

DPR

Detailed Project Report

CHELURU COIR CLUSTER

Tumkur District, Karnataka

Coir Products

Coir fibre, Coir Rope, Pith Blocks



Submitted to

COIR BOARD OF INDIA

Ministry of MSME, Government of India

Submitted by

FOUNDATION FOR MSME CLUSTERS

New Delhi



Contents	
CHAPTER 1	4
CHAPTER 2	11
CHAPTER 3	17
CHAPTER 4	19
CHAPTER 5	24
CHAPTER 6	27
CHAPTER 7	30
CHAPTER 8	34
CHAPTER 9	41
CHAPTER 10	39
CHAPTER 11	48
CHAPTER 12	49
CHAPTER 13	450
CHAPTER 14	46
CHAPTER 15	55
CHAPTER 16	53

Annexures

- Annexure 1 to 15 : Financial Statements**
- Annexure 16 : Machinery Quotations**
- Annexure 17 : Civil Estimate**
- Annexure 18 : Plant Layout**
- Annexure 19 : Lease Agreement**
- Annexure 20 : SPV Registration and its By Laws**

LIST OF ACRONYMS

BIS	Bureau of Indian Standards
BEP	Break Even Point
CCRI	Central Coir Research Institute
CFC	Common Facilities Centre
CGTMSE	Credit Guarantee Trust for Micro, Small and Medium Enterprises
CICT	Central Institute of Coir Technology
CLCSS	Credit Linked Capital Subsidy Scheme
CUY	Coir Udyami Yojana
CVY	Coir Vikas Yojana
DIC	District Industries Centre
DRDA	District Rural Development Agency
DPR	Detailed Project Report
FICEA	Federation of Indian Coir Exporters Association
FI	Financial Institution
IRR	Internal Rate of Return
KSFC	Karnataka State Coir Federation
KVIC	Khadi & Village Industries Commission
MSME	Micro Small & Medium Enterprises
MoMSME	Ministry of Micro Small & Medium Enterprises
MSMEDI	Micro Small Medium Enterprise Development Institute
MDA	Market Development Assistance
NABARD	National Bank for Agri& Rural Development
NMCP	National Manufacturing Competiveness Program
NPV	Net Present Value
NH	National Highway
NTDC	National Technology Development Corporation
ROCE	Return on Capital Employed
SFURTI	Scheme of Fund Under Rejuvenation of Traditional Industries
TI	Technical Institution
TL	Term Loan
EC	Working Capital
PC & MF	Project Cost and Means of Finance
UPS	Uninterrupted Power Supply

CHAPTER 1**CLUSTER PROFILE****1.1 Background**

After Kerala, Karnataka is the second largest coconut producing state in the country. The total production of nuts was 1525.3 million in the year 2006 and it has increased to 3784.6 million nuts during the year 2013-14 (CDB report). There is a huge demand of coir products in domestic as well as in international markets. Coir products are the major livelihoods source for the people of Kerala, Karnataka and Tamil Nadu. Maximum of the households are involved in producing coir products like coir fibres, yarn, mats and matting. Since, coconut husk is the raw material and its availability is galore that's why manufacturing coir products are the major livelihood source in the region.

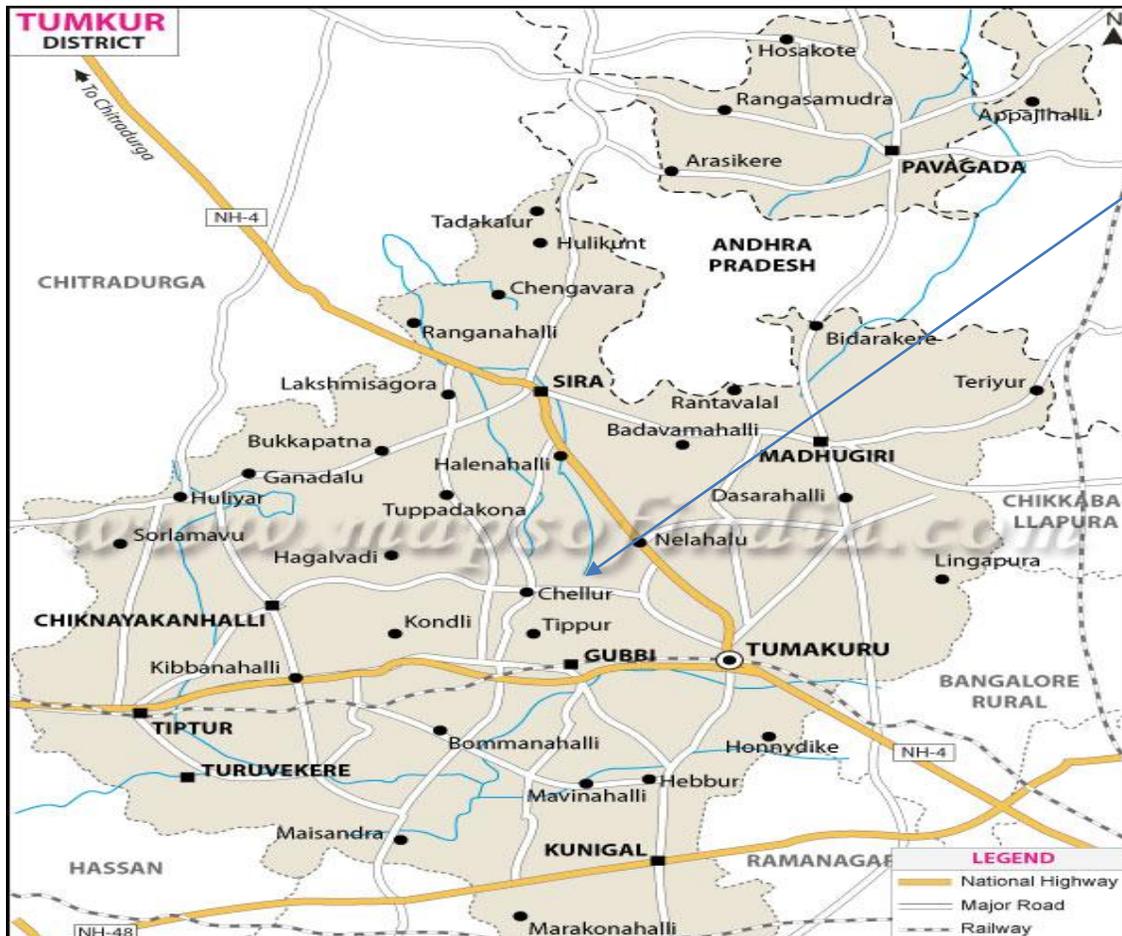
In this context, in the district of Tumkur of the state of Karnataka, coir producers joined hands to develop industry in cluster mode for providing a platform to all coir product manufacturers to avail and access to more amenities with reference to raw materials, machineries and markets. Accordingly, they approached Coir Board to be considered under SFURTI, and based on their consent and subsequently the Coir Board has appointed M/s Foundation for MSME Clusters to prepare a Detailed Project Report under revamped SFURTI guidelines.

1.2 Regional Setting of the Cluster

There are around 3000 household units involved in manufacturing coir products. The household units mainly use traditional equipment's like "Charkas" to produce fibre and yarn. Their investment is very much low (maximum Rs.10, 000/-) as they procure the raw materials very easily and they don't have to pay much for it. As they use traditional equipment's to produce fibres and yarns the production is also very low. All most all products of these household units are consumed mainly in the local markets. In some cases the household units produce on daily wage basis for Rs.150-200/- per one shift (i.e. 8hrs per day).

1.3 Location

Tumkur district is an important district of the state of Karnataka. It is situated at 70 km to the north-west of the State capital Bangalore. There are 10 Taluks in the District. They are: Tumkur, Koratagere, Sira, Gubbi, Pavagada, Turuvakere, Kunigal, Madhugiri, Tiptur and Chikkanayakanahalli. Tumkur is well connected with road and rail from the state capital Bangalore. All the Taluks are also very well connected through internal roads.



Location of the cluster

1.4 Evolution of the Cluster

Chelurucluster is a very old cluster. The first unit M/s ThenginaNarinaKushalKaigarikaSahakarSangha (TNKKSS) was established in the year 1966 at Thyagatur and was registered under Directorate of Industries and Commerce, Govt.of Karnataka in the year 2004 as Cooperative Society. This unit manufactures Coir



Fibre, coir curl rope and other products like Yarn, Mats and Matting. The commercial success of the unit has propelled other enthusiastic local people to establish units gradually.

1.5 Demography and growth trends

In 2011, Tumkur had population of 2,678,980 of which male and female were 1,350,594 and 1,328,386 respectively. Population Density of Tumkur district as per 2011 census is 253 people per sq.km. With regards to Sex Ratio in Tumkur, it stood at 984 per 1000 male compared to 2001 census figure of 967. The below table depicts the demography of Tumkur district.

Table 2: Demography of Tumkur District

Description	2011 Census
Actual Population	2,678,980
Male	1,350,594
Female	1,328,386
Population Growth	3.65%
Area Sq. Km	10,597
Sex Ratio (Per 1000)	984
Child Sex Ratio (0-6)	959
Average Literacy	74.14
Male Literacy	82.81
Female Literacy	67.38
Total Child Population	2,65,742
Male population (0-6 Yrs.)	135,671
Female population (0-6 Yrs.)	130,071
Literates	1,813,391
Male literates	1,006,024
Female literates	807,367

(Source: <http://www.census2011.co.in/census/district/267-tumkur.html>)

Growth Trends of Tumkur District

Iron is obtained in large quantities from Tumkur district. Lime Stone, Graphite, Quartz, Silversand, Corundum, Dolomite, Clay, Soap Stone are the major mineral resources available in the district. The Industrial Scenario of Tumkur district is as per below:

Table 3: Industrial Scenario of Karnataka

Sl. No.	Head	Unit	Particulars
1.	Registered Industrial Unit	No.	23,804
2.	Total Industrial Unit	No.	26,152
3.	Registered Medium and Large Unit	No.	33
4.	Estimated Avg.no.of daily workers employed in Small Scale Industries	No.	132235
5.	Employment in Large and Medium Industries	No.	7204
6.	No.of Industrial Areas	No.	7

(Source:[http://dcmsme.gov.in/dips/Tumkur%20Dist%20 \(corrected\).pdf](http://dcmsme.gov.in/dips/Tumkur%20Dist%20(corrected).pdf))

The Year wise trend of Industrial growth of Tumkur district is as per below:

(Table 4: Year wise trend of units registered)

Sl No.	Year	Number of Registered Units	Employment	Investment (in lakhs)
1	2007-08	604	4190	2819
2	2008-09	707	5016	5759
3	2009-10	784	5508	6838
4	2010-11	865	6588	71151
5	2011-12	947	4850	6762

(Source: [http://dcmsme.gov.in/dips/Tumkur%20Dist%20 \(corrected\).pdf](http://dcmsme.gov.in/dips/Tumkur%20Dist%20(corrected).pdf))

The number of registered units has been increased since the year 2007-08. So, that the employment. There has been also an increase in investment.

1.6 Socio-Economic Aspects

The education level of most of the household unit involved in coir production is up to elementary level. Their economic level is not so high. The per day income of most of the household units is Rs.150/- to Rs.200/- per day in case of skilled and Rs.70/- to Rs.100/- in case of semi/unskilled.

Human Development Aspect

The major human development aspect of Tumkur district as per below:

- a) The per capita income of Tumkur district was 9005 in 1990-1991 and it has increased to 20077 during the year 2007-2008.
- b) Compound Annual Growth Rate (CAGP) was 5.4 in the year 1990-1999 and it has decreased to 3.2 during the period 1999-2008 and again increased to 4.5 during the year 1999-2008.
- c) The Gross Domestic Product of the district is 3.3 with Bangalore division and 4.9 without Bangalore division.
- d) So far as Human Development Index is concerned, Tumkur district ranked 15th with 0.630 in the year 2001.

(Source:http://cmdr.ac.in/editor_v51/assets/mono-60.pdf)

1.7 Key Economic Activities in the Region

Apart from coir the major economic activities of Tumkur district is Agriculture. The major crops are Paddy, Ragi, Maize, Cereals and minor millets. Ragi is a major crop cultivated extensively in the district. This crop occupies one third of whole cultivated land of the district. Rice-unhusked rice or paddy is grown in all taluks of the district. Rice is the most important crops than Ragi and mainly grown under tanks and canals. Important Commercial grown is groundnut. Coconut and Arecanut are the plantations crops grown in the District. Cereals are grown in 2, 42,760 Hectares; Pulses are grown in 60,134 Hectares; Food grains are grown in 3,02,894 Hectares and Oil seeds are grown in 1,64,432 Hectares.

1.8 Infrastructure

Power:Bangalore Electricity Supply Company Limited (BESCOM) is responsible for supply of electricity in Tumkur. In order to deal with the increasing population and industrialization in the

area, major public investments in power generation and transmission is being introduced. In the rural level, consistent effort to enhance biogas-based projects are also being made.

Water: There are no perennial rivers in the district. The minor rivers originate from watersheds and empty into the reservoirs and tanks in the district. There are 1462 minor irrigation tanks in the district irrigating 57,132 hectares of land. The Hemavathy project which is on verge of completion is expected to irrigate 237,000 acres of land in WATER Tumkur district.

Education: Tumkur has 3897 primary schools, 569 High schools & 132 Pre-university colleges. In higher education segments, the district has 69 general colleges, 1 medical college, 6 engineering colleges, 10 ITIs, 1 dental college, 2 law colleges and 1 polytechnic.

Health: Tumkur has close to 75 primary health centres along with 10 major hospitals. Dispensaries and drug shops are also available in plenty in the district. The district has been a centre for various healthcare initiatives at Government level like Tuberculosis control programme, polio immunization programme, etc.

(Source: <http://www.bounteouskarnataka.com/DP-PDF/TumkurDistrictProfile.pdf>)

CHAPTER 2**CLUSTER PRODUCT AND PRODUCTION PROCESS****2.1 Product Profile**

At present, cluster firms are making only fiber, 2 Ply yarn and Curler rope in a limited way. The husk, major raw material is available locally and supplied from adjoining Hassan District.

2.2 Production Process

De-Fibreing: In maximum of the units, de-Fibreing is done by mechanized process. In this process, the brown Fibre is received. The products obtained from this process is Fibre and coir pith.

Coir Pith: Most of the units are into fibre making which results in production of more than 40 Tons of pith as by product. The coir pith is a material left after the extraction of coir fiber from coconut husk. Extraction of 1kg fiber generates 2 KGs of coir pith. Till recently coir pith was considered as a pollutant and a problematic waste material of coir industry. It is now converted into an environmentally friendly soil conditioner in horticulture as a superior natural alternative to peat moss. It can be converted into organic nature for soil improvement and higher yield.

Fibre: All most all the units of Tumkur cluster manufacture fibre by mechanized process.

White Fibre – extracted from retted green husk, which are retted for a period of 6-10 months. During retting, bacterial action makes the husk soft and makes it easy to extract Fibre. The white Fibre is spun into coir yarn for further processing into finished products like door mats, mattings, carpets, etc. for export and internal consumption.

Brown Fibre - including bristle and mattress Fibre - extracted from unretted coconut husk by mechanical process. A thick and long variety, bristle Fibre is used for brush making. Brown fibre is used for making ropes, stuffing, upholstery, cushioning, curled coir and rubberized coir mattresses.



Coir Yarn: Coir Yarn is also being manufactured in all most every units of the cluster. In some units it is produced in traditional process, whereas in some units it is being produced in mechanized process.

The usual practice in hand spinning is to roll the fibre into short length of 6 to 9 inches, giving a clockwise twist by hands. When a sufficient quantity has been made, two of these short lengths are taken in hand together and made in to yarn of two plies by giving a counter twist, using both palms. When the counter twist reaches near the end of the striking, further pieces of short lengths kept ready are added one after other, while the counter twist by hand is continued till the required length of yarn for a knot is reached. This is reeled in the form of a hank and a knot is made at the end. Hand spun yarn always has a soft twist.

Spinning is usually done on the 'charka' or spinning wheel. Wheel spinning is gradually displacing hand spinning. To prepare two ply coir yarns on the spinning wheel, one set of two wheels, one stationary and the other movable is required. The stationary wheel usually contains two spindles set in motion through the centre of the wheel. The movable wheel contains one spindle only. Two persons take the silvers of 'coir' prepared and kept ready after willowing.

Motorized Traditional Ratt is a developed form of a coir spinning 'charka'. Here, the stationary ratt is rotated using a suitable contrivance attached to an electric motor. By attaching the rotating system to the stationary ratt one worker is avoided and the productivity is increased. The wages thus earned are divided among the two workers resulting in enhancement of wages of spinners. This system has been introduced recently and found successful in the industry for spinning all varieties of yarn.

The production turnover in the case of hand spinning was less. The efforts to maximize the productivity of the yarn resulted in the introduction of automatic spinning machine units.

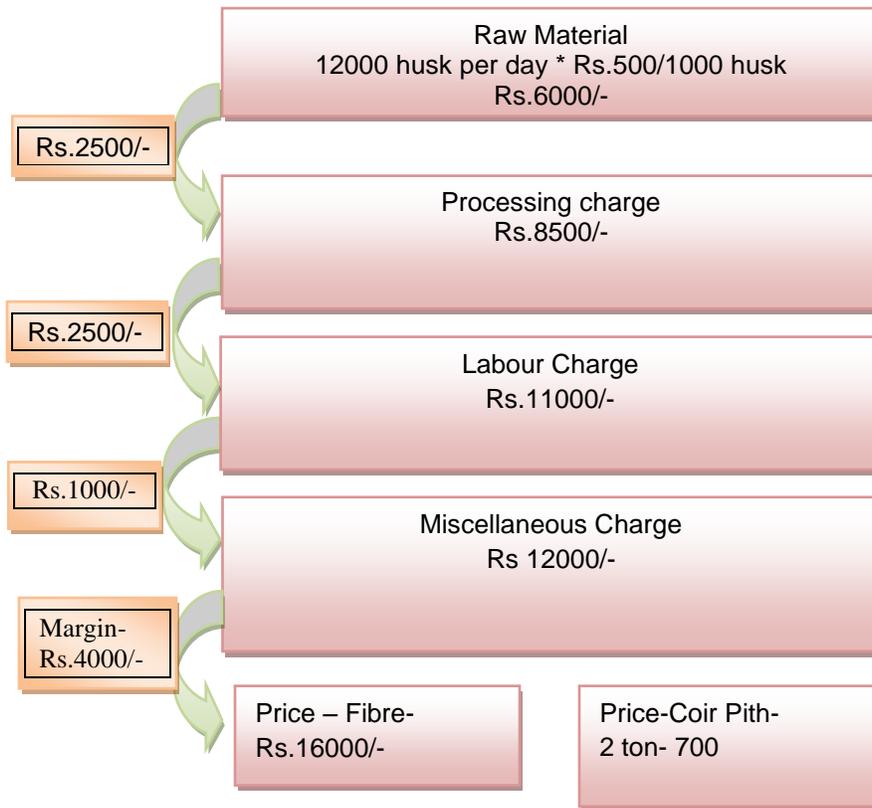
The automatic spinning machine units are capable of production of yarns of runnage varying from 50 to 300 meters/kg and twists from 10 to 30 twists/feet. Coir fibre in the form of bales is the raw material for the unit. These Fibres are soaked in water for one hour and are

cleaned in the willowing machine. Pith content and the hard bits are removed in the process. Manual attention is also required to remove the hard bits to the fullest extent. These cleaned Fibres are passed into the feeder of silvering machine where the fibres are paralleled and drawn by draw rollers. These paralleled fibres are twisted and taken on to drum.

Dyeing of coir fibre/yarn is essential for improving the marketability and aesthetic value of coir products and according to customer taste. Further, bleaching of coir Fibre/yarn is essential for improving the colour.

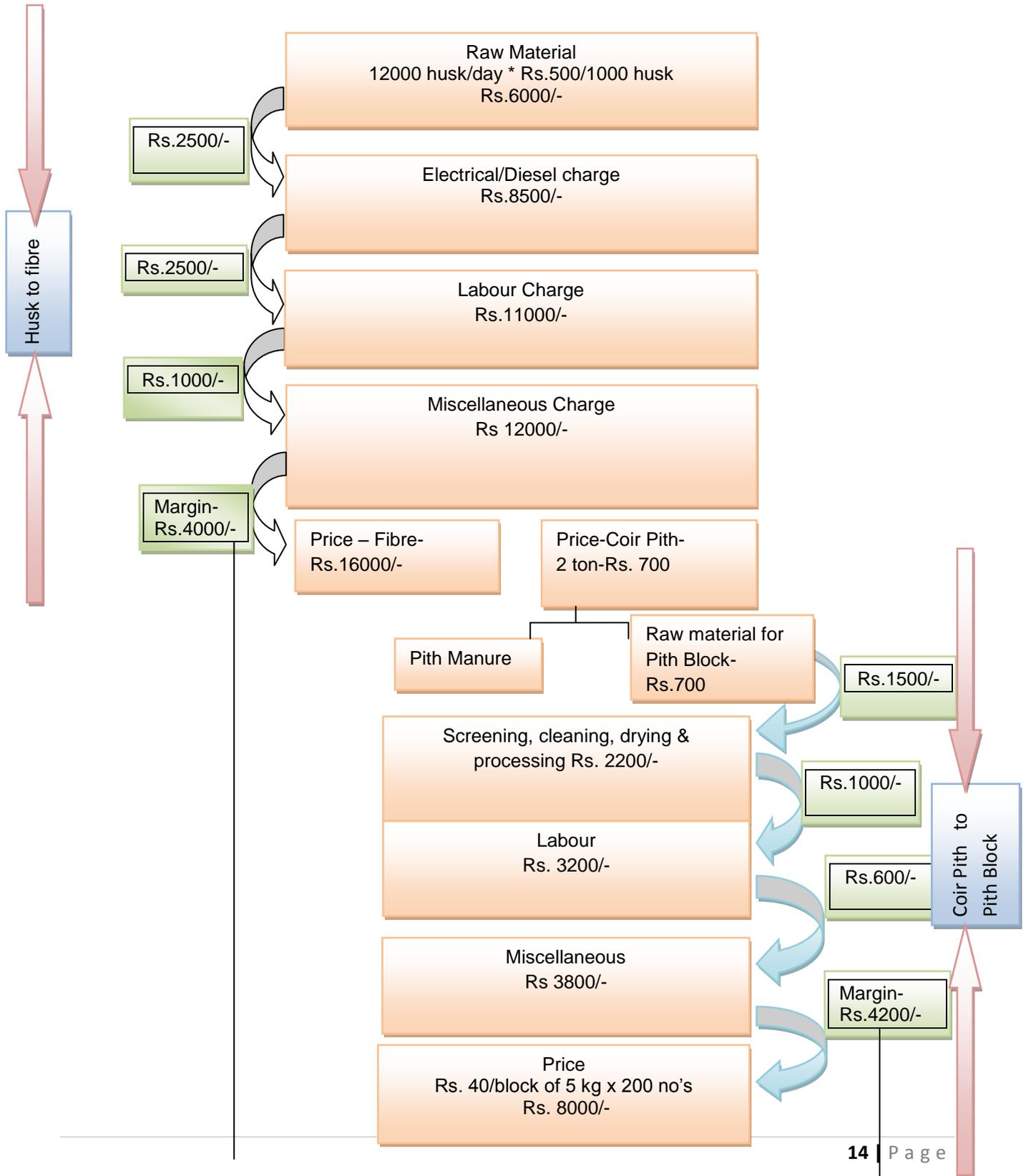
2.3 Value Chain Analysis

Figure 4: Value Chain- Husk to Fibre



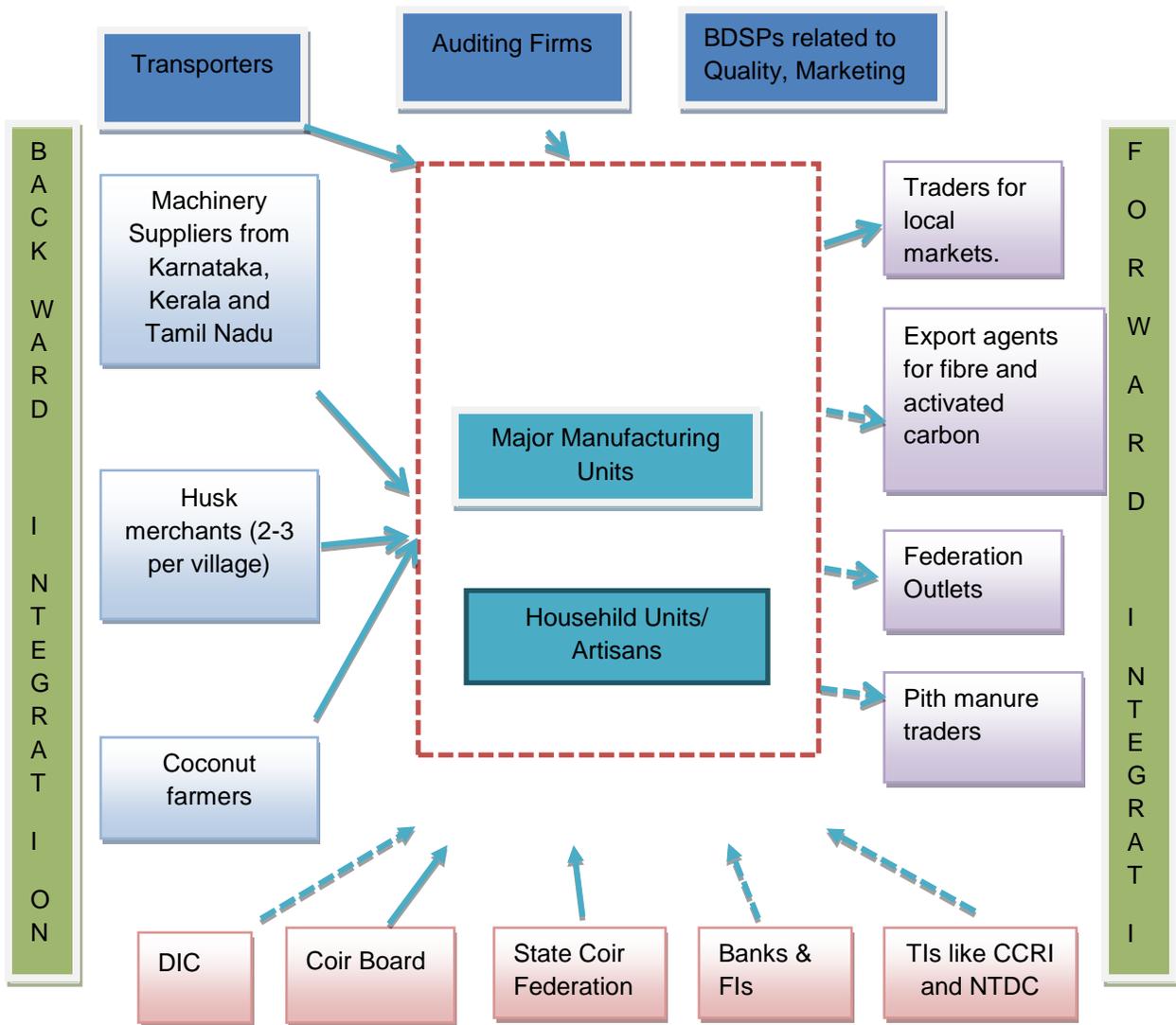


Value Chain Post CFC: Figure 5: Value Chain-Husk- Fibre-Pith Block



Analysis of Total Margine-
 At present th RS.8200 ~~4000~~ after selling fibre in the market (as per the Figure 4) after incurring all costs. No value addition to pith is done in maximum of the units and it is sold in a minimum price. If CFC is established and there will be some value addition to pith, Pith blocks can be produced and there will be an increase in the profit margin up to 50% (as per the Figure 5).

2.4 Cluster Maps highlighting Backward and Forward Linkages



Index:

1. Dotted square box around core cluster firms indicate poor inter-firm linkage
2. Dotted arrow represents weak linkages
3. Solid arrow represents strong linkages
4. Lack of arrow represents absence of any linkages
5. Double sided arrow represents two-way linkages

2.5 Principal Stakeholders

There are about 54 manufacturing units and approximately 3000 household units in the cluster. The manufacturing units procure raw materials from coconut farmers. Some local traders supply raw materials to these manufacturing units and in return they procure the finish products.

Backward Linkages

Coconut farmers supply raw materials to the manufacturing units as well as household units. Some traders situated at Tumkur and its nearby areas supply fibres to the manufacturing units. Machineries like modernized rat machines, automatic spinning machine, curling machines are purchased from two suppliers from Tamil Nadu. Maintenance of these machines is done by the owners of the manufacturing units with the help of local mechanics.

Forward Linkages

The finished products are sold to the local traders/wholesalers from Tumkur and Bangalore, who supply raw materials. Products like yarn and curling are sold to the local retailers. 20% of the manufacturing units supply fibres to Kurl-on. One unit at Thyagatur, Gubbi, high end products like coir plywood and needle felt coir is produced which are being supplied to outside states. There are no direct exports as the quality of cluster products is not matching international standards.

Other Support Institutions

Other major support institution is Coir board which imparts skill development training to the workers of the units. Apart from Coir board other support institutions are State Coir Federation and Coir Corporation which procure the finished products like mats for

marketing. Maximum of the units have direct access to State Bank of Mysore (SBM) for loans.

CHAPTER 3

MARKET ASSESSMENT AND DEMAND ANALYSIS

The coir manufacturing industry is producing coir mats, matting and other floor coverings, which was started in India on a factory basis, over a hundred years ago when the first factory was set up in Alleppey in 1859 by the Late Mr. James Darragh, an adventurous Irish born American national. Enterprising Indians followed the trail blazed by this foreigner. India accounts for more than two-thirds of the world production of coir and coir products. Amongst the coconut growing countries of the world India ranks 3rd after Philippines and Indonesia with 1.2 Million hectares of coconut growth and an average production of 6620 Million nuts.

Indian coir industry is an important cottage industry contributing significantly to the economy of the major coconut growing states and Union Territories of India, i.e., Kerala, Tamilnadu, Andhra Pradesh, Karnataka, Maharashtra, Goa, Orissa, Assam, Andaman and Nicobar, Lakshadweep, Pondicherry, etc. Modern machines were introduced into the coir industry in the late 1960's. About 5.5 lakh persons get employment in this industry. India exports around Rs.1000 crores of coir and coir products annually. Coconut husk is the basic raw material for coir products. Coir or Cocos - Nature's wonder Fibre is extracted from the protective husk of the Coconut.

3.1 Coir Products and their applications

A score of varieties/grades of coir yarn are produced and each variety is associated with certain specific characteristics, used for industrial, agricultural and domestic applications. The exhaustive range of floor coverings, hardwearing door mats, durable Mattings and rugs, crush-proof pile carpets, heavy flowered Mourzouks, etc. in a variety of dimensions enhance the elegance of the place of choice. These products are either handwoven by expert craftsmen or are aesthetically manufactured on modern mechanised looms.

Other products of coir are, Geo-Textiles which are inexpensive, quick and effective in Civil Engineering practices. Rubberised coir, a blend of coir and latex, offers mattresses and

cushioning for restful comfort and pith which is now being widely used in agriculture as a natural hydroponic growing medium.

3.2 Domestic and Global markets for coir

The domestic market for coir products is currently estimated at Rs 2,000 crore and this is expected to grow to Rs 3,500 crore by 2017. The state of Kerala is responsible for about 80% of India's coir market. The coir industry in Kerala employs almost 3.5 lakh people. Over 50% of the coir fibre produced annually throughout the world is consumed mainly in India.

The exports of coir and coir products from India during 2014-15 have reached 1630.30 crores which is an increase by Rs. 154 crores from previous year. During the year 2014-15, 6, 26,666 MT of coir and coir products were exported from the country as against 5, 37,040 MT exported during preceding year. The increase in quantity and value works out to 16.7% and 10.5% in comparison with 2013-14. Coir pith, fibre, handloom mats, coir rope, curled coir, coir rugs and coir mats registered a growth ranging from 12 to 45%, coir yarn tufted mat, powerloom mat, handloom matting, and coir geo textiles and rubberised coir recorded decline ranging from 5 to 51%.

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

Coir fibre with export earnings of Rs, 419.23 crores constituted 26% of total export of coir products from the country. Similarly, coir pith with an export of Rs. 432.95 crores constituted to 27% of total exports. All other value-added items put together constitutes 47% of total exports. During the year 2014-15 coir and coir products from the country were exported to 115 countries around the globe. China topped the importing countries with 28.6% in value and 39% in quantity. USA emerged as the second largest importer of coir



from India with a share of 21.3%. Coir exports from India now have new markets such as Russia and Latin America.

(Source: website of Coir Board)

3.3 Programs to promote Coir Products

Programs for coir industry aims at increased utilisation of coconut husk for production of coir fibre, growth of the domestic market, strengthening of research and development to find out new uses of coir fibre especially in the areas of geo-fabric, acquiring of new technology like Vinyl backed coir products. Mechanisation in all areas of production like the defibering, spinning and weaving are implemented in a phased manner without affecting employment to make Indian coir products competitive in the export market. Modernisation of coir units has been propelled by providing incentives for installation of modern equipment's to make the coir industry more productive and labour friendly. Some of the common attributes are it provides excellent insulation against temperature and sound.

3.4 Major associations involved in coir promotion

FICEA Is the Confederation of Coir and also allied products exporters of India. FICEA, under its single umbrella, has to its credit all the Exporter Associations of coir from the country namely- the Indian Coir Exporters Chamber, Indian Coir Association, Coir Shippers Council, Travancore Coir Mats and Mating Manufacturers Association and The Coir Pith and Allied Products Manufacturers and Exporters Association, which exports about 1000 crores worth of Coir and Coir Products from the country. It voices the problems and difficulties being faced by the coir industry in general and the exporters, in particular.

(Source: Indian Mirror.com)

3.5 Analysis

- *Cluster firms never capitalised, the growing export market for coir yarn and mats, which are its major products. All the firms are depending only on domestic traders who in turn by exporting are making major profits. There is a need for cluster firms to opt for direct export market.*
- *With the existing production process, cluster firms are capable of making pith, for which no conscious efforts were made. In fact, cluster firms can opt for a Common Pith making unit, if economics of scale for individual units is adverse.*
- *Linkage of cluster firms never gone beyond coir board; it is high time for at least major manufacturers to be the members of FICEA, which can facilitate in direct marketing.*
- *There is a huge untapped market in countries like Russia and Latin America for coir mats and pith, which cluster firms need to tap. However, for any export's firms need to understand international quality norms and upgrade their facilities accordingly.*

CHAPTER 4

SWOT AND NEED GAP ANALYSIS

4.1 Cluster SWOT

Strengths	Weaknesses
<ul style="list-style-type: none"> • Good quality brown fibre and pith are manufactured in the cluster. • Availability of raw materials like husk and pith is galore • Availability of skilled manpower • Committed and experienced 1st and 2nd generation entrepreneurs • Strong market linkages for marketing of fibre and curled coir • Maintaining high quality in making of yarn • Majority of the units opened accounts in local banks • Strong linkages with coir board resulted in establishment of CFC at Gubbi • Strong internal road connectivity with good logistics support • Use of semi advanced machinery in fibre extraction 	<ul style="list-style-type: none"> • Competition is very high among different units of the cluster • There is lack of cooperation and trust building among owners of major production units. • No value addition of fibre and pith is done. • Diversification of different products is lacking in the cluster. • There has been no linkage with any technical institute in the cluster. • Lack of understanding about modern technology in pith block, curled coir, geo textiles is found in the cluster. • Proper maintenance of machines is not done as expert mechanics are not found at the unit level. • Quality of husk is being compromised at some units resulting bad reputation. • Uninterrupted power supply has been a major problem in the cluster. • Bank and financial institutions are reluctant to provide loans to the coir industries. • Lack of awareness among producers on different Public Support Schemes.

Opportunities	Threats
<ul style="list-style-type: none"> • Coir fibre and coir pith industry is booming. • There has been an increase in demand of the coir pith-block. • Sophisticated machineries are available for manufacturing coir and coir pith. • Technical Institutes related to Coir have invented advanced machinery across the value chain. • Presence of coir board as major support institution 	<ul style="list-style-type: none"> • There is unhealthy competition from synthetic products. • Machinery cost are getting higher day by day • Outside manufacturers are purchasing husk at a higher price through local agents resulting in increase in price of raw materials. • Lack of dissemination of information from academics/technical institutions. • Lack of support from Banks and other financial institutions. • Lack of high capacity storage facilities during rainy season.

4.2 Need Gap Analysis

Based upon the above SWOT analysis of the cluster, area wise need gap analysis is inferred and mentioned as below:

4.2.1 Technology

Except three major units all other units in the cluster are using outdated technology for yarn and curled coir making resulting in less productivity. Efforts for upgrading technology is found to be low in the cluster, may be due to capital intensive nature. Proper maintenance of machinery is a major problem found in the cluster. There is a need for up gradation of technology. Product diversification in lieu with market demand is also suggested.

4.2.2 Marketing

The market for this cluster is restricted to local traders/wholesalers and retailers. Kurl-on purchase fibres from some major units in Gubbi, Thygatur and Nittur. Apart from that product like yarn, mats, curling are being consumed at local markets. Coir Pith is being sold at Rs.2/- per kg to nurseries. One unit at Tiptur does some value addition with pith by mixing fertilizers and supplies it to some other states. There is a need to organise exposure visits to places like Alappuzha to understand better marketing techniques. There is also a need to take few of the vibrant manufacturers to international fairs so as to sensitise them in international market requirements and procedures.

4.2.3 Finance

As it is mentioned the main supporting financial institution for the cluster is State Bank of Mysore (SBM). No other major financial institutions like Banks are providing loans to the units as they don't have proper documents to avail loans. There is a need to create awareness among cluster units on book-keeping and financial management by organising EDPs (Entrepreneurship Development Programme). There is also a need to organise an awareness workshop on Public Support Schemes with the help of NABARD, KVIC, MSMEDI, and local DIC.

4.2.4 Linkage with other Institutions

At present the cluster is having linkages with Coir Board, Coir Federation and Coir Corporation. There is a need to establish linkage with CCTRI (Central Coir Training and Research Institute) for quality up gradation and new technology, for export market promotion there is a need to establish linkage with FICEA (Federation of Indian Coir Exports Association), for leveraging NMCP (National Manufacturing Competitions Programme) there is need to establish linkage with MSME-DI. To avail schemes like Rural Mart and UPNRM (Umbrella Programme for Natural Resource Management) linkages with NABARD is suggested. Linkages with Banks will also help in availing loans and benefits under CGTSME (Credit Guarantee Fund Trust for Micro and Small Enterprises).

CHAPTER 5**PROFILE OF IMPLEMENTING AGENCY****IA:Karnataka State Coir Co-Operative Federation****5.1 Institutional Structure**

The Karnataka State Coir Co-Operative Federation was established in the year 1961 with the main objective of developing coir industry through co-operative movement in Karnataka state. This Federation is having 72 primary coir Co-operative societies as its affiliated member societies. There are more than 17 production centre where in all coir products are manufactured apart from this as per the customer demand, new varieties of coir products are also manufactured and sold. The Federation is also having 14 sales outlets and 3 Mobile sales van wherein different types of coir mats, matting cushions, rubberized mattresses, pillows etc. are display and sold.

The Federation is having godown facilities for storage and security of coir products at Bangalore and Arsikere. The Main manufacturing activities are coir fibre (Brown fibre and green husk fibre). Mats Matting, Geo-textiles, Curled coir required for Rubberized coir industry and other value-added products. The Federation has provided employment to about 1500 unskilled persons in rural area out of which 90% are women. The main objective of the Federation is as follows:

- To assist and support primary coir Co-operative societies.
- To provide Training.
- Supply of raw- materials
- Marketing of coir products
- Technical guidance

5.2 Governance Structure

The Organisational structure reflects Board of Directors, headed by President with 11 more members. At present Shri M. K. Puttaraju is the President of the federation. The Board of Directors is ably assisted by Office Staff headed by Managing Director.

5.3 Operational Profile

The regular operations are taken care by office 48members office staff, headed by Managing Director, who will not only take care of HO operations but also field offices and sales outlets.

The federation has 5 sales managers, 15 Coir Supervisors of grade I and II based on their seniority, 2 depot managers, other than support staff.

5.4 Management Profile

The Board of Directors will take care of overall administration, while Managing Director along with staff will be take care the operational part. Each member of the federation has been entrusted with a specific task like marketing, input procurement, finance, training, raat procurement, product/ quality up gradation. The Board of Directors has been supported by Secretarial staff, which will take care of operational management at ground level, besides sales operations. Dr. H.R. Arun Kumar is present Managing Director of the Federation who has vast experience in textile and coir industry. He has taken lot of interest and initiatives for the development of the Karnataka Coir Industry. The Federation is having 16 production centres, several retail showrooms, and two mobile sales vans spread across the state, with each one headed by an official of Superintendent/ Supervisor rank person.

5.5 Financial Position

The Federation is aiming for 6crore sales turnover during the current year. The Federation is having a Fixed Asset of Rs.2, 54, 50,670 and Paid-Up Share Capital is Rs. 329.22 lakhs out of which, share capital from state government is Rs.329.00 lakhs.

CHAPTER 6**PROJECT CONCEPT AND STRATEGY FRAMEWORK****6.1 Project Rationale**

The cluster require both soft and hard interventions related to technology up gradation, skill development, market development besides financial linkages with banks, leveraging of other public support schemes, so as to make job work weavers as producers and enhance their income levels. Unless these interventions are not taken, the producers will remain with low incomes and their next generation may not take up the same profession, which ultimately may lead to dissemination of the cluster. The interventions are also needed to enhance the production levels and reduce producers' drudgery.

6.2 Project Objectives

1. To address the issues of cluster based on their requirement, need and products manufactured, which ultimately strengthen the cluster per se.
2. To improve the aggregate cluster production by introducing part mechanisation and upgradation of existing equipment.
3. To improve the social capital of the cluster by capacitating the IA and SPVs.
4. To establish requisite Common Facilities for value added products
5. To strengthen linkages of cluster firms with support institutions and relevant BDSPs to make the proposed interventions sustainable
6. To encourage direct marketing by cluster firms instead of existing trader-controlled sales
7. To improve entrepreneurial skills of principal stakeholders to gain confidence to opt for export marketing besides improving linkages with banks and FIs.

6.3 Expected Benefit

Once the Common Facility Centres are at the disposal of the cluster as well as completing the soft interventions, the expected benefits will be as under:

New Artisans

- Returning back to their traditional and heritage occupation
- New skill development for new artisans
- Increase in regular income
- Improvement in the work culture for sustainable growth with new CFC

New Entrepreneurs

- Through appropriate training develop new entrepreneurs in various processes
- Investment in the cluster will be increased
- Alleviate the unemployment
- Augment the income of rural poor
- Dynamism in coir manufacturing

Cluster

- New opportunity for the cluster members
- Attract more investment
- Develop a strong net work
- Institutionalize a common facility centre
- Product and process standardization
- Quality standardization
- Brand/ image building
- Product Development
- Exporting the cluster products
- Instead of competing among units co-operation is introduced
- Realization of remunerative price
- Foreign exchange earning
- Dynamism among the unit members

Society

- Increase in trade and commerce
- Local Economic Development
- Improve in investment in the locality
- Improvement in the quality way of life of the locale
- The income of women from BPL family and minority community will be augmented.
- Inclusive growth.

6.4 Focus Products/ Services

Products: High quality fiber, 2 Ply Yarn, 5 KG pith Blocks, and Pith Manure are the major products of the cluster and the market plan for each product is given as below:

Product	Major Buyers	Quantity
High quality Fiber	50% used by CFC itself for making of 2 Ply Yarn	360000 KG p.a.
	Karnataka Coir Federation for its other production centers	240000 KG p.a
	Local Traders and Agents	120000 KG pa.
2 Ply Yarn	Karnataka Coir Federation for its other production centers for making of mats and mattings, ropes	240000 KG p.a
	Kurlon manufacturing unit at Tumkuru	240000 KG p.a
	Manufacturers of Pollachi and Azhappuzha	240000 KG p.a.
Pith Manure	AnubhavaHitech Nursery, Nagamangalam	2000 KGs p.a
	Nandini Fruits and Avenue Nursery, Mandya	2500 KGs p.a.
	Garden View Nursery, Sorana	2000 KGs p.a.
	Local Farmers	25000 KGs p.a.
Pith Blocks (5 KGs)	E-Commerce portals like India Mart and Amazon, Alibaba	5000 No's
	Major Exporters like SMS Exporters, Coimbatore, Bloom	4000 No's

	& Peat Products, Chennai, Kin Agro, Tuticorn	
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CHAPTER 7
PROJECT INTERVENTIONS (CORE SFURTI)
7.1 Soft Interventions

Required soft interventions based on the analysis of production process, cluster SWOT and gap analysis are tabulated as below:

S. No.	Name of Activity	Timeline	Partners	Target Group	Established Outcome	Amount (in Rs.)
I. Trust Building Activities						
1	Exposure Visit to Alappuzha Cluster	Q1	IA, CDA	20 society members and producers	Stakeholders to understand cluster concepts and CFC operations	1,50,000
II. Building awareness on various government schemes						
2	Interface with banks (2 Nos)	Q1-Q2	IA, DIC, MSME-DI, KVIC, Lead Bank and other banks	100 producers	At least 100 firms get awareness on various schemes like PMEGP, NMCP, CGTSME	80,000
3	Awareness workshop on Government Schemes	Q2 – Q3	Financial Consultant	100 producers	Atleast 100 producers will be trained on the business plan and marketing aspects of the product and its related process	40,000
III. Training Programmes & SDPS						

S. No.	Name of Activity	Timeline	Partners	Target Group	Established Outcome	Amount (in Rs.)
4	2 week training on Pith Manure and Block Making (3Nos)	Q2 & Q3	State government agency	90 (30*3) participants will be trained in Block and manure making	Atleast 90 producers will be trained in making pith manure and block making	6,00,000
5	1 week training program on 2 Ply Yarn and advanced Fiber Extraction	Q3 & Q4	State level agency	90 (30 * 3Nos) artisans trained in mats and matting making	Atleast 90 women producers will be trained on the new and advanced process of fibre extraction	3,00,000
6	Organising 2 EDPs (2 Nos)	Q3 – Q4	50 (25*2) participants will adopt better management practices	50 producers	Atleast 50 producers will be trained on making on entrepreneurship development program	1,00,000
IV. Marketing						
7	Conducting buyer seller meets (2 Nos)	Q5-Q6	Amazon, Metro, Bigbazar etc.	All cluster producers	Help the principle firms to understand buyer requirements and led to direct marketing.	3,00,000
8	Creation of cluster level website	Q5 – Q6	Web Designer from Ranchi	All cluster producers	To showcase products for e-commerce	1,00,000

7.2 HARD INTERVENTIONS

Automatic Spinning Unit

At present all the units are using charkas for spinning yarn which can produce 20 KG of yarn from fibre per day per machine. Thus on an average a unit is making only 100 to 150 KG, of yarn. Due to low production they could not able to make geo textiles which require huge quantity of yarn. Moreover the quality of yarn is also not very good since spinning cannot be as tight as made by an automatic spinning machine.

Thus there is a need to establish an automatic spinning unit as common facility which can make 25 KG per hour per machine, thus improving the productivity and reduced employee drudgery. 20 machines are planned to be bought for the facility which can make 3600 KG per day per one shift. Each machine is expected to cost Rs. 5.03 lakhs thus the total cost is coming to Rs. 100.06 lakhs. The SPV is already having 2 acres converted land is available, bearing survey number 22/2 in Boragondanahally, Chelur hobli, Gubbi taluk, Tumkur District, which is sufficient for the CFC.

Other than the above the CFC is expected to house one defibering units with a capacity of 4000 KG per day, 5 KG pith block making units (2nos) with 100 pieces per day other than manure making.

A 9500sqft shed is planned to be constructed for the CFC. At least 50% of the fiber made in the CFC **will be internally used as raw material for 2 Ply Yarn.**

(Coir yarn spinning machine by SUKU)

Revenue mechanism: The SPV will sell the cluster products on common brand basis, since majority of individual artisans unable to market on their own. The revenue generated will be shared on pro rata basis.

Land details: SPV has its own land, which is located at number 22/2 in Boragondanahally, Chelur hobli, Gubbi taluk, Tumkur District. The

existing land is sufficient for establishment of proposed hard interventions like Common processing center.

CHAPTER 8

SOFT INTERVENTIONS

COMPONENT (I): TRUST BUILDING ACTIVITIES

Activity 1.1 Exposure Visit to AlappuzhaCluster

- a) **No. of programs:**2
- b) **Batch size:** 20 manufacturers, artisans including members of IA/ SPV and CDA
- c) **Place &organization imparting training:** Alappay cluster
- d) **Duration of training:**3 days
- e) **Faculty available:**Members of the cluster
- f) **Cost of programme:** Rs. 1,50,000

Particulars	Amount (in Rs.)
Travel expenses 20 SPV/ IA members other than CDA @ Rs. 2000 per head	40000
Lodging & Boarding for members @ Rs. 1500 per head x 3 days	90000
Misc. expenses incl. local transport	20000
Total (2 Nos)	1,50,000

- g) **Topics covered under training:**SPV to understand marketing consortia concepts and quality measures taken by Pune food processing cluster
- h) **Impact of the training:**20 SPV executives and IA to understand and implement collective marketing techniques

COMPONENT II: Building awareness on various government schemes

Activity 2.1 Awareness workshop on Government Schemes

- a) **No. of programs:**One
- b) **Batch size:**100 cluster firms
- c) **Place & organization imparting training:** Will happen in cluster itself by the IA, DIC, MSME-DI, KVIC, Lead Bank and other banks
- d) **Duration of training:**Half day
- e) **Faculty available:**Not required
- f) **Cost of programme:** Rs. 40,000

Particulars	Amount (in Rs.)
Venue cost	5000
Local TA/DA (Faculty)	5000
Refreshments 100 persons (@Rs. 200 per head)	20000
Photo expenses	2000
Misc. expenses	5000
Literature	3000
Total	40,000

- g) **Topics covered under training:**To sensitise cluster firms on various public support schemes like PMEGP, NMCP, CGTSME and AHVY etc.
- h) **Impact of the training:**100 firms will get awareness on various Government Schemes and at least 30 of them will be benefitted under different schemes.

Activity 2.2 Interface with banks

- a) **No. of programs:** 2
- b) **Batch size:**50 in each programme
- c) **Place & organization imparting training:** Will happen in cluster itself by the IA and CDA, with the help of Lead Bank

- d) **Duration of training:**Half day (each one)
- e) **Faculty available:**Local Bankers
- f) **Cost of programme:** Rs. 80,000

Particulars	Amount (in Rs.)
Venue cost	5000
Local TA/DA (Faculty)	6000
Refreshments 60 persons (@Rs. 100 per head)	12000
Photo expenses	3000
Audio visual expenses	5000
Misc. expenses	6000
Literature	3000
Total amount per programme	40,000
Total amount of 2 programmes	80,000

- g) **Topics covered under training:**To sensitise cluster firms on Banking procedures and documents required for loaning purpose, with specific reference to MUDRA Scheme.
- h) **Impact of the training:**80 to 100 artisans will get awareness on banking norms and at least 20 of them will be benefitted with requisite loan facility.

COMPONENT III: Training Programmes& SDPS

Activity 3.1 2 week training program on making and testing of pith blocks and manure

- a) **No. of programs:**3
- b) **Batch size:**30x3
- c) **Place & organization imparting training:**
- d) **Duration of training:**10 days each
- e) **Faculty available:**CCRI, Alleppy, Bangalore is a research institute of Coir Board, an autonomous body, under the control of Ministry of Agro and Rural Industries, Government of India. It has vast experience in conducting such programs.

f) **Cost of program:** Rs. 6,00,000

Venue Cost	0
travel expenses for artisans @ Rs. 2000 per head x 30 persons	60000
Local TA/ DA including lodging @ Rs. 300 per day x 10 days x 30 persons	90000
Faculty Fees to CCRI	30000
Photo & Video expenses	10000
Literature & Misc. expenses	10000
Total	200000
3Nos	6,00,000

g) **Topics covered under training:**

h) **Impact of the training:** At least 90 workers will be trained on making and testing of pith blocks and manure

Activity 3.2 One-week training program on 2 Ply Yarn and fiber making with advanced machinery

a) **No. of programs:** 3

b) **Batch size:** 30 each

c) **Place & organization imparting training:**

d) **Duration of training:** 2 months

e) **Faculty available:** Experts from

f) **Cost of program:** Rs. 4,00,000

Venue Cost	5000
travel expenses for faculty	20000
Local TA/ DA	10000
Stifund for participants 30 persons @ Rs. 200 per head x 5 days	30000
Faculty Fees	20000

Photo & Video expenses	5000
Literature & Misc. expenses	10000
Total	100000
3 Nos	300000

- g) **Topics covered under training:**
- h) **Impact of the training:** At least 90 producers will be trained on the new production process of seed lac and will be acquainted with quality control process

Activity 3.3 3 days EDP

- a) **No. of programs:** 2
- b) **Batch size:** 15
- c) **Place & organization imparting training:** Will happen in cluster itself by IA
- d) **Duration of training:** One week
- e) **Faculty available:** By experts from SPV
- f) **Cost of program:** Rs. 1,00,000

Particulars	Amount (in Rs.)
Venue Cost	10000
travel expenses for faculty	5000
Local TA/ DA	5000
Refreshments 20 persons @ Rs. 200 per head x 3 days	12000
Faculty Fees	10000
Photo & Video expenses	5000
Literature & Misc. expenses	3000
Total	50000
2 Nos	100000

- g) **Topics covered under training:**
- h) **Impact of the training:** At least 30 producers will be trained on entrepreneurship development

COMPONENT IV: Marketing

Activity 5.1 Conducting buyer seller meets (2 Nos)

- a) **No. of programs:** 2
- b) **Batch size:**40
- c) **Place & organization imparting training:** At IA conference hall
- d) **Duration of training:** One day
- e) **Faculty available:** NA
- f) **Cost of program:** Rs. 3,00,000

Particulars	Amount (in Rs.)
Venue Cost	50000
Local TA/ DA	20000
Refreshments 50 persons @ Rs. 300 per head	15000
Publishing material expenses	30000
Photo & Video expenses	20000
Misc. like opening and closing ceremony expenses	15000
Total	150000
For 2 meets	300000

- g) **Topics covered under training:** NA
- h) **Impact of the training:** Strengthening linkages with organized market chains

Activity 5.2 Creation of cluster level website

Proposed Program: E Commerce Portal

Course outline: For promotion of products through e-commerce

Duration: Continuous dynamic website

Batch Size: Not applicable

Trainers and their details: Not applicable

Training delivery method: Not applicable



Details of infrastructure required: Not applicable

Availability of Infrastructure: Not applicable

Method of selection of consultant: selection of consultant will be done in bidding process.

Cost of program: 1.00 lakhs as BDSP fees

CHAPTER 9
PROJECT COST AND MEANS OF FINANCE (CORE SFURTI)
9.1.1 Proposed Intervention

The society is planning to establish a common processing center, which also serves as incubation for new artisans to acquire requisite skills. The processing center will work on common brand basis and will share the profits with member artisans on pro rata basis.

9.1.2 Land Details

2 acres land is available, and conversion is under process of bearing survey number 22/2 in Bo agondanahally, Chelur hobli, Gubbi taluk, Tumkur District. The land has already been converted in into industrial purpose for which necessary approvals are available. A 9500 SFT of shed is planned which will house all the proposed facilities, with a total cost of Rs. 76.00 lakhs.

9.1.3 Proposed equipment's/ machines etc.

S.No.	Name of the machinery	Qty	Total Amount
1. Fiber Extraction			
1	Fiber extraction system with husk demantling, fibre cleaning, fibre screening, pith screening & conveyors	1	8024000
2. Pith Block Making			
2	Pith block 5 kg making machine	2	2643200
3. Others			
3	Pyrolysis & Pith Drier	1	7976800
4	2 Ply Yarn Machine	20	10006400
5	Transport Vehicle	1	2006000

S.No.	Name of the machinery	Qty	Total Amount
6	Electical Cabling	1	2183000
	Sub Total – 1		32839400

9.1.4 Master Plan/ Detailed engineering drawings

A detailed master plan along with civil estimates are given in the **annexure XVIII**.

9.1.5 Project Cost

Cost of the Project and Means of Finance				
				Rs.In lakhs
Sl.No	Particulars	Already incurred	To be incurred	Total Cost
A	Land	-	-	-
	land Development	-	-	-
B	Building & other Civil Works	-	76.00	76.00
C	Plant and machinery			
	a. indigenous	-	328.39	328.39
	b.import	-	-	-
D	Lease Deposit Deposit	-	-	-
E	Technical consultancy fee	-	-	-
F	Miscellaneous fixed assets	-	-	-
G	Erection / installation charges	-	-	-
H	Preliminary expenses	-	-	-
I	Pre-operative expenses	-	-	-
J	Provision for contingencies			
	a.buildings (@2%)	-	-	-
	b.Plant& Machinery (5%)	-	-	-
	c.Other fixed assets	-	-	-
K	Working capital	-	23.03	23.03
	Total :	-	427.43	427.43

MEANS OF FINANCE				
				Rs.In Lakhs
Sl.No	Particulars	amonut already raised	amonut proposed to be raised	Total
	Equity			
A	Equity from spv@5%	-	-	21.37
B	Share premium	-	-	-
C	Preference Share Capital	-	-	-
	Debt			
D	Term loans (0%)	-	-	-
E	Unsecured loans and deposits	-	-	-
	Quasi Equity			
F	Interest free unsecured loans	-	-	-
G	Subsidy : central govt. (90%)	-	-	384.68
H	Subsidy : state govt.	-	-	21.37
	Total	-	-	427.43

9.1.6 Operation and Maintenance Model

Revenue mechanism: The product will be sold on common brand basis by the SPV with the help of Federation which is also IA for the project.

9.1.7 Business Plan

The detailed business plan is given in Chapter 14.

9.1.8 Implementation Schedule

The civil construction is expected to be completes by end of fourth quarter of the first year of the project implementation. Purchase and erection of machinery will be done by 1st quarter of 2nd year and plant is expected to start its commercial operations by end of second quarter of second year. It is expected to reach breakeven in the first year of operation.

CHAPTER 10
PROJECT COST AND MEANS OF FINANCE
10.1 Project Cost

The cost of the project includes cost of implementing soft interventions, hard interventions, IA fees and TA fees with a total project span of 3 years. Following table shows the cost of project.

Cost of the Project and Means of Finance				
				Rs.In lakhs
Sl.No	Particulars	Already incurred	To be incurred	Total Cost
A	Land	-	-	-
	land Development	-	-	-
B	Building & other Civil Works	-	76.00	76.00
C	Plant and machinery			
	a. indigenous	-	328.39	328.39
	b.import	-	-	-
D	Lease Deposit Deposit	-	-	-
E	Technical consultancy fee	-	-	-
F	Miscellaneous fixed assets	-	-	-
G	Erection / installation charges	-	-	-
H	Preliminary expenses	-	-	-
I	Pre-operative expenses	-	-	-
J	Provision for contingencies			
	a.buildings (@2%)	-	-	-
	b.Plant& Machinery (5%)	-	-	-
	c.Other fixed assets	-	-	-
K	Working capital	-	23.03	23.03
	Total :	-	427.43	427.43

MEANS OF FINANCE

				Rs.In Lakhs
Sl.No	Particulars	amonut already raised	amonut proposed to be raised	Total
	Equity			
A	Equity from spv@ 5%	-	-	21.37

B	Share premium	-	-	-
C	Preference Share Capital	-	-	-
	Debt			
D	Term loans (0%)	-	-	-
E	Unsecured loans and deposits	-	-	-
	Quasi Equity			
F	Interest free unsecured loans	-	-	-
G	Subsidy : central govt. (90%)	-	-	384.68
H	Subsidy : state govt. 5%	-	-	21.37
	Total	-	-	427.43

10.2 Means of Finance

Means of finance is mainly confined to SFURTI Grant and Promoter's equity. Promoters are willing to contribute on their own and are not taking any unsecured loans for the project. Thus, the details of means of finance are given as below:

S.No	Means of finance	Total
I.	Gol Grant under SFURTI	451.38
II.	State Contribution if any	21.37
III.	Promoters Equity	21.37
IV	Own Sources	0.00
V	Unsecured loans	0.00
VI	Loan from Bank	0.00
	Total	494.13

As per the revised guidelines, 100% grant is considered for implementation of SI plan. For Hard interventions 90% grant is considered and IA as their contribution will bring 5% and remaining amount from State government which is 5%. IA fee is coming to Rs. 20.00 lakhs, which is within maximum cap of Rs. 20.00 lakhs or 8% of HI whichever is less. TA fees are calculated as 8% of HI and are coming to Rs. 30.00 lakhs. Thus, the total project cost is coming to 494.13 lakhs in which Gol grant is 451.38 lakhs, which is within maximum cap for Major Cluster i.e. Rs. 500 lakhs.

10.3 Project Phasing

As indicated, project will be implemented in 3 years of time. While first year concentration will be more on implementation of soft & hard interventions, the second and third year will be sustaining the CFC and other interventions. The detailed phasing is given as below:

SI.No	Particulars	1st Year	2nd Year	3rd Year	Total
A	Land (Lease)	0.00	0.00	0.00	0.00
	land Development	0.00	0.00	0.00	0.00
B	Building & other Civil Works				0.00
	Civil Works for Training Hall and Workshop	38.00	38.00	0.00	76.00
C	Plant and machinery				
	a. indigenous	131.36	197.04	0.00	328.39
	b. Import				
D	Lease Deposit &Electricity Deposit	0.00	0.00	0.00	0.00
E	Technical consultancy fee				
F	Miscellaneous fixed assets	0.00	0.00	0.00	0.00
G	Erection / installation charges	0.00	0.00	0.00	0.00
H	Preliminary expenses	0.00	0.00	0.00	0.00
I	Pre-operative expenses	0.00	0.00	0.00	0.00
J	Provision for contingencies				
	a.buildings (@2%)	0.00	0.00	0.00	0.00
	b.Plant & Machinery (10%)	0.00	0.00	0.00	0.00
	c.Other fixed assets	0.00	0.00	0.00	0.00
K	Working capital	0.00	23.02	0.00	23.02
L	Provision for Soft Interventions	8.35	8.35	0.00	16.70
M	IA Fees	6.66	6.67	6.67	20.00



Sl.No	Particulars	1st Year	2nd Year	3rd Year	Total
N	TA Fees	10.00	10.00	10.00	30.00
	Total	194.37	283.08	16.67	494.13
I.	Gol Grant under SFURTI	225.69	180.55	45.14	451.38
II.	State Contribution if any	10.59	10.59	0.00	21.37
III.	Promoters Equity				
	Own Sources	10.59	10.59	0.00	21.37
	Unsecured loans	0.00	0.00	0.00	0.00
Total		246.87	201.73	45.14	494.13

CHAPTER 11
PLAN FOR CONVERGENCE OF INITIATIVES

Coir industry in Mandya is mainly having 10 units and 800 artisans. At present these units are depending on manual charkhas for spinning which can produce not even 5 KG per day. Thus the total production of 5 units is not crossing 300 Kgs per day. Thus, there is a need to leverage Coir Udyami Yojana, to expand their yarn making facilities by purchasing one fully automatic double head spinning machine per unit. Thus, each unit require Rs. 5.00 lakh for purchase of machinery, civil alterations and working capital.

The common convergence activities planned, and their tentative estimates are given as below:

S.No	Activity	Number of firms/artisans targeted	Tentative project Cost (In Rs.)	Scheme contribution	Bank Loan	Promoter Contribution
1	Expansion of existing 5 production units with automatic spinning machines (one each) under Coir Udyami Yojana	5	5 Nos. x Rs. 5,00,000 = Rs.25,00,000	10,00,000	13,75,000	1,25,000
	Total		25,00,000	10,00,000	13,75,000	1,25,000

CHAPTER 12
ENHANCED PROJECT COST WITH CONVENRGENCE OF SCHEMES

S.N o.	Component	Total	Grant under SFURTI	Bank Finance	State Contribution	Grant from other sources	Stakeholder Contribution
1	Soft Interventions	16.70	16.70	0	0	0	0
2	Common Facility Centre	427.43	384.68	0	21.37	0	21.37
3	Convergence For expansion of 5 existing units with auto spinning under CUY	25.00	0	10.00	0	13.75	1.25
4	Implementing Agency Fees	20.00	20.00	0	0	0	0
6	Technical Agency Fees	30.00	30.00	0	0	0	0
	Total	519.13	451.38	10.00	21.37	13.75	22.62

Thus out of a total of 519.13 lacs as project cost, SFURTI contribution is coming to 87%, Bank contribution is 2%, Stake Holders contribution is coming to 4%, State government contribution is coming to 4% and remaining 3% is contributed as CUY.

CHAPTER 13
PROJECT TIMELINE

The project implementation schedule with details of activities to be undertaken is given in the following chart based on the project phasing as given in the chapter – 10.

Project Activity	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13-14
1. Preparation and submission of DPR for proposed HI under SFURTI													
2. Implementation of Trust Building activities under SI													
3. Implementation of trainings/ SDPs under SI													
4. Capacity building initiatives for Self Governance under SI													
5. Market Promotion Activities under SI													
7. Establishment of CFC													
9. Establishment of units under CUY													
10. Monitoring & evaluation													
11. Preparation of road map and exit from the cluster by IA and TA													

CHAPTER 14

TENTATIVE BUSINESS PLAN

It is to be mentioned that no income is expected from any of the soft interventions for SPV. The add on components like convergence initiatives are not included in business plan, as it is too early to assess the production levels and their marketing capability.

The production capacity of Pith Manure making unit is 100 pieces of 5 KG blocks and 500 KGs of manure per day. While for 2 ply Yarn it is 3600 KGs per day in two shifts and 4000 KGs of fibre per day. The capacities mentioned are at 100% utilisation. Both the units are expected to reach 60% capacity utilisation in the first year, 65% in the second year and reach a capacity of 85% by 6th year.

14.1: Production Capacity:

The focus products of the CFC are fiber, 2 Ply Yarn, 5 KG pith Blocks and pith manure. The price of per KG of fiber is Rs. 11, per piece of 5 KG pith block is Rs. 30, per KG of pith manure is Rs. 6 and per KG of 2 Ply Yarn is Rs. 12.

14.2 Manpower Cost:

The man power includes 20 skilled and 8 unskilled workers, who will be administered by manager for whom a provision has been made in the budget. One marketing executive, accounts assistant, and two security guards are also provisioned in the budget.

The total wages for plant is estimated at 34.35 lakhs and for administrative staff the salaries are coming to Rs. 4.13 lakhs, which are inclusive of 25% fringe benefits as per enforcement directorate norms.

(Details of manpower given in annexed financial estimates)

14.4 Utility and other overheads:

Power: The project requires 95 HP power and is expected to cost an amount of Rs. 7.94 lakhs in the first year of operation.

Water: Water of 20 gallons is required per day for industrial purpose for pith wash. So a charge of Rs. 1.200 lakhs is considered for the first year.

No Preliminary expenses and **pre-operative expenses** were considered as there is no provision under the project.

Admin expenses are considered at 1% on sales, repairs and maintenance as 2% of sales and sales expenses as 2% on sales.

14.5 Depreciation

A depreciation of 3.34% on buildings and 4.75% on plant and machinery considered as per the Government Norms. While Straight-line method is used for profit and loss account statement, WDV method is used for tax calculations. Total depreciation per year is coming to Rs. 18.14 lakhs per annum.

14.6 Working Capital

Since 100% of capacity is used for direct marketing, the total working capital is coming to Rs. 23.02 lakhs and details are given as below:

Particulars	No. of months	2016
Current Assets		
1. Raw materials	1.00	4.00
2. Consumables, Stores and spares	1.00	0.42
3. Stock in process (Month's cost of production)	0.25	2.52
4. Finished Goods (Months cost of sales)	1.00	10.08
5. Export's recievables	0.00	0.00
6. Recievables other than exports	0.50	6.99
Total Current Assets (A)		24.01
Current Liabilities		
1. Creditors for purchases	0.25	0.98
Total Cuurent Liabilities (B)		0.98
Working Capital Gap (A-B)		23.03
Less : Bank Borrowing for working capital		0.00

Margin money for working capital		23.03

14.7 Financial Projections

14.7.1 Profitability Statement: Given as below:

(Rs.in lacs)

Year Ending 31st March	2021	2022	2023	2024	2025	2026
Production Capacity Utilisation	0.60	0.65	0.70	0.75	0.80	0.85
Sales as percentage of installed capacity	0.60	0.65	0.70	0.75	0.80	0.85
Sales/ Total Income						
Gross Domestic Sales	167.76	181.74	195.72	209.70	223.68	237.66
Less: Excise Duty	0.00	0.00	0.00	0.00	0.00	0.00
Net Domestic Sales	167.76	181.74	195.72	209.70	223.68	237.66
Export Sales	0.00	0.00	0.00	0.00	0.00	0.00
Net Sales	167.76	181.74	195.72	209.70	223.68	237.66
Other Operational Income	0.00	0.00	0.00	0.00	0.00	0.00
Total Income	167.76	181.74	195.72	209.70	223.68	237.66
COST OF PRODUCTION-SALES						
Raw material Consumed	46.80	51.48	56.63	62.29	68.52	75.37
Consumables, Stores and spares (3% on sales)	5.03	5.45	5.87	6.29	6.71	7.13
Power, Fuel and other utilities (Variable)	5.56	6.02	6.48	6.95	7.41	7.87
Power, Fuel and other utilities (Fixed)	2.38	3.44	3.70	3.97	4.23	4.50
Water	1.20	1.26	1.32	1.39	1.46	1.53
Factory salaries & Wages (variable)	34.35	34.35	34.35	34.35	34.35	34.35
Factory salaries & Wages (fixed)	4.13	4.13	4.13	4.13	4.13	4.13
Repair and maintenance	3.36	3.63	3.91	4.19	4.47	4.75
Other Variable Expenses	0.00	0.00	0.00	0.00	0.00	0.00
Depreciation	18.14	18.14	18.14	18.14	18.14	18.14
Sub Total	120.94	127.90	134.54	141.69	149.42	157.77
Add: Opening Stock in process	0.00	0.00	0.00	0.00	0.00	0.00
Less: Closing stock in process	0.00	0.00	0.00	0.00	0.00	0.00
COST OF PRODUCTION	120.94	127.90	134.54	141.69	149.42	157.77
Add: Opening stock of finished goods	0.00	0.00	0.00	0.00	0.00	0.00

Less: Closing stock of finished goods	0.00	0.00	0.00	0.00	0.00	0.00
Cost of sales	120.94	127.90	134.54	141.69	149.42	157.77
Selling Packing & Distribution Expenses	3.36	3.63	3.91	4.19	4.47	4.75
Administrative & Misc. Expenses	1.68	1.82	1.96	2.10	2.24	2.38
Sub Total	125.97	133.35	140.41	147.98	156.13	164.90
Profit Before Interest and Tax (PBIT)	41.79	48.39	55.31	61.72	67.55	72.76
Interest on Bank Loan	0.00	0.00	0.00	0.00	0.00	0.00
Interest on unsecured loan	0.00	0.00	0.00	0.00	0.00	0.00
Interest on bank borrowing	0.00	0.00	0.00	0.00	0.00	0.00
Operating Profit	41.79	48.39	55.31	61.72	67.55	72.76
Preliminary expenses written off	0.00	0.00	0.00	0.00	0.00	0.00
Non Operational Income	0.00	0.00	0.00	0.00	0.00	0.00
Profit Before Tax (PBT)	41.79	48.39	55.31	61.72	67.55	72.76
Provision for taxation	0.90	5.42	9.72	13.55	16.90	20.05
Profit After Tax	40.88	42.97	45.59	48.17	50.65	52.71

14.7.2 Break Even Analysis

The project will reach breakeven in the first year of operation. During the first year the variable expenses are coming to Rs. 96.09 lakhs with a contribution of Rs. 72.67 lakhs thus leaving a breakeven of 40.84%. The breakeven will show a declining trend and by 6th year it will reach to 31.32 which is significant.

(Please refer annexure 13 for detailed BE analysis)

14.7.3 IRR Calculation

Both pre and post-tax IRR were calculated to assess the viability of the project. The average IRR before tax is coming to 12.19 with an NPV of Rs. 120.13 lakhs at 7% discount rate. The average IRR post tax is coming to 8.55 with NPV of Rs. 33.27 lakhs. Since there is no bank lending the IRR appears to be on very positive side showing the viability of the project.

(Please refer annexure 12 for detailed IRR analysis)

Conclusions:

The above financial statements indicate that the proposed facilities are viable, provided at least 60% capacity utilization is ensured. Any drop in sale charges more than 10% and increase in expenditure cost by 10% will make the unit a non-viable proposition.

Note: The detailed financial statements are given as annexure 1 to 13.

CHAPTER 15

PROPOSED IMPLEMENTATION FRAMEWORK

15.1 Role of Implementing Agency

Following are the expected role of implementing agency

- Appointment and monitoring of the performance of CDA
- Selection of relevant beneficiaries for each activity balancing all the areas of concentration and stakeholders
- Micro planning of each activity in to sub activities and make a plan, besides sticking to time lines
- Acquisition of all clearances, documents, NOCs for land, power, water, construction from concerned line departments with the help of TA.
- Preparation of quarterly progress reports, expenditure statements on timely basis with the help of TA.
- Leveraging of other State Schemes for add on activities with due help from TA
- Capacitate its executive members for strong self-governance

15.2 Details of strategic partners and other project stakeholders

TA needs to help the IA in not only preparation of DSR and subsequent DPR but also in identification of competent CDA, implementation of SI and HI as per the plan. They also expected to help IA in framing proper O&M framework for CFC maintenance.

Coir Board is required to release the funds on time once the yearly action plan has been submitted. It also needs to provide technical help wherever required since coir sector comes under its fold.

CCRI play a crucial role in organising few of the training programs like on advanced practices in mat making, rope making etc.

Coir Board

The CB will act as the Nodal Agency. The agency will not only provide financial assistance in the form of grant in aid but also act as apex monitoring agency to oversee the progress of the proposed CFC through its regional office at Bengaluru. The nodal agency will also appraise the implementation and progress of the CFC to the Scheme Steering Committee headed by Secretary, Ministry of MSME.

Commissioner of Industries (Col)

As state level apex agency for industrial development, they can help the IA/ SPV in dovetailing state schemes with specific reference to establishment of hard interventions.

Working Committee (WC)

A WC will be formed preferably chaired by District Magistrate, with nominated members from Commissioner of Industries, Coir Board local office, NABARD, SPV and a related Technical Institution. The WC will play the role of an advisor in technical, financial, marketing and management mechanisms for smooth functioning of CFC. It will monitor the progress of the CFC on monthly/ quarterly basis and suggest corrective actions wherever required. It will be a catalyst committee between SPV and other concerned Central/ State institutions for smooth coordination.

15.3 Structure and composition of SPV

The Proposed Common Facilities will be managed by Special Purpose Vehicle. The SPV will oversee the following functions:

- Establish, operate and maintain all common facilities as mentioned in the DPR.
- Collection of user charges from SPV members and other users of the facilities so as to meet the recurring expenses and future expansions
- Preparation and submission of progress reports to KVIC through TA

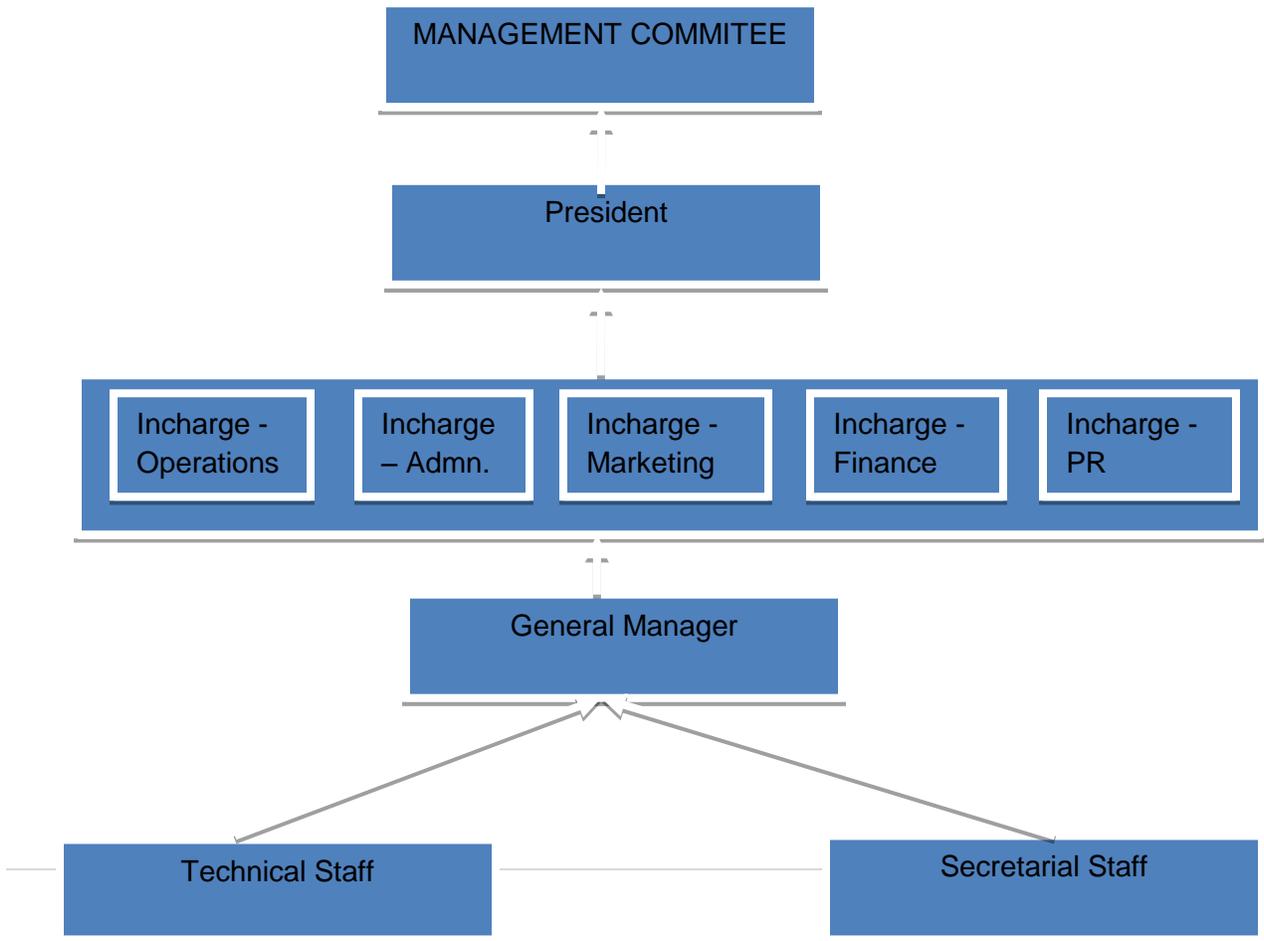
The management of the CFC will be a three tier structure for smooth and uninterrupted operations and is as follows:

The Management Committee: It is the main governing body for the SPV which is ably assisted by Technical and Secretarial staff. At present committee is having 3 executives namely President, Secretary and Treasurer. While the President will oversee the entire operations, the other 2 executives and 2 members are entrusted with specific responsibility like marketing, technical, finance, Public relations etc. based on his past experience and qualifications.

The technical staff: The Common Facility will have its own technical staff who will work on full time basis. The technical staff is headed by an experienced Manager and will be assisted by skilled and unskilled employees to run the proposed hard interventions.

The Secretarial Staff: A competent and well qualified person will be appointed as the General Manager who will look after day to day operations of CFC and is directly reporting to Management Committee. He will be assisted by an accountant and assistant besides security guards who will work on shift basis.

The proposed organizational structure of the CFC is given as below:



CHAPTER 16**EXPECTED IMPACT****16.1 At Enterprise Level**

Number of direct beneficiary firms: all manufacturing firms along with 800 artisans.

a) Likely range of outputs:

- At least 90 workers, artisans will be trained in advanced 2 ply and defibering making besides 90 artisans in making of pith manure and pith blocks
- At least 5 firms will start export marketing and 15 house hold units direct marketing by becoming producers
- At least 10 units will be benefitted under Public Support Schemes like PMEGP
- At least 10 to 15 house hold units will be linked to Coir Udyami Yojana

b) Indirect beneficiary firms:

Strengthening of forward and backward linkages and local institutions, provision of linkages with public and private support institutions, strengthening of local infrastructure through public-private partnerships would benefit at least 80% of the existing cluster enterprises indirectly, in 3 years of intervention.

16.2 Cluster Level

- Strengthening of SPV for establishment and management of proposed hard interventions
- Establishment of a common facility centre for 2 Ply yarn, 5 KG pith Block, pith manure and fibre making.
- Strong linkages with related institutions and BDSPs like CCRI, FICEA, NIFT and Banks, Coir Board and DIC

- Increase in productivity by 50 to 60%, turnover by 50 to 60%, employment by 80%

The performance indicators at cluster level are given as below:

S.No	Indicator	Present Status	Post Intervention (At the end of 3 rd Year)
1	Total Production (in MT/ Nos)	200 MT of fibre, 50 MT of Yarn	1140 MT of fibre, 860 MT of Yarn, 21000 pieces of 5 KG pith Block and 105 MT of manure
2	Total Turnover (Rs. In lakhs)	26	240 lakhs
3	Investments (Rs. In lakhs)	50	500(including CFCs)
4	Profitability (in Percentage)	7% to 10%	14% to 17%
5	No. of Artisans	800	1000
6	Capacity Utilization (in %)	30 to 35	60 to 70
7	Skilled Artisan income (Rs. in Thousands)	4000 to 5000	6000 to 8000
8	Semi Skilled Arisans income (Rs. in Thousands)	3000 to 3500	5000 to 6000
8	Direct Marketing by artisans (In nos.)	0	20
9	No of working days per month	15 to 20	25
9	Export marketing by Manufacturers	0	5
10	Beneficiaries under Coir Udyami Yojana and PMEGP	0	10 to 15
11	Artisans to be covered under social benefit schemes (Jandhan + Pradhan Mantri SurakshaBheema Yojana + Atal Pension Yojan + Pradhan Mantri JeevanJyothiBheemaYojana)	0	1000 No's

Annexure – 1 to 15 Financial Statements for Proposed CFC project

Cost of the Project and Means of Finance				
				Rs.In lakhs
Sl.No	Particulars	Already incurred	To be incurred	Total Cost
A	Land	-	-	-
	land Development	-	-	-
B	Building & other Civil Works	-	76.00	76.00
C	Plant and machinery			
	a. indigenus	-	328.39	328.39
	b.import	-	-	-
I	Pre-operative expenses	-	-	-
J	Provision for contingencies			
	a.buildings (@2%)	-	-	-
	b.Plant& Machinery (5%)	-	-	-
	c.Other fixed assets	-	-	-
K	Working capital	-	23.03	23.03
	Total :	-	427.43	427.43

MEANS OF FINANCE

				Rs.In Lakhs
Sl.No	Particulars	amonut already raised	amonut proposed to be raised	Total
	Equity			
A	Equity from spv@5%	-	-	21.37
B	Share premium	-	-	-
C	Preference Share Capital	-	-	-
	Debt			
D	Term loans (0%)	-	-	-
E	Unsecured loans and deposits	-	-	-
	Quasi Equity			
F	Interest free unsecured loans	-	-	-
G	Subsidy : central govt. (90%)	-	-	384.68
H	Subsidy : state govt. 5%	-	-	21.37



	Total	-	-	427.43
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Annexure - III
Detailed Workings

1. Civil Works

	Description	Quantity (SFT/ Nos)	Rate (In Rs.)	Amount
	General			
1	Shed & Godown	9500	800	76,00,000
				-
	Total			76.00

CHELURU COIR CLUSTER

DPR | Detailed Project Report

Annexure -IV

Inputs

(Rs.in lakhs)

YEAR	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Husk as Raw materials, (26000 Nos per day x 300 days x Rs. 1.0 per No)	46.80	51.48	56.63	62.29	68.52	75.37	79.14	83.10	87.25	91.61
Power & Diesel	7.94	8.60	9.26	9.92	10.58	11.25	11.25	11.25	11.25	11.25
Water	1.20	1.26	1.32	1.39	1.46	1.53	1.61	1.69	1.77	1.86
Total	55.94	61.34	67.21	73.60	80.56	88.15	91.99	96.03	100.27	104.72
Total Cost	55.94	61.34	67.21	73.60	80.56	88.15	91.99	96.03	100.27	104.72

COST COMPONENTS AS % OF SALES		
Cost Component		Sales
Admn. Expenses		1.00%
Repairs & Maintenance		2.00%
Selling Expenses		2.00%

DETAILS OF MANPOWER REQUIRED					
Particulars		No.	Salary/ month		Annual Wages & Salaries
			Rs.		Rs. lakhs
Plant Incharge		1	15000		1.80
Operators		2	12000		2.88
Store Keeper		0	10000		0.00
Skilled Labour		20	7500		18.00
Simi skilled labour		8	5000		4.80
		31			27.48
Add: Fringe Benefits	@25%				6.87
Total					34.35
ADMINISTRATIVE SALARIES					
Manager		0	15000		0.00
Marketing Officer		1	10000		1.20
Accts/ Admin/ Assts		1	7500		0.90
Security		2	5000		1.20
		4			3.3
Add: Fringe Benefits	@25%				0.83
Total					4.13

TOTAL		35			38.48

ANNEXURE- V											
BASIC ASSUMPTIONS FOR PROFITABILITY											
REVENUE PROJECTIONS											
YEAR	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
Capacity Utilization (%)	60%	65%	70%	75%	80%	85%	85%	85%	85%	85%	100%
I A.Fiber (Direct Sale)											
Installed Capacity (In KGs)	120000 0	120000 0	120000 0	120000 0	120000 0	120000 0	120000 0	120000 0	120000 0	120000 0	120000 0
Actual Sale capacity (In Kgs)	720000	780000	840000	900000	960000	102000 0	102000 0	102000 0	102000 0	102000 0	120000 0
Sale cost (Rs/KG)	11	11	11	11	11	11	11	11	11	11	11
Revenue(Rs lakhs)	79.20	85.80	92.40	99.00	105.60	112.20	112.20	112.20	112.20	112.20	132.00
2. Coir Pith Blocks											
Installed Capacity (In Kgs)	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000	30000
Actual Capacity (In Kgs)	18000	19500	21000	22500	24000	25500	25500	25500	25500	25500	30000
Service fees per KG (Rs/KG)	30	30	30	30	30	30	30	30	30	30	30
Revenue(Rs lakhs)	5.40	5.85	6.30	6.75	7.20	7.65	7.65	7.65	7.65	7.65	9.00

CHELURU COIR CLUSTER

DPR | Detailed Project Report

III. Pith Manure (Common Brand)											
Installed Capacity (In Kgs)	150000	150000	150000	150000	150000	150000	150000	150000	150000	150000	150000
Production Capacity (In Kgs)	90000	97500	105000	112500	120000	127500	127500	127500	127500	127500	150000
Sale cost per KG In Rs.	6	6	6	6	6	6	6	6	6	6	6
Revenue(Rs lakhs)	5.40	5.85	6.30	6.75	7.20	7.65	7.65	7.65	7.65	7.65	9.00
IV. Rope (2 Ply)											
Installed Capacity (No. Kgs)	108000 0	108000 0	108000 0	108000 0	108000 0	108000 0	108000 0	108000 0	108000 0	108000 0	108000 0
Production Capacity (In Kgs)	648000	702000	756000	810000	864000	918000	918000	918000	918000	918000	108000 0
Sale cost per KG	12	12	12	12	12	12	12	12	12	12	12
Revenue(Rs lakhs)	77.76	84.24	90.72	97.20	103.68	110.16	110.16	110.16	110.16	110.16	129.60
TOTAL REVENUE	167.8	181.7	195.7	209.7	223.7	237.7	237.7	237.7	237.7	237.7	279.6

CHELURU COIR CLUSTER

DPR | Detailed Project Report

ANNEXURE - VI										
PROJECTED PROFITABILITY STATEMENT										
Year Ending 31st March	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Production Capacity Utilisation	0.60	0.65	0.70	0.75	0.80	0.85	0.85	0.85	0.85	0.85
Sales as percentage of installed capacity	0.60	0.65	0.70	0.75	0.80	0.85	0.85	0.85	0.85	0.85
Sales/ Total Income										
Gross Domestic Sales	167.76	181.74	195.72	209.70	223.68	237.66	237.66	237.66	237.66	237.66
Less: Excise Duty	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Domestic Sales	167.76	181.74	195.72	209.70	223.68	237.66	237.66	237.66	237.66	237.66
Export Sales	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Sales	167.76	181.74	195.72	209.70	223.68	237.66	237.66	237.66	237.66	237.66
Other Operational Income	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Income	167.76	181.74	195.72	209.70	223.68	237.66	237.66	237.66	237.66	237.66
COST OF PRODUCTION- SALES										
Raw material Consumed	46.80	51.48	56.63	62.29	68.52	75.37	79.14	83.10	87.25	91.61
Consumables, Stores and spares (3% on sales)	5.03	5.45	5.87	6.29	6.71	7.13	7.13	7.13	7.13	7.13
Power, Fuel and other utilities (Variable)	5.56	6.02	6.48	6.95	7.41	7.87	7.87	7.87	7.87	7.87
Power, Fuel and other utilities (Fixed)	2.38	3.44	3.70	3.97	4.23	4.50	4.50	4.50	4.50	4.50
Water	1.20	1.26	1.32	1.39	1.46	1.53	1.61	1.69	1.77	1.86
Factory salaries & Wages (variable)	34.35	34.35	34.35	34.35	34.35	34.35	34.35	34.35	34.35	34.35
Factory salaries & Wages (fixed)	4.13	4.13	4.13	4.13	4.13	4.13	4.13	4.13	4.13	4.13
Repair and maintenance	3.36	3.63	3.91	4.19	4.47	4.75	4.75	4.75	4.75	4.75
Other Variable Expenses	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

CHELURU COIR CLUSTER

DPR | Detailed Project Report

Depreciation	18.14	18.14	18.14	18.14	18.14	18.14	18.14	18.14	18.14	18.14
Sub Total	120.94	127.90	134.54	141.69	149.42	157.77	161.61	165.65	169.89	174.34
Add: Opening Stock in process	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Less: Closing stock in process	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
COST OF PRODUCTION	120.94	127.90	134.54	141.69	149.42	157.77	161.61	165.65	169.89	174.34
Add: Opening stock of finished goods	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Less: Closing stock of finished goods	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cost of sales	120.94	127.90	134.54	141.69	149.42	157.77	161.61	165.65	169.89	174.34
Selling Packing & Distribution Expenses	3.36	3.63	3.91	4.19	4.47	4.75	4.75	4.75	4.75	4.75
Administrative & Misc. Expenses	1.68	1.82	1.96	2.10	2.24	2.38	2.38	2.38	2.38	2.38
Sub Total	125.97	133.35	140.41	147.98	156.13	164.90	168.74	172.78	177.02	181.47
Profit Before Interest and Tax (PBIT)	41.79	48.39	55.31	61.72	67.55	72.76	68.92	64.88	60.64	56.19
Interest on Bank Loan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on unsecured loan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on bank borrowing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Operating Profit	41.79	48.39	55.31	61.72	67.55	72.76	68.92	64.88	60.64	56.19
Preliminary expenses written off	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Non Operational Income	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Profit Before Tax (PBT)	41.79	48.39	55.31	61.72	67.55	72.76	68.92	64.88	60.64	56.19
Provision for taxation	0.90	5.42	9.72	13.55	16.90	20.05	19.79	19.47	19.40	18.64
Profit After Tax	40.88	42.97	45.59	48.17	50.65	52.71	49.12	45.41	41.24	37.55

ANNEXURE - VII											
PROJECTED CASH FLOW STATEMENT											
DETAILS	Const. Period	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
A. SOURCES OF FUNDS											
1. PBT with interest added back	0.00	41.79	48.39	55.31	61.72	67.55	72.76	68.92	64.88	60.64	56.19
2. Add Depreciation											
other non cash expenses	0.00	18.14	18.14	18.14	18.14	18.14	18.14	18.14	18.14	18.14	18.14
3. Increase in Equity Share Capital	21.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4. Increase in term loan	0.00										
4. Increase in Subsidy	406	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5. Increase in current liabilities		23.03	1.24	2.20	1.24	2.29	1.34	1.32	0.34	0.36	1.37
TOTAL SOURCES	427.43	82.96	67.77	75.65	81.10	87.98	92.24	88.38	83.35	79.13	75.70
B. DISPOSITION OF FUNDS											
1. Increase in capital expenditure	404.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2. Preliminary & Pre op expenses	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3. Increase in Current Assets		41.94	3.49	3.50	3.50	3.50	3.50	0.00	0.00	0.00	0.00
4. Repayments of Term Loans		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5. Taxation	0.00	0.90	5.42	9.72	13.55	16.90	20.05	19.79	19.47	19.40	18.64
TOTAL APPLICATION	404.39	42.84	8.91	13.21	17.05	20.39	23.55	19.79	19.47	19.40	18.64

C. NET SURPLUS/ DEFICIT	23.03	40.11	58.86	62.44	64.05	67.59	68.69	68.58	63.88	59.73	57.06
D. ADD : OPENING CASH BALANCE	0.00	23.03	63.15	122.01	184.45	248.50	316.09	384.78	453.36	517.25	576.98
E. CLOSING CASH BALANCE	23.03	63.15	122.01	184.45	248.50	316.09	384.78	453.36	517.25	576.98	634.04

ANNEXURE - VIII											
PROJECTED BALANCE SHEET											
DETAILS	Const. Period	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
LIABILITIES											
1. Share Capital	21.37	21.37	21.37	21.37	21.37	21.37	21.37	21.37	21.37	21.37	21.37
2. Reserves & Surplus	0.00	40.88	83.86	129.45	177.62	228.27	280.98	330.10	375.51	416.75	454.30
3. subsidy (Central +State)	406.06	406.06	406.06	406.06	406.06	406.06	406.06	406.06	406.06	406.06	406.06
4. Term Loans	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4 Working Capital		23.03	24.28	26.48	27.72	30.02	31.36	32.68	33.02	33.38	34.75
5 Current Liabilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL LIABILITIES	427.43	491.34	535.56	583.36	632.77	685.71	739.76	790.21	835.96	877.55	916.47
ASSETS											
1. Gross Fixed Assets	404.39	404.39	404.39	404.39	404.39	404.39	404.39	404.39	404.39	404.39	404.39
2. Less : Accm.dpreciation	0.00	18.14	36.28	54.41	72.55	90.69	108.83	126.96	145.10	163.24	181.37
3. Net Fixed Assets	404.39	386.25	368.12	349.98	331.84	313.71	295.57	277.43	259.29	241.16	223.02
4. Current Assets	0.00	41.94	45.44	48.93	52.43	55.92	59.42	59.42	59.42	59.42	59.42

5. Cash & Bank Balance	23.03	63.15	122.01	184.45	248.50	316.09	384.78	453.36	517.25	576.98	634.04
6. Prelim. expenses not w/o	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL ASSETS	427.43	491.34	535.56	583.36	632.77	685.71	739.76	790.21	835.96	877.55	916.47

ANNEXURE - IX											
CALCULATION OF MARGIN FOR WORKING CAPITAL & ASSESSMENT OF WORKING CAPITAL											
											(Rs.lacs)
As per Nayak Committee method (If working capital is upto Rs. 5 crore)											
Partuculars	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Gross Sales (Incl. job income)	167.76	181.74	195.72	209.70	223.68	237.66	237.66	237.66	237.66	237.66	
Total working capital requirement (25% of gross sales)	41.94	45.44	48.93	52.43	55.92	59.42	59.42	59.42	59.42	59.42	
Marging money for working capital (5% of gross sales)	8.39	9.09	9.79	10.49	11.18	11.88	11.88	11.88	11.88	11.88	
Permissable bank borrowing (20% of gross sales)	33.55	36.35	39.14	41.94	44.74	47.53	47.53	47.53	47.53	47.53	
As per second method of lending											
Particulars	No. of months	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Current Assets											
1. Raw materials	1.00	4.00	4.00	5.00	5.00	6.00	6.00	7.00	7.00	7.00	8.00
2. Consumables, Stores and spares	1.00	0.42	0.45	0.49	0.52	0.56	0.59	0.59	0.59	0.59	0.59
3. Stock in process (Month's cost of production)	0.25	2.52	2.66	2.80	2.95	3.11	3.29	3.37	3.45	3.54	3.63
4. Finished Goods (Months cost of	1.00	10.08	10.66	11.21	11.81	12.45	13.15	13.47	13.80	14.16	14.53

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sales)											
5. Export's recievables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6. Recievables other than exports	0.50	6.99	7.57	8.16	8.74	9.32	9.90	9.90	9.90	9.90	9.90
Total Current Assets (A)		24.01	25.35	27.66	29.02	31.44	32.93	34.33	34.75	35.19	36.66
Current Liabilities											
1. Creditors for purchases	0.25	0.98	1.07	1.18	1.30	1.43	1.57	1.65	1.73	1.82	1.91
		0.00									
Total Cuurent Liabilities (B)		0.98	1.07	1.18	1.30	1.43	1.57	1.65	1.73	1.82	1.91
Working Capital Gap (A-B)		23.03	24.28	26.48	27.72	30.02	31.36	32.68	33.02	33.38	34.75
Less : Bank Borrowing for working capital		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Margin money for working capital		23.03	24.28	26.48	27.72	30.02	31.36	32.68	33.02	33.38	34.75

ANNEXURE - X

ESTIMATION OF DEPRECIATION

a) Apportionment of Pre-operatives

(Rs.lacs)

Particulars	Actual Cost	Contingencies	Pre-Operatives	Detailed Engg.Ser	Total Cost
1. Buildings	72.00	0.00	0.00	0.00	72.00
2. Plant and Machinery	328.39	0.00	0.00	0.00	328.39
3. Misc Fixed Assets	0.00	0.00	0.00	0.00	0.00
Total	400.39	0.00	0.00	0.00	400.39

b) Estimation of Depreciation - St. Line basis

Particulars	Total Cost	Depn. Rate (%)	Amount
1. Land	0.00	0.00	0.00
2. Buildings	72.00	3.34	2.40
3. Plant and Machinery	328.39	4.75	15.60
4. Misc. Fixed Assets	0.00	6.33	0.00
Total	400.39		18.00

ANNEXURE - XI											
COMPUTATION OF TAXATION											
Details	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	(Rs.lacs)
1. Profit Before Tax	41.79	48.39	55.31	61.72	67.55	72.76	68.92	64.88	60.64	56.19	
2. Add: St. Line Depreciation	18.14	18.14	18.14	18.14	18.14	18.14	18.14	18.14	18.14	18.14	
3. Less: WDV Depreciation	57.00	49.00	42.00	36.00	31.00	26.00	23.00	20.00	16.00	14.00	
4. Gross Taxable Income	2.93	17.53	31.45	43.85	54.69	64.90	64.05	63.02	62.78	60.33	
5. Carry forward loss	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6. Net Taxable Income	2.93	17.53	31.45	43.85	54.69	64.90	64.05	63.02	62.78	60.33	
7. Income Tax @ 30%	0.88	5.26	9.43	13.16	16.41	19.47	19.22	18.90	18.83	18.10	
8. Surcharge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9. Total income tax (including surcharge)	0.88	5.26	9.43	13.16	16.41	19.47	19.22	18.90	18.83	18.10	
10. Education Cess @ 3%	0.03	0.16	0.28	0.39	0.49	0.58	0.58	0.57	0.56	0.54	

CHELURU COIR CLUSTER

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Net cash flows	-427.43	36.89	65.28	71.25	78.61	83.40	89.55	85.73	82.68	78.42	163.35
NPV before tax(Rs. in lakhs)	120.13		Discount Rate taken =		7.00%						
Before - Tax IRR	12.19%										
IRR after tax								(Rs.in lacs)			
	Const. Period	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Out Flows											
Capital Investment	-427.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Increase in WC Gap		23.03	1.24	2.20	1.24	2.29	1.34	1.32	0.34	0.36	1.37
Total outflows	-427.43	23.03	1.24	2.20	1.24	2.29	1.34	1.32	0.34	0.36	1.37
Inflows											
Profit after tax	0.00	40.88	42.97	45.59	48.17	50.65	52.71	49.12	45.41	41.24	37.55
Add Depreciation and non cash expenses	0.00	18.14	18.14	18.14	18.14	18.14	18.14	18.14	18.14	18.14	18.14
Add: Preliminary &Preop Expenses	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Add : Interest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Add : Salvage Value	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.39
Total Inflows	0.00	59.02	61.11	63.73	66.30	68.79	70.85	67.26	63.54	59.38	146.08
Net cash flows	-427.43	35.99	59.87	61.53	65.06	66.50	69.50	65.94	63.21	59.02	144.71
NPV after tax(Rs. in lakhs)	33.27		Discount Rate taken =		7.00%						
Post - Tax IRR	8.55%										

ANNEXURE - XIII										
BREAK EVEN POINT (Installed Capacity)										
DETAILS	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Production Capacity Utilisation	60.00%	65.00%	70.00%	75.00%	80.00%	85.00%	85.00%	85.00%	85.00%	85.00%
A. Variable Expenses										
1. Raw material consumed	46.80	51.48	56.63	62.29	68.52	75.37	79.14	83.10	87.25	91.61
2. Consumable Spares	5.03	5.45	5.87	6.29	6.71	7.13	7.13	7.13	7.13	7.13
3. Power, Fuel & other utilities (Variable Cost)	5.56	6.02	6.48	6.95	7.41	7.87	7.87	7.87	7.87	7.87
4. Factory Salaries & Wages (Variable)	34.35	34.35	34.35	34.35	34.35	34.35	34.35	34.35	34.35	34.35
5. Other variable expenses	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6. Selling, Packaging & distribution expenses (Variable)	3.36	3.63	3.91	4.19	4.47	4.75	4.75	4.75	4.75	4.75
7. Interest on bank borrowing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Variable Cost	95.09	100.94	107.25	114.07	121.46	129.48	133.25	137.20	141.36	145.72
B.Fixed Expenses										
1. Power, Fuel & other utilities (Fixed Cost)	2.38	3.44	3.70	3.97	4.23	4.50	4.50	4.50	4.50	4.50

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2. Factory Salaries & Wages (fixed)	4.13	4.13	4.13	4.13	4.13	4.13	4.13	4.13	4.13	4.13
3. Repairs & Maintenance	3.36	3.63	3.91	4.19	4.47	4.75	4.75	4.75	4.75	4.75
4. Depreciation	18.14	18.14	18.14	18.14	18.14	18.14	18.14	18.14	18.14	18.14
5. Administrative & Misc. Expenses	1.68	1.82	1.96	2.10	2.24	2.38	2.38	2.38	2.38	2.38
6. Interest on term loans	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7. Interest on unsecured loans	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8. Lease rentals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sub Total	29.68	31.15	31.84	32.52	33.21	33.89	33.89	33.89	33.89	33.89
C.Sales	167.76	181.74	195.72	209.70	223.68	237.66	237.66	237.66	237.66	237.66
D.Contribution	72.67	80.80	88.47	95.63	102.22	108.18	104.41	100.46	96.30	91.94
E.Break Even Point (B/D)	40.84%	38.56%	35.99%	34.01%	32.49%	31.33%	32.46%	33.74%	35.19%	36.86%
F.Cash Break Even	15.88%	16.11%	15.49%	15.04%	14.74%	14.56%	15.09%	15.68%	16.36%	17.13%
G.BREAK EVEN SALES	68.52	70.07	70.43	71.32	72.66	74.45	77.14	80.18	83.64	87.60

ANNEXURE - XV										
	RETURN ON CAPITAL EMPLOYED									
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Return										
Operating Profit	41.79	48.39	55.31	61.72	67.55	72.76	68.92	64.88	60.64	56.19
Interest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease Rentals	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total A	41.79	48.39	55.31	61.72	67.55	72.76	68.92	64.88	60.64	56.19
Net Fixed Assets	404.39	386.25	368.12	349.98	331.84	313.71	295.57	277.43	259.29	241.16
Current Asets less creditors	1.24	2.20	1.24	2.29	1.34	1.32	0.34	0.36	1.37	0.00
Total B	405.64	388.46	369.36	352.27	333.19	315.03	295.91	277.79	260.67	241.16
ROCE	10.30	12.46	14.98	17.52	20.27	23.10	23.29	23.36	23.26	23.30
ROCE for Optimal Year	17.52									
Average ROCE for 10 Years	19.18									

1. ಸರ್ಕಾರಿ ಸಂಖ್ಯೆ	2. ಪರಿಶೋಧನೆ	3. ವಿಸ್ತೀರ್ಣ	4. ಕೆಲಸ	5. ದಾಖಲೆ	6. ಅಧಿಕಾರಿ	7. ದಾಖಲೆ	8. ದಾಖಲೆ	9. ದಾಖಲೆ	10. ದಾಖಲೆ	11. ದಾಖಲೆ
22	2.00.00.00	2.00.00.00	5.01	0.00	0.00	0.00	0.00	2.00.00.00	123	MR H5/2018-2019 24/04/2019 ರಂದು
12. ವಾರ್ಷಿಕ ವರದಿ, ಗಣಿತ ಬದಲಾವಣೆ 13. ಭೂಮಿಯ ಉಪಯೋಗ ಮತ್ತು ಬೆಳೆ ಬದಲಾವಣೆ										

ವರ್ಷ	ವ್ಯವಸ್ಥಾಪಕರ ಹೆಸರು	ವಿಸ್ತೀರ್ಣ	ಗಣಿತ ಬದಲಾವಣೆ				ಮೃತ್ತಿ, ತಳಿ	ಬೆಳೆ ಬದಲಾವಣೆ	ಬೆಳೆ ಬದಲಾವಣೆ			ಉಳಿತಾಯ	ಮಾನ್ಯತೆ
			ಮೂಲ	ಸುಧಾರಣೆ	ಮಾನ್ಯತೆ	ಉಳಿತಾಯ			ಅಮತ್	ಮತ್	ಉಳಿತಾಯ		
2018-2019	ಅಧಿಕಾರಿಯ ಬಿನ್ ಆರ್ಟ್ ಎಸ್.ಪಿ. ಅನಂತಯ್ಯ	2.00.00.00					ಮೃತ್ತಿ	ಮಾವು	2.00.00.00		2.00.00.00		
2018-2019	ಅಧಿಕಾರಿಯ ಬಿನ್ ಆರ್ಟ್ ಎಸ್.ಪಿ. ಅನಂತಯ್ಯ	2.00.00.00						No Crop Info.	0.00.00.00	0.00.00.00	0.00.00.00	0.00	
2018-2019	ಅಧಿಕಾರಿಯ ಬಿನ್ ಆರ್ಟ್ ಎಸ್.ಪಿ. ಅನಂತಯ್ಯ	2.00.00.00					ಮೃತ್ತಿ	ಇತರೆ	0.00.00.00		0.00.00.00	ಮಳೆ	0.00