DETAILED PROJECT REPORT

Cluster Location: Kodumudi, Erode District

SUBMITTED TO

COIR BOARD, KOCHI

PREPARED BY

ITCOT CONSULTANCY AND SERVICES LIMITED

Joint venture of SIDBI, IFCI, SIPCOT, TIIC, SIDCO and BANKS,

50 A, GREAMS ROAD, CHENNAI 600 006

TEL: 044-42936800, 28290324, FAX: 044-28293512

CONTENTS

EXECUTIVE SUMMARY

<table>
<tr><td>1.</td><td>Name of the cluster</td><td>Erode Coir Cluster</td></tr>
<tr><td>2.</td><td>Location & Spread of the cluster</td><td>The cluster area comprises Kodumudi, Modakkurichi and Chennimalai blocks in Erode District. The Geographical spread of the cluster measures about 20-25 Km radius.</td></tr>
<tr><td>3.</td><td>Product range</td><td>The existing range of coir products produced in the cluster are:
Coir Fibre
Coir Yarn
Coir Pith Block (5 Kg.)
Growbags</td></tr>
<tr><td>4.</td><td>Size of cluster & Type of units</td><td>The total number of coir units available in the cluster area is around 113 units of which 58 Nos. are engaged in Fibre Extraction, 28 Nos. engaged in Yarn Spinning, 5 Nos. are engaged in Curled coir manufacturing, 20 Nos. engaged in manufacturing of coir pith block and 2 Nos. engaged in manufacturing of Growbags. The total number of beneficiaries estimated to be around 918 members which include the labor force in the cluster.</td></tr>
<tr><td>5.</td><td>Production & Turnover of Coir products in the cluster</td><td>The existing annual production and turnover of the cluster is given below:
<table>
<tr><th>Product</th><th>No.of units</th><th>Annual Production (in MT)</th><th>Annual Turnover (in Crores)</th></tr>
<tr><td>Fibre Extraction</td><td>58</td><td>29000 MT</td><td>58.00</td></tr>
<tr><td>Yarn Spinning</td><td>28</td><td>2100 MT</td><td>7.98</td></tr>
<tr><td>Curled Coir</td><td>5</td><td>500 MT</td><td>0.85</td></tr>
<tr><td>5 kg. Pith Block</td><td>20</td><td>20000 MT</td><td>26.00</td></tr>
<tr><td>Grow bags</td><td>2</td><td>480000 bags</td><td>3.60</td></tr>
<tr><td colspan="3">Total</td><td>96.43</td></tr>
</table></td></tr>
<tr><td>6.</td><td>Employment & Income level</td><td>The existing employment scenario in Coir sector in the cluster is given below:</td></tr>
</table>

		<table><tr><th>Activity</th><th>Male</th><th>Female</th><th>Total</th></tr><tr><td>Fibre Extraction</td><td>100</td><td>480</td><td>580</td></tr><tr><td>Yarn Spinning</td><td>30</td><td>110</td><td>140</td></tr><tr><td>Curled coir</td><td>2</td><td>18</td><td>20</td></tr><tr><td>5 Kg. Pith Block</td><td>40</td><td>120</td><td>160</td></tr><tr><td>Growbag</td><td>6</td><td>12</td><td>18</td></tr><tr><td colspan="3">Total</td><td>918</td></tr></table> The income level for the labours in the cluster is Rs.400/- for male workers and Rs.300/- for female workers.
7.	Key Concern areas of the cluster	➢ Apparent Stagnancy in Coir Fibre market perceived. Coir Fibre units suffocate due to the price rise in raw material (Husks) and stagnancy in Coir Fibre price. ➢ Cluster's present production is limited to conventional products such as coir fibre, coir yarn, curled coir etc., which fetches reduced margin only. Lack of common initiatives among the entrepreneurs in the cluster so far, to venture into the production of value added finished products of high market value. ➢ No common marketing platform, resulting in over dependence of intermediaries/ agents /traders. ➢ In spite of good market prospects for value added products, enhanced production infrastructure within the cluster is not realized, due to limited individual investment potential.
8.	Proposed Strategic Interventions	**Soft Interventions:** - Capacity Building - Market Promotion **Hard Interventions (Common facility creation):** - Coir Two ply yarn spinning facility - Coir Geo-textiles manufacturing facility - Coir Mattings manufacturing facility - Cocologs production facility

<table>
<tr><td>9.</td><td>Budget for Soft interventions</td><td>Rs.20.00 Lakhs</td></tr>
<tr><td>10.</td><td>Budget for Hard interventions</td><td>Rs. 448.50 Lakhs</td></tr>
<tr><td>11.</td><td>Total Project cost (including PMA cost)</td><td>Rs. 518.50 Lakhs</td></tr>
<tr><td>12.</td><td>Means of Finance</td><td>GoI Share : Rs. 473.65 lakhs

SPV share : Rs. 44.85 lakhs</td></tr>
<tr><td>13.</td><td>Post Intervention Scenario (Expected Impact)</td><td>➢ The Pre-investment and post-investment scenario (including cluster convergence outcome) of the cluster is given below:

<table>
<tr><th rowspan="2">S. No.</th><th rowspan="2">Parameter</th><th rowspan="2">Pre-Interven-tion</th><th colspan="3">Post-intervention</th></tr>
<tr><td>Y 1</td><td>Y 5</td><td>Y 10</td></tr>
<tr><td>1</td><td>Cluster Turnover (Rs. Lakhs)</td><td>9643</td><td>12176</td><td>14610</td><td>17530</td></tr>
<tr><td>2</td><td>Investment (Rs. Lakhs)</td><td>4044</td><td>4833</td><td>5800</td><td>6960</td></tr>
<tr><td>3</td><td>Employment (Nos.)</td><td>918</td><td>1188</td><td>1415</td><td>1700</td></tr>
<tr><td>4</td><td>Wages per day (Rs.)</td><td>400</td><td>520</td><td>675</td><td>750</td></tr>
<tr><td>5</td><td>Profitability (%)</td><td>8-10%</td><td>20%</td><td>25%</td><td>25%</td></tr>
</table>
➢ The Common Facility Center would achieve user fee turnover of minimum Rs.3.00 Crores in the first year of commercial operations from value added end user coir products.

➢ Increased value addition of Coir Fibre and yarn, resulting in enhanced income for coir products manufacturers by minimum 15%, on utilizing the CFC for value addition and marketing of finished products.</td></tr>
</table>

		➢ Direct employment for about 150 persons and indirect employment for minimum 300 persons is anticipated in the cluster on implementation of the project. ➢ Existing entrepreneurs in the Cluster would be exposed to modern management and marketing techniques and the spillover effect would be felt in the individual coir enterprises in the cluster. ➢ Establishment of new units by converging various schemes of State and Central Governments (such as NEEDS, PMEGP, CITUS etc.) resulting in additional investments in Coir sector by the cluster members. ➢ Emergence of specialized support service providers and their active involvement in the development process. ➢ Strong linkages among the Cluster members and actors in all levels of the value chain and an established Collaborative setup in place to undertake development initiatives & address common concerns. ➢ 100% Coverage of Coir workers in the cluster units under social security schemes. ➢ Improved access to financial capital for cluster members
14.	Cluster Management	The cluster is proposed to be developed under SFURTI (Scheme of Fund for Regeneration of Traditional Industries). The **Coir Board** is the Nodal agency (NA) and **M/s.ITCOT Consultancy and Services Limited** is the Technical Agency(TA) appointed by Coir Board. **M/S.IMAIGAL TRUST**, having its administration office at Erode is proposed as the Implementing Agency. A Special Purpose Vehicle (SPV) is formed and registered as Private Limited Company under sub-section (2) of

		section 7 of the Companies Act 2013 and rule 8 of the Companies (Incorporation) Rules, 2014 in the name of **"SRI KONGU COIR CLUSTER PRIVATE LIMITED"** as per the Certificate of Incorporation issued by Registrar of Companies, Coimbatore dated 02.11.18.. The CIN of the company is U36999TZ2018PTC031194. The registration has been carried out with 7 members as Directors and 15 additional members, who have evinced interest are proposed to be included as shareholders. The SPV will be strengthened to manage the Cluster activities in sustainable nature after the project implementation is over.

PREAMBLE

Coir Industry is an agro-based traditional industry, which originated in the state of Kerala and now has established itself in other coconut producing states like Tamilnadu, Karnataka, Andhra Pradesh, Orissa, West Bengal etc. Coir, a by-product of coconut with diverse applicability, has age-old use in making mats, ropes etc.

Coir is the only natural fibre that does not get cultivated solely to extract the coir whereas jute and sisal are grown only to produce the fibres and in turn, the spun and woven products. Fibres like jute, sisal, cotton etc are derived from short cropping plants whereas coir originates from the near perennial coconut palm.

The Coir industry in India has a very long history. The origin of coir industry can be dated back to prehistoric times. Coir Board, in one of its report states that, "Ropes and Cordages made out of coconut fibre have been used since ancient times. Indian navigators, who sailed to Malaya, Java, China and to the Gulf of Arabia, centuries ago, had been using coir for their ships' cables. In their writings, the Arab writers of the eleventh century A.D. had mentioned the use of coir as ship cables, fenders, and rigging." Marcopolo, the Italian traveller of the thirteenth century A.D. mentions in his travel records the use of coir yarn in the building of ships in the Persian Gulf. In his travelling records, he has also recorded the extraction and hand spinning of coir fibre. From these evidences, it is inferred that Kerala might be the original home of the coir industry and coir production might have started here many years before the thirteenth century.

Coir industry is one of the most important traditional cottage industries in India, with Kerala occupying the major position. At present the coir industry is agro-based, rural and export-oriented. The economic importance of this traditional industry is significant in terms of income, employment and foreign exchange.

The development of Coir industry in India has begun in an organized way only in 1959. Ever since this humble beginning, Coir products have been improving in quality, quantity and variety. For historical reasons,

cultivation of coconuts and extraction of Coir fibre and its further processing have taken deep roots in the state of Kerala. The rapid expansion of coconut cultivation in non-traditional areas increased the production of coconut and the industry has also developed gradually in the states of Tamil Nadu, Karnataka, Andhra Pradesh and Orissa. Coir industry it provides source of income to about 5 lakhs artisans in rural areas. Women constitute about 80% of the work force in coir industry.

The Golden-fibre 'Coir' is all capable of becoming a medium for the attainment of the Millennium goals of Cleaner and Greener Earth, Empowerment of Women and bringing to the fore the weak and less privileged. Coir is a natural fibre and its application in whatever form or use makes the product naturally biodegradable.

Coir has come a long way from the ancient uses. It has become an article of use in modern life either as garden article, as bags for the tea leaves, for training hops, as brush mats at the door steps, as long-wearing carpets in the corridors of the bungalow veranda, as tastefully planned floor coverings in the drawing room or as the runner on the staircase, as geo-fabric for controlling landslide or soil erosion, for protection of embankments of roads, railway and canals.

With a view to making the traditional coir industries more productive and competitive and facilitating their sustainable development, the Central government has announced Scheme of Fund for Regeneration of Traditional Industries (SFURTI). ITCOT Consultancy and Services Ltd. (ITCOT) have been appointed as Technical Agency by Coir Board for SFURTI Coir clusters in Tamilnadu.

Coir Board has entrusted the task of Preparation of Detailed Project Report for the Coir Cluster located at Erode to ITCOT Consultancy and Services Ltd. Accordingly, ITCOT has prepared the Detailed Project Report for submitting the same for seeking final approval from the Scheme Steering Committee (SSC).

This report is prepared based on interaction with coir industrialists in the clusters, coir industry workers, industry association members, NGO's and support institutions in the district, Informal interviews with industry

participants, machinery suppliers and experienced entrepreneurs, collection of secondary information etc.

The Chapter scheme of the Detailed Project Report is as follows:

Cluster Profile is given in Chapter 1. Cluster Value Chain Mapping is given in Chapter 2. Market assessment and Demand Analysis is given in Chapter 3. SWOT and Need Gap Analysis is given in Chapter 4. Project Concept and Strategy Framework are detailed in Chapter 5. Project Interventions proposed are given in Chapter 6. Hard Interventions proposed are given in Chapter 7 and Soft Interventions proposed are given in Chapter 8. Project Cost and Means of Finance is given in Chapter 9. Project Timeline is illustrated in Chapter 10. Detailed Business Plan is given in Chapter 11. Proposed Implementation Framework is given in Chapter 12. Expected Impact is detailed in Chapter 13.

1 Cluster Profile

1.1 Background

Erode district (previously known as Periyar district) came into being as a result of the bifurcation of Coimbatore district in 1979 and was renamed as Erode district in 1996. It is very difficult to separately deal with the history of Erode Region alone. Together with the area comprised in the Coimbatore district, it formed part of the ancient Kongu country known as "Kongunadu", history of which dates back to the Sangam era. Later, in 2009, Tirupur district was formed from parts of Coimbatore and Erode districts.

Erode district is one of the most industrialized district in the state of Tamilnadu. Industry and Trade occupy a place of prominence in the economy of the District. Industries that flourished in early days in and around Erode area were Handlooms weaving and carpet manufacturing. The advent of modern era has changed these industries to a greater extent and the powerloom and autoloom weaving are slowly replacing it.

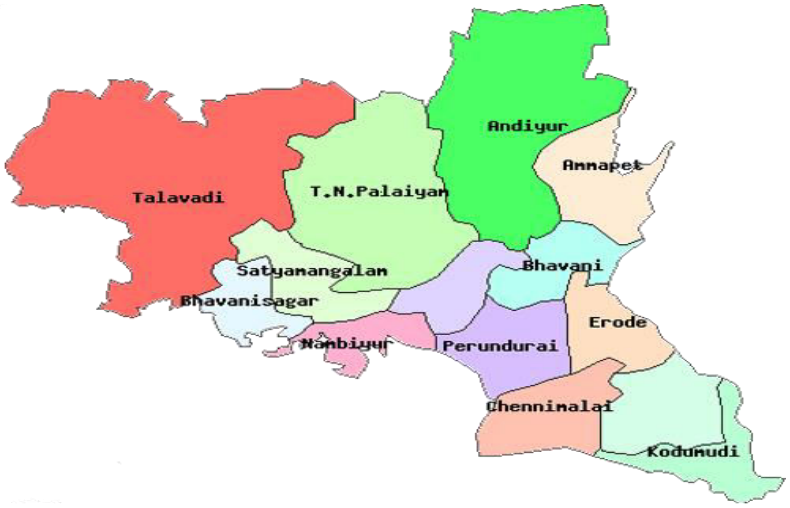
Also, Erode District is predominantly agriculture in nature and due to the variety of agricultural produce available, there is a vast potential for development of agro based and allied industries in this district. Coir is one of the agro based industries gaining prominence in the district.

1.2 Regional setting of the Cluster

Erode district is bounded by Chamarajnagar district of Karnataka to the north, and by Cauvery River to the east. Across the river lies Salem, Namakkal and Karur districts. Tirupur district lies immediately to the south, and Coimbatore and the Niligris district lie to the west. Erode District is landlocked and the district forms the meeting point of Western Ghats and Eastern Ghats separated by Bhavani river.

The regional setting of the cluster extends over five southern blocks (Perundurai, Erode, Chennimalai, Modakurichi and Kodumudi) in Erode District. The block map of Erode district is given below:

Erode Block Map



1.3 Location

The cluster area extends over Perundurai, Erode, Chennimalai, Modakurichi and Kodumudi blocks in Erode District. The Geographical spread of the cluster measures about 20-25 Km radius. The units are mainly concentrated in and around Kodumudi block in Erode district.

1.4 Evolution of the Cluster

The Cluster is a naturally evolved one. Being agrarian in nature, Erode district traditionally harnesses cultivation of Coconut, which plays a significant role in agrarian economy. It is to be noted that most of the coir entrepreneurs in the cluster evolved from the farming community.

The driving force behind the growth of Coir enterprises in the area is the predominant cultivation of Coconuts in the districts. The details of area of cultivation, production and productivity of Coconuts in Erode district is given below:

Year	Area (Ha)	Production (Lakh Nuts)	Productivity (Nuts/Ha)
2011 - 2012	11368.00	2021.00	17778
2012 - 2013	12623.00	1485.00	11764
2013 - 2014	13056.00	1006.00	7705
2014 - 2015	12808.00	1325.00	10345
2015 - 2016	13234.00	1903.00	14380
Average (2011-16) :	**12617.80**	**1548.00**	**12268**

Source: Coconut Development Board

The total coconut cultivation area in Erode district accounts for 13234 Ha, total production of coconuts is 1903 lakh nuts and the productivity is 14380 nuts per hectare in 2015-16.

On consideration of the economic value of Coconut, apart from the importance of copra and coconut oil which is widely used in the manufacture of soaps, hair oil, cosmetics and other industrial products, Coconut husk is a source of fibre which supports a sizable coir industry. Coir, being the natural fibre extracted from the husk of Coconut, industries using coir started flourishing in the districts owing to the local availability of raw material and hence naturally, the cluster evolved.

1.5 Demography and Growth trends

The statistical data of Erode district as per Census 2011 and the growth aspects with respect to Census 2001 is given below:

Description	2011	2001
Actual Population	2,251,744	2,016,582
Male	1,129,868	1,024,732
Female	1,121,876	991,850
Population Growth	11.66%	11.85%
Area Sq. Km	5,760	5,760
Density/km2	391	354
Proportion to Tamil Nadu Population	3.12%	3.23%

Erode district ranked 15th in terms of highest population in the state and the district's urban population share was 51.4%. The district decadal population growth during 2001-2011 was 11.7%, lesser than the State average of 15.6%.

1.6 Socio-economic aspects

Erode is a highly progressive district in Tami Nadu. It is one of the forerunners in the state in terms of agriculture and industrial activities. The district which is endowed with vast natural and Physical resources is making rapid strides in various fronts.

Erode district holds a notable place in the industrial map of Tamil Nadu with around 60 percent of population depending on agricultural sector. Industries that flourished in early days in the area were handloom weaving, cart manufacturing, carpet manufacturing, brass vessel manufacturing, oil-pressing, etc. The advent of modern times changed the fate of some of these well established ancient industries. Handloom industry in Erode district has encouraged the growth of several ancillary industries to meet the needs of the textile mills. Chennimalai, Erode, Gobichettipalayam etc., are the prominent centers where cotton ginning done on a large scale. There are several major dying works in Erode, Chennimalai and Bhavani. A number of factories engaged in cotton fabric printing are also functioning in Erode.

Rice milling is another industry which exists in the Erode district. Erode, Bhavani, Perundurai, Dharapuram and Kangayam are centers where a number of rice mills are flourishing. There are several leather tanneries in Erode and Dharapuram area. Huge amount of leather are brought here for tanning and later those are exported to foreign countries. Both manufactured items as well as agriculture commodities are included in the trade items. Major items of export from the Erode district are handloom products, raw cotton, dairy products, rice etc and the items brought are mostly oil-seeds, coal etc.

The district has high concentration of powerloom & Handloom weaving, Rice milling, Edible oil expelling units. The other industries are Tanneries, Chemical & Plastic Products, Paper Products, Basic Metal Products industries etc.

The significance of coir industry arises primarily from the fact that a large a number of people from the economically weaker sections of the society depends on this industry at the current level of production of coir, the industry utilizes about 40% of the annual yield of coconut husk in the country. There is possibility to increase the utilization to at least 60% of husk production. Therefore, there exists vast potential for stepping up of production of coir in India. The increased utilization of coconut husk abundantly available in the coconut growing states of India provides

scope for development of fibre processing sector and thereby augmenting rural economy.

1.7 Human Development Aspects

As per 2011 censes, the total workforce of the district is 11.95 lakhs (including marginal workers, of which, 11.11 lakhs are main workers) as against states level of 328.84 lakhs. It accounts for 53.10% of the total population of the district. The non-workers to the total population were 46.90% in 2011. Agriculture and allied activities constitutes the major source of employment with 42.21% of the total workforce.

The district has recorded the highest Work Participation Rate of 53.1 among other districts in the state. The district has recorded the 3rd highest percentage of main workers (92.9%) to total workers in the district.

The Coir industry is agro based industry providing rural employment, mostly to women. The total number of direct workers engaged in the Coir activity gender wise is given below:

Activity	Male	Female	Total
Fibre Extraction	100	480	580
Yarn Spinning	30	110	140
Curled coir	2	18	20
5 Kg. Pith Block	40	120	160
Grow bags	6	12	18
Total	**178**	**740**	**918**

The existing income level of the coir labour force in the district is given below:

Activity	Wages per day	
	Male	Female
Fibre Extraction	400	300
Yarn Spinning	400	300
5 Kg. Pith Block	400	300
Grow bags	400	300

It is observed that the income level for all activities is same for male as well as for female workers. Among these workers, 80% belongs to OBC category, 10% SC category and remaining 10% belongs to other categories.

1.8 Key Economic Activities in the District

The Predominant Economic Activities Prevalent in the District is given below:

- Agriculture and Animal Husbandry activities are prominent among other economic activities.
- Erode district is one among the few districts known for agriculture production in the State. The total cropped area of the district constitutes 39% of the geographical area. Paddy, Coconut, Sugarcane, Banana, Turmeric, Groundnut, and Cotton are major crops grown in the district.
- With 43% share, the district is the top turmeric producer in Tamil Nadu. Erode is also known as Turmeric city as it is an important market center for turmeric.
- The district is one of the leading milk producers in the State.
- Erode is among the industrialized districts in Tamil Nadu and ranks 5th in Tamil Nadu in terms of the number of MSMEs.
- Erode along with Coimbatore and Tirupur is referred to as 'Textile valley of India' together they constitute 56% of India's total knitwear export.
- Industries and trade naturally occupy a place of prominence in the economy of the district. Industries that flourished in early days in the area were handloom weaving, carpet manufacturing, cart manufacturing, oil-pressing, brass vessel manufacturing etc.
- Erode, Bhavani and Chennimalai are well known for handloom, powerloom textile products and ready-made garments. In 2005, Bhavani Jamakkalam (Bhavani Bedsheets) was registered as a Geographical Indication by the Government of India. is also famous for textiles.
- Erode district plays a prominent role in the Coir sector in the state.

1.9 Infrastructure – social, physical, financial and production related

The social infrastructure details of Erode district is given as below:

S.No	Indicator	Details	
1.	Total Geographical Area	572264 Ha	
2.	Population	2251744	
		Male	**Female**
		1129868	1121876
3.	Population Growth	11.66%	
4.	Sex Ratio (per 1000 males)	980 females	
5.	Literacy rate	72.58%	
		Male	**Female**
		80.42%	64.71%
6.	Administrative Setup		
	Corporation	1	
	No.of Sub division	2	
	Taluks	9	
	Blocks	14	
	Town Panchayats	42	
	Municipalities	4	
	Gram Panchayats	230	
	Revenue Villages	375	
7.	Agriculture		
	Total Cultivated area	137627 Ha	
	Net sown area	134299 Ha	
	Total Net area irrigated	87618.29 Ha	
8.	Forest	88131.56 Ha	
9.	Transport Infrastructure		
	Road length (NH, SH, Municipal, Panchyat roads etc)	2045.485 Kms.	
	Registered Motor Vehicles	458520 Nos.	
	Length of Rail line	60 Km	
10.	Banks & its branches	41 & 517	
11.	Engineering Colleges	11 nos.	
12.	Arts & Science Colleges	20 nos.	
13.	Teacher Training Institutes	8 nos.	
14.	Medical College	1 no.	
15.	Polytechnic Colleges	9 nos	
16.	Veterinary Hospitals	6 nos.	
17.	Hospitals (Govt)	8 nos.	
18.	Primary Health centres	68 nos.	

Coir Based Activities:

The total number of coir units available in the cluster area is around 113 units of which 58 Nos. are engaged in Fibre Extraction, 28 Nos. engaged in Yarn Spinning, 5 Nos. are engaged in Curled coir manufacturing, 20 Nos. engaged in manufacturing of coir pith block and 2 Nos. engaged in manufacturing of Growbags. The total number of beneficiaries estimated to be around 918 members which include the labor force in the cluster. The production and turnover of Coir products in the cluster is given below:

Product	No.of units	Annual Production (in MT)	Annual Turnover (in Rs.Crores)	Investment (Rs.Crores)
Fibre Extraction	58	29000	58.00	27.84
Yarn Spinning	28	2100	7.98	2.80
Curled coir	5	500	0.85	1.00
5 Kg. Pith Block	20	20000	26.00	8.00
Grow bags	2	480000bags	3.60	0.80
Total	113		**96.43**	**40.44**

The annual turnover for Coir sector in the cluster area is about 96.43 Crores. It is noted that Coir Fibre extraction occupies the prime space in the turnover achieved, followed by Coir Pith block manufacturing and Coir yarn spinning activity.

2 Cluster Value Chain Mapping

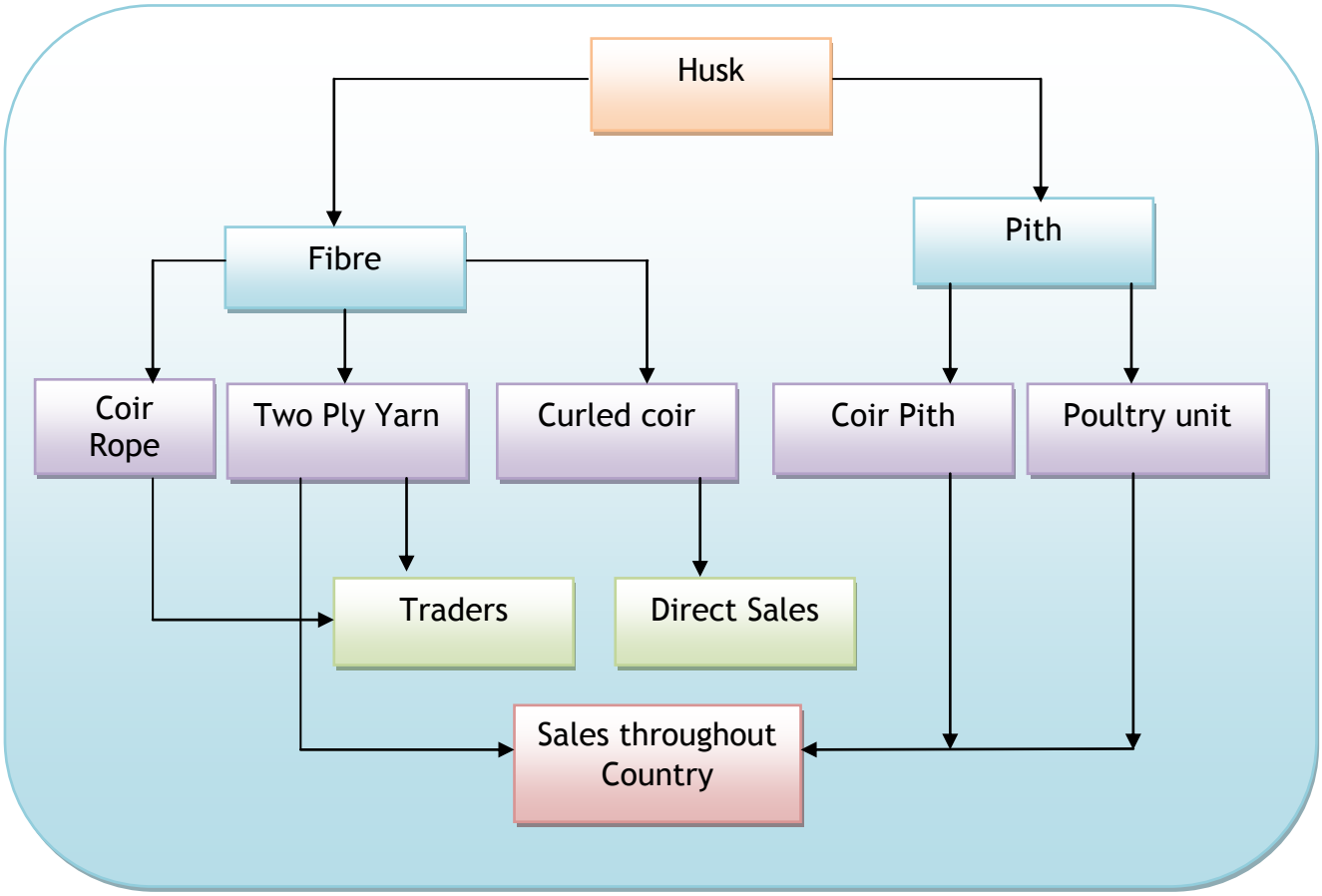
2.1 Product Profile

The following products are produced in the cluster presently.

- Coir Fibre extraction
- Coir Yarn
- Coir Pith Block
- Curled Coir Rope

2.2 Production Process

The Product flow from the raw material is depicted in the chart below:

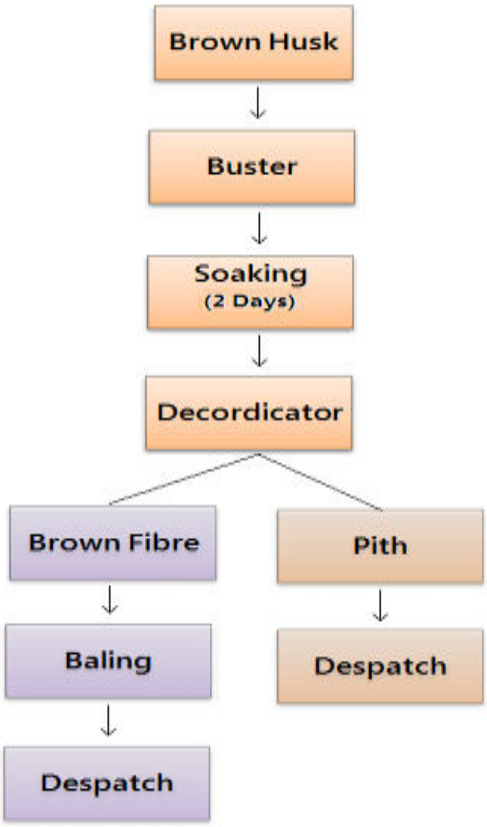


a) Coir Fibre:

The coconut husk (raw material) is collected from the farms and stored. The collected husk is soaked in water. Then soaked material is fed into the decorticator wherein the fibre and pith are separated. The fibre is

dried in the sunlight and is pressed in the form of 35-Kg bundles by using balling press and dispatched for sales.

The process flow of fibre extraction from Brown husk is given below:



b) Coir Yarn:

Coir yarn spinning is similar to cotton yarn spinning. The processes involved given here under:

a. Willowing
b. Combing & Spinning
c. Winding

Coir fibre obtained from fibre extraction units and is wetted by spraying water. After 2-3 hours, the wetted fibre is passed through the willowing machine to remove the impurities and the place the fibre and parallel to each other. The fibre is then fed in to slivering machine wherein it is converted in to sliver form. The slivers are spun into yarn as per specifications in the spinning machine. The yarn is then cleaned and wound in to rolls and is now ready for the market.

The process flow chart for Coir yarn spinning is given below:

c) Coir Pith Block (5 Kg.):

The by-product obtained during the process of Coir Fibre Extraction is Coir Pith. The raw coir pith (high EC) is received and washed in the soft water to reduce the EC. The low EC pith is dried in the yard and the dried pith is subjected to sieving / mixing process. The resultant pith is fed into the compacting machine in which the pith is converted into blocks. Then the blocks are packed and then dispatched to sales. The process flow chart for the Coir pith block making is given below:

High electrical conductivity (EC) of coir pith is the major constraint in using it as growing medium. The higher level of EC in pith is rectified by washing it with good quality fresh water. Hence washing is the significant stage in the process.

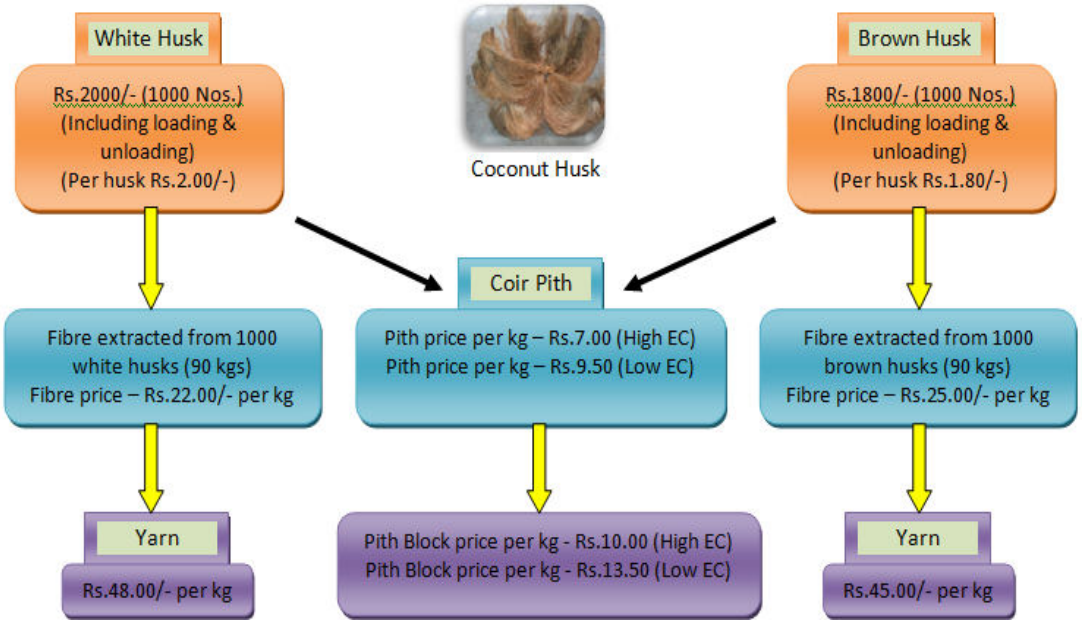
d) Growbags:

The Grow bag is a soil less growing medium mainly used in green houses, for growing vegetables in various countries. The standard size of grow bag is 100 x 18 x 16 cms and the product weight is 2.86 Kgs. The process flow chart of Grow bag manufacturing comprises the following stages.

- Collection of raw materials
- Screening to remove fines upto 45%
- Weighing the raw material
- Feeding the machine
- Weighing the slab
- Insertion of slab in UV bag
- Sealing the bag
- Palleting
- Ready for despatch

2.3 Value Chain Analysis

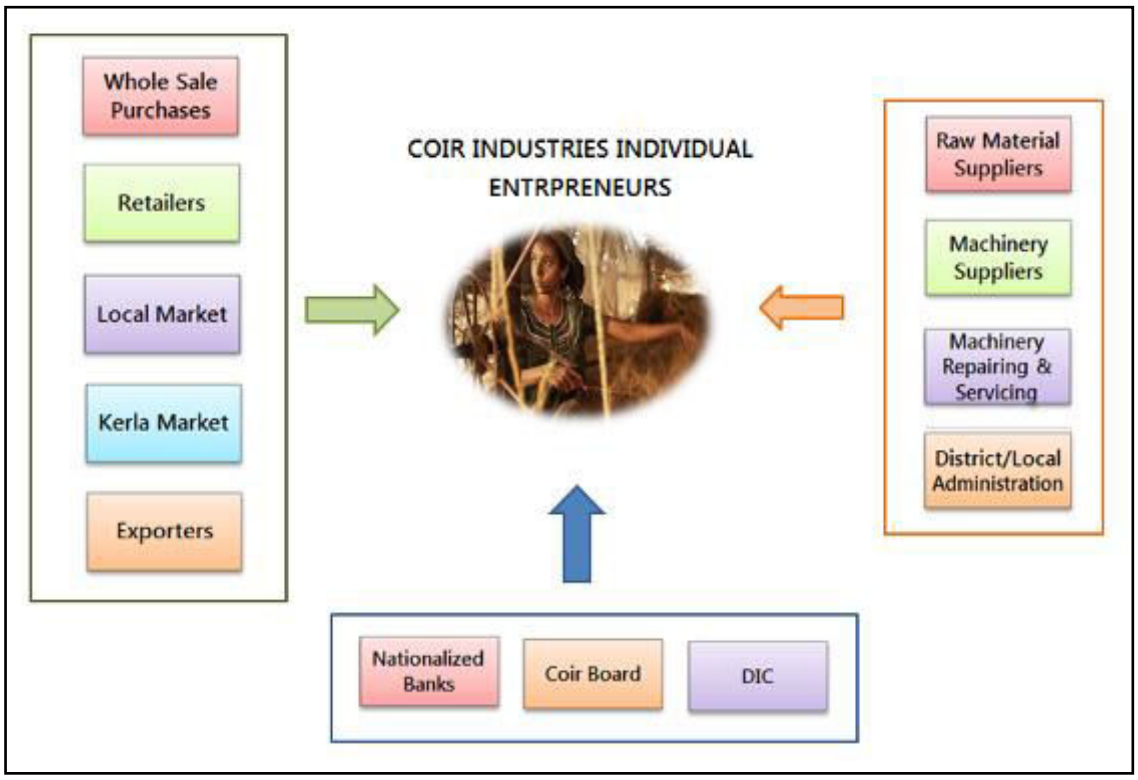
The incremental value of the cluster products from the basic raw material to the final product manufactured in the cluster is given below:



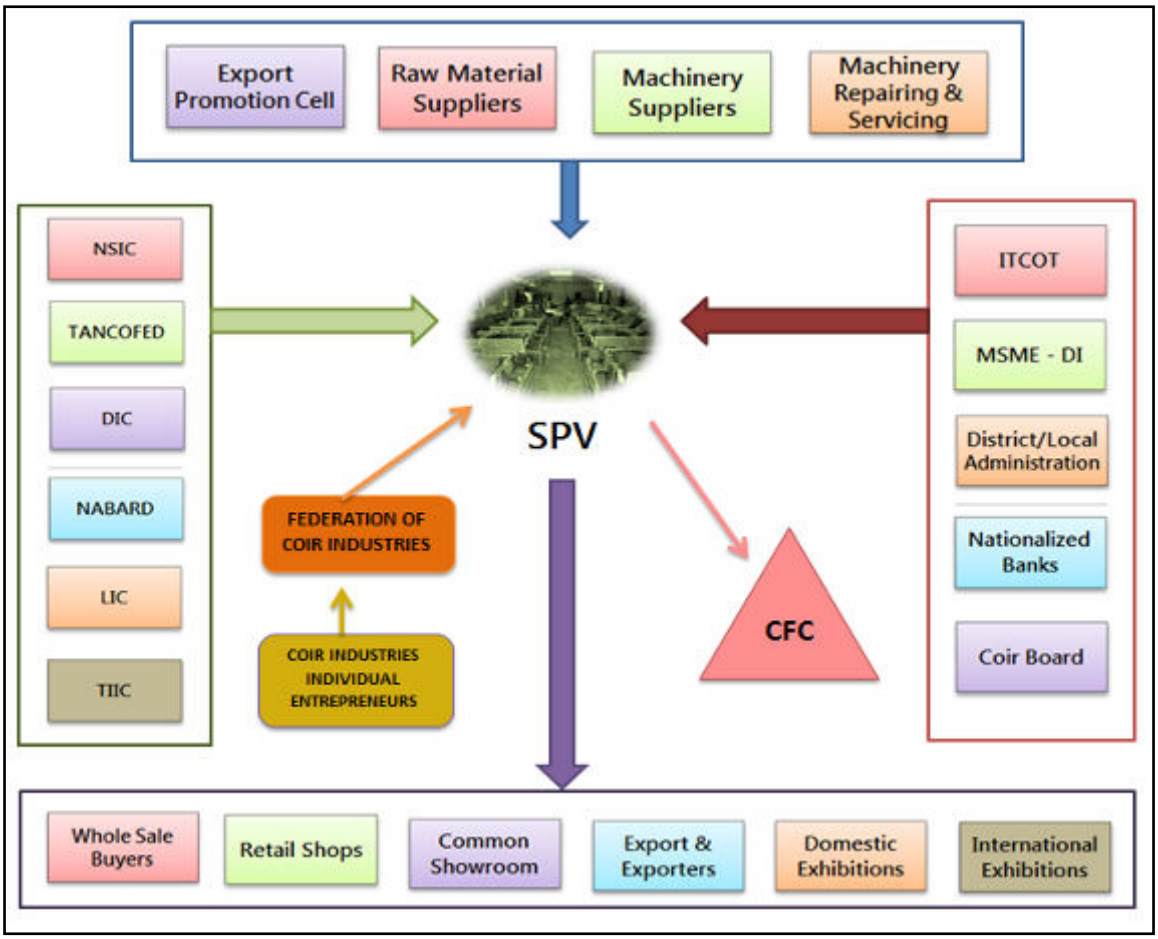
It is observed that the cost of white husk including loading and unloading is valued at Rs.2.00, which is incremented to Rs.28.00 per Kg. of fibre, which is further incremented to Rs.48.00 per Kg. of yarn. Similarly the cost of Brown husk including loading and unloading is valued at Rs.1.80, which is incremented to Rs.25.00 per Kg. of fibre, which is further incremented to Rs.45.00 per Kg. of yarn. The cost of Coir pith, extracted during Fibre extraction, is Rs.7.00 (High EC) and Rs.9.50 (Low EC) is incremented to Rs.10.00 (High EC) and Rs.13.50 (Low EC) per Kgs., when converted to Coir Pith 5 Kgs. blocks.

2.4 Cluster Map

The **Pre-intervention Cluster map** depicting the existing linkages of the cluster is given below:



The **Post-interventions Cluster map** depicting the linkages after the implementation of cluster development initiatives is given below:



2.5 Principal Stakeholders

COIR BOARD

Coir Board is the Nodal Agency for the SFURTI scheme. The coir Board set up by the Government of India under an act of parliament the coir Industry act 1953. Coir Board provides financial, market development, skill training assistance for the development of coir Industry and also extends the technical 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. The Regional Office of Coir Board is located at Pollachi which is near about 110 kms from the cluster area.

DISTRICT INDUSTRIES CENTRE (DIC), ERODE

The District Industries Centre, located in all district headquarters, is the State government body functioning under the aegis of department of industries and commerce. DIC implements various schemes (UYEGP, NEEDS, PMEGP etc.,) to promote MSME sector.

TAMILNADU CORP. FOR DEVELOPMENT OF WOMEN (TNCDW)

TNCDW is one of the government agencies implementing many schemes for Self Help Groups. They also implement Tamil Nadu State Rural Livelihood Mission (TNSRLM) towards poverty eradication.

NABARD

NABARD is the financial institution focusing on Agriculture and Rural Development activities. The institution also focuses on artisan cluster development.

LEAD BANK

Canara Bank is the lead bank in Erode district. Lead bank will do the role of that for financial assistance to be availed in the cluster.

TAMIL NADU AGRICULTURAL UNIVERSITY (TNAU)

TNAU, the premier agricultural university, is located in Coimbatore, which is about 120 kms from the cluster. TNAU is the leading Agro technology provider in India.

ITCOT Consultancy and Services Limited (ITCOT)

ITCOT Consultancy and Services Limited, popularly known as ITCOT, is the state technical consultancy organization, promoted by all India financial institutions, State Development Corporations and Commercial Banks. ITCOT has wide experience in providing support services to micro and small enterprises under various government schemes. ITCOT, having its head office at Chennai, has project offices at Erode and Salem involved in enterprise promotion and development. ITCOT has been empanelled as Technical Agency under SFURTI scheme by Coir Board and KVIC.

Commercial & Cooperative Banks

There is a good network of commercial Cooperative banks in the cluster. They offer both cash credit and term loan facilities to the coir industry. However, institutional finance for coir industry is limited and there is a large gap between the need for the credit and its availability.

3 Market Assessment and Demand Analysis

The Indian coir industry is an important cottage industry contributing significantly to the economy of the major coconut-growing States and Union Territories such as Kerala, Tamil Nadu, Andhra Pradesh, Karnataka, Maharashtra, Goa, Orissa, Assam, Andaman & Nicobar, Lakshadweep and Puducherry.

About 5.5 lakh get employment, mostly part time, from this industry. Coconut husk is the basic raw material for coir products. At least 50 per cent of the available coir husk is used to produce coir products. The rest is used as fuel in rural areas. Hence, there is scope for growth of coir industry.

Coir industry is of great importance to the coconut producing states in India, as it contributes significantly to the economy of rural areas. Kerala is the largest producer of coconut, contributing as much as 35% of country's total production, whereas Tamilnadu stands second in cultivation of coconut and first in production of brown coir fibre in the country. The State wise area and production of coconut is given below:

S.No.	State	Area ('000 Ha)	Production (in million nuts)	Productivity (Nuts/ha)
1.	Kerala	770.62	7429.39	9641
2.	Tamil Nadu	459.74	6171.06	13423
3.	Karnataka	526.38	5128.84	9744
4.	Andhra Pradesh	103.95	1427.46	13732
5.	West Bengal	29.51	373.58	12658
6.	Odisha	50.91	328.38	6451
7.	Gujarat	22.81	312.68	13706
8.	Maharashtra	22.75	271.24	9775
9.	Bihar	14.9	141.38	9489
10.	Assam	19.73	132.59	6720
11.	Chhattisgarh	1.85	30.54	16508
12.	Tripura	7.2	29.51	4097

S.No.	State	Area ('000 Ha)	Production (in million nuts)	Productivity (Nuts/ha)
13.	Nagaland	0.33	2.67	8091
14.	Others	52.8	388.13	7351
	All India	**2088.47**	**22167.45**	**10614**

Coir Board has targeted to double the export of coir and coir products from India within the next three years. During 2015-16, the growth of exports, compared to the previous year, was 20% in terms of quantity and 16.6% in terms of value. During 2016-17 the growth was increased to 27.3% in terms of quantity and 20% in terms of value. There has been an increasing trend in the exports of coir and coir products year to year, it is expected that the trend will continue during the coming years also. The total export of coir and coir products during the last three years are as under:

Years	2014-15	2015-16	2016-17
Quantity (In Metric Tonnes)	626666	752020	957045
Value (Rs. in lakhs)	163033.77	190142.52	228164.82

The major products that are exported are Coir pith, Coir fibre and Tufted Mats. It has been observed that the percentage growth in value of export of Coir pith has been 31.60% in 2016-17 compared to the previous year. Also the percentage growth in value of export of Coir fibre has been 29.10% in 2016-17 compared to the previous year. The data on export of Coir products from India in FY 2015-16 & 2016-17, as per Coir Board, are given below:

	April 2016-March2017		April 2015-March2016		% Growth	
Item	**Q**	**V**	**Q**	**V**	**Q**	**V**
Coir Pith	490552	90539.11	408897	68808.56	20.0	31.6
Coir Fibre	370357	53913.63	255293	41767.11	45.1	29.1
Tufted Mat	51718	48442.83	45770	44316.03	13.0	9.3
Handloom Mat	20143	21316.31	20386	22279.96	-1.2	-4.3
Geo textiles	6219	4481.04	4520	3531.72	37.6	26.9
Coir Yarn	4426	2948.32	4134	2820.82	7.1	4.5
Curled Coir	10356	2419.30	9470	2510.07	9.4	-3.6
Handloom Mattings	1272	1535.25	1706	1968.78	-25.4	-22.0

Rubberized Coir	888	1295.64	678	971.74	30.9	33.3
Coir Other Sorts	256	416.59	46	94.79	451.9	339.5
Coir Rope	484	388.50	517	396.61	-6.3	-2.0
Coir Rugs & Carpet	205	271.92	307	282.5	-33.1	-3.7
Powerloom Mat	166	196.38	280	367.35	-40.5	-46.5
Powerloom Matting	0	0.00	16	26.48	-	-
Total	**957045**	**228164.82**	**752020**	**190142.52**	**27.3**	**20.0**

* Q=Quantity in MT, V=Value in Rs.Lakhs

The percentage of share of each product with respect to total exports, both in Quantity and Value for the year 2016-17 is given below:

	2016-17		**Export Composition %**	
Item	**Q**	**V**	**Q**	**V**
Coir Pith	490552	90539.11	51.26	39.68
Coir Fibre	370357	53913.63	38.70	23.63
Tufted Mat	51718	48442.83	5.40	21.23
Handloom Mat	20143	21316.31	2.10	9.34
Geo textiles	6219	4481.04	0.65	1.96
Coir Yarn	4426	2948.32	0.46	1.29
Curled Coir	10356	2419.30	1.08	1.06
Handloom Mattings	1272	1535.25	0.13	0.67
Rubberized Coir	888	1295.64	0.09	0.57
Coir Other Sorts	256	416.59	0.03	0.18
Coir Rope	484	388.50	0.05	0.17
Coir Rugs & Carpet	205	271.92	0.02	0.12
Powerloom Mat	166	196.38	0.02	0.09
Total	**957045**	**228164.82**	**100.00**	**100.00**

* Q=Quantity in MT, V=Value in Rs.Lakhs

The Top five County wise Exports of Coir and Coir products in the year 2016-17:

S.No.	**Country**	**Quatity (in MTs)**	**Value (Rs.Lakhs)**	**Quantity (%)**	**Value (%)**
1.	China	439884.57	66655.52	45.96	29.21
2.	USA	133536.72	53286.56	13.95	23.35
3.	Netherlands	82487.53	18148.78	8.62	7.95
4.	UK	17668.15	11076.22	1.85	4.85
5.	South Korea	57545.12	9486.28	6.01	4.16

It is observed that the growth in coir product exported from India in 2016-17 has increased 27.30% in terms of quantity and 20% in terms of value compared to the previous year of 2015-16. Hence, it is considered that the growth prospects for Coir fibre, coir yarn and pith are excellent, both domestically and internationally.

Existing Marketing Setup for Cluster Products

The Coir Fibre produced in the cluster is being supplied as raw material to Coir yarn units in the cluster area and also exported as Coir Fibre bales for value addition. Coir Yarn produced is mostly supplied to Kerala market. Coir Pith blocks produced in the cluster is exported to UK and Netherlands. Coir Grow bags produced in the cluster is exported to USA & Canada.

Marketing Plan for Cluster CFC Products:

As the project is proposed as the Common Facility Center (CFC) to be operated on User fee basis, the raw material will be brought by the User member, get it converted in the CFC and will take back the finished product. Consequently, the marketing of the converted products has to be undertaken by the Individual user members. However, being the cluster development project, the **SPV propose to operate a Marketing Cell**, to guide and promote the marketing of the value added finished products of user members. In this connection, SPV propose to engage a Marketing consultant as the Business Development Service (BDS) provider to devise suitable marketing strategy product wise and to facilitate marketing of the products of user members.

User member, who wish to avail the marketing support of the Marketing cell of the cluster, would be guided for marketing their products.

As far as the Cluster CFC is concerned the product line is as given below:

- Two-ply Coir Yarn
- Coir Mattings
- Coir Geo-textiles
- Cocolog

The marketing plan for the CFC products of Sri Kongu Coir Cluster is given below:

Marketing Plan for Two-ply Coir Yarn spinning facility:

Coir Yarn spinning facility has been proposed to convert Coir fibre to Coir yarn for user members and also for value addition of yarn to Mattings or Geo-textiles. The services of Cluster Marketing Cell would be utilized for marketing the product.

Marketing Plan for Coir Mattings:

The following marketing initiatives are proposed to be undertaken to promote the Coir Mattings produced in the CFC:

i. Establishing linkages with Coir Board showrooms, wherein swift movement of Coir Mattings is reported, specifically in the showrooms at Mumbai, Kolkotta, New Delhi and Jammu.
ii. Establishing linkages HR&CE department & Devasthanam boards, wherein huge requirement of Coir Mattings for big temples exists in temples such as Golden temple – Amritsar, Tirupathi - Andhrapradesh, Palani, Tiruchendur, Madurai - Taminadu.
iii. Establishing specific marketing channel and appointment of dealers in potential market centers
iv. The following market leads are identified viz.
    - Kankan Coir Mats & Mattings, Alleppey
    - Palm fibre India P Ltd, Alleppey
    - Kerala State Coir Corporation, Kerala
    - Other Coir Exporters, Kerala

As the utility and preference for Coir Mattings as a life-style product is high, the marketing prospects for Coir Mattings is considered good.

Marketing Plan for Coir Geo-textiles:

Coir Geo-textiles is gaining importance because of its eco friendly nature. Coir is one of the reliable material to be used as a geo-textile as it is strong and degrades slowly compared to other natural fibers due to high lignin content.

Coir Geo-textiles are used in reinforcement of embankments or in constructional work. The fabrics in Geo-textiles are permeable and are used with soils having ability to separate, filter, protect or drain. The application areas include civil engineering, earth and road construction, dam engineering, soil sealing and in drainage systems.

Coir Geo-textiles have been used for soil erosion control, paved and un-paved road construction. National Rural Road Development Agency (NRRDA), Govt. of India has approved the construction of 450 Km of rural roads in 9 states of the country under Pradhan Mantri Gramin Sadak Yojana (PMGSY) using Coir geo-textiles, which have also got the accreditation of Indian Road Congress (IRC).

The following market leads are identified to initially promote the Geo-textiles produced in the CFC:

- Karnataka state coir cooperative federation
- Charankattu Coir, Allappey
- Foam matting India Limited, Allappey

Considering the utility and eco-friendly nature of Coir Geo-textiles, the marketing prospects are considered good.

Marketing Plan for Cocologs:

As Coco fibre logs are designed to aid in control of soil erosion and 100% bio degradable and environment friendly, the usage segments are steep slopes or areas with exposure to waves or currents which cause instability on site. The Kerala Backwaters are a network of interconnected canals, rivers, lakes and inlets, a labyrinthine system formed by more than 900 km of waterways. As the baby fibres are used in the manufacture of soil erosion control blankets in Kayals (backwater lakes) for the promotion of vegetation on the slopes and control soil erosion, it is proposed to market baby fibre bales to the companies supplying the soil erosion control products.

4 SWOT and Need Gap Analysis

4.1. SWOT Analysis

Strengths

- Sufficient availability of coconut husk (basic raw material) in the cluster.
- Huge production of Coir Fibre, which has wide scope for value addition.
- Existence of knowledgeable and entrepreneurial cluster members.
- The investment potential of coir entrepreneurs in the region is significant.
- Well established physical infrastructure viz. road, rail, power etc.
- Excellent network of commercial and co-operative banks in the cluster.
- Presence of other Support institutions such as District Industries Centre, Commercial banks, ITCOT etc.

Weaknesses

- Production of value added finished products is very minimal when compared to the resources available in the cluster
- Lack of awareness on the incremental benefits of manufacturing of value added finished products.
- Defensive attitude of the entrepreneurs resulting in stagnancy in product line in spite of wide product line/value chain in coir sector.
- Lack of formal networks for marketing and input procurement
- Limited contact with BDS providers and Technical Institutions

Opportunities

- Potential for product diversification and value addition from existing products.
- Exploiting the individual investment potential for strengthening the value chain would augment the prospects of the industry appreciably.
- Increasing Domestic and Export market prospects for coir products.
- Good scope for manufacturing of value added /diversified products
- Focus of State and Central Governments on Cluster development and introduction of various schemes for cluster development.

Threats

- Utilization of husks for fuel purposes.
- Competition from products such as Nylon, Jute Sisal fibre etc.
- Competition from coconut growing countries viz.: Sri Lanka, Indonesia & Philippines etc.

4.2. Need Gap Analysis

The key concern areas of the cluster are identified to be:

- Apparent Stagnancy in Coir Fibre market perceived. Coir Fibre units suffocate due to the price rise in raw material (Husks) and stagnancy in Coir Fibre price.
- Cluster's present production is limited to conventional products such as coir fibre, coir yarn, curled coir etc., which fetches reduced margin only. Lack of common initiatives among the entrepreneurs in the cluster so far, to venture into the production of value added finished products of high market value.
- No common marketing platform, resulting in over dependence of intermediaries/ agents /traders.
- Huge market potential noticed for high-end value added products such as Coir mattings & Coir Geo-textiles etc. but lacking required production infrastructure.
- In spite of good market prospects for value added products, enhanced production infrastructure within the cluster is not realized, due to limited individual investment potential.

It is observed that the export potential for niche value added products are not at all tapped by the cluster with its current products and hence diversified basked of value added products having prospective market potential is identified to be the need of the cluster.

Collaborative efforts to increase captive consumption of fibre on cluster mode to tap the market opportunities for the value added coir products are considered to be the present requirement of the cluster.

5 Profile of the Implementing Agency

IMAIGAL TRUST, an NGO registered as Trust, having its registered office at Erode, located in the cluster district headquarters is proposed as the Implementing Agency of this cluster. The details of the agency are given below:

I	**Institutional Structure / Registration Details**				
B.1	Name & Legal Status				**IMAIGAL TRUST Registered under Trust Act No. 914/2009**
B.2	Date of Incorporation / Registration				27-07-2009
B.3	Registered Address				41,Mekala Thottam , Alam Palayam, Sirukalanji, Uthukuli, Perundurai, Erode Dt.,Tamilnadu - 638751
B.4	Office Address / Locations				145,2nd Floor, Sathy Road, Opposite To Bus Stand, Near PARK Palace Hotel, Erode District, Tamilnadu - 638003
B.5	Affiliated to Coir Board				No
II	**Governance Structure**				
B.6	Composition of the Executive Board / Trustees / Governing Body/ Managing committee and Background of Member	#	**Name of Member**	**Designation**	**Background / profile**
		1	R.Prabhu	Chairman, Managing Trustee	Msc., PG Dip Agri Above 15 Years Experience
		2	A.Poongodi	Secretary, Trustee	BE., PGDABM.,MSW., 9 Years Experience
		3	N.Senthilkumar	Trustee	M.Com. Above 15 Years Experience
		4	P.Gowrishankar	Trustee	Msc., Above 15 Years Experience
		5	A.Appachi Gounder	Trustee	Above 30 Years Experience
B7	Company		NA		

III	**Operational Profile**	
B.8	Major objectives – Vision, Mission, Goal of the organization	Vision: Promoting and Application of social and economic, Sustainable development of the rural communities for the Future Mission: To provide professional Training and Skill development services in Agricultural, Social, environment development in Rural areas

		Goal of the organization: ✓ To facilitate self employment and entrepreneurship through need-based Training programs and development initiatives. ✓ To facilitate orientation of individual,/ enterprises towards common goal achievement ✓ To build up innovated skills, improved technologies in rural enterprises ✓ To support development of rural people and improve their livelihoods ✓ To augment employment opportunities in rural areas through skill upgradation training in identified sectors
B.9	What are focus areas of operation	• Skill Training programs for rural communities • Entrepreneur Development Programmes from Agricultural and Rural Development • To Create Farmers Producing Organization • Social and Environmental sustainable activities • Capacity Building from rural activities • Industrial Promotion and Legal Aspects Training • Socio-economic development • Import and Exports Related Training
B.10	Provide key project / activities being undertaken by the IA – Brief description including the project scope, size and duration (*mention specific experience in the area/ sector of the proposed project)*	➢ EDP and Skill Training programs from Agricultural and Rural Developments ➢ Facilitation of Rural entrepreneurship ➢ Industrial Safety Training ➢ Import and Export promotions and Training ➢ Beauty Parlor management and Embroidery ➢ Paper and Fiber Bag Manufacturing's ➢ Coconut Processing activities and waste Utilization ➢ Waste management products ➢ Manufacturing of Bio-Products, Biofertilizers, Bio preservatives, Natural Dyes, Enzymes and other Biotechnological product ➢ Market promotion of valuable products ➢ Association of respective clusters in various activities Eg, Farmers, Textile, Traders, etcWaste management products ➢ Manufacturing of Bio-Products, Biofertilizers, Bio preservatives, Natural Dyes, Enzymes and other Biotechnological product
B.11	Mention key clients/donor associated with for project implementation along with details on the nature of association	NABARD, Department of Agriculture, Tamilnadu Skill Development Corporation, Department of Horticulture and plantation crops Nature of association: As Training partner, Implementation partner and support agency.
B.12	Mention key partnership	ASCI, TNSDC, Department of Agriculture..Etc.

	/ alliances		
IV	**Management Profile**		
B.13	Background of key Personnel (Professionals and others) with brief profile of the senior management personnel)	➢ Mr.R.Prabhu,M.Sc., PGABM, Managing Trustee Having 15 Years Experience in Various sectors like Rural Development, Skill Training, Agro Industrial Development Training, Capacity Building, Soft skills, Business Promotions, SHG, Clusters, FPO Formation, promotions., Farmer Field Schools, Quality Improvement Training, Legal Aspects Training. ➢ Mrs.A.Poongodi,BE.,PGDAM.,MSW., Secretary. Having 9 Years Experience in Various Sectors like EDP Training, Quality Improvement Training, FPO, SHG Formation and Promotional Training, Industrial Safety Training, Fire Safety and First Aid Awareness, Women Development, Agro Based Industries promotions, Legal Awareness Training, Value Addition Training..etc.	
V	**Financial Position**		
B.14	Key financials of the organization (*provide copy of the audited financial statements for last three years)*	Fixed Assets	Nil
		Current Assets	Rs.16,93,972
		Current Liabilities	Nil
		Revenue trend for last three years	FY 2017-18 - Rs.1219000 FY 2016-17 – Rs. 1040760 FY 2015-16 – Rs. 513390 Attached audited report
		Profit/loss for the last three years	FY 2017-18 – Profit - Rs.9600 FY 2016-17 – Profit - Rs.3300 FY 2015-16 – Profit - Rs.2078 Attached Audited report
		Any other	-
VI	**Bank Account Details**		
B.15	Name of Bank	Andra Bank	
B.16	Branch Name	Erode Branch	
B.17	Bank Account Number	278411100002634	
VII	**Contact Details**		
B.18	Name of Contact Person	Mr.R.Prabhu	
B.19	Designation of Contact Person	Managing Trustee	
B.20	Correspondence Address	145, 2nd Floor, Sathy Road, Opposite to Bus Stand, Near PARK Palace Hotel, Erode, Tamilnadu - 638003	
B.21	Contact Number	9500960020, 8248786810	
B.22	Email Address	theimaigaltrust@gmail.com	

6 Project Concept and Strategy Framework

6.1 Project Rationale

The existing production potential of intermediate Coir products in the cluster is promising and hence the cluster is considered suitable for development in order to cater the growing market needs for the Value added coir products, both in domestic and international arena.

Focusing on empowering the Coir entrepreneurs in the cluster, the cluster development programme envisages establishment of Common Facility Centers (CFCs) on User fee basis to enable them the access of Modern technology/machinery to manufacture of value added products and to experience the benefits of value addition. Accordingly, the following projects are proposed as Common Facility Center for the cluster.

i) Coir two ply yarn production (for uninterrupted and uniform supply of raw material for the Geo-textile and Mattings production facility proposed as Cluster CFC)
ii) Coir Mattings production facility
iii) Geo-Textiles production facility

The establishment of the Common Facility Center revitalizes coir based activities in the cluster and the cluster convergence would result in additional investment in coir based industries, increased turnover and better employment opportunities.

6.2 Project Objective

- To advance growth and ensure sustainability of coir based industries with diversified basket of heterogeneous coir products based on target consumer segment.
- Setting up of suitable cluster-specific Common Facility Center (CFC) to ensure optimum output of value added coir products in the cluster.
- Effective utilization of available raw material resource in the cluster by strengthening the linkages with raw material suppliers/farmers

- To form a Special Purpose Vehicle (SPV) with the participation of coir units in the cluster and to strengthen/capacitate the SPV as a whole.
- Strengthening linkages among the Cluster/SPV members and stakeholders and to have a Collaborative setup to address common problems.

6.3 Focus Products/Services

In addition to the Soft interventions for Capacity building and Market promotion initiatives, the following facilities are proposed as interventions for the development of the cluster:

- Coir Two ply yarn spinning facility
- Coir Geo-textiles production facility
- Coir Mattings production facility

6.4 Conceptual Framework / Project Strategy

- Cluster initiatives are considered to be efficient policy instruments in that they allow for a concentration of resources and funding in targeted areas with a high growth and development potential that can spread beyond the target locations (spillover and multiplier effects)
- The overall guiding principle is to make the Cluster more productive and the Cluster products more competitive by way of addressing the current production and supply bottlenecks, enhancing the marketability of the products, introduction of improved technology/techniques and strengthening Cluster linkages.
- Exploit the benefits arising out of optimization of resources and economies of scale.
- Create an autonomous governance framework in the cluster, in a step-by-step process that will effect dynamism and positive change in the cluster.

7 Project Interventions

7.1 Soft Interventions

a) Capacity Building:

- Trust Building and awareness programme: For strong association among cluster members to address common problems and to provide awareness about scheme benefits, Cluster development initiatives and the prospects for value added products in Coir sector.
- Entrepreneurship Development Programme: To foster entrepreneurship among cluster members.
- Skill Upgradation Programme: To increase the skilled labour force in the cluster to address the problem of limited skilled labour availability.
- Exposure Visit: Visit to other vibrant cluster, research institutions etc. to understand the synergic effect and dynamics of vibrant clusters and to demonstrate the technology and marketability for value added products.

b) Market Promotional Activities:

- Market Study Tour: To enable the cluster members to gain a deeper understanding of the business environment and market dynamics in Coir sector.
- Participation in Trade Fairs: To conduct business, cultivate cluster's image and to examine the market. The main objectives of participation of trade fairs are:
  - Increased Sales
  - Product showcasing for enhanced product visibility
  - Establish qualified leads
- Buyer Seller Meet: To meet various players in the value chain for building business contacts and enhance marketability
- Engagement of Business Development Service Providers: To improve the performance of the enterprise, its access to markets, and its ability to compete.

7.2 Hard Interventions:

a) Creation of common facility centre:

The common facilities are proposed for the Sri Kongu Coir Cluster in order to rejuvenate the existing product-mix of the cluster with major focus on value addition, which is expected to result in effective raw material utility, enhanced marketability and profitability. The Common facilities proposed are:

- Coir Two ply yarn spinning facility
- Coir Mattings production facility
- Geo-textiles production facility

7.3 Thematic Interventions

Cluster's active involvement and participation in activities such as national and international level brand promotion campaigns, New Media marketing, E-commerce initiatives etc. as proposed under the SFURTI implementation guidelines is projected as part of thematic interventions.

8 Soft Interventions

8.1 Capacity Building

S.No	Particulars	
1	Proposed Programme / Intervention	Trust Building and awareness programme
2	Target group	Cluster members
3	No. of Batches	2
4	Batch size	50 nos
5	Training content	Self & Group motivation
6	Trainer / Training Institution	ITCOT Consultancy and Services Limited
7	Cost of Training programme	Rs. 1,00,000/-
8	Implementation timeline	Year I, Quarter I

S.No	Particulars	
1	Proposed Programme / Intervention	Entrepreneurship Development Programme
2	Target group	Coir Entrepreneurs
3	No. of Batches	1
4	Batch size	25 nos
5	Training content	Motivation, Govt Subsidy Schemes, Banker role in Industries, Government statuary approvals, Marketing
6	Trainer / Training Institution	ITCOT Consultancy and Services Limited
7	Cost of Training programme	Rs. 1,00,000/-
8	Implementation timeline	Year I, Quarter II

S.No	Particulars	
1	Proposed Programme / Intervention	Skill upgradation Programme
2	Target group	Coir workers

3	No. of Batches	2
4	Batch size	25 nos
5	Training content	Skill Training for Coir Mattings & Geo Textiles.
6	Trainer / Training Institution	Coir Board (at CCRI, Alleppey)
7	Cost of Training programme	Rs. 2,00,000/-
8	Implementation timeline	Year I, Quarter III & Quarter IV

S.No	Particulars	
1	Proposed Programme / Intervention	Exposure tours
2	Target group	Coir Entrepreneurs
3	No. of batches	As per requirement
4	Programme content	Visiting research institutions, other Coir clusters to understand cluster dynamics and technology update
5	Coordinating Institution	ITCOT Consultancy and Services Limited
6	Cost of programme	Rs. 3,00,000/-
7	Implementation timeline	Year I, Quarter III

8.2 Market Promotion

S.No	Particulars	
1	Proposed Programme / Intervention	Market study tours
2	Target group	Coir Entrepreneurs
3	No. of Batches	As per requirement
4	Programme content	To understand market dynamics, To interact with market intermediaries to understand the product wise market potential in potential market centers
5	Coordinating Institution	IA & TA
6	Cost of programme	Rs. 4,00,000/-
7	Implementation timeline	Year II, Quarter I / Quarter II

S. No	Particulars	
1	Proposed Programme / Intervention	Participation in Trade fairs
2	Target group	SPV members
3	No. of Batches	As per requirement
4	Training content	Participation & Exhibit cluster products
5	Trainer / Training Institution	Coir Board
6	Cost of Training programme	Rs. 5,00,000/-
7	Implementation timeline	Year II - Quarter III / Quarter IV

S.No	Particulars	
1	Proposed Programme / Intervention	Buyer Seller Meet
2	Target group	SPV members
3	No. of Batches	As per requirement
4	Training content	Direct Contact with Buyers
5	Trainer / Training Institution	IA, TA & Coir Board
6	Cost of Training programme	Rs. 2,00,000/-
7	Implementation timeline	Year II - Quarter III / IV

S.No	Particulars	
1	Proposed Programme / Intervention	Tie up with Business Development service(BDS) providers
2	Target group	SPV members
3	No. of Batches	As per requirement
4	Training content	New Product development New design development
5	Trainer / Training Institution	BDS Providers
6	Cost of Training programme	Rs. 2,00,000/-
7	Implementation timeline	Year II - Quarter II / Quarter III

9 Hard Interventions

9.1 Proposed Interventions:

The following common facilities are proposed for the Sri Kongu Coir Cluster to enhance raw material utility, marketability and profitability.

- Coir Two ply yarn spinning facility
- Coir Mattings production facility
- Geo-textiles production facility

9.2 Land and Building

Land:

The land for Common Facility Center (CFC) has been taken for lease by the SPV, the location being S.F.No.461, Ichipalayam village, Kodumudi Taluk, Erode district. The extent of land is 5.10 acres and the lease deed has been executed and registered. The land is located at Ichipalayam village, about 4.50 Kms from Kodumudi town and 0.5 Km from Kodumudi to Muthur Road. Other infrastructural facilities such as road, power, water etc. are found adequate for the proposed CFC.

Building and Civil works:

The total extent of building for the proposed Common Facility Center is estimated at 18,600 Sq.ft. and the section wise extent is given below:

S. No	CFC Building	Built up Area (in Sq.ft)
1.	Coir Yarn Spinning Work shed	7200
2.	Matting & Geo-textiles Work shed	7200
3.	Cocolog workshed	500
4.	Concrete yard	3000
5.	Admin Office	500
6.	Power room	200
Total		**18600**

The estimate of building and civil works proposed has been worked out to Rs.118.50 lakhs.

The building construction of Common Facility Center shall be in accordance with the Tamilnadu Transparency in Tender Act 1998 & The Tamil Nadu Transparency in Tender Rules, 2000.

9.3 Product & Process:

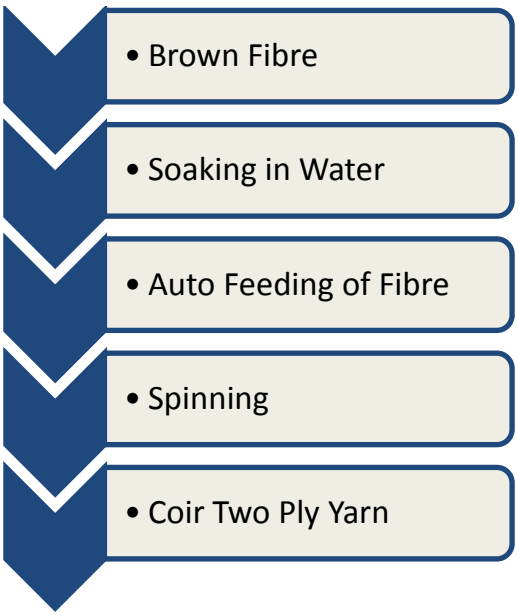
a) Coir Two Ply Yarn

Coir Yarn is generally of two ply, spun from coir fibre with fully automatic spinning machines. The Coir yarn is of different qualities/grades based on the quality of fibre used, the nature of twist, presence of impurities etc.

Coir yarn, being an intermediate product is consumed for varied uses. For the proposed Coir Matting and Geo-textiles manufacturing facility in the cluster, spinning facility is created to strengthen the backward linkage i.e. ensured raw material resource. The need for this facility is to ensure uniform quality of raw material, which is mandatory for Coir matting and also to ensure uninterrupted supply & stable price.

Production Process:

The process flow chart for Coir yarn spinning is given below:



Two Ply Yarn Spinning Machine

Coir Two Ply Yarn

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.

b) Coir Mattings & Coir Geo-textiles

Coir Mattings & Geo-textiles are manufactured using Coir yarn through Fully automatic Powerloom. The same loom may be utilized for the manufacture of both Coir Mattings and Geo-textiles.

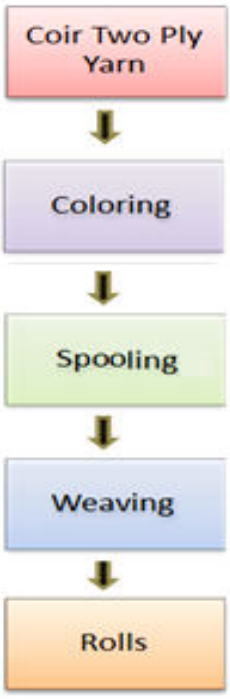
Coir Mattings

Coir mattings are used as floor coverings and floor runners for furnishing stairs/corridors. Also used for wall panelling, ceiling, lining and echo-control. Available in natural beach, solid colours and a multitude of designs/patterns made by weave and colour combinations.

Coir Mattings are proposed to be manufactured using Fully automatic powerlooms, with Coir yarn as the raw material.

Production Process

The manufacturing process flow chart is given below:



The BIS Standard for Coir Mattings is IS 12503 - 1988. This standard prescribes the requirement of Coir Mattings of different construction woven on looms.

Coir Geo-textiles:

Coir Geo-textiles are made from Coir yarn through fully automatic Powerloom. Like other polymeric counterparts, coir geotextiles are developed for specific application in civil engineering like erosion control, ground improvement, filtration, drainage, river bank protection, road pavements, slope stability etc. Coir geo textiles promote the growth of new vegetation by absorbing water and preventing the topsoil from drying out. As it has strength and durability, it protects slopes and help natural vegetation to take root in the soil. Coir geo-textiles can be used to stabilize the soil temporarily when construction roads or banks. Coir geo-textiles are being used as a separation cum drainage layer in the road construction, as depicted below:

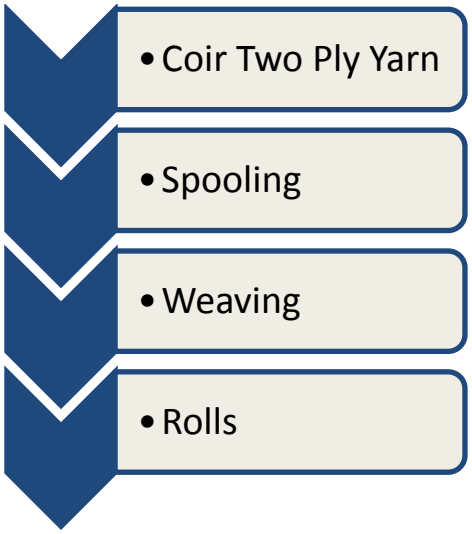
Coir Geo-textiles @ River banks

Coir Geo-textiles @Road construction

This biodegradable and environment friendly material is virtually irreplaceable by any of the modern synthetic substitutes. Due to growing awareness to preserve environment, use of biodegradable natural material has gained popularity. The natural fibre, coir, which has been used in geotextiles for the past 20 years, has already proved its worth.

Production Process:

The process flow chart for Geo Textiles is given below:



Coir Geo-textiles loom

Coir Geo-textiles

The BIS Standard for Coir Geo-textiles is IS 15872-2009. This standard prescribes the code for the guidelines of woven coir bhoovastra suitable for application in slopes of Road and Railway Embankments and also in Hill slopes including the selection of woven coir bhoovastra and installation methods.

9.4 Proposed Capacity

a) Coir Two Ply Yarn Spinning

The installed capacity of the proposed Coir yarn spinning unit is 80 kgs per shift. It has been proposed to purchase 25 Nos. of yarn spinning machine. On single shift operation for 300 working days per annum, the installed capacity is worked out to 600 tons per annum

Capacity per machine per shift	80 kgs
Number of machines	25
Number of shifts per day	1
Number of days per annum	300 days
Installed Capacity per annum	600 tons

The capacity utilization has been proposed at 60%, 70% and 80% in the first, second and subsequent years respectively.

b) Coir Mattings & Geo-Textiles

Fully Automatic power looms are proposed for manufacture of both Coir Mattings and Geo-textiles. It has been proposed to procure 3 Nos of fully automatic power looms for the manufacture of Geo-textiles and 2 Nos. for

the manufacturing of Coir matting. The production capacity of the coir matting and geo-textiles are 100 Sq.mt per shift and 400 Sq.mt per shift per loom respectively. The production details for Coir Mattings and Geo-textiles facility proposed are given hereunder:

Coir Matting	
Capacity per loom per shift	100 Sq.m
Number of looms	2
Number of shifts per day	1
Number of working days per annum	300
Installed Capacity per annum	60000 Sq.m
Geo-Textiles	
Capacity per loom per shift	400 Sq.m
Number of looms	3
Number of shifts per day	1
Number of working days per annum	300
Installed Capacity per annum	360000 Sq.m

The capacity utilization has been proposed at 60%, 70% and 80% in the first, second and subsequent years respectively.

c) Coco logs

Coco logs are produced by stuffing the Coir baby fibres in the Coir Netting to form a cylindrical structure. In view of realizing value for the waste (baby fibres) , it has been proposed by the SPV, to go in for the production of Coco logs, which have good market prospects.

The installed production capacity of Cocologs in the proposed CFC is given below:

Capacity per machine per shift	150.00	Nos.
Number of machines	2	
Number of shifts per day	1	
Number of working days per annum	300	
Installed Capacity per annum	90000.00	Nos.
Baby fibre reqt.	13.00	Kgs. per piece
Cost of baby fibre	Rs. 5,000.00	per ton
Consumable (Netting rope)	Rs. 80.00	per piece
Selling price	Rs. 105.00	per No.

The capacity utilization has been proposed at 60%, 70% and 80% in the first, second and subsequent years respectively.

9.5 Proposed Machinery and Equipments

a) Coir Two Ply Yarn Spinning

The list of machineries proposed for the Coir Yarn spinning facility is given below:

S.No	Machinery / Equipments	Specification
1.	Two ply Coir Yarn automatic spinning machine – 25 Nos.	Drum head, double drum with 1.5 HP 1440 RPM Motor each Capacity: 80 Kgs. per 8 hour shift
2.	Auto feeder for Double head spinning machine – 25 Nos.	With 0.5 HP 1440 RPM Motor and Gearbox Coupled with 0.5 HP 1440 RPM Motor and Panel board
3.	Turbo willowing machine	3 Nos.
4.	Auto Rewinding machine	4 Nos.
5.	Four headed Spooling machine – 2 Nos.	With Roller stands, spool remover and motor

Totally 25 Nos. of Coir spinning machines with 2 Nos. of 4-head spooling machines is proposed. **The spooling machines are required to make yarn spools to feed the auto looms for the manufacture of Coir Mattings / Geo-textiles, which is part of the CFC**. The total cost of spinning section is estimated at Rs.108.00 lakhs.

b) Geo-Textiles

The Fully automatic Power loom and supporting machineries proposed for the Geo-textiles production is given below:

S.No	Machinery / Equipments	Quantity
1	Fully Automatic Power loom suitable for weaving Geo Textiles	3 Nos.
2	Cops winding machine (Single Spindle)	2 Nos.
4	Geo-textile roll tightening machine	1 Nos.

The cost of 3 Automatic Loom machinery and accessories is estimated at Rs.72.00 Lakhs.

c) Coir Mattings

The Fully automatic Power loom proposed for the CFC can be utilized for the manufacture of Coir Mattings. The list of machineries proposed for the Coir Mattings/Geo-textiles production is given below:

S.No	Machinery / Equipments	Quantity
1	Fully Automatic Power loom suitable for weaving Coir matting in 200 cm. width with facility to weave 2 shaft, 2/2 panama, 4 shaft, boucle weaves with accessories	2 Nos.

The cost of 2 Automatic Loom matting machinery and accessories is estimated at Rs.68.00 Lakhs.

d) Coco logs

The specification of the Cocolog machines proposed for the CFC are given below:

Coco log Size	Dia 12", 15", 20"
Power	3.8 kw / 5 hp
Compacting Tonnage	10 Tons
Max.Operating Pressure	150 bar
Main Cylinder	Bore 100mm Stroke 1000mm

The cost of 2 Cocolog machinery and accessories is estimated at Rs.5.00 Lakhs.

e) Electricals & accessories

The cost for Electricals and borewell charges for CFC site is estimated at Rs.5.00 lakhs.

f) Generator

The cost of Generator set of Capacity 160 KVA is proposed at an estimated cost of Rs.12.00 lakhs.

g) Effluent Treatment Plant equipments

As Coir Mattings is proposed as an activity in the project, provision for yarn dyeing has been given and for the cost of ETP equipments have been estimated at Rs.3.00 Lakhs.

h) Handling infrastructure

The Handling infrastructure proposed to handle the CFC products is one Forklift and a weigh bridge at an estimated total cost of Rs.12.00 lakhs.

i) Weigh bridge

Weigh bridge of 80 Tonne capacity is proposed at an estimated cost of Rs.15.00 lakhs.

All the machineries for the Common Facility Center are to be procured through transparent tender process in accordance with the scheme guideline stipulations.

9.6 Power

The connected load requirement estimated for the project is 140 HP. The power connection could be availed through Single window scheme of District Industries Center. It is also proposed to purchase a Generator of 160 KVA Capacity for the CFC to meet out the power cut situation.

9.7 Manpower

The manpower requirement estimated for the project is given hereunder:

Description	Nos.
Manager	2
Supervisors	3
Male Workers	16
Female workers (Unskilled)	24
Admin and Accounts	2

Security	3
Total	**50**

The required manpower would be sourced from within the cluster villages.

9.8 Operation and Maintenance

The SPV is responsible for the operation and maintenance of the project assets and the SPV has to manage the entire operation on its own. The IA will periodically monitor the expenditure incurred towards operation and maintenance. The operation and maintenance cost of the project is proposed to be managed with the income from commercial operations of the project.

9.9 Statutory Approvals

Statutory compliances include local body clearance, Fire, Health, Inspector of factories, GST Registration etc. The same may be applied for Single window clearance through District Industries Center.

9.10 Implementation Schedule

The detailed Project timeline for Building completion and Machinery installation is given in Chapter 13.

10. Project Cost and Means of Finance

The estimated project cost and the means of finance for the proposed project is given below:

S.No.	Proposed Interventions	Project Cost (Rs.Lakhs)	GOI Share (Rs.Lakhs)	SPV Share (Rs.Lakhs)
1	**SOFT INTERVENTIONS**			
1.1	**Capacity Building**			
1.1.1	Trust building and awareness programme	1.00	1.00	--
1.1.2	Entrepreneurship Development Programme	1.00	1.00	--
1.1.3	Skill Upgradation Programme	2.00	2.00	--
1.1.4	Exposure Tour	3.00	3.00	--
	Total Capacity Building cost	**7.00**	**7.00**	--
1.2	**Market Promotion**			
1.2.1	Market Study Tour	4.00	4.00	--
1.2.2	Participation in Trade fairs	5.00	5.00	--
1.2.3	Buyer Seller Meet	2.00	2.00	--
1.2.4	Tie up with Business Development Service (BDS) providers	2.00	2.00	--
	Total Market Promotion cost	**13.00**	**13.00**	--
	Total Soft Interventions Cost	**20.00**	**20.00**	**--**

Contd...

S.No.	Proposed Interventions	Project Cost (Rs.Lakhs)	GOI Share (Rs.Lakhs)	SPV Share (Rs.Lakhs)
2	**HARD INTERVENTIONS**			
2.1	**Building for CFC**	118.50	106.65	11.85
2.2	**Machinery & other components of Hard Interventions**			
2.2.1	Coir yarn spinning machines - 25 Nos.	108.00	97.20	10.80
2.2.2	Geo-textile looms - 3 Nos.	72.00	64.80	7.20
2.2.3	Matting looms - 2 Nos.	68.00	61.20	6.80
2.2.4	Cocolog making machines – 2 Nos.	5.00	4.50	0.50
2.2.5	Handling infra (Forklift & Trolleys)	12.00	10.80	1.20
2.2.6	Electricals, Genset & borewell accessories	17.00	15.30	1.70
2.2.7	Dyeing with Effluent Treatment Plant	3.00	2.70	0.30
2.2.8	Weigh bridge (80 T Cap.)	15.00	13.50	1.50
2.2.9	Working Capital	30.00	27.00	3.00
	Total - Machinery & other components of Hard Interventions	**330.00**	**297.00**	**33.00**
	Total Hard Interventions Cost (2.1 + 2.2)	**448.50**	**403.65**	**44.85**
	TOTAL INTERVENTIONS COST (SOFT & HARD)	**468.50**	**423.65**	**44.85**
3	**Cost of TA**	**30.00**	**30.00**	**-**
4	**Cost of IA/SPV including CDE**	**20.00**	**20.00**	**-**
	TOTAL PROJECT COST	**518.50**	**473.65**	**44.85**

10.1 Cost of Establishment & Operation Common Facility Center

The project components and the cost thereof is mentioned below:

(Rs.Lakhs)

Cost of Project	Project Cost	SPV Share	GoI Grant
Hard Interventions – Grant Components			
Building & Civil works	118.50	11.85	106.65
Plant and Machinery (incl. Dyeing & ETP)	253.00	25.30	227.70
Electricals, Genset & ETP accessories	20.00	2.00	18.00
Handling infra (Forklift & Weigh bridge)	27.00	2.70	24.30
Working Capital	30.00	3.00	27.00
Total	448.50	44.85	403.65
Hard Interventions – Non Grant Components			
Contingencies	6.28	6.28	0.00
Deposits (as per statement 1.1)	2.62	2.62	0.00
Prel. & Pre-operative Expenses	1.60	1.60	0.00
Total	**10.50**	**10.50**	**0.00**
Grand Total	**459.00**	**55.35**	**403.65**

The CFC cost of establishment and operation works out to Rs.459.00 Lakhs, of which Rs.55.85 lakhs will be the SPV share and Rs.403.65 lakhs will be the Grant component under SFURTI from the Government of India. The above project cost includes **Hard interventions viz. Building and Core machinery components amounting to Rs.448.50 lakhs**, which are to be contributed by SPV and GoI in 10:90 ratio. Lateral project components viz. Contingencies, Deposits, Prel. & Preop. Expenses amounts to Rs.10.50 lakhs, for which GoI Grant is not applicable and the cost would be borne by the SPV separately.

10.2 Working Capital

Working capital gap for the first year of operation works out to Rs.30.00 lakhs. This is based on 21 days stock of Raw materials, 18 days finished goods stock and receivables for 15 days. The SPV would contribute 10% (Rs.3.00 lakhs) of the total working capital requirement and 90% (Rs.27.00 lakhs) would be met by the GoI grant under SFURTI. The increase in working capital in the subsequent years of operation will be met by internal generation. The details are provided in **Financial Statement-2.**

11 Plan for Convergence of Initiatives

The initiatives for convergence of schemes and leveraging of resources from various sources would be undertaken with the participation of stakeholders on approval of the project. Notwithstanding the above initiatives, it is expected that the benefits of various other schemes such as Coir Udyami Yojana, PMEGP etc. for individual cluster members are foreseen as below:

Scheme	No. of beneficiaries / Activity	Cost of project	Scheme Funding	Bank Loan	Promoter Contribution
PMEGP / Capital subsidy scheme	10 (Coir Yarn units)	10 members x Rs.15.00 lakhs = Rs.150.00 lakhs	Rs.52.50 Lakhs	Rs.90.00 Lakhs	Rs.7.50 Lakhs
	5 (Coir Geo-Textiles units)	5 members x Rs.35.00 lakhs = Rs.175.00 lakhs	Rs.43.75 Lakhs	Rs.122.50 Lakhs	Rs.8.75 Lakhs
		325.00	**96.25**	**212.50**	**16.25**

The additional investment estimated in the cluster is Rs.325.00 Lakhs with the scheme funding of Rs.96.25 lakhs, bank credit of Rs.212.50 lakhs and the promoter's contribution of Rs.16.25 lakhs.

12 Enhanced Project Cost & Means of Finance

The Project cost and Means of Finance of CORE SFURTI project is illustrated in **Chapter 10**. Convergence of initiatives would be undertaken to improve the viability of projects, strengthening the value chains and market linkages and to enable the overall improvement of the level of human development in the area.

Considering the convergence of other scheme benefits for individual cluster members, as foreseen in Chapter 11, the enhanced project cost and means of finance is given below:

(Rs.Lakhs)

S.No.	Component	Total Cost	Grant Component	Promoter's Contribution & Bank Loan
1	Core SFURTI	528.50	483.15	45.35
2	Convergence initiatives (Establishment of individual units under various schemes)	325.00	96.25	228.75
	Total	**853.50**	**579.40**	**274.10**

The enhanced project cost including the Core SFURTI and other convergence initiatives works out to Rs.853.50 lakhs, whereas the corresponding Grant component is Rs.579.40 lakhs and that of Contribution and bank loan is Rs.274.10 lakhs.

13 Project Timeline

The project implementation schedule with details of the activities to be undertaken and the expected time frame (quarter wise) for each activity is given below:

S.No.	Proposed Interventions	Period	
		Year	Quarter
1	**SOFT INTERVENTIONS**		
1.1	**Capacity Building**		
1.1.1	Trust building and motivational programme	I	Q1
1.1.3	Entrepreneurship Development Programme	I	Q2
1.1.4	Skill Upgradation Programme	I	Q3,Q4
1.1.5	Exposure Tour	I	Q3
1.2	**Market Promotion**		
1.2.1	Market Study Tour	II	Q1/Q2
1.2.2	Participation in Trade fairs	II	Q3/Q4
1.2.3	Buyer Seller Meet	II	Q3/Q4
1.2.4	Tie up with Business Development Service (BDS) providers	II	Q2/Q3
2	**HARD INTERVENTIONS**		
2.1	**Land Lease (15 years lease)**	I	Q1
2.2	**Building for CFC**	I	Q1, Q2
2.3	**Machinery for Common Facility Proposed**		
2.3.1	Coir yarn spinning machines - 25 Nos.	I	Q3/Q4
2.3.2	Geo-textile looms - 3 Nos.	I & II	Q4/Q5
2.3.3	Matting looms - 2 Nos.	I & II	Q4/Q5
2.3.4	Handling infra (Forklift & Weigh bridge)	I & II	Q4/Q5
2.3.5	Electricals & accessories	II	Q1/Q2
2.3.6	Dyeing with Effluent Treatment Plant	II	Q2/Q3

14 Detailed Business Plan

The cost of production and profitability projection are presented in Financial Statement-4. The assumptions for working the cost of production & profitability are given below:

a. Automatic Coir Yarn Spinning		
Avg. Capacity per machine per shift	80	kgs
Number of machines	25	
Number of shifts per day	1	
Number of days per annum	300	
Installed Production Capacity per annum	600.00	tons
b. Coir Matting (Auto powerloom)		
Capacity per loom per shift	100	Sq.M.
Number of looms	2	
Number of shifts per day	1	
Number of days per annum	300	
Installed Capacity per annum	60000	Sq.M.
Raw material (Yarn) reqt. per 100 Sq.M.	200	Kgs.
Total yarn reqt. for installed capacity	120	tons
Selling price of Coir matting	Rs. 300.00	per Sq.M.
c. Geo Textiles		
Capacity per loom per shift	400	Sq.M.
Number of looms	3	
Number of shifts per day	1	
Number of days per annum	300	
Installed Capacity per annum	360000	Sq.M.
Raw material (Yarn) reqt. per 100 Sq.M.	130	Kgs.
Total yarn reqt. for installed capacity	468	tons
Selling price of Geo textiles	Rs. 80.00	per Sq.M.

Raw material consumption for Matting & Geo textiles Section (for installed capacity)		
Yarn requirement for Matting section	120	tons
Yarn requirement for Geo textiles section	468	tons

Total Yarn requirement	588	tons
Yarn production from Spinning section	600	tons
Excess yarn production	12	tons per annum
d.Cocologs		
Capacity per machine per shift	150.00	Nos.
Number of machines	2	
Number of shifts per day	1	
Number of working days per annum	300	
Installed Capacity per annum	90000.00	Nos.
Baby fibre reqt.	13.00	Kgs. per piece
Cost of baby fibre	Rs. 5,000.00	per ton
Consumable (Netting rope)	Rs. 80.00	per piece
User fee	Rs. 105.00	per No. of output
Capacity Utilisation		
- First year	*60%*	
- Second year	*70%*	
-Third year	*80%*	
-Fourth year onwards	*90%*	
Average Cost of Raw Material		
Cost of raw material (Coir Fibre)	Rs.22,000	per ton
Lease Rental for CFC land	Rs.5,000	per month in the first year and 10% increase every subsequent years
Power Cost	Rs.6.50	per KWH
Repairs & Maintenance	2.00%	0f plant and machinery cost in the first year of operation and 10% increase in every subsequent years
Administrative Expenses	1.00%	Of sales realisation
Selling Expenses	2.00%	Of sales realisation

Working Capital:

Working capital gap for the first year of operation of the CFC works out to Rs.30.00 lakhs (Statement 2). This is based on 21 days stock of raw materials, 18 days stock of finished goods and receivables for 15 days.

Sales Realization / User fee realization

The Sales /User fee realization for the first, second and third years of operation works out to Rs.297.90 lakhs, Rs. 347.55 lakhs and Rs.397.20 lakhs respectively.

Profit after Tax

The profit after tax for the first, second and third year of operation works out to Rs.100.66 lakhs, Rs. 110.73 lakhs and Rs.122.27 lakhs respectively.

Break Even Point and

The Break-even point works out to 45% for the first year of operation (Statement 11).

Net Present Value (NPV) & Internal Rate of Return (IRR):

The Net present value works out to Rs.168.03 lakhs and the Internal rate of return works out to 20.40% (Statement 12).

Project Financials:

The project financials comprises the following statements, which are enclosed in the Annexure separately:

Statement 1: Cost of Project and Means of Finance
Statement 1.1: Estimation of Deposits / Advances
Statement 1.2: Preliminary and Preoperative Expenses
Statement 2: Assessment of Working Capital
Statement 3: Cost of Production & Profitability
Statement 4: Assumptions for Cost of Production and Profitability
Statement 5: Calculation of Income Tax
Statement 6: Estimation of Power Cost
Statement 7: Manpower Requirement and Estimation of Cost
Statement 8: Estimation of Depreciation
Statement 9: Projected Cash-Flow Statement
Statement 10: Projected Balance Sheet
Statement 11: Estimation of Break-Even Point
Statement 12: Estimation of NPV & Internal Rate of Return

15 Proposed Implementation Framework

15.1 Role of Implementing Agency

The role and responsibility of the IA includes the following:

a) Recruit a full time CDE preferably one amongst the stakeholders who has the desired knowledge and capability in order to ensure efficient implementation of the project
b) The IA would implement various interventions as outlined in the approved DPR
c) Undertake procurement and appointment of contractors, when required, in a fair and transparent manner
d) The IA will enter into an agreement with the Nodal Agency for timely completion on cluster intervention and proper utilization of Government Grants
e) Operation & Maintenance (O&M) of assets created under the project by way of user-fee based model
f) Responsible for furnishing Utilization Certificates (UCs) and regular Progress reports to Nodal Agency in the prescribed formats.

15.2 Details of Strategic Partners

The cluster is proposed to be developed under SFURTI (Scheme of Fund for Regeneration of Traditional Industries). The Coir Board is the Nodal agency (NA) and ITCOT Consultancy and Services Limited is the Technical Agency (TA) appointed by Coir Board. The Implementing agency proposed is **M/s.IMAIGAL TRUST**, having its Administration office at Erode. The above agencies work in tandem towards the successful implementation of the project in a sustainable manner.

15.3 Structure of the SPV

The SPV is formed and registered as Private Limited company in the name of '**Sri KONGU COIR CLUSTER PRIVATE LIMITED'** as per the Certificate of Incorporation issued by Registrar of Companies, Coimbatore dated 02.11.2018. The Corporate Identity Number of the company is U36999TZ2018PTC031194.

15.4 Composition of the SPV

The total number of SPV members proposed is 22. The SPV has been registered as Private Limited Company with Registrar of Companies The details of members and their official position are given below:

S.No.	Name of the SPV member	Position in SPV	Activity / Product manufactured	Contact Phone No.
1	A. GANDHI	Chairman	Coconut Farm	9942423535
2	K. KARTHIKEYAN	Managing Director	Coconut Farm	9842827370
3	S. LAKSHMANAN	Executive Director	Coconut Farm	9842757935
4	S REVATHI	Executive Director	Coir Manufacturing	9965692678
5	M.PARAMASIVAM	Director	Coconut Farm	9788872116
6	M.KUPPURAJ	Director	Coconut Farm	9443999886
7	P.S.THIRUMOORTHY	Director	Coconut Farm	9976359955
8	D. MYILSAMY	Shareholder	Coconut Farm	9600153121
9	C. SIVAKUMAR	Shareholder	Coconut Farm	9944470950
10	SATHYADEVI VISWANATHAN	Shareholder	Coconut Farm	9842868989
11	B.SANGEETHA PRIYA	Shareholder	Coconut Farm	9994041940
12	T.SIVAKAMA SUNDARI	Shareholder	Coconut Farm	9443779028
13	S. GOWTHAM	Shareholder	Coir Manufacturing	8056847490
14	V.MANIMEGALAI	Shareholder	Coconut Farm	9442291177
15	SHANTHI VENKET	Shareholder	Coconut Farm	9750923349
16	R.M.SUBRAMANIAN	Shareholder	Coconut Farm	9842679500
17	B.RAJARAM	Shareholder	Coconut Farm	6382208837
18	L.TAMILSELVI	Shareholder	Coconut Farm	9841608734
19	LAKSHMANAN KARTHIKA	Shareholder	Coconut Farm	9842757935
20	T.N.RAMACHANDRAN	Shareholder	Coconut Farm	9940713053
21	R.ESWARI	Shareholder	Coconut Farm	9940713053
22	A.S.PONNUSAMY	Shareholder	Coconut Farm	9840514778

16 Expected Impact

- The Pre-investment and post-investment impact scenario of the cluster is given below:

S. No.	**Parameter**	**Pre-Interven-tion**	**Post-intervention**					
			Y 1	Y2	Y3	Y4	Y 5	**Y 10**
1	Cluster Turnover (Rs. Lakhs)	9643	12176	12785	13394	14000	14610	17530
2	Investment (Rs. Lakhs)	4044	4833	5075	5316	5558	5800	6960
3	Employment (Nos.)	918	1188	1248	1306	1366	1415	1700
4	Wages per day (Rs.)	400	520	570	600	625	675	750
5	Profitability (%)	8-10%	20%	22%	24%	25%	25%	25%

- The Common Facility Center would achieve user fee turnover of minimum Rs.3.00 Crores in the first year of commercial operations from value added end user coir products.

- Increased value addition of Coir Fibre and yarn, resulting in enhanced income for coir products manufacturers by minimum 15%, on utilizing the CFC for value addition and marketing of finished products.

- Direct employment for about 150 persons and indirect employment for minimum 300 persons is anticipated in the cluster on implementation of the project.

- Existing entrepreneurs in the Cluster would be exposed to modern management and marketing techniques and the spillover effect would be felt in the individual coir enterprises in the cluster.

- Establishment of new units by converging various schemes of State and Central Governments (such as NEEDS, PMEGP, CITUS etc.) resulting in additional investments in Coir sector by the cluster members.

- Emergence of specialized support service providers and their active involvement in the development process.
- Strong linkages among the Cluster members and actors in all levels of the value chain and an established Collaborative setup in place to undertake development initiatives & address common concerns.
- 100% Coverage of Coir workers in the cluster units under social security schemes.
- Improved access to financial capital for cluster members

Financial Statements

Statement 1

COST OF PROJECT AND MEANS OF FINANCE

Cost Of Project		RS.LAKHS	SPV Share	GoI Grant
Land		Leased		
Building & Civil works		118.50	11.85	106.65
Plant and Machinery		253.00	25.30	227.70
Electricals,Genset & ETP accessories		20.00	2.00	18.00
Handling infra (Forklift & Weigh bridge)		27.00	2.70	24.30
Contingencies	1.50%	6.28	6.28	0.00
Deposits (as per statement 1.1)		2.62	2.62	0.00
Prel. & Pre-operative Expenses		1.60	1.60	0.00
Working Capital (as per statement-2)		30.00	3.00	27.00
Total		**459.00**	**55.35**	**403.65**

Means of Finance	
Promoters Capital	55.35
GRANT UNDER SFURTI SCHEME	403.65
Total	**459.00**

Statement-1.1

DEPOSITS

Deposits payable to TNEB for **140** **HP Power Connection**

Details	**Amount Per HP**	**Total** (Rs.Lakhs)
Development Charges	Rs.200	0.28
Earnest Money Deposits	Rs.600	0.84
Security Deposit	Rs.600	0.84
		1.96
Other Deposits / Advances		0.66
Total		**2.62**

say **Rs.2.62 Lakhs**

Statement-1.2

PRELIMINARY AND PREOPERATIVE EXPENSES

Statutory fees (RoC, CTO, Regn. etc.)	0.60
Trial run expenses	1.00
	1.60

ASSESSMENT OF WORKING CAPITAL Statement-2

Current Assets	Days	**1**	**2**	**3**	**4**	**5**
Raw Materials	21	6.10	7.11	8.13	8.13	8.13
Finished products	18	8.24	9.59	10.94	10.98	11.03
Receivables	15	14.90	17.38	19.86	19.86	19.86
Cash and bank balance		2.50	2.92	3.33	3.33	3.33
Other current assets		1.00	1.17	1.33	1.33	1.33
Total		**32.73**	**38.17**	**43.60**	**43.64**	**43.69**
Current Liabilities						
Sundry creditors for R.M	7	2.03	2.37	2.71	2.71	2.71
Other Current Liabilities		0.70	0.77	0.85	0.93	1.02
Total		**2.73**	**3.14**	**3.56**	**3.64**	**3.74**
Working Capital Gap		**30.00**	**35.02**	**40.04**	**40.00**	**39.95**

Statement 3

COST OF PRODUCTION & PROFITABILITY

RS.LAKHS

Years		**1**	**2**	**3**	**4**	**5**
Installed Capacity per annum						
Coir Yarn	Tons	600.00	600.00	600.00	600.00	600.00
Coir mattings	Sq.M.	60000	60000	60000	60000	60000
Geo Textiles	Sq.M.	360000	360000	360000	360000	360000
Cocologs	Nos.	90000	90000	90000	90000	90000
Capacity Utilisation	*%*	60.00%	70.00%	80.00%	80.00%	80.00%
Production Quantity per annum						
Coir Yarn	*Tons*	360.00	420.00	480.00	480.00	480.00
Coir mattings	*Sq.M.*	36,000	42,000	48,000	48,000	48,000
Geo Textiles	*Sq.M.*	216,000	252,000	288,000	288,000	288,000
Cocologs	*Nos.*	54,000	63,000	72,000	72,000	72,000
Sales Realisation/User fee (Rs. Lakhs)						
Coir Mattings	Rs.250.00	90.00	105.00	120.00	120.00	120.00
Geo Textiles	Rs.70.00	151.20	176.40	201.60	201.60	201.60
Cocologs (User fee)	Rs.105.00	56.70	66.15	75.60	75.60	75.60
Annual Sales Realisation		**297.90**	**347.55**	**397.20**	**397.20**	**397.20**

Cost Of Production Statement-3 contd…

Cost of raw materials						
Raw material requirement (Coir Fibre)	Tons	396.00	462.00	528.00	528.00	528.00
Cost of raw material (Coir Fibre)	Rs.22,000	87.12	101.64	116.16	116.16	116.16
Raw material for Cocolog (Baby fibre) reqt.	Tons	702.00	819.00	936.00	936.00	936.00
Cost of Baby fibre - Cocologs	Rs.5,000	35.10	40.95	46.80	46.80	46.80
Lease Rental for CFC Land	Rs.5,000	0.60	0.66	0.73	0.80	0.88
Cost Of Power	Annexure-7	9.43	11.01	12.58	12.58	12.58
Salary & Wages	Annexure-8	53.99	56.69	59.52	62.50	65.62
Repairs & Maintenance	2.00%	5.06	5.57	6.12	6.73	7.41
		137.31	**159.82**	**182.39**	**183.07**	**183.83**
Administrative Expenses	1.00%	2.98	3.48	3.97	3.97	3.97
Selling Expenses	2.50%	7.45	8.69	9.93	9.93	9.93
Prel. & Preop. Expenses (w/o)	10.00%	0.16	0.16	0.16	0.16	0.16
Depreciation	Annexure-10	26.16	26.16	26.16	26.16	26.16
Total		**174.06**	**198.31**	**222.61**	**223.29**	**224.05**
Profit Bef. Tax		**123.84**	**149.24**	**174.59**	**173.91**	**173.15**
Provision for taxation		23.18	38.52	52.33	55.88	58.54
Profit after Tax		**100.66**	**110.73**	**122.27**	**118.03**	**114.62**

Statement 4

Assumptions For Cost Of Production And Profitability

a. Automatic Coir Yarn Spinning		
Avg. Capacity per machine per shift	80	kgs
Number of machines	25	
Number of shifts per day	1	
Number of days per annum	300	
Installed Production Capacity per annum	600.00	tons
b. Coir Matting (Auto powerloom)		
Capacity per loom per shift	100	Sq.M.
Number of looms	2	
Number of shifts per day	1	
Number of days per annum	300	
Installed Capacity per annum	60000	Sq.M.
Raw material (Yarn) reqt. per 100 Sq.M.	200	Kgs.
Total yarn reqt. for installed capacity	120	tons
Selling price of Coir matting	Rs. 250.00	per Sq.M.
c. Geo Textiles		
Capacity per loom per shift	400	Sq.M.
Number of looms	3	
Number of shifts per day	1	
Number of days per annum	300	
Installed Capacity per annum	360000	Sq.M.
Raw material (Yarn) reqt. per 100 Sq.M.	130	Kgs.
Total yarn reqt. for installed capacity	468	tons
Selling price of Geo texitiles	Rs. 70.00	per Sq.M.

contd…

Statement 4 contd.

Raw material consumption for Matting & Geo textiles Section (for installed capacity)

Yarn requirement for Matting section	120	tons
Yarn requirement for Geo textiles section	468	tons
Total Yarn requirement	588	tons
Yarn production from Spinning section	600	tons
Excess yarn production	12	tons per annum

d. Cocologs

Capacity per machine per shift	150.00	Nos.
Number of machines	2	
Number of shifts per day	1	
Number of working days per annum	300	
Installed Capacity per annum	90000.00	Nos.
Baby fibre reqt.	13.00	Kgs. per piece
Cost of baby fibre	Rs. 5,000.00	per ton
Consumable (Netting rope)	Rs. 80.00	per piece
Selling price	Rs. 105.00	per No. of output

contd…

Statement 4 contd.

Capacity Utilisation		
- First year	*60%*	
- Second year	*70%*	
-Third year	*80%*	
-Fourth year onwards	*80%*	
Average Cost of Raw Material		
Cost of raw material (Coir Fibre)	Rs.22,000	per ton
Lease Rental for CFC land	Rs.5,000	per month in the first year and 10% increase every subsequent years
Power Cost	Rs.6.50	per KWH
Repairs & Maintenance	2.00%	0f plant and machinery cost in the first year of operation and 10% increase in every subsequent years
Administrative Expenses	1.00%	Of sales realisation
Selling Expenses	2.50%	Of sales realisation

Statement 5

CALCULATION OF INCOME TAX

RS.LAKHS

Years		**1**	**2**	**3**	**4**	**5**
Net Profit		123.84	149.24	174.59	173.91	173.15
Add: Straight Line Dep.		26.16	26.16	26.16	26.16	26.16
Less: Wdv Depreciation		83.78	65.36	51.25	40.42	32.07
Total		66.22	110.05	149.50	159.65	167.25
Income Bef. Incentives		66.22	110.05	149.50	159.65	167.25
Less: Deductions	0%	0.00	0.00	0.00	0.00	0.00
Taxable Income		66.22	110.05	149.50	159.65	167.25
Income Tax	35%	23.18	38.52	52.33	55.88	58.54
Loss C/F		0.00	0.00	0.00	0.00	0.00
Profit After Tax		100.66	110.73	122.27	118.03	114.62

Statement 6

ESTIMATION OF POWER COST

RS.LAKHS

Connected Load	**140.00**	HP					
		ANNUAL POWER COST					
Years			1	2	3	4	5
Working Days			300	300	300	300	300
Capacity Utilisation			60%	70%	80%	80%	80%
Number of hours per shift							
Power consumption per annum (KWH)			201600	235200	268800	268800	268800
Annual Power Bill			**9.43**	**11.01**	**12.58**	**12.58**	**12.58**
Assumptions:							
Power Factor	0.90						
Average Load Factor	0.80						
Average Power Cost/K W H	Rs.6.50						
No. of working hours per shift	8.00						
No. of shifts per day	1						

Statement 7

MANPOWER REQUIREMENT AND ESTIMATION OF COST

RS.LAKHS

Description	**Nos.**	**Salary per month**	**Annual Salary**
Manager	2	15000	360000
Supervisors	3	12000	432000
Male Workers	16	8000	1536000
Female workers (Unskilled)	24	7500	2160000
Admin and Accounts	2	10000	240000
Security	3	5000	180000
Total	**50**		**4908000**
Add: Benefits		10%	490800
Grant Total			**5398800**

Statement 8

ESTIMATION OF DEPRECIATION

RS.LAKHS

Straight Line Method	VALUE	DEP. RATE	**1**	**2**	**3**	**4**	**5**
Building & Civil works	120.28	3.34%	4.02	4.02	4.02	4.02	4.02
Plant & Machinery	258.40	7.40%	19.12	19.12	19.12	19.12	19.12
Electricals,Genset & ETP accessories	20.30	6.33%	1.28	1.28	1.28	1.28	1.28
Handling infra (Forklift & Weighbridge)	27.41	6.33%	1.73	1.73	1.73	1.73	1.73
Total	**398.97**		**26.16**	**26.16**	**26.16**	**26.16**	**26.16**
WDV Method							
Building & Civil works		10.00%	12.03	10.82	9.74	8.77	7.89
WDV	120.28		108.25	97.42	87.68	78.91	71.02
Plant & Machinery		25.00%	64.60	48.45	36.34	27.25	20.44
WDV	258.40		193.80	145.35	109.01	81.76	61.32
Electricals		15.00%	3.05	2.59	2.20	1.87	1.59
WDV	20.30		17.26	14.67	12.47	10.60	9.01
Handling infra (Forklift & Weighbridge)		15.00%	4.11	3.49	2.97	2.52	2.15
WDV	27.41		23.29	19.80	16.83	14.31	12.16
Total	**398.97**		**83.78**	**65.36**	**51.25**	**40.42**	**32.07**

Note: Contingency & Pre-operatives are apportioned with the cost of assets.

PROJECTED CASH-FLOW STATEMENT Statement 9

RS.LAKHS

Years		**1**	**2**	**3**	**4**	**5**
Source Of Funds						
Promoters Capital	55.35					
SFURTI Grant	403.65					
Profit Before Int.,Dep. & Tax		150.00	175.40	200.75	200.06	199.31
Increase in W.C.Loan		0.00	0.00	0.00	0.00	0.00
Total	**459.00**	**150.00**	**175.40**	**200.75**	**200.06**	**199.31**
Uses						
Inc. in Capital Expenditure	426.38					
Deposits (as per statement 1.1)	2.62					
Increase in W.Capital		30.00	5.02	5.02	-0.04	-0.05
Provision For Taxation		23.18	38.52	52.33	55.88	58.54
Total	**429.00**	**53.18**	**43.54**	**57.35**	**55.83**	**58.49**
Surplus	30.00	96.82	131.86	143.40	144.23	140.82
Opening Balance	0.00	30.00	126.82	258.69	402.09	546.32
Closing Balance	30.00	126.82	258.69	402.09	546.32	687.14

PROJECTED BALANCE SHEET Statement 10

RS.LAKHS

Years	**PR. PERIOD**	**1**	**2**	**3**	**4**	**5**
Liabilities						
Promoters Capital	55.35	55.35	55.35	55.35	55.35	55.35
SFURTI Grant	403.65	403.65	403.65	403.65	403.65	403.65
Reserves & Surplus		100.66	211.39	333.66	451.69	566.31
W.C.Borrowings		0.00	0.00	0.00	0.00	0.00
Current liabilities		2.73	3.14	3.56	3.64	3.74
Total	**459.00**	**562.39**	**673.53**	**796.21**	**914.33**	**1029.04**
Assets						
Gross Block	426.38	426.38	426.38	426.38	426.38	426.38
Less: Accu. Depreciation		26.16	52.32	78.47	104.63	130.79
Net Block	426.38	400.22	374.06	347.90	321.74	295.59
Deposits	2.62	2.62	2.62	2.62	2.62	2.62
Current Assets		32.73	38.17	43.60	43.64	43.69
Closing Balance	30.00	126.82	258.69	402.09	546.32	687.14
Total	**459.00**	**562.39**	**673.53**	**796.21**	**914.33**	**1029.04**
	0.00	0.00	0.00	0.00	0.00	0.00

Statement 11

ESTIMATION OF BREAK-EVEN POINT

RS.LAKHS

Years	**1**	**2**	**3**	**4**	**5**
Fixed Expenses					
Salary & Wages	53.99	56.69	59.52	62.50	65.62
Repairs & Maintenance	5.06	5.57	6.12	6.73	7.41
Preliminary expenses	0.16	0.16	0.16	0.16	0.16
Depreciation	26.16	26.16	26.16	26.16	26.16
Total(A)	**85.37**	**88.57**	**91.96**	**95.55**	**99.35**
Variable Expenses					
Cost Of Raw Material	87.12	101.64	116.16	116.16	116.16
Cost Of Power	9.43	11.01	12.58	12.58	12.58
Administrative Expenses	2.98	3.48	3.97	3.97	3.97
Selling Expenses	7.45	8.69	9.93	9.93	9.93
Total(B)	**106.98**	**124.81**	**142.64**	**142.64**	**142.64**
Sales Realisation	**297.90**	**347.55**	**397.20**	**397.20**	**397.20**
Break Even Point	45%	40%	36%	38%	39%

Statement 12

ESTIMATION OF NET PRESENT VALUE AND INTERNAL RATE OF RETURN

RS.LAKHS

Years	PR. PERIOD	1	2	3	4	5
Cash Out Flow						
Capital Expenditure	426.38					
Preliminary & Preoperative Expenses	2.62					
Working Capital Margin	30.00					
Total	459.00	0.00	0.00	0.00	0.00	0.00
Cash Inflow						
Profit After Tax		100.66	110.73	122.27	118.03	114.62
Depreciation		26.16	26.16	26.16	26.16	26.16
W.C.Margin						19.86
Residual Value Of F.Assets						106.59
Total	0.00	126.82	136.89	148.42	144.19	267.23
Net Cash Flow	**-459.00**	**126.82**	**136.89**	**148.42**	**144.19**	**267.23**

Net Present Value **Rs.168.03 lakhs**
at 8% discount rate
Internal Rate of Return 20.40%

ERODE KONGU COIR CLUSTER - WORKINGS

CFC ACTIVITIES PROPOSED:

Sl.No.	Activity	No. of machines
1	Coir yarn spinning machines	25
2	Geo-textile looms	3
3	Matting looms - 2 Nos.	2

BUILDING COMPONENT

S.No.	Description	Area(Sq.ft.)	Rate	Amount
1	Coir Yarn Spinning Workshed	7200	700	50.40
2	Matting & Geo-textiles Workshed	7200	700	50.40
3	Concrete yard	3000	250	7.50
4	Coco log	500	700	3.50
5	Admin Off.	500	1100	5.50
6	Power room	200	600	1.20
	Total	**18600**		**118.50**

	PROJECT COST WORKINGS			**(Rs.Lakhs)**
S.No.	**Description**	**Total**	**GoI Grant**	**SPV**
1	Total HI Cost	448.50	403.65	44.85
2	Soft Interventions	25.00	25.00	-
3	TOTAL INTERVENTIONS COST	473.50	428.65	44.85
4	Implementation (IA & TA) Cost	50.00	50.00	-
5	Total Project cost	523.50	478.65	44.85

MACHINERY COMPONENT

S.No.	Machinery	Cost (Rs.lakhs)
1	Coir yarn spinning machines - 25 Nos.	108.00
2	Geo-textile looms - 3 Nos.	72.00
3	Matting looms - 2 Nos.	68.00
4	Coco log - 2 Nos.	5.00
5	Handling infra (Forklift and Trolleys)	12.00
6	Weigh bridge (80 T)	15.00
7	Electricals & accessories	5.00
8	Generator - 160 KVA	12.00
9	Dyeing with Effluent Treatment Plant	3.00
	Total	**300.00**
10	Working Capital	30.00