manage their own weaving business according to the inputs of the trainings.

There is as such shortage of sufficient technical training institutions in Handloom Weaving. The only well organized institution which has the weaving training department is FeMSEDA.

Even though a separate training needs assessment (TNA) is not conducted, the interviewees have expressed some of their major training needs. The summary list of these training needs is as follows.

1. Technical Trainings in
   - Product Design
   - Color Selection
   - Improved Handloom Operation
   - Product Development
   - Product Diversification
   - How to increase productivity
   - How to improve the quality of the product
   - Raw materials selection

2. Business Management
   - Market Research
   - Customer Approach
   - Product Costing and Pricing
   - How to promote products
   - Financial Management
   - Record Keeping
   - Time Management

3. Cooperatives/Networks
   - Cooperative Management
   - Leadership
   - Team work and division of labour
   - Principles, rules and regulations of group works
   - Logistics management
**Gender**

As it is indicated in the introduction part of this report, both sexes are involved in this weaving business, even though it is not equal in the distribution. As far as the cooperative are concerned justifiable number of women is not included as members and it is found that no woman is selected as member of the leading group of each cooperative or union. So in general it can be said that there is some sort of gender inequality specifically the weavers in the cluster are concerned. Almost all women are performing weaving business in their home. The fact that women weavers work from home enables them to look after their own children. This, however, increases their responsibilities since they also have weaving duties to perform. Working outside the home effectively separates women weavers from their children but makes it hard to employ someone at home to look after them. Both possibilities impose heavy burdens on women weavers however the option to work outside the home is more appealing.

On the other hand it is observed that women entrepreneurs are involved in this weaving business and I have met some of them who are becoming successful in the business. This shows that this weaving venture is a good opportunity equally for both male and female so as to integrate the issue gender in the cluster development strategic action plan.

**Working Conditions and Environmental Issues**

Those of weavers who became members of the cooperatives got a chance to access the temporary working premise arranged by the ReMSESDA and get improved Handloom, which seems ergonomically good for weavers. But most of the weavers did not get this improved Handloom. Even those who are working in the arranged premises expressed that the building is not conducive to operate inside because it will become easily hot in the sunny times of the day and cold when the weather changes.

The working conditions, health and safety issues are worse for those of the weavers who are operating in their home. Their home is everything which is not only for living.

With some of the weaving enterprises, like Muaya PLC and Menbi's Design, there are good working conditions and healthy and safety care measurement systems and instruments are installed.

The weaving industry is not as such an environment polluting industry. In general terms knowingly or unknowingly, the weaving operation has became relatively(as compared to other sectors) environmentally friendly.
Value Chain Analysis & Mapping

Value chain analysis is significant in order to know what percentage of the value of the final product is added by what cluster actor in the whole process of delivering the product to the final user. This is also important to take product and process improvement measures based on the priority of the share of value addition. In doing this Value chain analysis and mapping of the Handloom Cluster, because of many fluctuations, I have taken average Price as a basis for determining the percentage of value. It became very difficult for me to undertake a VCA and mapping for each handloom weaving products and I took "Netela" as a sample for the analysis.

Netela Production Value Chain Mapping

<table>
<thead>
<tr>
<th>Description of RM</th>
<th>Unit of Measure</th>
<th>Quantity (1)</th>
<th>Unit price (2)</th>
<th>Cost (1x2)</th>
<th>% Over final sales</th>
<th>Operations</th>
<th>Cost</th>
<th>% Over Final Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>For Weavers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Warp Preparation</td>
<td>2.00</td>
<td>2.00</td>
</tr>
<tr>
<td></td>
<td>Warp in Tuba</td>
<td>Tuba</td>
<td>1</td>
<td>5.90</td>
<td>5.90</td>
<td>Warp Preparation</td>
<td>2.00</td>
<td>2.00</td>
</tr>
<tr>
<td></td>
<td>Weft in Araba</td>
<td>Araba</td>
<td>6</td>
<td>0.61</td>
<td>3.65</td>
<td>Weft Preparation</td>
<td>0.95</td>
<td>0.95</td>
</tr>
<tr>
<td></td>
<td>Tilet</td>
<td>Frie(Count)</td>
<td>4</td>
<td>2.00</td>
<td>7.99</td>
<td>Tilet Preparation</td>
<td>0.95</td>
<td>0.95</td>
</tr>
<tr>
<td></td>
<td>Sub-total</td>
<td></td>
<td>17.53</td>
<td></td>
<td></td>
<td>Raw M. Buyer expense</td>
<td>0.95</td>
<td>0.95</td>
</tr>
<tr>
<td></td>
<td>Total at weaver’s</td>
<td></td>
<td>1.99</td>
<td></td>
<td>29%</td>
<td>Seller expense</td>
<td>2.95</td>
<td>2.95</td>
</tr>
<tr>
<td></td>
<td>Total at the weavers end</td>
<td></td>
<td>36.89</td>
<td>36.89</td>
<td>Total at the weavers end</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inputs</td>
<td>Operations</td>
<td>Cost</td>
<td>% Over final sales</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------------------------------------</td>
<td>-----------------------------</td>
<td>------</td>
<td>--------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw Material</td>
<td>Netela sales</td>
<td>49.13</td>
<td>83%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantity (1)</td>
<td>Net income (Weaver)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit price (2)</td>
<td>Weaver's margin</td>
<td>12.15</td>
<td>21%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost (1x2)</td>
<td>For Retailers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Over final sales</td>
<td>Acquisition</td>
<td>49.13</td>
<td>83%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Joining the two pieces</td>
<td>0.52</td>
<td>1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>End Knotting</td>
<td>0.52</td>
<td>1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total cost at retailer's</td>
<td>50.08</td>
<td>85%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>end</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sales of finished</td>
<td>58.94</td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Netela</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Margin for the retailer</td>
<td>8.85</td>
<td>15%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Based on the above sample analysis, the value adding contribution is shown as follows:

- Raw material Selection, Design
- Warping
- Weaving
- Weft Preparation
- Distribution
- Consumer delivery related

Value Chain

Value Addition

29

54

2

15
Assuming the number of working days as 22 days per month based on the responses I got from most of the interviewees, the required time for production, sales value (at the weavers end) and monthly income for major commonly produced Handloom Products is summarized in the following table.

<table>
<thead>
<tr>
<th>No</th>
<th>Handloom Weaving Product</th>
<th>Days Required to Produce One</th>
<th>Daily Output as % of the Total time required</th>
<th>Sales Price (Birr)</th>
<th>Monthly Gross Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Netela</td>
<td>2</td>
<td>50%</td>
<td>50</td>
<td>62.22</td>
</tr>
<tr>
<td>2</td>
<td>Kemis</td>
<td>3</td>
<td>40%</td>
<td>120</td>
<td>119.46</td>
</tr>
<tr>
<td>3</td>
<td>Kuta</td>
<td>4</td>
<td>25%</td>
<td>120</td>
<td>74.66</td>
</tr>
<tr>
<td>4</td>
<td>Gabi</td>
<td>4</td>
<td>22%</td>
<td>130</td>
<td>71.95</td>
</tr>
<tr>
<td>5</td>
<td>Sharp</td>
<td>2</td>
<td>67%</td>
<td>50</td>
<td>112.78</td>
</tr>
<tr>
<td>6</td>
<td>Curtain</td>
<td>3</td>
<td>33%</td>
<td>110</td>
<td>91.29</td>
</tr>
<tr>
<td>7</td>
<td>Table cloth</td>
<td>3</td>
<td>40%</td>
<td>80</td>
<td>84.62</td>
</tr>
<tr>
<td>8</td>
<td>Pillow case</td>
<td>2</td>
<td>50%</td>
<td>9.05</td>
<td>99.55</td>
</tr>
<tr>
<td>9</td>
<td>Bed cover</td>
<td>5</td>
<td>20%</td>
<td>18.10</td>
<td>79.64</td>
</tr>
</tbody>
</table>
Cluster's institutions and their functioning

The institutions involved in this Handloom Weaving cluster include both governmental, Cooperative Associations (Networks) and Non-governmental Organizations, some times research institutions. The main institutions involved in assisting, (directly or indirectly), the cluster are

- FeMSEDA
- Addis ReMSEDA
- Productivity Improvement Centre
- Sub -City MSE development Offices
- Cooperatives Organizing Office
- The City Administration
- Kebele Administrations
- Weavers' Cooperative Associations
- Cooperative Unions(in process to fulfill legal issues)
- ILO Addis Ababa Office
- Addis Ababa University, Institute of Ethiopian Studies
- Addis Credit & Saving S.C.(Micro Finance Institute)
- GTZ(Previously active in BDS provision Facilitation)
- Private BDS Providers

Governmental institutions are playing their role in the provision of trainings, working premises, facilitating market linkages and improving the overall policy environments to make conducive for weaving business development.

Even though Capital is the basic requirement for the cluster actors in general and Weavers in particular, The Addis Credit & Saving Institution has only provided loans to the weavers for the acquisition of the improved Handloom a years before. The repayment is not yet started and the weavers are still in short of working capital. This micro finance institute lacks to develop need based financial service delivery mechanisms and peculiar product based on the needs and operation systems of the cluster.

Cooperative Associations (Unions) are supposed to advocate for their members and facilitate/provide services like bulk purchase of Raw materials, receive and distribute bulk orders among members (cooperatives), assist members in sourcing inputs and available markets for their products, and provide other services to members as the need may be. According to the data obtained from Addis ReMSEDA, there are 93 weavers' cooperatives in Addis Ababa City. 70 of them, which constitute more than 75%, are found in the Gulele Sub-City. The following table shows the details of these cooperatives.
Weavers' Cooperatives (Networks) in Addis Ababa City

<table>
<thead>
<tr>
<th>No. of Cooperatives</th>
<th>Members</th>
<th>Total Capital</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female</td>
<td>Male</td>
<td>Total</td>
</tr>
<tr>
<td>93</td>
<td>494</td>
<td>4744</td>
<td>5238</td>
</tr>
<tr>
<td>Gulele Subcity(70)</td>
<td>440</td>
<td>3170</td>
<td>3610</td>
</tr>
<tr>
<td>%age(75)</td>
<td>89</td>
<td>67</td>
<td>69</td>
</tr>
</tbody>
</table>

*Source: Addis Ababa Administration Micro & Small Enterprises Development Agency*

Here it can be observed that not sufficient number of weavers is organized in cooperatives (Networks) as compared to the estimation that about 60,000 weavers are found in Addis. Even the existing weavers' cooperatives are not as such active in serving their members as they are supposed to do so. They are a "Living-Dead" type of institutions.

The functional relationship among the governing institutions in the cluster is very loose. So generally it can be concluded that the cluster is under performing in terms governing structure and system.
SWWOT analysis
<table>
<thead>
<tr>
<th>Description</th>
<th>Current Situation</th>
<th>Limitations</th>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Markets</td>
<td>Good emerging marketing efforts</td>
<td>No sufficient market</td>
<td>increased demand both in domestic and international markets</td>
<td>Competition</td>
</tr>
<tr>
<td></td>
<td>Traditionally designed products attract markets</td>
<td>No organized marketing system</td>
<td></td>
<td>Impact of globalization (WTO rules)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Little promotional efforts</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Marketing of products</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>No product diversification</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>poor quality products</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lack good market linkages (vertical, sub-contracting, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low recognition for local products</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technology</td>
<td>Appropriateness</td>
<td>Traditional</td>
<td>Availability of more improved Handloom technology</td>
<td>high cost for acquiring more improved handloom technology</td>
</tr>
<tr>
<td></td>
<td>locally available technology</td>
<td>Some weavers have problem with the improved one</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Applies traditional technology (preserve heritages)</td>
<td>Doesn't allow to produce all types of hand-woven products</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Uses local materials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inputs</td>
<td>RM easily available</td>
<td>Shortage of working capital</td>
<td>More Raw material suppliers and/or manufacturers are coming in to business</td>
<td>Low Quality of Raw Materials (imported)</td>
</tr>
<tr>
<td></td>
<td>Spare parts for Handloom are easily available.</td>
<td>High Cost of Raw materials</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sub-standard quality of Raw materials</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Price of RM Fluctuation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovation</td>
<td>Good Innovativeness</td>
<td>No promotion and motivating instruments for innovations.</td>
<td>More favor and incentives for appropriate local innovations</td>
<td></td>
</tr>
<tr>
<td>Skills</td>
<td>Good traditionally acquire Skilll</td>
<td>Poor design skill</td>
<td>More access for skill development</td>
<td>Cost Unaffordability for the individual weavers</td>
</tr>
<tr>
<td></td>
<td>Willing to upgrade</td>
<td>Law skill in Business management</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Poor productivity</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lack of appropriate training</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>No formal skill training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Env't</td>
<td>Conducive policy environment</td>
<td>No coordinated effort among stakeholders in the cluster.</td>
<td>Both national &amp; international Conducive policy environment</td>
<td>Stringent national market requirements</td>
</tr>
<tr>
<td></td>
<td>Means of Income for the poor</td>
<td>Loose functional relationship</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Relatively employees more people (Specifically in the Gullele sub-city)</td>
<td>No enough awareness on the significance of working together</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-existence of appropriate commercial institutes like private BDS providers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>No quota in the international mkt.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Handloom Weaving Cluster Map (Existing)

National Policy Environment

- Distributor/Importers
- RM Whole Saler
- RM Retailer
- RA Re-Retailer
- Handloom & SP Suppliers
- Forward Linkage
- Other interested instns
- MFI (AC & Saving S.C)
- Weavers
  - Individuals
  - Member of Cooperative
- Support Instns.

"Flying Traders"

- Traditional Cloths Shops
- Big Enterprises
- Individual Users
- Master Weavers

International Business Environment

- Addis ReMSEDA Re-Retailer
- Weavers' Cooperatives/Unions
- Cooperatives Organizing Office
- Addis Ababa Admin.
- Sub city MSE dev't Office
- Kebele Admins.
- Forward Linkage
- Forward Linkage

Other interested instns
**Strategic Issues**

The strategic issues are those issues which need to be addressed in the future in order to make the Handloom Weaving cluster competitive both in the domestic and international business arenas. The issues could be identified from the result of the Strength, Limitations, Opportunities and Threats (SLOT) analysis of the cluster. The detail action plan indicting when, how, by whom these activities to be performed should be done as far as the implementation is concerned. The budget details and contributions of each stakeholder in the implementation should also be indicated and agreed.

So based on the SLOT Analysis done for this cluster the major strategic issues with respective strategic approaches, actions and level of priority, are identified and presented in the following table.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Strategic Issue</th>
<th>Strategy to Address the issue</th>
<th>Possible Actions</th>
<th>Level of Priority relative to existing situation</th>
</tr>
</thead>
</table>
| 1      | Strengthening Networks/ Cooperatives        | • Awareness creation on benefits of working together  
• Closely work with willing people at the beginning  
• Willingness based membership                    | • Meetings/Discussions for awareness Creation  
• Cooperatives/Networks Mgt Training  
• Select willing people  
• Clarifying mandates of cooperatives               | First                                          |
| 2      | Strengthening Vertical & Horizontal Linkages | • Sub-Contracting arrangements  
• Bulk orders  
• Bulk Purchase                                      | • Facilitation of Sub-contracting arrangements  
• Facilitate for Receiving bulk orders  
• Facilitate for purchase of inputs in group.       | First                                          |
|   | Technical & Business Mgt Skills | • Technical skills development and upgrading  
• Business management trainings | • Provision of need based technical and business management trainings | First |
|---|--------------------------------|--------------------------------------------------------------------------------|------------------------------------------------------------------|------|
| 4 | Marketing                      | • Creation of Market Linkages  
• Aggressive Promotion  
• Skill Training in marketing  
• Looking more for export | • Promotion of weaving products through Fairs, commercial attachés, media, etc.  
• Niche market researching  
• Sourcing market information  
• Facilitate sales outlets.  
• Facilitate establishment of organized market places | First |
| 5 | Technology                     | • Technological improvement  
• Low cost and appropriateness | • Continuously Developing prototypes and work on it  
• Improve the technology considering the capacity of weavers and appropriateness. | Second |
| 6 | Inputs                         | • Acquisition of Quality Raw materials and other inputs  
• Import substitution | • Frequent discussion with local RM manufacturers for improvement  
• Encourage manufacturers for import substitution.  
• Minimize administrative costs  
• Work to decrease the channel of distribution | First |
| 7 | Gender                         | • Gender Sensitivity and equality | • Awareness creation and training on gender issues  
• Encouraging women involved in cooperative membership  
• Help women weavers to establish networks  
• Encourage women to be leadership | First |
| 8 | Financial Services | **Financial services provision for cluster actors** | • Encourage MFIs to develop specific need based financial services to cluster actors, specifically to weavers  
• Continuous discussion with MFIs on the issue of financial service problems  
• Encourage Group Saving and Credit Associations | First |
|---|---|---|---|---|
| 9 | Safety, Health & Working Conditions | **Improvement of the SH & Working conditions of weavers** | • More awareness creation and/or training on the SH issues  
• Technical expertise advise/training on production layout and processing | First |
| 10 | Working Premises | **Availability of enough working premises** | • Availing working premises to all weavers on rental basis  
• Asses the capacity of weavers for working premises  
• other facilities arrangement in the working areas | First |
| 11 | Strengthening Support Institutions | • Capacity Building  
• Task reorientation  
• Coordinating activities | • capacity building activities based on the identified gaps  
• Avoiding Institutional task duplications  
• Integrating efforts | First |
| 13 | Private BDS Providers | **Developing/attracting Private BDS Providers in the cluster** | • Conducting Awareness creation and/or training on significance BDS  
• Encourage cluster actors for BDS BY Using Cost sharing mechanisms at initial stages  
• Encourage Private BDS provides in | Second |
<table>
<thead>
<tr>
<th></th>
<th>Quality assurance</th>
<th>Facilitating quality certification system for exportable weaving products at affordable cost</th>
<th>Facilitate on-the site service for quality certification, Developing common facility for quality checking systems, Undertaking Quality awareness creation and /or training</th>
<th>Second</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Business Environment</td>
<td>Formulation of Favorable policy and revision of existing policies (External to the cluster)</td>
<td>Introducing incentives in the policy, Develop flexible procedures for policy implementations</td>
<td>Second</td>
</tr>
<tr>
<td>15</td>
<td>Research &amp; Development</td>
<td>Innovations</td>
<td>Initiating both private &amp; Public R&amp;D institutes</td>
<td>Second</td>
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<tr>
<td>16</td>
<td>Trust b/n and among Cluster actors</td>
<td>Building Trust b/n and among cluster actors</td>
<td>Undertaking frequent discussions in the cluster, Encouraging working together, Developing activities that could be done together, like group purchasing and marketing</td>
<td>First</td>
</tr>
<tr>
<td>17</td>
<td>Coordination of Efforts</td>
<td>Coordinate all efforts to be exerted to develop the cluster</td>
<td>Exchanging information regularly, Planning together, if possible, Mobilizing resources</td>
<td>First</td>
</tr>
<tr>
<td>18</td>
<td>Self-Help Groups</td>
<td>Establishment of self-help Groups(SHG)</td>
<td>Conducting Awareness creation meetings on SHG, Starting with interested people, Helping in the process of SHG Formations, Facilitating the process by drafting rules and regulations and over all governing system</td>
<td>Second</td>
</tr>
</tbody>
</table>
|   | Common Facilities | Development of common Facilities in the cluster | Conducting Awareness creation meetings on the need of Common facilities  
|   |                   |                                             | Prioritizing common facility needs of the cluster for decision to establish  
|   |                   |                                             | Drafting of common facility management issue and ownership titles  
|   |                   |                                             | Facilitating the acquisition of requirements for common facility establishment.  
|   |                   |                                             |   | Second |