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## CHAPTER 1: CLUSTER PROFILE

### 1.0 Background (Support for Traditional Industries –National Scenario) :

Indian heritage and sustenance is interwoven with traditional industries. Indian masses are heavily depends upon this sector, and probably the most involved sector after agriculture. With a view to making the traditional industries more productive and competitive and for facilitating their sustainable development, the Govt. of India announced setting up of a fund for regeneration of traditional industries, with an initial allocation of Rs.100 crore. Subsequently, a Central Sector Scheme titled the “Scheme of Fund for Regeneration of Traditional Industries (SFURTI)” was approved at a total cost of Rs.92.25 core. This scheme was implemented by the Ministry of Micro, Small and Medium Enterprises (MSME) through two nodal agencies viz; (i) Khadi and Village Industries Commission – KVIC; and (ii) Coir Board. Endorsement of SFURTI by working Group of Planning Commission on XII Plan provides support to coir sector in a meaningful way.

Announcement of Finance Minster in the Budget of 2013-14 for extending the support to 800 clusters of Khadi, Village Industries and Coir are made a budget outlay of Rs.850 crore for the benefit of 4 lakh artisans. The support is extended basically for three types of intervention viz; (i) soft, (ii) hard, and (iii) thematic.

#### **Coir Industry:**

Coir industry in India was originated from Kerala and now being expanded to other coconut producing States like Tamil Nadu, Karnataka, Andhra Pradesh, Orissa, West Bengal, Maharashtra, Assam, Tripura, etc. It employs more than 7.00 lakh person and majority of them are from rural belt and belongs to economically weaker sections of the society. 80% of the coir workers are

engaged in fibre extraction and spinning. Adoption of technology has brought a wide range of coir products in India. This development has enhanced volume of coir business to over 1000 crore on date.

A total quantity of 5,37,040.38 MT of coir and coir products valued at Rs.1476.04 crores was exported from the country during the period April 2013 to March 2014 as against an export of 4,29,500.92 MT valued at Rs. 1116.02 crores achieved during the corresponding period of previous year. There is an overall increase of 25% in quantity and 32% in value over the export achieved during the corresponding period of the previous year. The target fixed for coir & coir products for the year 2013-14 by the Ministry of MS&ME, Govt. of India, New Delhi, is Rs.1000 crores. The achievement upto March 2014 during the year is 147% of the target fixed by the Govt. of India which is an all time high in the history of coir industry. ([www.coirboard.gov.in](http://www.coirboard.gov.in))

These developments in products as well as business has caused for formation of various agencies in the country. Federation of Indian Coir Exporters Association (FICEA) is one of the most important federations in the coir industry. It is the Confederation of Coir and allied products Exporters of India. FICEA, under its single umbrella, has to its credit all the Exporter Associations of coir from the country namely- Indian Coir Association, Indian Coir Exporters Chamber, Coir Shippers Council, Travancore Coir Mats & Mating Manufacturers Association and The Coir Pith & Allied Products Manufacturers & Exporters Association.

#### **Relevance of SFURTI in cluster approach:**

While industry is gearing up with production and export business, it has still a lot of limitations. Shortage on availability of yarn for the industry and the sensitivity of its required quality is a bottleneck. The shortage of coir yarn and its fluctuating price is becoming a survival problem for the industries. The level

of mechanization is very low in the coir industry and it is required at each and every stage of production to create competitiveness. Low productivity due to the manual processes right now is also one of the major challenges. SFURTI cluster approach is a right option and tool to address these kinds of socio-economic upliftment process wherein artisans are benefitted in building their lives and nation earns Forex as well as paving way to reach double digit growth.

### **Coir in Alappuzha:**

The coir industry was mainly concentrated in and around Alappuzha. During the post-independence period nearly a dozen of large scale units sprung up and were doing significant business. In the early seventies the units faced excessive trade union activities that gradually led to fragmentation of the industry. In this process the industrialists became merely exporters, sourcing products from small entrepreneurs.

These structural changes adversely affected the health of the industry and as a whole lead to un-remunerative prices at all stages. Intervention by the Government and regulating agencies could mitigate the problems to a limited extent only. During the nineties, while the industry registered reasonable growth the availability of husk got reduced due to a combination of factors. This gradually led to a situation of shortage of fiber and the industry started depending on fiber brought from neighboring states. Today nearly fifty percent of the requirement of fiber in Kerala is brought from Tamilnadu.

Coir products are made from fiber and that fiber is taken from the husks of coconuts, by using century old production techniques. Traditional products have mainly revolved around the production of mats and matting:

- Mats: Largely door mats, mats are made from a mix of coir yarn (as the base) and rough fibers (as bristles).
- Matting: Woven matting from coir yarn is done on handlooms and used in interiors of houses, commercial spaces, and ships. Semi-automated and fully-automated (or 'power') looms have been more recently introduced.

Traditionally a cottage industry, the coir sector has more recently been undergoing substantial changes as more capital intensive products are coming on-line. Non-coir inputs are also increasingly being used, with coir accounting for only 60% of the total product. New products include:

- Geo-textiles: Similar to coir matting, geo-textiles have a looser weave and are used outside for erosion control ('pre-vegetative protection').
- Rubberized Coir: Using another important Kerala commodity, 'rubberized' products include products that combine coir and rubber (such as a coir mat with a rubber trim or backing) or blend the coir fibre itself with rubber (such as coir-rubber composites for car seat stuffing).
- PVC Mats: One of the latest changes in coir production, PVC mats are made from coir fibre brushes adhered onto PVC base (or 'seat').
- Mixed Products: In Alappuzha floor-coverings cluster is increasingly incorporating non-coir inputs into its products. Apart from rubber and PVC as raw materials, jute, sisal and cotton are also the raw materials used.

### **1.1 Regional Settings of the Cluster:**

The history of Coir and its association with the State of Kerala dates back to the 19th Century. Sandwiched between the Western Ghats on the east and the Arabian Sea on the west, Kerala is one of the most beautiful States in India. A tropical paradise of waving coconut palms and wide sandy beaches, this thin strip of coastal territory slopes down from the mountain Ghats in a cascade of lush green vegetation and varied fauna. One of the most commonly seen tropical trees in Kerala is the Coconut tree. In fact, even the name Kerala (Keralam in Malayalam) is derived from this tree ("Kera" in Malayalam language means Coconut and "Alam" means Land, thus Keralam = Land of Coconut).

Everything in Kerala, from culture to its dishes, is evolved around the Coconut tree.

Alleppey (Alappuzha in Malayalam) is the nerve centre of Kerala's famous Coir industry. Here, one can see coconut husks being beaten into fibre for making beautiful mats and other coir products. Both men and women are actively involved in the production of Coir. The women are mainly involved in the yarn spinning sector and the men in the product-weaving sector. Coir Industry enjoys the status as the largest Cottage Industry in the State of Kerala, giving employment to over a million people. Kerala also has a very fine natural harbour located at Cochin (Kochi).

#### Coconut Production in Kerala

Among the Indian States, Kerala tops in production of coconut in the country. As per the data available from Horticulture Department, during 2013-14, coconut was cultivated in 797.21 hectares in Kerala. During the same year it was estimated a coconut production of 5968.01 million nuts with a productivity of 7486 nuts per hectare.

#### Coconut Production in Alappuzha

Statistics given by Coir Board reveals that in Alappuzha during 2000-2014 coconut production was done in 47416.84 (HA) land and 2827.14 million nuts produced. It also shows the productivity as 5962 (nuts/Ha). However, it is worth to mention that, even after such promising scale of coconut production, the fibre production is too low. The fibre requirement is basically met with purchases from other locations and States. The basic coir related work in Alappuzha start with spinning activities.

### Coir Industries in Alappuzha at a Glance:

S. No	Type of Industry/Activity	No. of Industries
1	Spinning	8
2	Dyeing	15
3	PVC Tufted Coir Products	7
4	Handlooms/ Fiber mats	210
5	Coir Matting's/ Rugs	182
6	Rubberized Coir products	29
	<b>Total</b>	<b>451</b>

(Source: Winrock International India.)

#### 1.2 Location:

The proposed project location Haripad belongs to Alappuzha District. Located at the south-western tip of the Vembanad Lake, Alappuzha had its heyday as a commercial hub when Dewan Raja Keshavadas, in 1775-76, built it to be a major port of the erstwhile Travancore State. The proposed cluster location covers Muthukulam and Haripad blocks of Alapuzha district. The cluster will attract coir activities mainly in 18 villages of these Blocks.

1. Arattupuzha
2. Cheppad
3. Cheruthana
4. Chingoli
5. Haripad

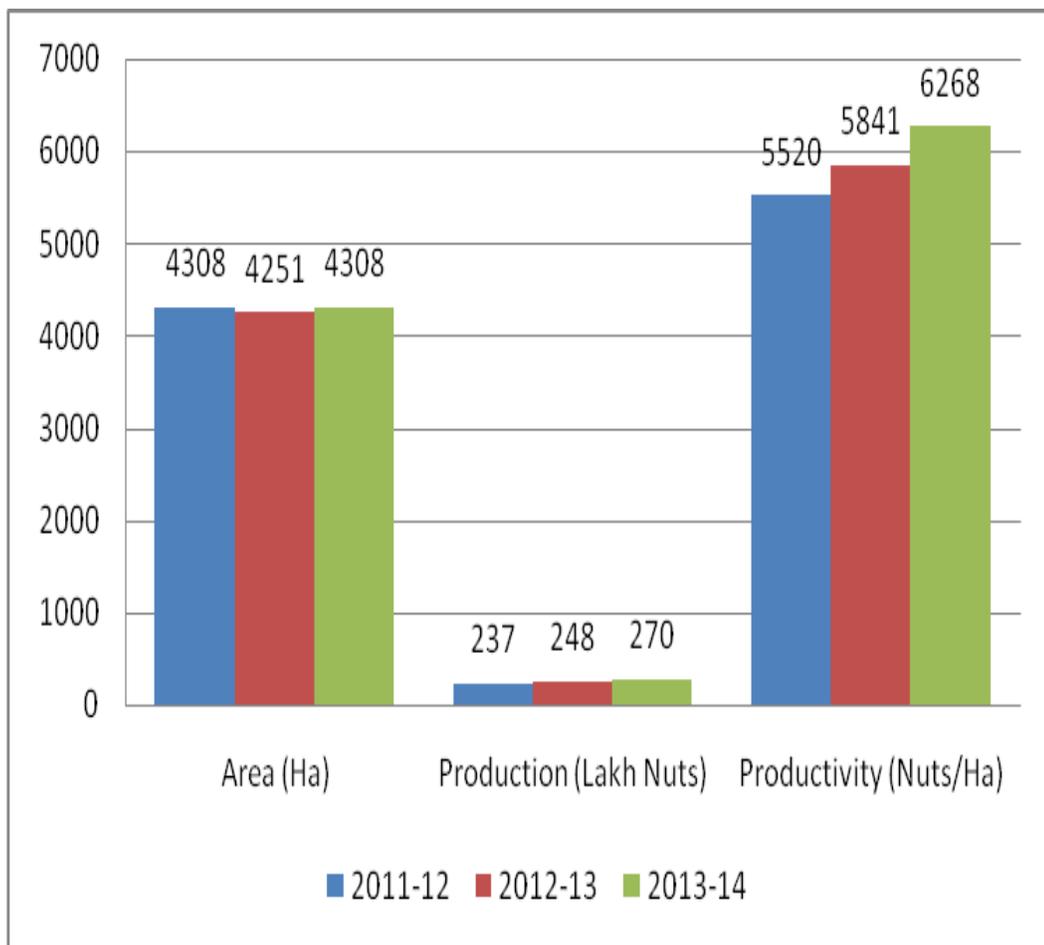
6. Kandallor
7. Karthikappally
8. Karuvatta
9. Devikulangara
10. Krishnapuram
11. Kumarapuram
12. Muthukulam
13. Pallippad
14. Pathiyoor
15. Thrikkunnapuzha
16. Veeyapuram.



### Coconut Production in Haripad:

The overall assessment of coconut production during 2000-2014 in Haripad shows that on an average 1799.50 ha area was cultivated for coconut production. There was also an estimated production of 121.89 lakhs nuts during this period with a productivity of 6773 nuts/ ha. The details of coconuts production during 2011-2014 is given below:

#### **Coconut Production in Haripad during 2011-2014**



### **1.3 Evolution of the Cluster:**

Alappuzha (known as Alleppey) is the nerve centre of Kerala's famous Coir industry. Here, one can see coconut husks being beaten into fibre for making beautiful mats and other coir products. Both men and women are actively involved in the production of Coir. The women are mainly involved in the yarn spinning sector and the men in the product-weaving sector. Coir Industry enjoys the status as the largest Cottage Industry in the State of Kerala, giving employment to over a million people. Kerala also has a very fine natural harbour located at Cochin (Kochi). From the ancient times itself Cochin had found a place in the minds of Europeans as a trading centre because of its port and spices.

The Coir Board was established in Alappuzha in 1955. Then, the National Coir Training and Designing Centre came up in 1965. Subsequently, the Coir Research Institute is also established. Coir continues to be an important cottage industry for the local people. It is common to find doormats crafted out of tufts of coir fibre in small village units and people even making coir ropes in their backyards.

The extraction of coir fibre and small scale production of many coir based products provides employment to almost 90% of the womenfolk of the coastal belt of Haripad area. This makes the coir industry important to both labour and economy of western region of Haripad. Even though not much value addition based coir industry exists in the location, the employment in coir sector is a vital economic activity in the Panchayats and villages wherein cluster activity is proposed. Raw materials for coir industries are now sourced from Tamil Nadu and quality of those procured fibre is low when compared to the local fibre.

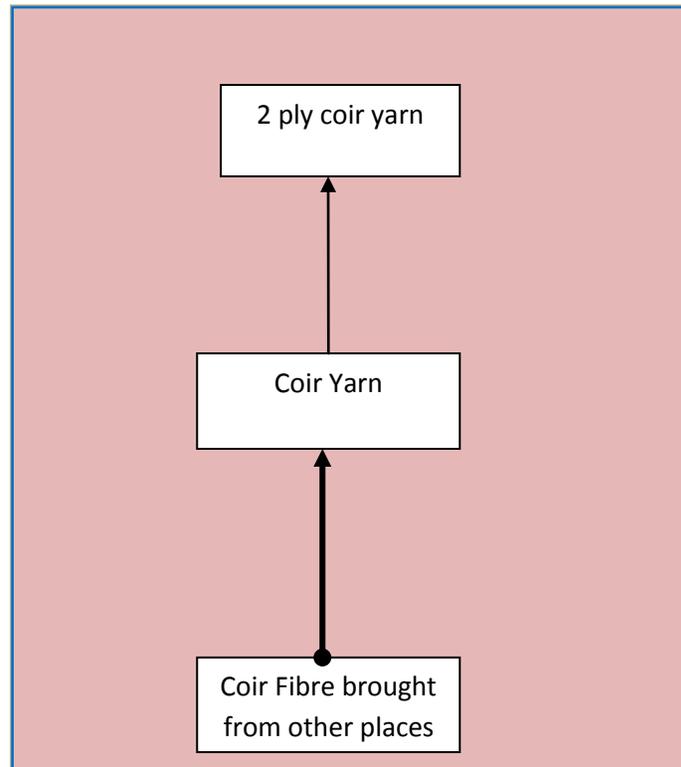
Societies and Active Coir Workers in the Cluster:

The cluster consists of Kayamkulam, Muthukulam, Haripad and Karthikappilly area. In this location there are 127 societies registered and out of them 93 societies are functioning well as on 31.03.2015. The details of these societies are given below:

<b>Type of Societies</b>	<b>Registered</b>	<b>Working</b>
Primary Coir Co-operatives	80	74
Integrated Coir Co-operatives	44	18
Yanthravalkritha Chakiri/ Coir Vyavasaya Co-operatives	2	1
Others	1	0
<b>Total</b>	<b>127</b>	<b>93</b>

Altogether these societies had a membership of 61,579. Among them 2721 members are sympathisers and 58,858 are members. Out of them 42796 are women and 1719 belongs to SC and 61 are ST.

## PRESENT CLUSTER ACTIVITY– HARIPPAD



### Coir Production during 2014-15 in the cluster location:

Arattupuzha, Vaikom, Mangadan are the varieties of coir produced in the cluster. During 2014-15, 57 societies in the project area worked more than 100 days for coir production. During the financial year 2014-15, the societies of these area had produced 4250 Ton of coir worth Rs.20,76,88,037 by using 4815 Ton fibre.

### Problems being faced by the coir industry in Haripad:

- (i) While Alappuzha district stands as the apex centre for coir production and related activities of India, the nearby area Haripad within the district is not able to contribute significantly.

- (ii) The revolutionary changes of Alappuzha in the production of value added items could not tap the potential of Haripad area.
- (iii) Artisans at Haripad still using only out dated and traditional technology for production.
- (iv) In Haripad approximately 127 societies are registered.
- (v) The land available with Co-operative Societies is not able to utilize for productive purpose. At the same time, micro and small enterprises are running around for getting land for production centres.
- (vi) Co-operatives, as a whole, depend upon government support & strategies and they are unable to bring dynamism, vibrancy and professionalism in their work.
- (vii) Co-operatives not able to operationalize any new marketing channels and so remain with traditional market and approach. Its sole agency, Coirfed is the only marketing channel available with them.
- (viii) As the young generation is detracted from the sector, innovation is not coming in the sector.
- (ix) More than 95% of the coir production is limited with Coir and meager percentage is for Matting. Only 3 units are functioning for defibring.
- (x) The vast experience and expertise available in the cluster is not able to use neither for production or marketing.
- (xi) There is no right kind of repair and maintenance centre for repairing their tools and equipments.
- (xii) The prevailing social thoughts and actions are not conducive for de-fibring process in the area.
- (xiii) Defibring process is not taking place actively in the location. Coconut husks are being taken to other States and in turn that comes as Fibre which is being used in the cluster.

#### **1.4 Demography and Growth Trends:**

Alappuzha is a veritable maze of bridges and canals, the presence of which has given it the appellation the "Venice of the East". Alappuzha district stands

foremost among the districts of Kerala in regard to the density of population. It also stands first among other districts of Kerala in respect of its literacy rate. The entire area of the district lies in the low land and the midland divisions, and is the only district in Kerala having no area under the high lands. Kuttanad, the rice bowl of Kerala is in Alappuzha district. The total production of rice here is almost ten percent of the total production of the State. Alappuzha is the most important centre in the State for coir industry. Almost 80 per cent of the coir factories in the State are in this district.

Alappuzha is the smallest district of Kerala and as per the latest census its details are as follows:

- Area 1,414 Sq.Km. which constitutes 3.64% of the total state area.
- The population size 21,09,160 persons, ranks the 9th among the districts in population.
- Population density- 1492 persons per Sq.Km, against 1415 in 1991- retains the first position in the state.
- Sex-ratio\_(No. of females per 1000 males) - 1079 , earning 4th position (5th position in 1991 with 1051)
- Literacy Rate\_93.4 % which earns it 3rd position in the state.
- Female Literacy rate 91.14 which again earns 3rd position in the state. (State Average-87.86%)
- Work Participation rate 34.3 %, 6th position in the state

## **1.6 Socio-Economic Aspects**

Alappuzha is a backward district in terms of the standard of living of the people. The majority of population of the district comprises agricultural labourers and coir workers. Though literacy rate in Alleppey district is in the second rank as compared to other districts, employment rate is not proportionate to the literacy rate. The awareness of democratic equality and the land reform measures offered a feeling to the individual that each is equal to anybody else. The high literacy level coupled with the achievements of the labour class has speeded up the breakdown of the coterie of casteism and landlordism in the district.

## **1.7 Human Development Aspects**

As of 2014, Kerala has a Human Development Index (HDI) of 0.790 which comes under the "high" category and it is the highest in the country. Comparatively higher spending of the government in primary level education, health care and elimination of poverty from the 19th century onward has helped the state to maintain an exceptionally high HDI.

## **1.8 Key Economic Activities in the Region**

Kerala suffers from low industrial growth. The share of manufacturing industry is low and within manufacturing, unregistered manufacturing forms a disproportionately large part. The path forward is based on the idea of sustainable industrialization. This would balance economic prosperity, environmental stewardship, and social sustainability. It will prioritize high knowledge activities and diversify the industrial structure. It will adopt Clean Production Systems to mainstream environment. A cluster development approach for Kerala is recommended with one town one industry and one village one product model. Kerala may promote logistic hubs given its unique location. Regional innovation systems will be built. Skill development and entrepreneurship for sustainable development are to be encouraged. Kerala

must pay special attention to small and medium enterprises. Enforcement of a social security system and strict compliance with decent working conditions are necessary for inclusive development. Every action must be benchmarked against international standards.

## **1.9 Infrastructure – social, physical, financial and production – related**

Necessary facilities are to be created during the cluster intervention. The location is well connected with main roads or national high way road. The nearest airport is Cochin and Railway Station is Kayamkulam. The premier agency of coir sector i.e., Coir Board is in Cochin which is nearby district of Alappuzha. Central Coir Research Institute and National Coir Training and Design Centre both are located at Alappuzha.

### Roads

The credit for development of roads in this district goes back to the period of Ramayyan Dalawa, the Dewan of Travancore, who opened several roads chiefly for the convenience of militia and for traffic. With the appointment of Mr. Bartom as the Chief Engineer during the time of Dewan Madhava Rao, remarkable progress in the expansion of roads has been achieved. With the opening of the Alappuzha -Changanacherry road in 1958 this district has a network of good motor able roads.

### Water Transport

The commercial canals connecting the nook and corner of this district are its life line. Canals, rivers and backwaters afford an easy and cheap mode of transport of goods and men which was one of the main reasons for the importance of Alappuzha town as the major commercial centre of older times.

## CHAPTER – 2: CLUSTER PRODUCT AND VALUE CHAIN

### 2.1 Product Profile:

At present the main cluster product is Coir and its yarn. 3 units are engaged in defibring and a couple of units are engaged in the production of matting.

#### Fibre

The coir industry has been undergoing various modernization process aimed at dispensing with the polluting retting process. Mechanized defibring process has replaced the traditional one considerably. In this process, the brown fiber will be received. Novel developments by the Central Coir Research Institute, under Coir Board, using a bio-technological approach with specific microbial enzymes have reduced the retting time substantially to three to five days. High quality fiber production has been maintained. The cluster has got about 3-5 DF units working and in the due course there is every prospect than this number will double with the demand from the value added production of coir.

#### Coir Yarn Production

The commencement of Major cluster in Haripad, the demand for coir yarn increased considerably. This will compel the entrepreneurs as well as societies to increase the Production with the existing or enhanced machineries.

The automatic spinning machine units are capable of production of yarns of runnage varying from 50 to 300 meters/kg and twists from 10 to 30 twists/feet. Coir fiber in the form of bales is the raw material for the unit. These fibers are soaked in water for one hour and are cleaned in the willowing machine. Pith content and the hard bits are removed in the process. Manual attention is also required to remove the hard bits to the fullest extent. These cleaned fibers are passed in to the feeder of silvering machine where the fibers are paralleled and

drawn by draw rollers. These paralleled fibers are twisted and taken on to drum.

Matting:

The most used coir items in the world is door mats and matting. As such it has great potential to produce and export. In domestic market also it has tremendous potential.

**2.2 Production Process**



The coconut is plucking from coconut tree



Manually or mechanically husk is removing from the coconut



The fibre is extracted Manually or mechanically from husks. Mechanized defibering process has replaced the traditional one considerably.

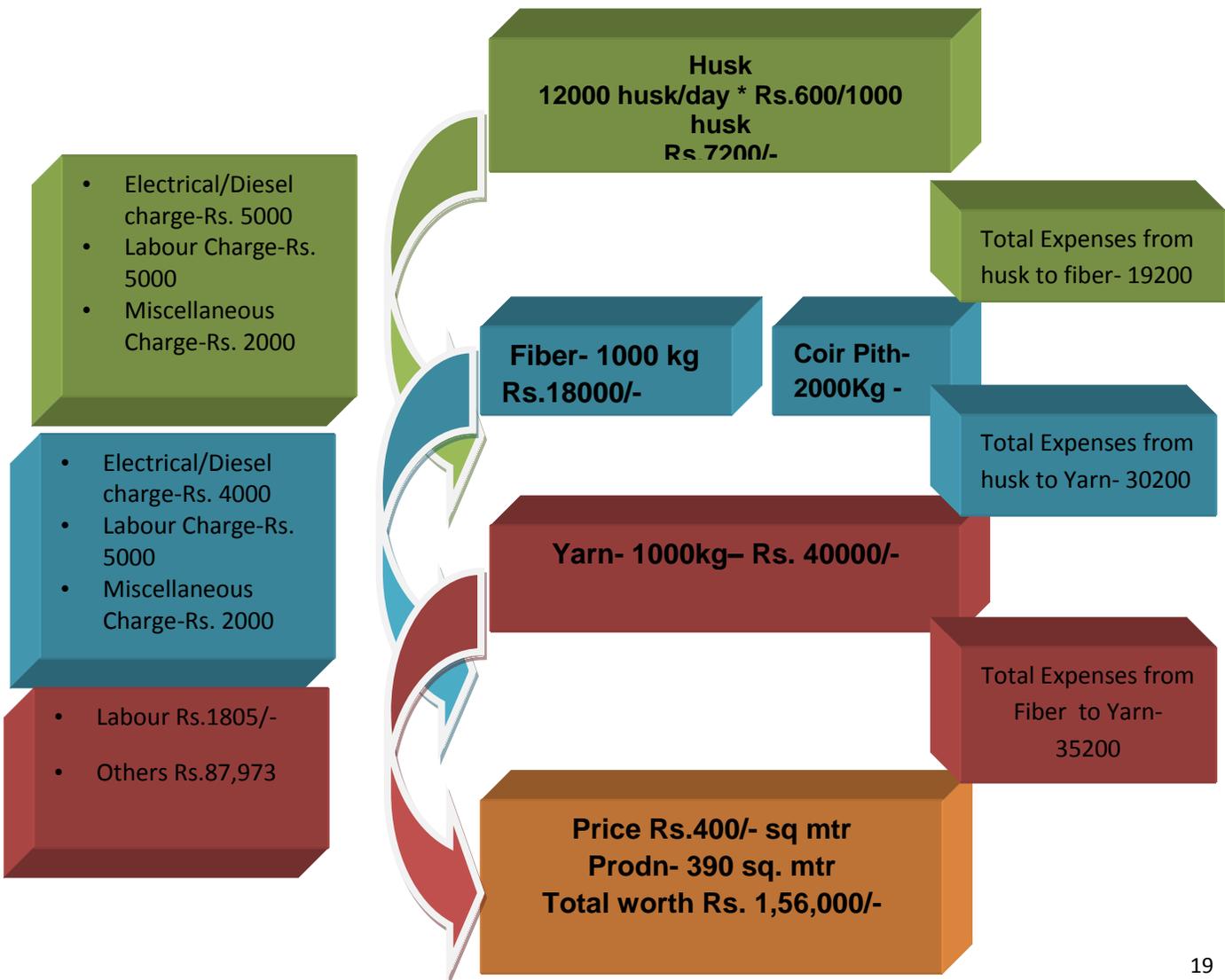


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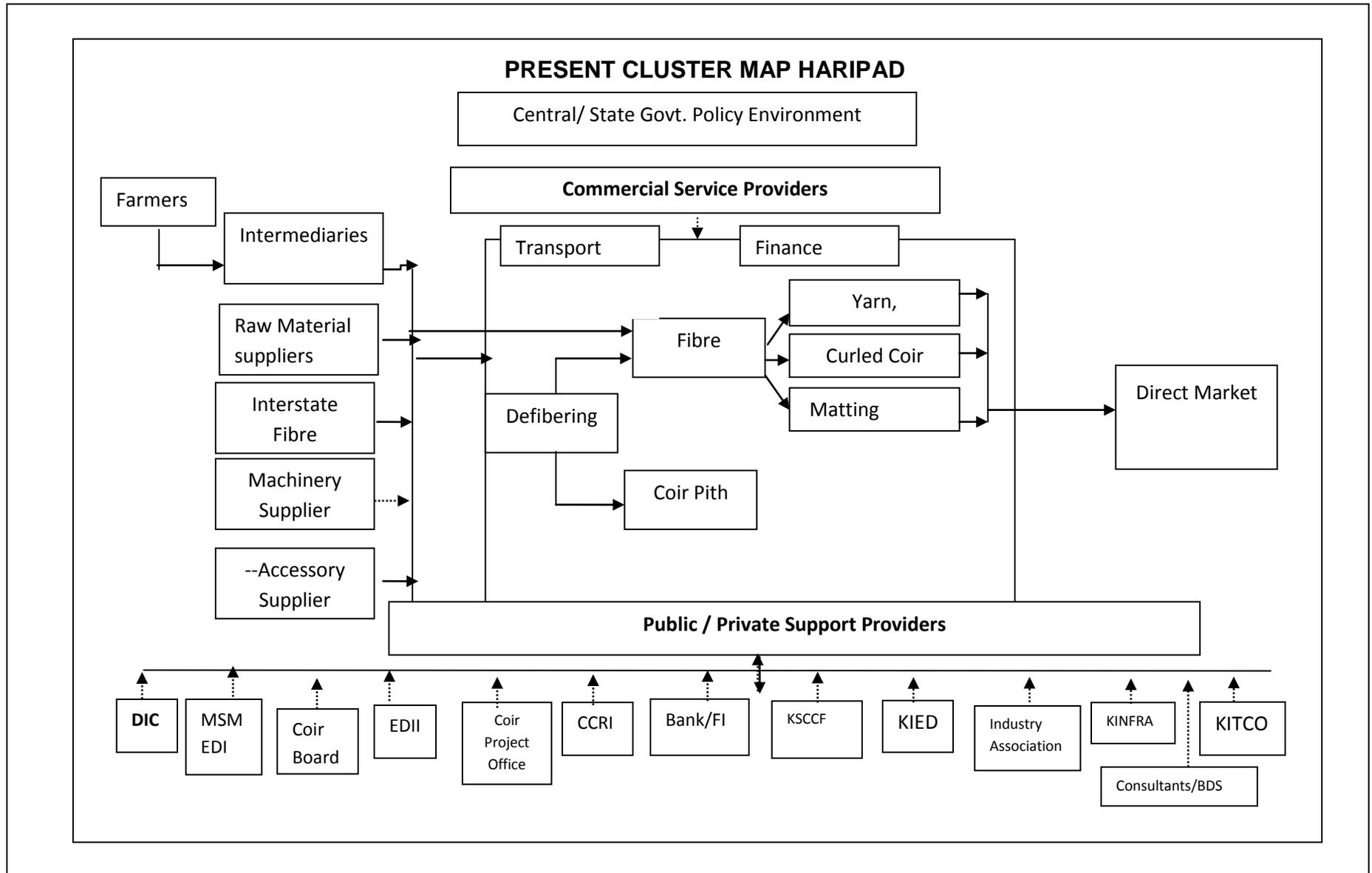
A variety of Mats or mattings are woven either manually or technologically to sell in the global market

### 2.3 Value Chain Analysis





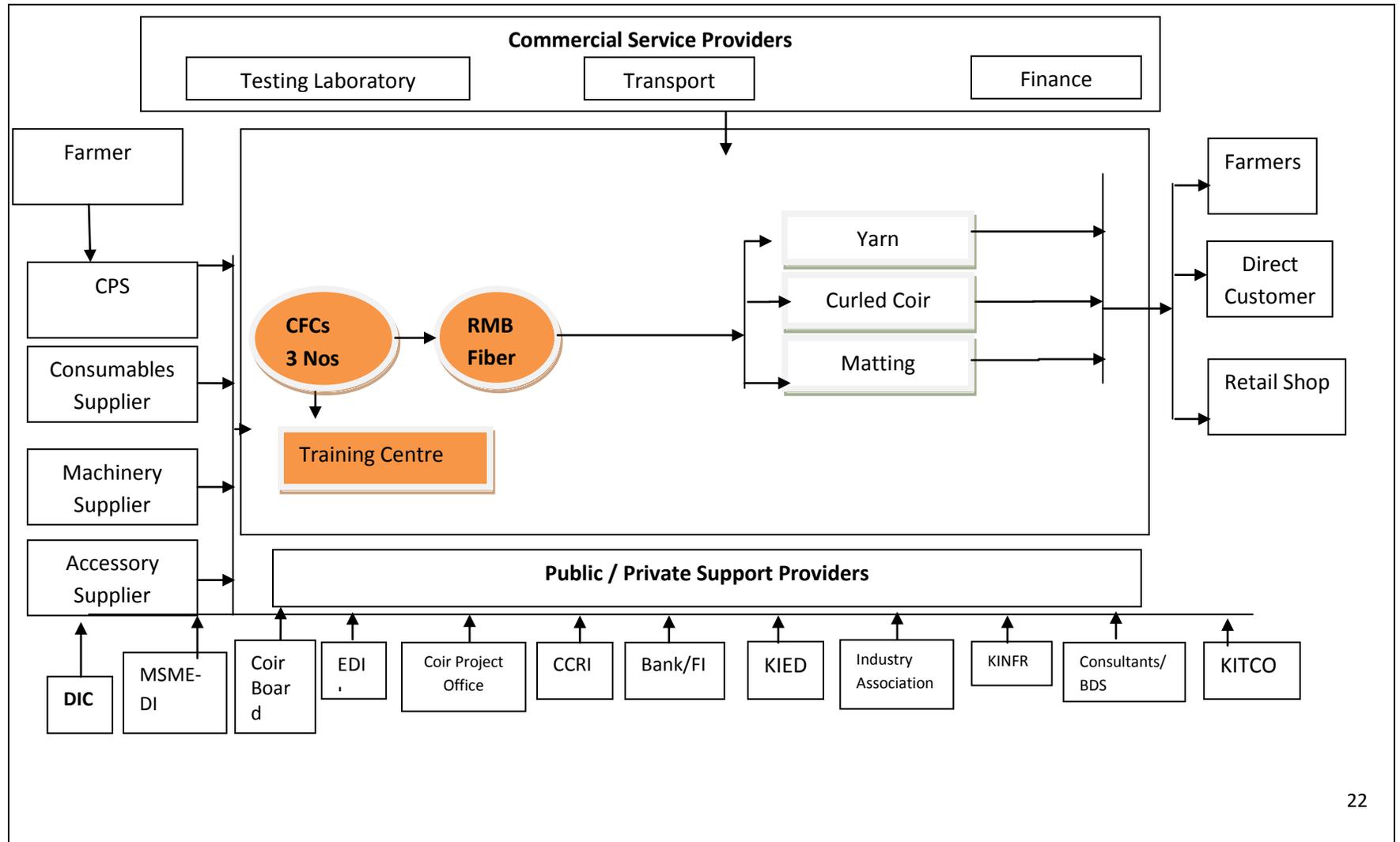
## 2.4 Cluster Map



# Cluster Map after Intervention

## EXPECTED CLUSTER MAP IN HARIPAD

Central/ State Govt. Policy Environment



## **Plan for Backward and Forward linkage for strengthening the Major Cluster of Haripad**

### Backward Linkage

- a) Sensitizing Farmers on Husk Utilization: As substantial percentage of available husks at the location is either using for fuel purpose not using at all. As husk being the heart of coir industry, the farmers are to be sensitized on the need for husk collection, storage and sale.
- b) Strengthening Coconut Producers Society (CPS): Presently the total coir industry is purely depended on Pollachi fibre merchants for their fibre supply. But the effort has to made for production of fibre in the cluster itself. In view of this, the CPS formed and controlled by Coconut Development Board can be oriented and some of them can start defibring units at the location. The close linkage and co-ordination with CPS will be able to monitor husk collection management and its storage.
- c) Long term tie up can be made with inter-state fibre merchants and other clusters to ensure the availability of quality fibre for haripad raw material bank.
- d) Promote mobile defibring units at Panchayat level
- e) Engage Kudumbasree /Janasree/ SHGs for collection of husk
- f) Promote private entrepreneurs for collection of husk and defibring.

### Foreword Linkage

- i. Provide training to artisans on automatic spinning machine and enhance the productivity.
- ii. Constant availability of the raw material provides scope to produce value added items.
- iii. The strategy also provides potential and possibility for attractive private entrepreneurs into the coir sector.
- iv. Sufficient tie ups can be made to export the products

## 2.5 Principal Stakeholders

The cluster is having 127 coir operative societies. The total number of members in these societies is 61,579 as on 31.03.2015. This includes 2721 sympathisers. Total number of workers are 58,858. There are 42,796 women and 16,062 men. This group includes 1719 sc members and 61 ST members. During the financial year 2014-15, in the cluster area 10588 workers engaged in the coir production.

### **Business Development Service Providers**

#### *Machinery Suppliers*

Currently the stakeholders are approaching manufacturers from different parts for necessary machineries. Modernization of machineries is a very slow process. An awareness exercise is to be carried out to get a better option for stakeholders. Research and development works has to be executed for modernization of machineries.

#### *Coir Board Kochi*

Coir Board's presence at Cochin is very advantageous for the CFC. They provides financial, market development, skill training assistance for the development of coir industry and extends the financial guidance and advice for setting up of new units as well as for renewal/modernization of existing units for development and increasing productivity, quality up-gradation etc.

#### *District Industries Centre*

This Kerala government organization helps existing and potential entrepreneurs from all walks of life and sectors. DIC is equipped with Entrepreneurs

Guidance Cell to guide the entrepreneurs. In addition to this, there are several schemes of state and central governments directed through this organization.

#### *Kerala State Co-operative Coir Marketing Federation (Coirfed)*

COIRFED, an Apex Federation of Cooperative Societies engaged in the manufacture of coir and products is entrusted with the task of marketing the products of the cooperative societies. It aims the sustenance of coir workers, especially women. The mission of COIRFED is to eliminate middlemen and provide better services to cooperatives. Presently, more than 620 societies, all over Kerala, is affiliated to this organization.

The product range of Coirfed include fiber, pith funus, pith soil condition, 80 odd varieties of coir yarn, geo-textiles, alluring range of coir products like mats, mattings, rugs, coir tiles and rubberized coir products like mattress, pillows, PVC tufted mats, briquettes, garden materials like pots, climbers etc.

#### *Commercial banks and micro finance institutions*

The stakeholders are having linkages ranging from Co-operative to Nationalized banks. Almost all the nationalized banks, designated cooperative banks have branches all over Alleppyand surrounding areas. In addition these, there is district level offices of specialized financial institutions like NABARD etc.

## **2.6 SWOT Analysis**

### Strength:

- Low investment with high employment
- Easy availability of raw material at reasonable rate. The present utilization is too low for fiber and yarn production.

- Exposure to SFURTI scheme during XI plan period
- Traditional suppliers and input providers
- Govt. assistance through the Project Office, Alleppy
- Market can be expanded as an eco-friendly product, for export market
- Good transport link, rail, road, water and air.

#### Weaknesses:

- Low credit facility due to inability of stakeholders to provide collateral security and margin for working capital
- Lack of linkage and trust among important stake holders
- Limited use of high level technology and modernization
- Lack of entrepreneurial and management skills among the stakeholders
- Lack of awareness in technical and managerial knowledge

#### Opportunity:

- Natural product and eco-friendly hence acceptable to even developed market
- Government' initiative of Make in India plan
- Availability of govt. schemes like SFURTI, soft credit etc.
- Working capital mobilization under raw material bank etc.
- Increased acceptability of products like geo-textiles and pith manure/briquettes

#### Threats/Challenges:

- Availability of cheaper more attractive synthetic products
- Absence of modernization, technology upgradation

- Competition from countries like Srilanka, Philippines, Bangladesh and Vietnam
- Irregular supply of power and increasing cost of power
- Political interference in developmental activities.

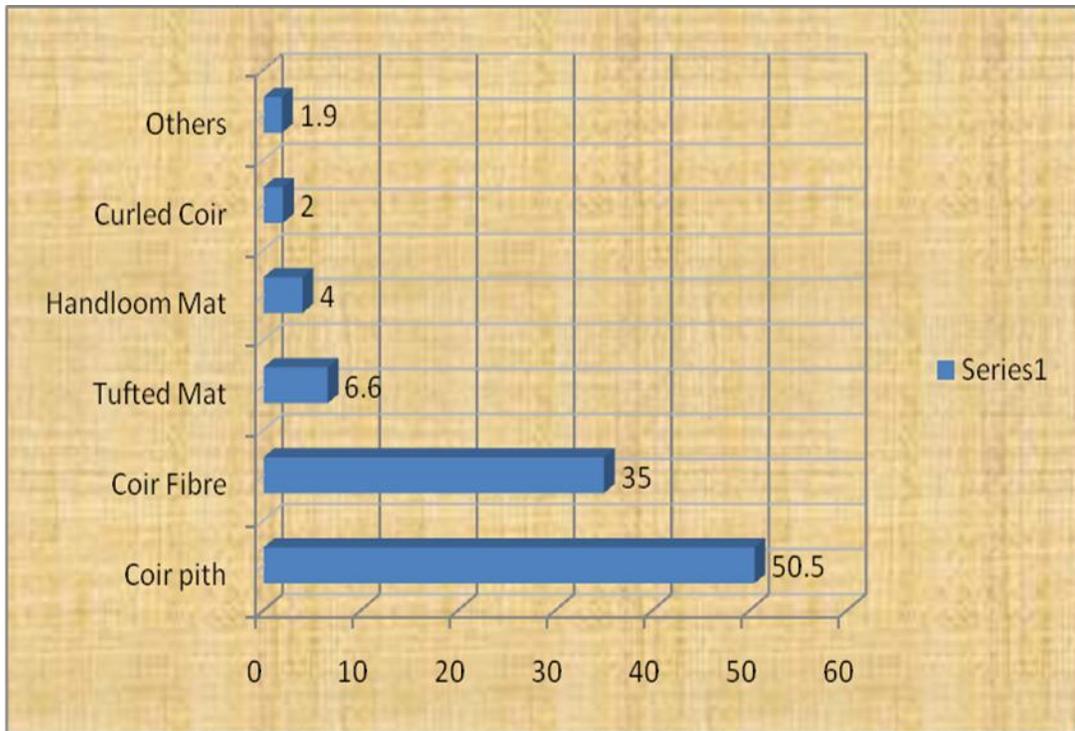
### **CHAPTER 3: MARKET ASSESSMENT AND DEMAND ANALYSIS**

India is one of the top producers and exporters of coir in international market. The Indian Coir Products are in great demand in the international market because of their special attributes like fitness, price, craftsmanship, quality, attractiveness and Eco-friendly, biodegradable renewable natural resources, non-pollutant, usage of the product is up to the expected level when compared to plastic and other environment pollutant item. Even though India is one of the leading exporters, it could not top the list and there seems to be several reasons for its unsatisfactory and poor performance in Coir and coir products exports.

The exports of Coir products from India during the year 2014-15 registered an all time high record of Rs.,1630.33 crores with an increase of over Rs.154 crores from the previous year. The total exports of coir and coir products from the country was worth Rs.1476.03 crores in 2013-14. During 2014-15, 6,26,666 MT of coir and coir products were exported from the country as against 5,37,040 MT exported during the preceding year. While coir pith, coir fibre, handloom mat, coir rope, curled coir and coir rugs and carpets registered a growth ranging from 12 to 45%, coir yarn, tufted mat, power loom mat, handloom matting, coir geo-textiles and rubberized coir recorded decline ranging from 5 to 51%.

China is the major importer of coir fibre for manufacturing mattress boards for their domestic requirements. They are focusing further to import more coir pith/grow bags for horti/ agricultural requirements. The coir handloom products export has shown a marginal increase by quantity but no increase by value comparing last year.

Following diagram provides details of export composition of coir and coir products during 2014-15.



#### **Domestic and local Market:**

The strategy that cluster adopts is strengthening and enhancing the productive mode of artisans. The coir production of Haripad area in a month is 768 Ton. This demands a need for 850 Ton fibre. The raw material bank proposed is able to transact this amount at a competitive price.

Through the proposed initiatives, the project will be able to supply the fibre Rs.1/- lower than the current market price, i.e, the current market price is Rs.22/- and the Raw material bank will be able to supply the material by Rs.21/-. This cost difference itself will be a major marketing strength.

As the cluster is of artisans themselves and SPV is managed by their representatives, the acceptability itself will function as core marketing strength.

The proposed automatic spinning machines are of high quality machines, that produces 300% more output than that of electronic ratt. As such more artisans will be coming forward for taking training on such machines and gradually they will be motivated to own machines

## CHAPTER 4: SWOT AND NEED GAP ANALYSIS

A threadbare discussion with various stakeholders of the clusters helped us to understand the limitations and dynamics of the cluster with more clarity. Following are our major observations on the cluster.

### **Strengths:**

The unemployment situation in Kerala is acute and youth especially women prefer to engage in economic activities directly. The socio-educational culture of the cluster location, as in the case of Kerala State, provides scope to engage technical people in the cluster. The district is a coconut growing centre and it can provide the basic raw-material, i.e, husk in required quantity. If a cluster intervention is placed and value added products are begin to produce then, local husk could be fully de-husked in the cluster itself. As the coir related work is very old in the cluster, ample human resources are available there. The fibre produced in the cluster location is of best quality and its value added products will encash better results. Almost all nationalized/scheduled/commercial and developmental banks are existing in the cluster. Similarly, District Industries Centre, Coir Board like organizations can work as a pro-active promoter of the cluster.

### **Weakness:**

One of the limitations of the existing cluster is lack of improved technology. Similarly though raw material, i.e, husk is available there is no effective mechanism to collect them. Might be there is an entrepreneurial gap within the cluster so that it is not geared to acquire higher limits. Probably this is also affected production cost in adverse way. Economy of scale and effective approach is to be inbuilt within the cluster. A cordial linkage is missing between within the cluster actors, especially with manufacturers and actual buyers. Proper awareness and exposure on technology,

production process and prospectus of the cluster remain unaltered. The attitude for product diversification is not much there. Though the cluster has banking and financial institutions it is felt that some of the units are facing acute working capital crunch. There is no better packaging facility and also no initiative to publicity and advertisement.

### **Opportunity:**

The cluster can prevent the plastic and other substitute products and make opportunity for coir products. There is a tremendous scope for creating value added products and spread the reach. The initiative like MUDRA Bank will be useful to nurture new entrepreneurs in the cluster. Similarly there is a better opportunity for addressing the working capital crunch. As the cluster has availability of husks, creation of value added products by using manufacturing fibre there itself will help the cluster to compete with other market players.

### **Threats:**

The expected threat for the product in the international market is on price of the products. The technology is highly influencing the price structure. If effective mechanism is used for production that will cause for cost escalation as well as in pricing pattern. If price of plastic products reduced further that will further reduce the scope of coir products. Lack of continuous electricity may create havoc if high end machinery installed for production. The state like Kerala is highly alerted on environmental degradation and the process could be tampered, if proper mechanism and sensitization is not carried out.

## Need Gap Analysis:

- As per the statistics of Coconut Board, the production of coconut in Haripad is 270.00 million nuts during 2013-14 as against the average production of 121.89 million nuts estimated for the same place for the period of 2000-2014. Though coconut production is in an upward curve there is no mechanism or channel to effectively utilize its husks locally.
- There is no sufficient defibrating units exist either in the cluster or nearby location to carry out the coir work. Lack of shortage of fibre as well as its constant availability also remains as challenges of the sector.
- The pro-active initiatives of the State Government to supply electronic ratt and other equipments have generated a positive approach of coir workers to the sector. However, there is no availability of fibre in a competitive manner.
- The co-operative societies functioning in the area has land for production, but they are not able to make agreement with any agency for using the land, machinery and other assets, as they have always a fear that later on they will be thrown out from the process. This scenario needs intervention of developmental agencies to motivate them for engaging in collaborative mode.
- The daily earnings of an average labour in Kerala is more than Rs.500/-. At the same time by engaging in coir sector, artisans are getting a maximum of Rs.250/- This is one of the basic reasons for marginal functioning of some of the co-operative societies in Haripad.
- The replication of new type automatic spinning machine is helpful to produce market driven coir variety viz; Vycom or Aratary.
- Even through, there are no sufficient defibrating units in the cluster approximately 4250 ton coir were manufactured in the cluster in the last financial year. If they are motivated and support professionally, this cluster will be conducive to grow much and will be a significant contributor to coir industry.

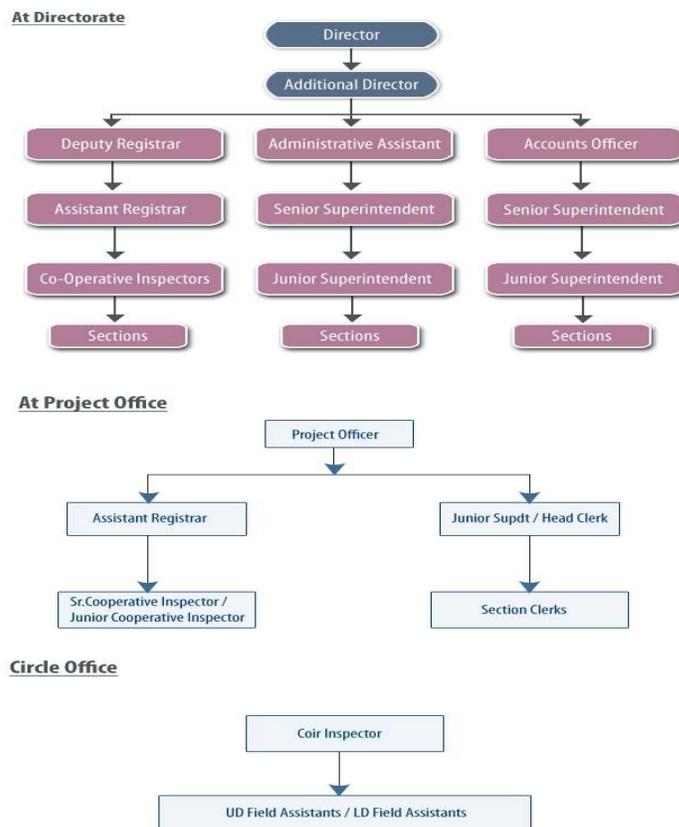
## CHAPTER 5: PROFILING OF THE IMPLEMENTING AGENCY

### 5.1 Institutional Structure:

The Implementing Agency of the proposed Haripad Coir cluster will be Directorate of Coir Development, Nandanam, Thiruvananthapuram. They will implement the activities through its Project Officer in a locally established office in Kayamkulam. The Directorate is headed by an IAS Officer and it is functioning as per the rules and regulations of Government of Kerala.

### 5.2 Governance Structure:

All policy level matters will be done in consultation with Director by the Project Officer. All its activities will be transparent and they hold responsible for implementation. Following is the Organogram of the IA.



### **5.3 Operational Profile:**

The overall vision of the Directorate of Coir Development is to safeguard the socio-economic level of coir workers and its associated agencies. There are 10 coir project offices in Kerala covering coir operation of entire state from 9 districts. In Alappuzha there are two project offices; one is in Kayamkulam and the second one in Alappuzha itself. Project Officer- Kayamkulam would operationalize activities in the Haripad cluster. He may adopt strategies in line with the scope prevail in coir sector and also by focusing coir development strategy prescribed by Government of Kerala in particular and Government of India in general.

### **5.4 Management Profile:**

The Director of Coir Development division, Govt. of Kerala is an IAS officer who hold accountable for all kind of implementation of activities in the cluster. Director has delegated the power to its local project officer for implementation process. Both these officials will be primarily responsible for all kind of management of the cluster. While policy level decision is taken care of by Director, Directorate of Coir Development, the project implementation will be managed by Project Officer.

They have already formed an SPV to ground the activities. This SPV is registered under Travancore-Cochin Act and titled as Haripad Coir Cluster Development Society (HCDS) vide Regn.NO. ALP/TC/403/2015 on 15.07.2015.

In addition to this, Entrepreneurship Development Institute of India (EDI) an internationally acclaimed entrepreneurship development agency is providing all kind of technical support to all stakeholders of the cluster.

## **5.5 Financial Position:**

As Implementing Agency being the Government of Kerala, there may not have any scope to assess the financial position.

## CHAPTER 6: PROJECT CONCEPT AND STRATEGY FRAMEWORK

### 6.1 Project Rationale

Haripad is one of the highly populated places of coir artisans in the State. Their experience and expertise could not be utilized to production, as they have limited scope to get access to high tech production system. Similarly, other limitations that faces by the artisans at local area is constant supply of fibre. In view of this the project proposes to provide Raw-material banks and a training centre with state of art automatic spinning machines that have productivity of 300% compared to the locally available machines.

### 6.2 Project Objective:

The main objective of the project is to provide vibrancy to the coir activities in the cluster and position it with value added products. However, the intervention will also focus to:

- Regular supply of quality fibre
- Demonstrate benefits and needs for using high end modern automatic spinning machines for coir production
- Constant availability of fibre as well as coir motivates for production of value added products
- Attracting youngsters into the cluster and provide meaningful income to all its dependents as there is potential to enhance production to more than 300% and likely income.
- Directly as well as indirectly help for boosting export market of the coir products
- Establish the linkage of Haripad with Alappuzha for the promotion of Coir and its other value added products.

### **6.3 Focus Products/ Services:**

Keeping in mind the project objective as specified above, the cluster intervention focus on followings:

#### *Products:*

Through raw-material bank sourcing of fibre at bulk purchase mode from other states or locations and its retting and cleaning the same at CFC. This will be further supplied at the door step of societies at an economical price compared to the market price. This process ensures followings:

- quality fibre,
- Constant availability
- Competitive price

#### *Services:*

- Develop a trust among all cluster members in the location
- Train members to perform a better quality life
- Provide training to new entrepreneurs to join in the coir related activities
- Enhance skills of existing members for producing on high end machines

### **6.4 Conceptual Framework/ Project Strategy**

The overall framework of the project is the development of coir sector. It has strategized the intervention on the guidelines and framework of SFURTI schemes of Coir Board. The intervention will take care of followings:

- Bring all stakeholders together and increase effectiveness of the cluster

- Take a cluster approach in the area and improve life and product cycle of coir workers and coir
- Ensure availability of raw material and provide them locally in quality methods
- Frame out a proper value chain suitable to the cluster and involve stakeholders in the process
- Establish a common facility centre
- Help to develop value added products and link them with export market for getting high return to the coir workers
- Holding the slogan of 'zero' waste policy convert its waste to products and offer them in the market
- Develop forward and backward linkages to ensure vibrancy of the cluster

**Project Strategy:**

The basic strategy proposed for the improvement of Haripad Cluster is:

- Enhance active participation of coir workers and other stakeholders
- Guide and support for producing value added products in the cluster
- Lead the project intervention in democratic set up by forming a SPV
- Ensure involvement of Govt. of Kerala, in the status of implementing agency
- Ensure stake of beneficiaries in the project by contributing 25% of the project cost
- Provide a permanent position to Haripad cluster in the international coir market
- Overall socio-economic development of the artisans in the cluster

## CHAPTER 7: PROJECT INTERVENTIONS (CORE SFURTI)

No cluster intervention can be successful without a proper mix of soft skills on various functional and management themes. In Harid cluster, as it is proposed under Major category members are to be trained on various functionalities. Following soft intervention is proposed to keep vibrancy and dynamism in the cluster.

The following Soft and Hard Interventions are envisaged in the Haripad Cluster:

### Soft Interventions:

Sr. No.	Intervention	Need
i.	Cluster awareness and Trust Building workshops:	Cluster promotion is a group activity wherein all stakeholders are to be apprised on commonalities and combined visioning exercise is to be held. This will also be helpful to have an understanding to each of the stakeholders on their duties and responsibilities that they have to perform for the vibrancy of the cluster. In view of this a series of awareness and trust building workshops are proposed. Over a period of 3 years it is estimated to impart inputs for at least 1500 cluster members.
ii.	Exposure visits:	As the cluster intervention is taking place in adult training method, more inputs on cluster dynamism, process, collectiveness etc. are to be shown to its members. This will be managed by taking the members to successful cluster locations within Kerala or its nearby locations. It is estimated to organize exposure visits to 100 members over a period of 3 years.

iii.	Visit to national / international exhibitions:	The cluster will be, by default, producing value added products in higher volume. While with the funding support of SFURTI schemes, the cluster will be able to produce, there is tremendous need to market all the products it is produced. As coir products are being used almost all houses and offices, its market should be done directly to the customers to the maximum extent. With this purpose, visit to national and international exhibition is planned for 100 members within three years.
iv.	Entrepreneurship Development Programme (EDP):	Success of any project is basically depends upon the ability of its leader. "Enterprise never fails, and if, that is only Entrepreneur". As such there is a tremendous need for developing entrepreneurial competencies / acumen of the cluster leaders. To develop a group of best performers within the cluster, entrepreneurship development training is proposed for 50 members.
v.	Skill and skill up-gradation Training:	Technical competency of artisans is one of the basic requirements for success of the cluster intervention; especially when the cluster is proposed to produce value added products. As Tufted Mat production is high technology based production process the cluster needs higher level technicians and skilled persons. It is in this context skill training or its upgradation is proposed for 100 members.
vi.	Training program for Social Engineering (TSE):	As the basic aim of the cluster intervention is to provide a quality life to its members there is a need for training on quality life and social engineering. The development of society is based on the process it takes under social engineering. As the cluster like Haripad, wherein more

		than 8000 artisans are directly or indirectly benefited from the intervention process that emerged and to be build on commonalities require adequate attention on social engineering. Programme is proposed to conduct for 300 members on social engineering.
vii.	Management Development Training (MDP):	As in the case of need for entrepreneurial personalities, cluster requires efficient managers to perform its functions. As such Management Development Training is also proposed for 30 members in the first year, so that they will be groomed to perform the functions when the cluster is getting promoted.
viii.	Vendor Development Programme	One of the main issues facing by the coir industry in haripad is the sale of coir products. So a vendor development programme shall be arranged to develop vendors
ix	Workshop on Development Schemes (WDS):	In the cluster, there is a need for multiplied number of entrepreneurs. As such to attract the youth to be entrepreneurs, they should be sensitized on development schemes being promoted by coir board, coconut board and various other developmental agencies. A workshop on such schemes is proposed in the first year to train at least 35 youth.
x	Training on Quality Production (TQP):	There is a need for giving more attention to production parameters. In each and every stage of production, each one should take care of quality. Quality consciousness should be build at all level. In view of this a training programme for 35 members are proposed.
xi	Training Programme on International	Training on International Marketing is proposed for 10 core members. As the tufted mat is generally used for export, there is need for strong marketing section within

	Marketing (TPIM):	the cluster. The propose programme will take care of such needs. They will also be imparted inputs on design and packing.
xii	Website creation	As the business of modern era is mostly on on-line based, the cluster needs its own website and online marketing services. It is in this context a website is proposed for the cluster.

### Hard Interventions:

While the soft intervention useful to make changes in the life, thinking pattern and action of the cluster members and society, the hard intervention is aimed at giving enhancement of income source to the artisans/ cluster members. In Haripad cluster following hard intervention is proposed:

Sl.No	Intervention	Need
1	Common Facility Centres for Raw Material Bank	The objective of the Raw Material Bank is to ensure availability of quality raw material on a continuous basis to the beneficiaries of SFURTI Cluster at a reasonable price. The service offered by the raw material bank is procurement, storage and supply of the various raw materials utilized by the coir cluster like yarn, husk etc. The suggested raw material bank may have the capacity to store about 140 ton fiber. The beneficiaries can be utilized the service of the raw material bank. They can purchase the raw material at a reasonable price from the raw material bank.
2	Training Centre	It was a long time dream of the coir industry to introduce a contrivance for reducing the drudgery of the labourer and to improve the productivity and also enhance the earnings of the workers engaged in spinning. As a result

		<p>of research and development, a spinning device for attaining the real goals of reducing the drudgery, improving the productivity and to improve the working environment, the automatic spinning machine units were introduced in the industry. This is to be installed in the cluster.</p> <p>The introduction of automatic spinning machine units has paved the way for increasing the productivity and attracts the new generation to the coir sector. This further helps to the rejuvenation of coir industry. The realization of scope of mechanization in the coir industry and to increase the production output to meet the market demand, the beneficiaries decided to set up a training centre of Automatic spinning machine as part of the SFURTI.</p>
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The envisaged common facility centre will be utilized both the SPV as well as other public. Following facilities will be provided to other public in a differential rate method.

- i. Supply of raw material
- ii. Production of coir yarn in automatic spinning machine with double head and conveyors
- iii. Training on High End Automatic Spinning Machines

## CHAPTER 8: SOFT INTERVENTIONS

Followings are the soft intervention proposed for the cluster:

Sl. No.	Project Intervention	No. of Batches	Total Beneficiaries	Cost (Rs. In Lakhs)
i)	Cluster Awareness & Trust Building workshops for 1000 artisans/ workers/ cluster members	15 batches covering 1000 members	1000	3.00
ii)	Exposure visits for familiarizing cluster intervention	3 Batches	100	3.00
iii)	Visit to national/ international exhibitions:	2 times	60	5.00
iv)	Skill & skill upgradation training	3 batches	100	3.00
v)	Entrepreneurship Development Programme (EDP)	2 batches	80	3.00
vi)	Management Development Training	1 batch	25	3.00
vii)	Vendor Development Programmes	1 batch	25	1.50
viii)	Workshop on development schemes	1 batch	100	0.50
ix)	Training Programme on quality production	1 batch	100	1.50
x)	Exposure visit to successful cluster	1 batch	60	1.50
xi)	Training Programme on International Marketing	1 batch	10	1.20
xii)	Web site creation	0	0	0.30
	<b>Total</b>		<b>1660</b>	<b>25.00</b>

## CHAPTER 9: HARD INTERVENTIONS

The cluster would like to establish three common facility centre consisting of Automatic spinning machine (training cum production centre) and Raw material bank.

### A. Common Facility Centre (CFC – 1)

A1	<b>Raw Material Bank &amp; Coir Yarn Production cum Training centre</b>	<b>Amt. Lakhs</b>
i)	Land	Available
ii)	Building	22.00
iii)	Mini Affluent plant	8.00
iv)	Plant and Machinery	50.15
v)	Miscellaneous Fixed Assets	0.50
vi)	Preliminary and Preoperative Expenses	1.00
vii)	Provision for Contingency	0.50
viii)	Working Capital	16.40
<b>Grant Total : Project Cost</b>		<b>98.55</b>

#	<b>Means of Finance</b>	<b>Amt. Lakhs</b>
i)	<b>Fixed Capital</b>	
a	Beneficiary Contribution-25% of Fixed Capital	20.54
b	Grant from Coir Board, Govt. of India- 75% of Fixed Capital	61.61
<b>Sub Total(a+b)</b>		<b>82.15</b>
ii)	<b>Working Capital</b>	
	Working Capital Corpus-20% of Total fixed Capital	16.4
a	Beneficiary Contribution-25% of W C Corpus	4.1
b	Grant from Coir Board- Working Capital Corpus Fund(75% of W C Corpus)	12.3
<b>Sub Total(a+b)</b>		<b>16.4</b>
<b>Grant Total (i)+(ii)</b>		<b>98.55</b>

*Detailed Business Plan is provided in Chapter No. 14*

## B. Common Facility Centre (CFC – 2)

A1	Raw Material Bank & Coir Yarn Production cum Training centre	Amt. Lakhs
i)	Land	Available
ii)	Building	22.00
iii)	Mini affluent plant	8.00
iv)	Plant and Machinery	50.15
v)	Miscellaneous Fixed Assets	0.50
vi)	Preliminary and Preoperative Expenses	1.00
vii)	Provision for Contingency	0.50
viii)	Working Capital	16.40
	<b>Grant Total : Project Cost</b>	<b>98.55</b>

#	Means of Finance	Amt. Lakhs
i)	<b>Fixed Capital</b>	
a	Beneficiary Contribution-25% of Fixed Capital	20.54
b	Grant from Coir Board, Govt. of India- 75% of Fixed Capital	61.61
	<b>Sub Total(a+b)</b>	<b>82.15</b>
ii)	<b>Working Capital</b>	
	Working Capital Corpus-20% of Total fixed Capital	16.4
a	Beneficiary Contribution-25% of W C Corpus	4.1
b	Grant from Coir Board- Working Capital Corpus Fund(75% of W C Corpus)	12.3
	<b>Sub Total(a+b)</b>	<b>16.4</b>
	<b>Grant Total (i)+(ii)</b>	<b>98.55</b>

### C. Common Facility Centre (CFC – 3)

A1	<b>Raw Material Bank &amp; Coir Yarn Production cum Training centre</b>	<b>Amt. Lakhs</b>
i)	Land	Available
ii)	Building	22.0
iii)	Mini Affluent plant	8.00
iii)	Plant and Machinery	50.15
iv)	Miscellaneous Fixed Assets	0.50
v)	Preliminary and Preoperative Expenses	1.00
vi)	Provision for Contingency	0.50
vii)	Working Capital	16.40
	<b>Grant Total : Project Cost</b>	<b>98.55</b>

#	Means of Finance	Amt. Lakhs
i)	<b>Fixed Capital</b>	
a	Beneficiary Contribution-25% of Fixed Capital	20.54
b	Grant from Coir Board, Govt. of India- 75% of Fixed Capital	61.61
	<b>Sub Total(a+b)</b>	<b>82.15</b>
ii)	<b>Working Capital</b>	
	Working Capital Corpus-20% of Total fixed Capital	16.4
a	Beneficiary Contribution-25% of W C Corpus	4.1
b	Grant from Coir Board- Working Capital Corpus Fund(75% of W C Corpus)	12.3
	<b>Sub Total(a+b)</b>	<b>16.4</b>
	<b>Grant Total (i)+(ii)</b>	<b>98.55</b>

## CHAPTER 10: PROJECT COST AND MEANS OF FINANCE

### A. Project Cost And Means Of Finance

Sl.No.	Project intervention	Cost (Rs.Lakhs)	Means of Finance	
			Grant from Coir Board, Govt. of India	Beneficiary Contribution
1	Soft Intervention	25.00	25.00	
2	Hard Intervention			
a	<b>CFC-1</b>			
i)	Fixed Capital	82.15	61.61	20.54
ii)	Working Capital	16.4	12.3	4.1
	<b>Sub Total(i+ii)</b>	<b>98.55</b>	<b>73.91</b>	<b>24.64</b>
b	<b>CFC-2</b>			
i)	Fixed Capital	82.15	61.61	20.54
ii)	Working Capital	16.4	12.3	4.1
	<b>Sub Total(i+ii)</b>	<b>98.55</b>	<b>73.91</b>	<b>24.64</b>
c	<b>CFC-3</b>			
i)	Fixed Capital	82.15	61.61	20.54
ii)	Working Capital	16.4	12.3	4.1
	<b>Sub Total(i+ii)</b>	<b>98.55</b>	<b>73.91</b>	<b>24.64</b>
	<b>Total Hard Intervention(a+b+c)</b>	<b>295.65</b>	<b>221.73</b>	<b>73.92</b>
3	<b>IA Cost</b>	<b>20.00</b>	<b>20.00</b>	
4	<b>TA Cost</b>	<b>17.3</b>	<b>17.3</b>	
	<b>Total(1+2+3+4)</b>	<b>357.95</b>	<b>284.03</b>	<b>73.92</b>

B. Project Phasing:

Sr. No	Name of Activity	Year 1				Year 2				Year 3			
		Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr.4	Qtr 1	Qtr 2	Qtr 3	Qtr 4
1.	Cluster Awareness & Trust Building												
2.	Exposure visits for familiarizing cluster intervention												
3.	Visit to Exhibitions												
4.	Skill Trainings												
5.	EDP												
6.	MDP												
7.	Workshop on Developmental Schemes												
8.	Training progr. On quality production												
9.	Trg. On intl Marketing												
	Website creation												

## CHAPTER 11: PLAN FOR CONVERGENCE INITIATIVES

Any cluster intervention will be successful once the synergy of support system and stakeholders are effectively channelized. In the coir sector, as in the case of Coir Board, Govt. of Kerala has also concentrated well. There are some of the schemes being implemented by the Government by its funding as well as also implementing schemes with central govt. support. The proposed project is mooted proposal to convergence with following schemes: The DPR has taken almost all possible anticipated expenses. However, any further escalation will be met by the project itself from other source of socio-economic upliftment bodies. However, followings converged as proposed:

a) Ministry of Commerce, Government of India, New Delhi

- Market Development Assistance Scheme of Ministry of Commerce, Government of India for market development internationally. A sum of Rs.4.00 lacs is expected under this scheme.

b) Directorate of Coir Development, Government of Kerala

- Market Development Assistance: An amount of Rs. 800.00 lakhs has been apportioned in the budget by Government of Kerala. The cluster is expected to avail Rs. 3.50 lakhs under this scheme.
- Government of Kerala is also supporting cluster development program: A sum of Rs. 150.00 lacs has been earmarked for the same. Since the cluster is having societies as stakeholders, a sum of Rs.4.00 lacs may be sourced under this scheme.
- Husk Collection Scheme : To promote utilization of husk in the State, State Government is offering subsidy for the following :
  - Husk collection

- Establishing Defibering units
- Revamping existing DF mills.

State Government promoting husk collection through workers' co-operatives and Kudumbashree units. A sum of Rs. 6 crores has been ear marked on this account. During the cluster development program it would like to avail Rs. 5 lacs from this scheme.

- Regulated mechanization of coir Industry - Under this scheme Government of Kerala is providing subsidy for procuring computer with software for computer aided design. Government has earmarked Rs. 10 crores for this purpose. A sum of Rs. 2 lakhs may be availed by the cluster.

#### c) Coir Board

- Avail the schemes of Coir Udyami Yojana of Coir Board for developing private entrepreneurs. 8 private entrepreneurs will be developed availing this scheme. This scheme will have the component of subsidy as well as loan. A sum of Rs. 80 lacs may be earmarked under this scheme.
- Under Mahila Coir Yojana, Coir Board is providing subsidy for purchasing machinery for coir handcraft and jewellery manufacturing units. A sum of Rs. 60,000/- is earmarked.

#### d) Social Security Schemes

During the cluster intervention, the artisans will be linked to following social security schemes:

- Pradhan Mantri Suraksha Bhima Yojana
- Pradhan Mantri Jan Dhan Yojana
- Atal Pension Yojana

## **CHAPTER 12: ENHANCED PROJECT COST AND MEANS OF FINANCE**

The project cost and means of finance is indicated in Chapter 10 of this report. We have estimated all possible interventions within the budget outlay and ability of the beneficiary. However, still we seek convergence of followings:

Sl. No.	Particulars	Amount in Lakhs
1	Market Development Assistance Scheme of Ministry of Commerce, Government of India	4.00
2	Market Development Assistance, Directorate of Coir Development, Government of Kerala	3.50
3	Cluster development program ,Directorate of Coir Development, Government of Kerala	4.00
4	Husk Collection Scheme, ,Directorate of Coir Development, Government of Kerala	5.00
5	Regulated mechanization of coir industry	2.00
6	Coir Udyami Yojana of Coir Board	80.00
7	Mahila Coir Yojana of Coir Board	0.60
	Total	99.10

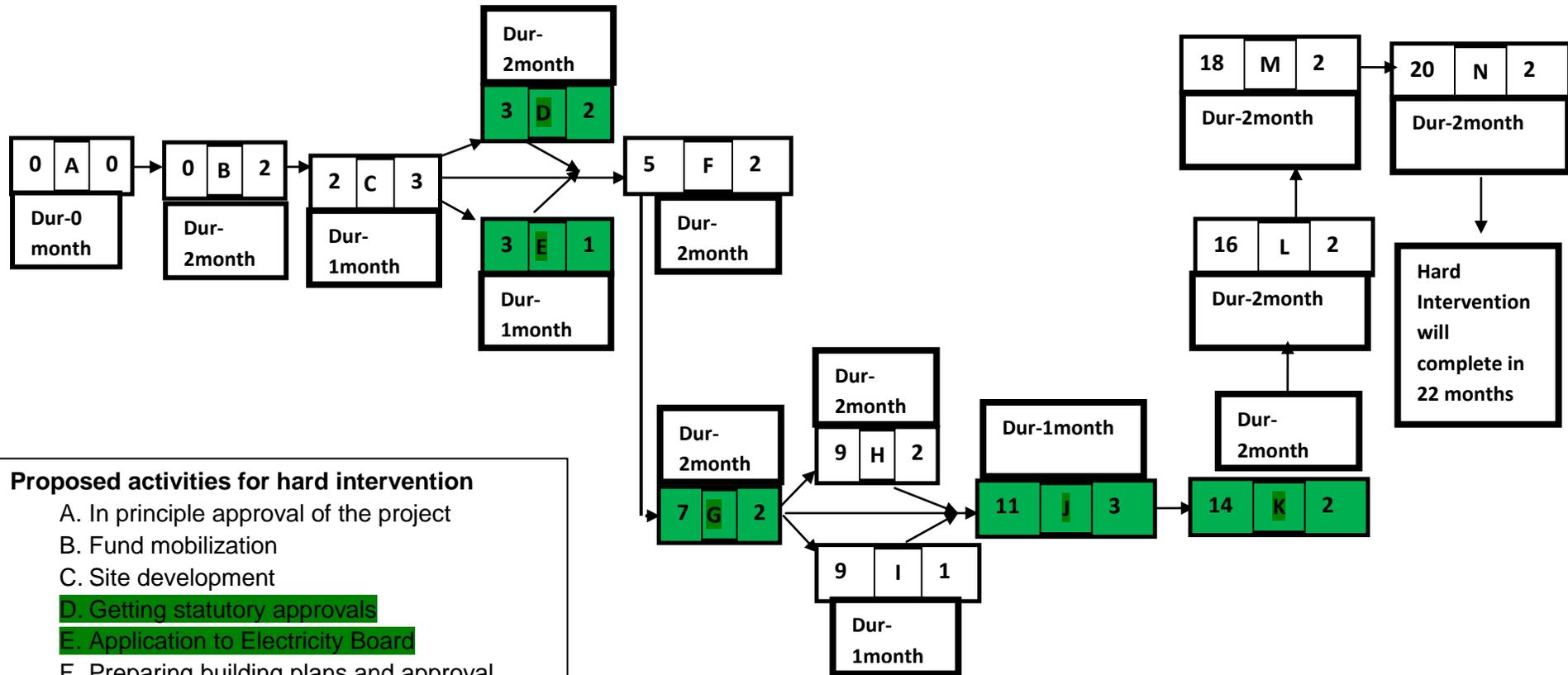
## CHAPTER 13: PROJECT TIMELINE

### SOFT INTERVENTION

Sr. No	Name of Activity	Objective	Duration	Year 1				Year 2				Year 3			
				Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr.4	Qtr 1	Qtr 2	Qtr 3	Qtr 4
1	Cluster Awareness & Trust Building	To build awareness on cluster concepts	One day												
2	Exposure visits for familiarizing cluster intervention	Familiarizing cluster intervention	One day												
3	Visit to Exhibitions	To promote the business													
4	Skill Trainings	To develop innovative and value added products	3 days												
5	EDP	Attract more entrepreneurs to the sector	5 days												
6	MDP	Development of Managerial competency	5 days												
7	Workshop on Developmental Schemes	Create Awareness on possible development	1 day												
8	Training prog. On quality production	Develop quality consciousness	1 day												
9	Trg. On intl Marketing	Develop competent marketing cadre	3 days												
	Website creation														

Hard Intervention													
Sr. No.	Name of Activity	Year 1				Year 2				Year 3			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	Finalization of the project	■											
2	Registration of CFC		■										
3	Site Selection		■										
4	Site Development			■									
5	Machinery identification			■									
6	Submission of project to Coir Board			■									
7	Fund Mobilization				■								
8	Civil Work construction				■	■	■						
9	Machinery sourcing						■						
10	Commissioning of machinery							■					
11	Trail production								■				
12	Commercial production									■	■	■	■

## CRITICAL PATH METHOD



### Proposed activities for hard intervention

- A. In principle approval of the project
- B. Fund mobilization
- C. Site development
- D. Getting statutory approvals**
- E. Application to Electricity Board**
- F. Preparing building plans and approval
- G. Tendering for construction**
- H. Initiation of construction
- I. Electrical installation
- J. Tendering process for machinery**
- K. Finalization of machinery**
- L. Installation of machinery
- M. Trial Run
- N. Commercial Production

## **CHAPTER 14: DETAILED BUSINESS PLAN**

### **PROJECT PROFILE FOR RAW MATERIAL BANK, AUTOMATIC SPINNING UNIT & TRAINING CENTRE**

#### **1.0 Introduction**

There will be two main components in the Common Facility Centre. The first will be Raw Material Bank is to ensure availability of quality raw material on a continuous basis to the beneficiaries of SFURTI Cluster at a reasonable price. The service provide by the raw material bank is procurement, storage retting, cleaning and supply of the raw fibre to the societies. This raw material bank can ensure the low cost and constant availability of fibre to the artisans. Another importance is that with this activity, the private fibre suppliers will be eliminated. The infrastructure required for the Raw Material Bank will comprise of a building with an office and a warehouse for storage of raw material, a retting tank and a Vehicle. The suggested raw material bank may have the capacity to store about 140 ton fiber. The beneficiaries can be utilized the service of the raw material bank. The raw material bank will supply fibre to the societies in their location at reasonable price.

The second component is a training cum production centre in yarn production. The centre will have 10 Automatic Spinning Machine with auto feeder. There will be a provision for training centre for 30 members in the centre. At present the machine yarn has good demand from buyers. So the 10 units installed will act as a change agent in the coir community. The interested artisans can come over to the production centre and avail training. Then they can use the CUY like schemes of coir board or schemes of state government to upgrade their production.

## 2.0 Financial Details

### Project Details

#### a. Land - Available

Land is identified in the following societies and the same will register on lease in the name of SPV for a period of 15 years.

CFC 1- Thamallackal CVCS Ltd No. 316

CFC 2 – Mahadevikad West CVCS Ltd No. A 698

CFC 3 – Muthukulam CVCS Ltd No. 72

#### b. Building

B	Building	Area	Unit Cost	Amount Rs. (Lakhs)
1	Building Construction – Raw Material Bank, Spinning unit, Training Centre,	2750 sq.ft	800/Sq.Ft	22.00
2	Tank 20 M x 5 M x 1.1 M – 1 for retting & 1 for ETP			8.00
	Sub Total B			30.00

#### c. Plant and Machinery (For one Common Facility Centre) Three such CFCs are proposed in the cluster.

Sl.No.	Particulars	Quantity	Amount (Rs. in lakhs)
1	Ginning machine-2 Ton Capacity -7 Hp	1	2.0
2	Transportation vehicle	1	10.0
3	Spooling Machines	2	4.0
4	Tool Kit	1	1.0
5	Automatic Spinning Machine	10	33.2

	with auto feeder and conveyor		
<b>Total</b>			50.15

d. Miscellaneous Fixed Assets-

0.50 Lakhs

e. Preliminary & Preoperative Expenses

1.00 Lakhs

### 3 Project Cost

Sl.No	Particulars	Amount(Rs.Lakhs)
1	Land	Available
	Building- 1. Raw Material warehouse 2. Training Centre	22.00
3	Mini Affluent plant ( Retting Tank and ETP Tank)	8.00
4	Machinery & Equipments- 1. Automatic Spinning Unit with auto feeder and conveyors 2. Ginning machine 3. Spooling machine 4. Transportation vehicle 5. Machine service tools	50.15
5	Miscellaneous fixed asset	0.50
6	Preliminary & Pre-operative Expenses	1.00
7	Provision for contingency	0.50
7	Working Capital corpus	16.40
	<b>Total Fixed Capital</b>	<b>98.55</b>

### 4 Means of Finance:

Sl.No	Particulars	Amount(Rs.Lakhs)
1	Beneficiary Contribution	24.55
2	Grant from Coir Board	74.00
	<b>Total</b>	<b>98.55</b>

### 5 Annual Sales Turnover

Amount in Lakhs

Sl.No.	Item	Quantity	Rate	Amount (Rs.)
1	Fibre (Ton)	3000	0.21	630
2	Coir Yarn	180	0.46	82.8
	<b>Total</b>	<b>3180</b>		<b>712.8</b>

## 6 Cost of Production

### a. Raw Material

SL No	Description	Qty.	Unit	Rate Rs. (Lakhs)	Amount Rs. (Lakhs)
1	Fibre	3180	Tn	.18	572.4
	Total	1080			572.4
Total Annual Raw Material Requirement: Rs. 572.4Lakhs					

b. Utility - - 1.98 Lakhs

### c. Man Power

Sl.No.	Designation	Unit	Unit Cost	Annual Amount (Rs)
1	Manager	1	0.2	2.4
2	Assistant cum Technician	2	0.15	3.6
3	Security	1	0.12	1.44
4	Driver	1	0.12	1.44
5	Labours for Spinning Unit	10	0.125	15
6	Retting & Cleaning staff	8	0.25	24
Sub Total				47.88
Employees benefit				9.58
Grand Total		23		57.46

d. Repairs, Maintenance and Insurance-

1.0 Lakhs

## 7 Project Profitability Statement

(Amount in Lakhs)

Sl.No.	Particulars	Ist	IInd	IIIrd	IVth	Vth
1	No. of working Days	300	300	300	300	300
2	No. of shifts	1	1	1	1	1
3	Production in unit of production	3180	3816	4452	5088	5724
4	Annual Income	712.8	855	998	1140	1283
	Net Sales	712.80	855	997.92	1140.48	1283.04
<b>B.</b>	<b>Cost of Production</b>					
1	Raw Materials	572.40	687	801	916	1030
2	Salaries & Wages	57.456	69	80	92	103
3	Rent	0	0	0	0	0
4	Utility	1.98	2.178	2.376	2.574	2.772
5	Repair & Maintenance	1	1	1	1	1
8	Depreciation	6	6	5	4	4
	Total	639	765	890	1016	1142
	Gross Profit	74	91	108	124	141
<b>C.</b>	<b>Administration &amp; Sales Expenses</b>					
1	Selling & Administrative expenses	0.12	0	0	0	0
	Profit before Int & Tax	74	90	107	124	141
E	Net Op. Profit	74	90	107	124	141
G	Net Profit after Tax	74	90	107	124	141
H	Dividend					
I	Net Profit after Dividend	74	90	107	124	141
H	Depreciation	6	6	5	4.567185	4
I	Annual Cash Accrual	80	96	112	129	145

## 8. Cash Flow Statement

( Rs. in Lakhs)

	Source of Fund	Ist	IInd	IIIrd	IVth	Vth
1	Promoters' capital	25				
4	Depreciation	6	6	5	4	4
5	Profit before Int & Tax	74	90	107	124	141
	Total	104	96	112	129	145
<b>B.</b>	<b>Application of Funds</b>	<b>Ist</b>	<b>IInd</b>	<b>IIIrd</b>	<b>IVth</b>	<b>Vth</b>
1	Capital Expenditure	80.65				
2	Pre-operative expenses	1				
3	Increase in W. Capital	5	0	1	1	2
	<b>Total</b>	<b>86</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>2</b>
	Opening Balance	0	18	114	225	352
	Surplus (A-B)	18	96	111	127	143
	Closing Balance	18	114	225	352	495

## 9. Projected Balance Sheet

( Rs. in Lakhs)

Liabilities		Year				
Sl.No.	Liabilities	I	II	III	IV	V
1	Promoters' Capital	25	25	25	25	25
2	Long Term Loan					0
3	Working Capital Loan					0
4	Reserve & Surplus	74	164	271	396	537
	<b>Total</b>	<b>98</b>	<b>189</b>	<b>296</b>	<b>420</b>	<b>561</b>
<b>Assets</b>						
Sl.No.	Assets	I	II	III	IV	V

1	Asset Value	81.65	81.65	81.65	81.65	81.65
2	Depreciation	6.265	12	17	21	25
3	Net Block	75	70	65	60	57
4	Current Assets	5	5	6	8	10
5	Cash in hand & bank	18	114	225	352	495
6	Investment					
	<b>Total</b>	98	189	296	420	561

## 10. Break Even Point

( Rs. in Lakhs)

### A. Variable cost

1	Raw Material	572
	Power	2

Administrative expenses	0.12
	<u><b>575</b></u>

### B Semi Variable and fixed cost

1	Salary & wages	57
2	Contingency	0
3	Marketing overheads	0
4	Repair and maintenance	1
	Depreciation	6
		<u><b>65</b></u>

Annual Income	713
Variable cost	<u>575</u>
SP-VC	<u><b>138</b></u>

Breakeven point at percentage of installed capacity	32.8
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## 11. Depreciation Amount

	<b>Building (5%)</b>	<b>Machinery (10%) &amp; Miscellaneous Fixed Asset (10%)</b>	
	31	51	
<b>Year 1</b>	<b>1.55</b>	<b>5.1</b>	<b>6.65</b>
	29.45	45.9	
<b>Year 2</b>	<b>1.48</b>	<b>4.59</b>	<b>6.07</b>
	28.0	41.31	
<b>Year 3</b>	<b>1.4</b>	<b>4.1</b>	<b>5.5</b>
	26.6	37.2	
<b>Year 4</b>	<b>1.33</b>	<b>3.7</b>	<b>5.03</b>
	25.3	33.5	
<b>Year 5</b>	<b>1.3</b>	<b>3.3</b>	<b>4.6</b>

## CHAPTER 15: PROPOSED IMPLEMENTATION FRAMEWORK

The project will be implemented in line with the cluster norms and regulations stipulated by the Nodal Agency, i.e, Coir Board with the support of a Technical Agency and will be implemented through Directorate of Coir Development, Govt. of Kerala, Thiruvananthapuram. They will ground the activities through a locally formed SPV wherein experienced individuals and co-operative societies are in leading role. In line with this frame work Coir Board has entrusted the responsibilities of Technical Agency to Entrepreneurship Development Institute of India and they in turn suggested Project Officer, Coir Project Office-Alappuzha on behalf of Coir Directorate will implement activities. Each of these agencies have prescribed norms for fulfilling their responsibility.

The SPV is registered under the Travancore-Cochin Literacy, Scientific and Charitable Societies Act XII of 1955.

### **15.1 Role of the Implementing Agency – Coir Directorate (Project Officer, Coir Project Office):**

- I. Recruit a full-time CDE in order to ensure efficient implementation of the project;
- II. The IA would identify and arrange suitable land for the project whose book value may be shown as their contribution towards the project;
- III. Implement various interventions as outlined in the approved DPR;
- IV. Undertake procurement and appointment of contractors, when required, in a fair and transparent manner;
- V. The IA will enter into an agreement with the Nodal Agency for timely completion on cluster intervention and proper utilization of Government Grants;
- VI. Operation & Maintenance (O&M) of assets created under the project by way of user-fee based model;

VII. Responsible for furnishing Utilization Certificates (UCs) and regular Progress Reports to Nodal Agency in the prescribed formats.

The IA shall endeavor to increase participation of various other cluster stakeholders and institutions by forming a Cluster Advisory Group, traditional industry enterprises, support service institutions, banks, etc. with the objective of fostering increased level of involvement of various cluster stakeholders and strengthening the implementation of the project.

## **15.2 Details of Strategic Partner and Other Project Stakeholders**

### **Strategic Partners:**

1. Coir Board, Cochin
2. Director, Directorate of Coir Development, Govt. of Kerala, Trivandrum
3. Coir Co-operative Societies
4. Entrepreneurship Development Institute of India

### **Project Stakeholders:**

- a) Machinery Suppliers
- b) Kerala State Co-operative Coir Marketing Federation (Coirfed)
- c) Commercial banks and micro finance institutions
- d) National Bank for Agriculture and Rural Development
- e) Small Industries Development Board of India, Cochin
- f) R&D, Testing and Training Institutions
- g) Central Coir Research Institute at Kalavoor
- h) National Coir Training and Design Centre at Alleppey
- i) Central Institute of Coir Technology, Bangalore
- j) MSME-DI in Thrissur.

## **15.3 Registration of the SPV**

The SPV is registered under the Travancore-Cochin Literacy, Scientific and Charitable Societies Act XII of 1955 vide Regn No. ALP/TC/403/2015 Dtd 15.07.2015. . It was registered by a group of 9 members who are belongs to coir sector with vast experience in the field as follows:

Sl. No.	Name & Occupation	Present Address	Position	Signature
1	Sri. K.M.Raju, President, Nangyarkulangara ICVCS Ltd No.KM 1095	Kocharyattu Nangyarkulangara PO	Chairman	
2	Sri. K.R.Madhu, Project Officer(Coир), Kayamkulam	Kunnil Krishnajali, Bharanickavu, Pallickal P.O.	Vice Chairman	
3	Sri. K.Suran Secretary, Thrikkunnapuzha Kizhakkekara South, CVCS Ltd No.486.	Mangalathuchirayil , Valaiyaparambu P.O Karthikappally	Treasurer	
4	D. Kasinathan, President Mangalam CVCS 483	Valil Puthuval, Mangalam P.o.	Member	
5	Sri. Sasankan.P Business Manager , Chingoly West CVCS LTD N. A695	Kattil thekkathil, Chingoli P.O.	Member	

6	Sri. K.Prasad Secretary Arattupuzha Kizhakekara North CVCS Ltd No. 550	Mapplilasseril, Mahadevikad P.O.	Member	
7	Sri. K.K. Das President, Mahadevikadu West CVCS LTD NO. A 698	Kondekattil, Mahadevikad PO	Member	
8	Sri. Udayan V President, Thrikkunnapuzha Kizhakkekara North, CVCS Ltd No.461.	Deepabhavanam, Kizhakekara Vadaku, Valiyaparambu P.O.	Member	
9	Smt. Thankamma M Secretary Muthukulam CVCS Ltd No.72	Kollante Kattil, Muthukulam North, Choolatheruvu PO	Member	

#### 15.4 Membership of the SPV:

- a) Any person belonging to Karthikappally, Mavelikkara & Chengannur Taluk of Alappuzha District who are office bearers of Coir Vyavasaya Co-operative Societies & Integrated Coir Vyavasaya Co-operative Societies shall be eligible for the membership.
- b) Sympathizers effectively engaged in coir sector also shall be eligible for membership but, they should not exceed 10% of the total membership.

## **15.5 Executive Committee and Board of Directors:**

The SPV will have an Executive Committee for day to day management of the society. This will be managed by a group of Board of Directors from following constituents/agencies

### **Category A**

- 1) An officer from Coir Board not below the rank of Deputy Director.
- 2) Lead bank manager, Alappuzha.
- 3) The chairman, Kerala Coir Workers Welfare Fund Board.
- 4) A person from Entrepreneurship Development Institute of India (EDII).
- 5) The Director, NCRMI.
- 6) A nominee of Coir Director, Thiruvananthapuram.
- 7) Project Officer (Coir), Kayamkulam.
- 8) District Mission Co-ordinator, Kudumbasree.
- 9) The Director, Central Coir Research Institute, Kalavoor

### **Category B**

- 1) Representative from Coir Vyavasaya Co-operative Societies & Integrated Coir Vyavasaya Co-operative Societies.

### **Category C**

- 1) Sympathizers effectively engaged in coir sector.

## **IV Officer Bearers**

The Office Bearers of the Society will be Chairman , Vice Chairman, and Treasurer.

## CHAPTER 16: EXPECTED IMPACT

Once the sanction is accorded for this report, there will be a massive change in the history of coir development in Kerala. The consideration of the cluster will cause to birth of a vibrant cluster which in turn will generate a demonstrable location for coir.

Following impacts are expected from the intervention:

- The middle men in the coir fibre sector will be completely eliminated.
- Turnover of the cluster will be increased from Rs.20.00 crores to Rs.40 crores.
- There is an expected export earning to the tune 300%.
- There will be vast change in number of working days. At present approximately 150 days are engaged by works. This will increase upto 225 working days.
- Current per day income of Rs.200/- to -Rs.250/- will be enhanced to more than Rs.350/- per day.
- A substantial percentage of marketing will be done through E-commerce
- An exclusive community centered organization – Haripad Coir Cluster Development Society (HCDS) will get established for the welfare of the coir workers in the location.

Vibrancy of the cluster will attract more young hands into the coir sector and this will be helpful to address unemployment problems of the location. As there is a provision to regular supply of quality fibre by establishing a raw material bank more value added products could be produced at cluster location by various segments.

Altogether there will be a substantial change in socio economic standards of coir workers.

