

Detailed Project Report

CHITTOR COIR CLUSTER Andhra Pradesh State

Submitted to



Coir Board
Kochi

Prepared by



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PROJECT SUMMARY CHITTOOR COIR CLUSTER

- 1. Cluster Category:** Minor
- 2. Name of Cluster:** Chittor Coir Cluster
- 3. Location**
- | | |
|-----------|----------------------------------------------------------------------------------|
| State: | Andhra Pradesh |
| District: | Chittor |
| Blocks: | Chittoor, Gangadhara, Palasamudram, Thavanam Palli, Bangaru Palyam and Yadamarri |
- 4. Craft/ Industry:** Coir
- 5. Current Product Portfolio:** Fibre, Yarn, and Door mats
- 6. Name of IA:** APITCO Ltd, Hyderabad

7. Project Objectives:

- Promotion of SHGs for collection of husk
- Creation of common facility for cost reduction and quality improvement
- Enhance production level by at least 50%
- Increase profitability by at least 30%
- Enhance turnover by 30%

8. Key Gaps Identified

- Inability to expand the coir products range to cover value added items and items of high profit margins:

Currently the few existing coir units at Chittor are into production and sale of – coir ropes, mats, coir pith (manure). Cluster activity of coir in Chittor district is virtually absent as these units are scattered and function independently. However, Chittor is strategically positioned with proximity to places like-

Chennai, Erode, Coimbatore, Hosur, Bangalore etc., where there is good market for coir based products. Krishnapatnam port, Chennai port, Tirupathi and Chennai airports are located near to Chittor. Raw material for coir-coconut husk is available near to Chittor. Therefore, Chittor has all the required basic infrastructure and locational advantages, logistics and connectivity to promote coir cluster.

- Low level of technology:

The existing units in Chittor district are mainly labour intensive and not using high capital intensive / modern technology in their operations. This provides scope not only to promote coir clusters but initially develop these clusters with basic technology and go for high end technology in due course after enhancing the skills of the artisans/workers.

- Absence of branding:

In view of scattered operations and independent functioning of the units and absence of clusters there is no significant brand image for the coir products at Chittor. The proposed cluster formation will pave the way for branding of Chittor coir products over a period of time.

- Unskilled and semi skilled labour/artisans:

Due to scattered operations of the coir units there is not much focus on improving the skills of labour/artisans. Adhoc approach of the units in recruiting the labour based on their current needs has resulted in limiting the growth of skilled labour/artisans.

- Weak links in backward and forward integration:

In view of scattered approach the coir units in Chittor are unable to leverage on the advantages available to them in raw material procurement and marketing of coir products, though opportunities for such advantages do exist. The proposed cluster approach will provide scope for bulk procurement of raw

material and common production under one roof- i.e., CFC as well as negotiating with customers for bulk sales of coir products.

- There is a strong need to bridge the above gaps through appropriate interventions in order to control the cost of operations and improve the quality of production to gain competitiveness.

9. Proposed Interventions

Soft Interventions

- Formation of consortiums for raw material bank and marketing
- Skill Upgradation programs for Artisans
- Distributions of electronic rats
- Training programme on Marketing for SHG members
- Exposure visit for artisans to understand market demand, and make new designs
- Development of new product range including Handicrafts
- Printing of brochures and catalogues
- Participation in Marketing events

Hard Interventions

A common facility centre (CFC) is to be established at Cherala village, Arakonda Panchayat of Tavanapally Mandal in the District of Chittor with required machinery for production of coir yarn, door mats, coir handicrafts, compost and other value added products.

- 2 mobile defibering units
- 16 automatic coir spinning units with necessary accessories along with one willowing machine and one slivering machine
- 6 mat frames press
- 2 coir pith manure units with Bore well

10. Project cost & Means of Finance

S. No.	Particulars	NA	SPV	Total
1	Hard Interventions	60.21	20.07	80.28
2	Soft Interventions (2016-17& 2017-18)	25.00	-	25.00
3	Cost of TA (8% of 60.21+25.00)	6.82	-	6.82
4	Cost of IA/CDE	20.00	-	20.00
		112.03	20.07	132.10

12. Means of Finance

S. No	Description	Amount (INR Lacs)
1.	SPV contribution (25%)	20.07
2.	NA Contribution (75%)	112.03
	Total	132.10

13. Scheduling

Soft Interventions

Implementation Schedule for Soft Interventions									
		2016-17				2017-18			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	Formation of consortiums for raw material bank and marketing								
2	Skill Upgradation programs for Artisans								
3	Exposure visit for artisans								
4	Development of new product range including Handicrafts								
5	Printing of brochures and Catalogues								
6	Participation in Trade fairs								

Hard Interventions

Financial Year		2016-17				2017-18			
S. No	Activity	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	Civil works								
2	Bidding process for machinery								
3	Electrical works								
4	Installation of Machinery & commissioning								
5	Trial production								

12. Scope for convergence

- Initiatives will be taken to associate corporate CSR foundations to promote coir handicrafts for the tourist and pilgrim places like Tirupathi, Madanapalli, Kanipakam, Rajahmundry, Vizag etc.
- Agriculture Marketing and Co-operation Department, and Horticulture Department will be involved in marketing of coir products through their networks.
- Initiatives will be taken to associate with corporate CSR foundations and Sri City Food Park to market coir pith compost.
- Coconut Development board will be involved to motivate the farmers and their family members for coconut plantations.
- District Rural Development Authority (DRDA) and Department of Agriculture will be involved in capacity building of SHG members.

13. Proposed SPV

A society in the name of Chittoor Coir Development Society is registered representing entrepreneurs, social development experts and coir which acts as SPV and takes the initiatives to establish and manage the CFCs to be located at Cherala village.

14. Key impact

The project envisages creating coir cottage units for the rural people particularly women. After the training, it is expected to start de-husking and spinning with the help of CFC and equipment provided for the artisans. Further the artisans make value added products like mat, matting and handicrafts to get more profit. This activity will give the additional income to the artisans/workers and empower women.

The initiatives proposed by cluster will create employment opportunities for the rural unemployed youth and stop migration. By setting up the unit, the artisans/workers will get the income throughout the year. The direct and indirect employment generation will be to the extent of 400 people.

The proposed clusters could pave way for the rural industrialization in the district with focus on agro based activities.

Agriculture Marketing and Co-operation Department, and Horticulture Department will extend marketing support of coir cluster products in the domestic market. The coir handicraft products will be added to the product range of Lepakshi. Further the implementing agency APITCO and Coir Board

will also provide marketing support for marketing of coir products of the cluster.

The CFC will become Training cum production centre in coir sector in the Chittoor district of AP. This will pave the way for future coir clusters in Chittoor district. In due course retail outlets/ show rooms can be started in strategic locations like- Tirupathi, Chittoor, Madanapalli, Sri Kalahasti, Kanipakkam, Rajahmundry, Vizag to show case the coir products, especially handicrafts and build a brand image. In the long run export initiatives can be taken up with this brand building exercise to sell value added coir products which has good global market potential.

The production of coir based products will be increased by at least 50% which lead to 50% increase in profitability and turnover by at least 30%

Chapter – 1 Cluster Profile

1.1. Background

With a view to make the traditional industries more productive, competitive and facilitate their sustainable growth, the Government of India has launched a Scheme in the year 2005 called SFURTI (Scheme of Fund for Regeneration of Traditional Industries). The Union Ministry of Micro, Small and Medium Enterprises and its organizations and institutions, in collaboration with State Governments, their organizations concerned, non-Governmental organizations, etc, are implementing the Scheme.

The SFURTI Scheme takes a holistic approach for cluster development and includes an initial diagnostic study and trust building exercise, based on which assistance is provided for infrastructure development, skill development, technology upgradation of the enterprises, marketing, product development and setting up of common facility centres, etc.

Encouraged by the success of implementation of SFURTI scheme during 11th Plan, The Government of India has been implementing said scheme in the 12th plan period because of its impact in terms of employment creation, new enterprise creation, improved quality and productivity to name a few. Coir Board has entrusted National Institute for Micro, Small and Medium Enterprises (**ni-msme**) to prepare Detailed Project Report for Chittor Coir Cluster of Andhra Pradesh State.

1.2 Regional setting of the cluster

Andhra Pradesh is one of the states in the southern peninsular region, and a coastal line of 974 kms with an area of 1.60 lakhs Sq. Kms. Agriculture is the main occupation and 60 percent of population is engaged in agriculture and related activities.. The state has 1.02 lakhs hectares under coconut cultivation and annually Andhra Pradesh produces around 110 crores of coconuts. These are predominantly in the coastal districts of

Srikakulam, Vijayanagaram, East Godavari, West Godavari and Krishna.

Andhra Pradesh is the fourth largest producer of coir with an output of 28,900 tonnes of coir fibre. The utilization of husk being 31 per cent of the total production of coconuts in the State, there is still plenty of scope for coir production. In Andhra Pradesh, around 41,000 people are employed in this sector and 80 per cent of them being women. There are good export opportunities for coir and coir pith and it can be taken up on large scale as the product is available aplenty. To satisfy the needs of the local Coir Industry, the Coir Board established one of its regional offices at Visakhapatnam in Andhra Pradesh and later on it was shifted to Rajahmundry, East Godavari District to make approachable to the larger number of beneficiaries.

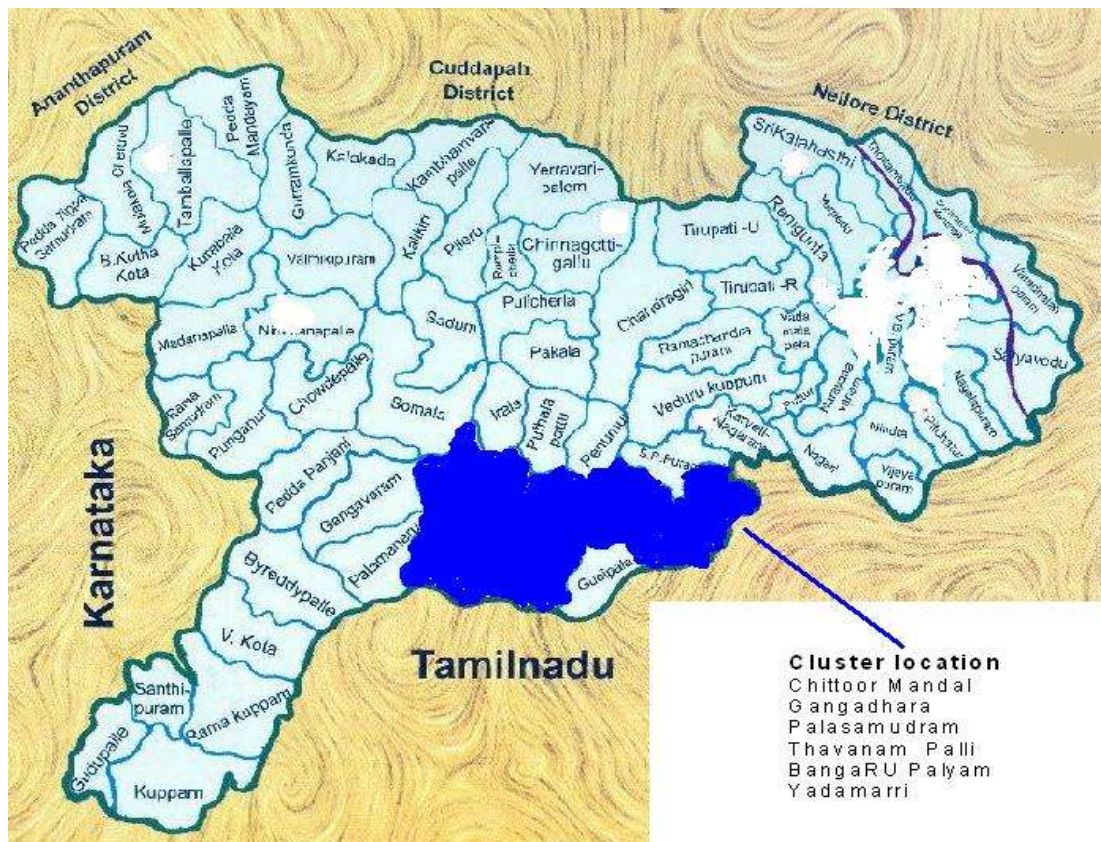
Chittoor is a part of Rayalaseema region of Andhra Pradesh. The district occupies an area of 15,359 square kilometres (5,930 sq mi). The district is bounded by Anantapur District to the northwest, Kadapa District to the north, Nellore District to the northeast, Krishnagiri District, Vellore District and Tiruvallur District of Tamil Nadu state to the south, and Kolar District of Karnataka state to the west. The district covers an extent of 15.152 Sq.mms and divided into three Revenue Divisions namely Chittoor, Tirupati and Madanapalli.

Thirty percent of the total land area is covered by forests in the district. Mango and tamarind groves surround the city of Chittoor, and cattle are raised in the district. The important rivers in the district are Ponnai and Swarnamukhi rivers which originate in eastern ghats. Other rivers include Kusasthali, Beema, Bahuda, Pincha, Kalyani, Araniyar and Pedderu. None of the rivers are perennial. Main rivers include Swarnamukhi, Kalangi, Papagani, Koundinya, Paleru, Arani, Pinchcha, Cheyyeru, Neeva and Kusasthali. Chittoor district receives an annual rainfall of 918.1 mm. The South West Monsoon and North East Monsoon are the major sources of rainfall for the district. On average the district receives 438.0 mm of rainfall through the South

West Monsoon (From June to September) and 396.0 mm from North East Monsoon (From October to December).

1.3 Location:

Chittoor Coir Cluster is one of the clusters assigned to **ni-msme** for conducting Diagnostic Study to take up interventions under SFURTI scheme. Some of the Blocks/Mandals where coir activity is concentrated include Chittoor, Gangadhara, Palasamudram, Thavanam Palli, Bangaru Palyam and Yadamarri. Chittoor, lies in the Poini River valley of southernmost Andhra Pradesh, on the Bangalore-Chennai Highway. It is a market center for mangos, grain, sugarcane, and peanuts.



1.4 Evolution of the cluster

Traditionally a few artisans are producing yarn and rope for their own requirement in Chittoor. During late seventies, one of the entrepreneurs namely, Mr. Keshavulu had

established a coir industry which is presently called as Sahitya Coir Industries. **Sahitya Coir Industry** is located at Iruvada which is around 15 KMs from Chittor. The unit is currently being managed by his son Mr.Satish , who has expanded the operations gradually.

- It is estimated that the coconut crop is grown in 4165 ha in the district with an average yield of around 42.83 million nuts.
- The existing units are making only fibre and supply it to the coir mattresses and mats making units situated in Tamilnadu, Bangalore, and Chennai.
- The estimated aggregate turnover of the Chittor district is around Rs 3.00 crores.
- The linkage among Chittor coir firms is limited. As there are no formal associations of cooperative societies in the cluster, entrepreneurs try to address issues on their own.

1.5 Demography and growth trends

Total population of Chittor district is 41,74,064. 70.5% of the population i.e., 29,42,678 live in rural areas. 71.5% of the total district population is literates. Sex ratio is 997 (i.e., 997 women for every 1000 males).

1.6 Socio – Economic aspects

Total working population constitutes 46.3% of the total district population and 31.3% of the total working population is engaged in agriculture. Per capita income of the Chittor district is Rs.64,816/ as against the state's per capita income of Rs.76,041/-.

1.7 Human development aspects

Literacy level in the Chittor district is 71.5% out of which male literacy is 79.8% and 63.3% is female literacy. 64.5% of the households in the district have access to banking facility, whereas 61.9% have phone facilities as against the state level data of 52.7% and 57.2% respectively.

1.8 Key Economic activities in the region

Out of the district GDP in Chittoor 50% (State - 49.7%) is from services sector whereas 24% (State-27.3%) and 26% (State-23%) are from agriculture and industry respectively.

1.9 Infrastructure

1.9.1. Social, Physical, Financial and Production related

There are 763 factories in Chittoor district providing jobs to 19,009 employees and 14,312 workers. There are 3,71,373 establishments providing employment to 6,81,022 people in the district. Chittoor is 160 km from Chennai, 180 km from Bangalore and 590 km from Hyderabad. 64.5% of the households have access to banking and 61.9% have access to phones in Chittoor district as against the AP State average of 52.7% and 57.2% respectively. The district has around 440 branches of commercial banks rendering banking facilities to the people.

1.9.2. Educational institutions

Tirupati town in Chittoor district is home to multiple institutions of higher learning. Sri Venkateswara University, AP's first women's university Sri Padmavati Mahila Visvavidyalayam, Rashtriya Sanskrit Vidyapeetha are located in Tirupati. Additionally Tirupati urban area is home to several colleges and educational institutions. Kuppam houses the Dravidian University. Chittoor district is home to the National Atmospheric Research Laboratory (NARL) of the Department of Space. The lab is involved in carrying out fundamental and applied research in Atmospheric and Space Sciences.

1.9.3. Skill development - Three central institutions are coming up in Chittoor district around Sri City - Indian Institute of Science Education and Research (IISER), Indian Institutes of Technology (IIT) and Indian Institute of Information Technology, Chittoor (IIIT).

1.9.4. Roads and railways- District Headquarters Chittoor is well connected by road. Tirupati , Chittoor , Srikalahasti , Punganur , Puttur , Nagari , Renigunta , Madanapalle

are the Cities in this district having road connectivity to major towns and remote villages. Chittoor district has the major rail way station Tirupati connecting to most of the Important Cities and rail way stations in India.

Some of the rail way stations in district are Renigunta Jn , Chittor , Sri Kalahasti , Pakala Jn , Kuppam , Puttur , Ekambarakuppan , Kotala which connect most of the towns and villages in the District. Sri City is a planned Integrated Business City (township) located 55 km north of Chennai on NH 5 along the border of two large Southern states in India - Andhra Pradesh (AP) and Tamil Nadu (TN). Much of Sri City area is in Chittoor District and a smaller area along the NH 5 is in Nellore District of Andhra Pradesh, adjacent to Tiruvallur District of Tamil Nadu. Sri City is around 150 KMs from Chittor. Sirhari Kota is around 190 KMs from Chittor. Krishnapatnam port is located around 210 KMs from Chittor. Triupati airport (Renigunta) is around 80 KMs from Chittor.

Chapter – 2

Cluster Value Chain Mapping

2.1 Product profile

Coir (from Malayalam kayaru – cord) is a coarse fibre extracted from husk, the fibrous outer shell of a coconut. Coir (koir) – The fiber obtained from the husk of a coconut, used chiefly in making rope and matting. **COIR** is a versatile natural fibre extracted from mesocarp tissue, or husk of the coconut fruit. Generally fibre is of golden color when cleaned after removing from coconut husk; and hence the name ” The Golden Fibre”. Being tough and naturally resistant to seawater, the coir protects the fruit enough to survive months floating on ocean currents to be washed up on a sandy shore where it may sprout and grow into a tree, if it has enough fresh water, because all the other nutrients it needs have been carried along with the seed. These characteristics make the fibers quite useful in floor and outdoor mats, aquarium filters, cordage and rope, and garden mulch.

Uses / Applications

Brown coir is used in brushes, doormats, mattresses and sacking. A small amount is also made into twine. Pads of curled brown coir fibre, made by needle-felting (a machine technique that mats the fibres together) are shaped and cut to fill mattresses and for use in erosion control on river banks and hillsides. A major proportion of brown coir pads are sprayed with rubber latex which bonds the fibres together (rubberized coir) to be used as upholstery padding for the automobile industry in Europe. The material is also used for insulation and packaging. The major use of white coir is in rope manufacture. Mats of woven coir fibre are made from the finer grades of bristle and white fibre using hand or mechanical looms. Coir is recommended as substitute for milled peat moss because it is free of bacteria and fungal spores.

2.2 Production Process

A) Coir Fibre extraction

The coconut husk collected from the farms is first fed in to the disintegrator where it is crushed. The crushed husk is soaked in water for one Week. The soaked material is fed into the decorticator to separate fibre and pith. The fibre is dried in the sunlight and is pressed in the form of 35-Kg bundles by using balling press. The bales are sold to the coir products manufactures based at nearby Districts & States.

B) Coir yarn

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

C) Automatic two ply yarn Spinning

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

- a. Willowing
- b. Slivering
- c. Spinning
- d. Winding

Coir fibre obtained from fibre extraction units is wetted by spraying water. After 2-3 hours the wetted fibre is passed through the willowing machine to remove the impurities and then place the fibre in two rows 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.

D) Curled coir

Coir fiber obtained from fibre extraction units is wetted by spraying water. Then the fibre is cleaned by using a Turbo cleaner. The fibre is then fed in to curling machine wherein it is converted into curled rope. The curled rope is then rolled by using of winding machine. Finally it is dispatched into manufacturing of coir bed units. Curled Coir is mainly used for manufacturing rubberized mattresses, pillows and cushions.

E) Coir pith

Coir Pith or the coco peat which is obtained during coir fibre extraction can hold large quantities of water, just like a sponge. It is used as a replacement for traditional peat in soil mixtures, or, as a soil-less substrate for plant cultivation.

Coir waste from coir fiber industries is washed, heat-treated, screened and graded before being processed into coco peat products of various granularity and denseness, which are then used for horticultural and agricultural applications and as industrial absorbent.

The activities proposed in the Common Facility Centre (CFC) to be established at Cherala village at Tavanapally mandal are – manufacturing and sale of coir fiber, coir mats, coir pith and coir handicrafts.

Value chain: apart from being close to the source of raw material availability (i.e., coconut husk) the proposed product mix of coir yarn, mats and coir pith has value enhancement in production process and sales revenues and profitability through production and sale of high value commercial products.

A common facility centre (CFC) is to be established at Cherala village, Arakonda Panchayat of Tavanapally Mandal in the District of Chittor with required machinery for production of coir yarn, door mats, coir handicrafts, compost and other value added products.

- 2 mobile defibering units
- 16 automatic coir spinning units with necessary accessories along with one willowing machine and one slivering machine
- 6 mat frames press
- 2 coir pith manure units with Bore well

2.3 Value chain analysis

Raw Material:

Brown husk is available at Pallipattu , which is around 5 KMs from M/s Sahitya Coir Industry, Iruvada. Additionally the raw material can also be procured from Tirupathi (70 KMs) in case of need. (Pallipattu is located in AP near AP- Tamilnadu border and the units located from Tamilnadu also source their raw material from Pallipattu.)

Labour/artisans: As the scope for agriculture is very limited in Chittoor district due to the absence of perennial river water source and nearly 30% of the land is occupied by forests, the crops cultivated are mangos, grains, sugarcane and peanuts that are seasonal in nature. Hence, adequate labour is available. Currently the workers/artisans are engaged in unskilled and semi skilled activities in coir industry in Chittoor. Formation of the proposed 3 clusters would provide a sustainable self employment and entrepreneurial skills to these people.

Power: uninterrupted power supply is available in Andhra Pradesh and Chittoor district throughout the year.

Water: though river water source is not there, ground water is available. Chittoor district receives an annual rainfall of 918.1 mm. The South West Monsoon and North East Monsoon are the major sources of rainfall for the district. On average the district receives 438.0 mm of rainfall through the South West Monsoon (From June to September) and 396.0 mm from North East Monsoon (From October to December).

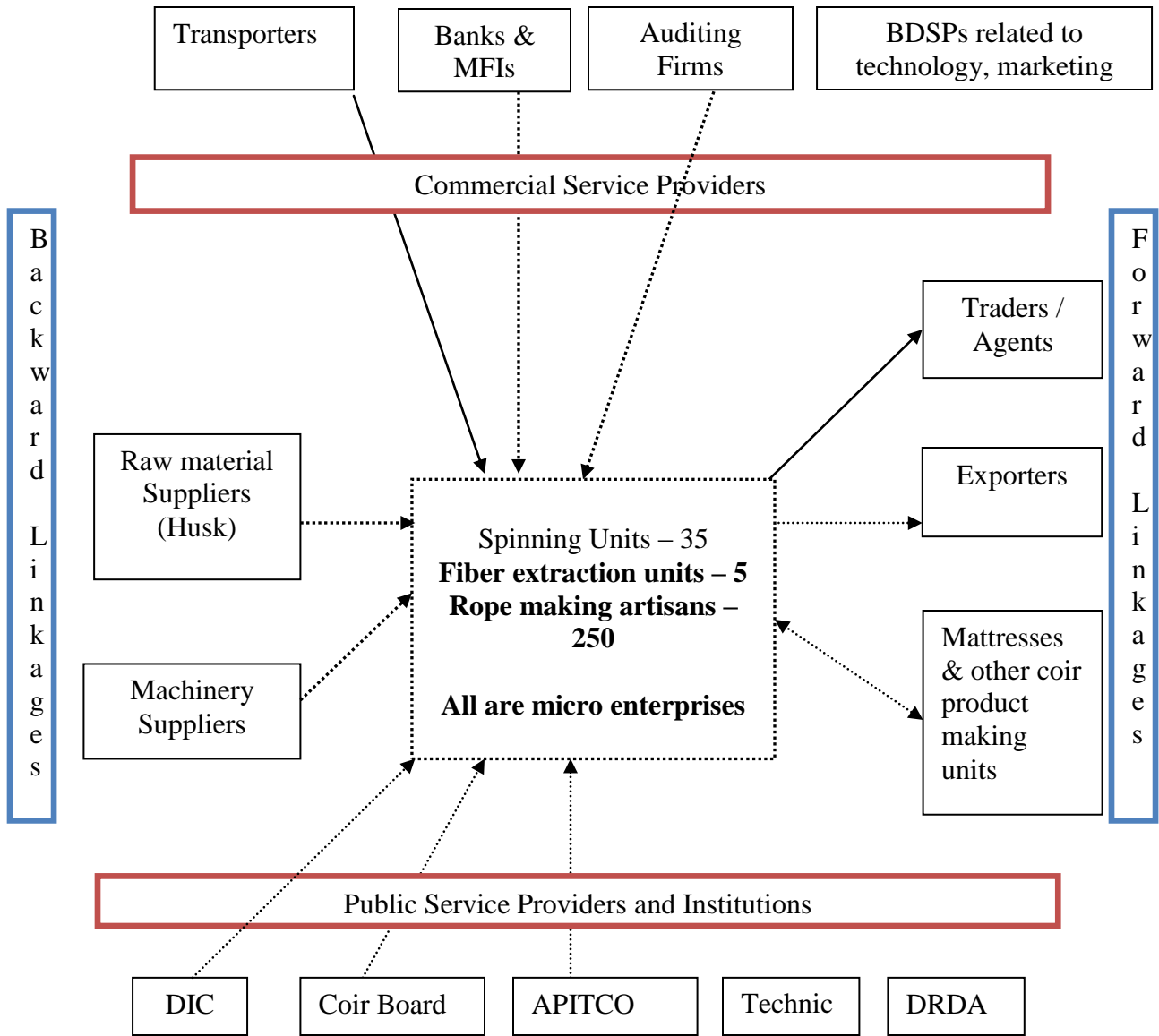
Market for coir products: Chittor is strategically located at 160 km from Chennai, 180 km from Bangalore and 590 km from Hyderabad. Customers from Tamilnadu, Karnataka and Telangana buy the coir products from Chittor due to its strategic location. Chittor being district head quarters is well connected by road, Highway, railways. Nearest airport is at Renigunta ,80 KMs from Chittor. Nearest sea ports are Krishna Patnam and Chennai located at the distance of 210 KMs and 160 KMs respectively from Chittor.

Products- brushes and brooms, ropes and yarns for nets and bags and mats, mattresses, carpets, rugs. Coir pith (which is a byproduct generated from coconut husk while producing coir fibre) is an excellent soil conditioner and used for organic manure. This is ideal for growing anthuriums and orchids. Coir fibre is used to make poles to plant pots and hanging baskets and other horticultural applications. Other diversified products from coir fibre are- umbrellas, bags, jewellery, composite boards, coir woods. Currently the coir based products being manufactured at Chittor are- mats, matings, ropes, carpets etc.

There is good demand for coir ropes and mats from places like- Chennai, Erode, Coimbatore in Tamilnadu and Hosur, Bangalore in Karnataka. The proposed coir cluster is located near Andhra – TamilNadu- Karnataka border areas and has locational advantage in marketing their products- coir yarn, mats and coir pith.

Chittor district has several fruit processing units which use coir pith as manure and there is good market for the same. Therefore, there is ample scope to diversify into the other value added products viz., coir peat blocks and geo textiles in due course to further improve the overall profitability of the operations of the proposed coir cluster.

2.4 Cluster Map



Index:

- 1) Dotted square box around principle enterprises represent weak linkage at cluster level
- 2) Solid arrow represents strong linkage
- 3) Dotted arrow represents weak linkage
- 4) Dotted double arrow represents weak two way linkage
- 6) Absence of arrow represents lack of any linkage

2.4.1. Principle firms

The cluster is having 35 micro enterprises which are scattered. There are Automatic spinning units, Curled coir unit with Fibre extraction facility. It is estimated that 150 workers including staff are employed in the units. In addition an estimated 250 artisans are engaged in making rope on traditional charakas in the cluster area. The average income of the unit per annum is in between Rs 2.00 to 3.00 lakhs where as that of workers is Rs 75,000 for men and Rs 50,000 for women.

The linkage among cluster firms is limited. As there are no formal associations of cooperative societies in the cluster, entrepreneurs try to address issues on their own.

2.4.2 Support Firms/ Institutions

The Support Institutions / Public and Private Service Providers in the cluster are:

2.4.2.1 Machinery Suppliers

Decades old machineries are being used by majority of cluster firms, in spite of availability of advanced machinery in Bangalore and Vellore. Lack of financial support from Commercial Banks for upgradation is the main reason. M/s 2M Enterprises & 2M Engineers at Bangalore and M/s. Everest Coir Engineering, M/s.Revanth Engineering Works, M/s.Sri Ram Industrial, and M/s.Vinayaga Engineering Works at Coimbatore are available for supply of various kinds of coir machineries.

2.4.2.2 Coir Board

Coir Board is the Nodal Agency for the SFURTI scheme. The Coir Board was 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. At present the linkage of cluster firms with Coir Board is weak.

2.4.2.3. District Industries Center

DIC organizes entrepreneurship development training programs, provides information about various government schemes, subsidies, grants and assistance available from the other corporations set up for promotion of industries, assessment of availability of infrastructure facilities, provide MSME registrations for entrepreneurs. However at present the linkage of DIC with cluster firms is poor.

2.4.2.4. APITCO Ltd

APITCO has been actively engaged in the development of fruit processing, foundry, readymade garments, handloom cotton durries and mango jelly clusters in Andhra Pradesh. During 11th five years plan, APITCO has successfully implemented SFURTI programme in Rajamundry and Srikakulam Coir Clusters. APITCO has strong presence in Chittor and some of the units holders have participated in their ED Programmes.

2.4.2.5. R&D, Testing & Training Institutions

No R&D, Training and Testing Institutions are available in the cluster area.

2.4.2.6. Commercial banks & Micro finance institutions:

The enterprises are having accounts with commercial banks but they are reluctant to provide financial assistance for procuring latest technology/ modernization etc. No micro finance institution is having operations within the cluster region.

Chapter - 3

Market Assessment and Demand Analysis

3.1 Global scenario

Total world coir fibre annual production is around 500,000 metric tones in 2014.. The coir fibre industry is particularly important in some areas of the developing world. India, mainly the coastal region of Kerala State, produces 60% of the total world supply of white coir fibre. Sri Lanka produces 36% of the total world brown fibre output. Over 50% of the coir fibre produced annually throughout the world is consumed in the countries of origin, mainly India. The total production of coir fibre in the country during the year 2013-14 was 406441 M.T. The fibre production anticipated during 2014-15 is 671000 M.T.

Even though the world's top two producers, India and Sri Lanka account for about 90% of global coir fiber production, combined, this renewable resource is underutilized; local coir mills process only a fraction of the available husks, which accrue more or less year round as a waste during coconut processing. Traditional uses for the resilient and durable coir fiber include rope and twine, brooms and brushes, doormats, rugs, mattresses and other upholstery, often in the form of rubberized coir pads.

In the 1980s and 90s, global exports of coir fiber fell by almost half, as Western consumers shifted to synthetic foam and fibers. Then, since 1990, rapidly growing domestic demand in India more than doubled global production benefiting exclusively the Indian coir industry. Finally, since 2001, a rising Chinese demand for coir, an expanding market for coir-based erosion control products, and the spread of coir pith as a peat moss substitute in horticulture has further pushed up global production and prices. In turn, other coconut growing countries, including Philippines, Thailand and Vietnam are now expanding their production and export of coir fiber. These changes are also reflected in the international trade in coir. Historically, Sri Lanka had been the

world's largest exporter of various fiber grades, whereas India exports largely value added products – yarn, mats, and rugs. While in 1990 about 80% of global production was exported, growth of the Indian domestic market dropped that rate to below 40%. Global trade volume for coir fiber, value added products – yarn, mats, rugs – and coir pith now stands at about \$140 million per year with India and Sri Lanka respectively accounting for about \$70 and \$60 million of that amount. This may not seem much but in the coconut regions of producing countries coir is an important economic factor.

In Sri Lanka, coir related exports account for 6% of agricultural exports, over 1% of all exports and 0.35% of GDP. Moreover, coir milling and value addition, mostly spinning and weaving, are important regional employers, particularly in rural Southern India and coastal Sri Lanka. They give work to 500,000+ people, many of them women working part-time. Yet, working conditions and productivity are generally poor. The challenge for industry is to sustainably expand markets for this versatile renewable resource while maintaining its role as employer for the rural poor. This may require producers to adopt innovative production, improve product consistency, and in particular develop novel applications – jointly with their customers in importing countries. Businesses, public agencies and research institutes are now addressing this challenge in multilateral projects worldwide – setting examples that global trade can be beneficial to all parties involved.

3.2 Coir industry in India

Indian coir industry is an important cottage industry contributing significantly to the economy of the major coconut growing States and Union Territories, i.e., Kerala, Tamil nadu, Andhra Pradesh, Karnataka, Maharashtra, Goa, Orissa, Assam, Andaman & Nicobar, Lakshadweep, Pondicherry, etc. About 5.5 lakh persons get employment, mostly part time, in this industry. Coconut husk is the basic raw material for coir

products. Around 50 per cent of the available coir husk is used to produce coir products. Hence, there is scope for growth of coir industry.

The Coir Industry in India has a strong position in the export orientation since the early days, when trade was dominated by European companies. Structure of production and relations has changed significantly since then. The pattern of exports and product mix has also changed drastically. With the level of fiber and yarn exports, India is an exporter of goods with added value, which in turn led to a significant change in total volume and value of exports. Coir Export in India fetched around Rs 1116 cr in 2012-13 as against Rs 1052 crore in 2011-12. There is a huge market for Indian Coir products abroad and at present exports are being done to more than 112 countries. More than 40 per cent of the production is being exported. At present domestic sales are about Rs 3000 crores. Coir exports from India had maintained a continuous growth trajectory even during the global economic crisis. For the Indian coir exports the US is the largest market accounting for 37 per cent. Coir exports from India now have new markets such as Russia and Latin America. The state of Kerala is responsible for about 80% of India's coir exports. Export of coir and coir products reached a level of Rs. 1425.77 crore during 2013-14 and clocked Rs. 935.04 crore during 2014-15 (upto December 2014)

3.3 Exports of coir products from India

Exports of Coir & Coir Products from India:

Year	Quantity (Metric Tonnes)	Value (crore)
2011-12	410854	1052.62
2012-13	429501	1116.03
2013-14	537040	1476.04

2014-15

626666

1630.34

EXPORT OF COIR & COIR PRODUCTS FROM INDIA FOR THE PERIOD FROM APRIL 2014 - MARCH 2015 FROM INDIA:

Q=Quantity in M Tonnes

V=Value in Rs.Lakhs

April 2014- March2015

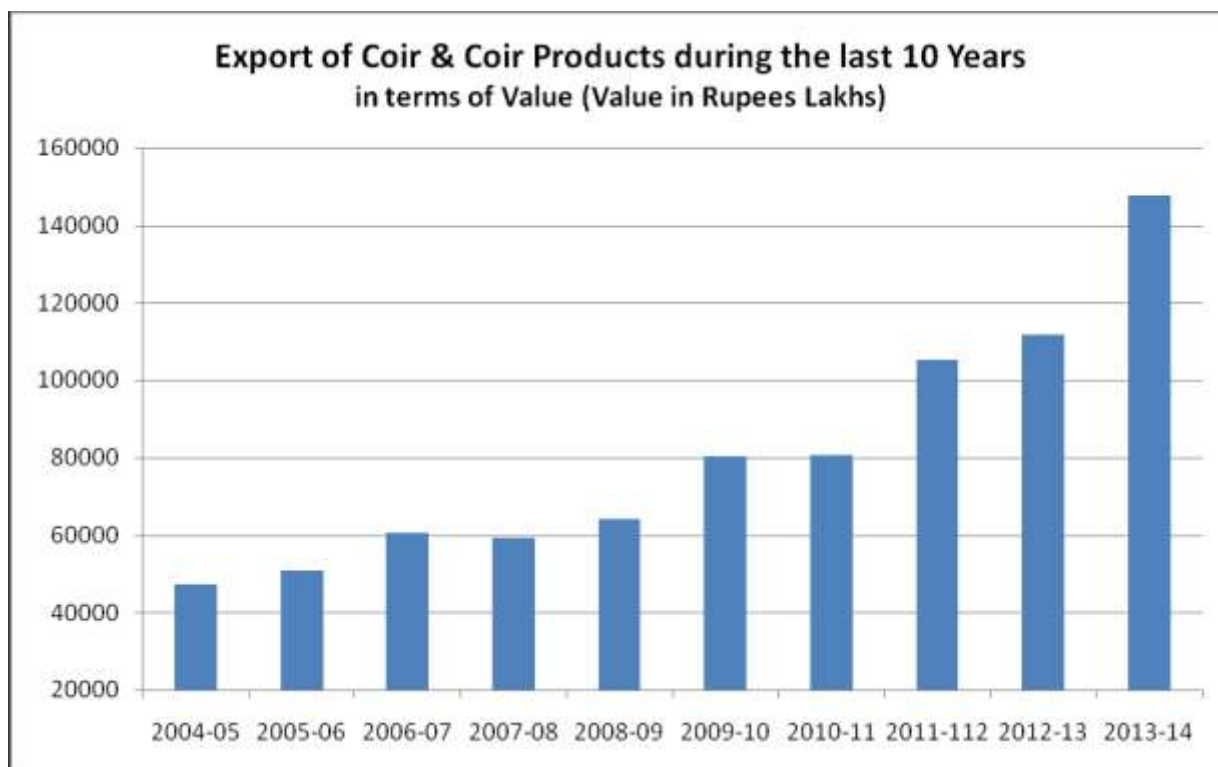
April 2013- March2014

%

Growth

Item	Q		V		% Growth	
	Q	V	Q	V	Q	V
Coir Fibre	219103	41923.34	173902	32878.11	26.0	27.5
Coir Yarn	4070	3000.89	4247	2848.26	-4.2	5.4
Handloom Mat	25354	23946.91	22609	23623.82	12.1	1.4
Powerloom Mat	161	225.25	234	278.36	-	-
					31.2	19.1
Tufted Mat	41284	39725.96	43752	41776.39	-5.6	-4.9
Handloom	1667	1835.28	3425	3353.91	-	-
Matting					51.3	45.3
Powerloom	28	43.93	0	0.00	-	-
Matting						
Geo textiles	4236	3270.28	4468	3503.78	-5.2	-6.7
Coir Rugs & Carpet	135	146.10	93	105.99	45.2	37.8
Coir Rope	614	391.92	498	390.17	23.3	0.4
Curled Coir	12621	3732.00	11263	2947.93	12.1	26.6
Rubberized Coir	897	1410.88	965	1560.76	-7.0	-9.6
Coir Pith	316425	43295.24	271495	34173.23	16.5	26.7
Coir Other Sorts	71	85.79	89	163.13	-	-
					20.2	47.4
Total	626666	163033.77	537040	147603.84	16.7	10.5

From the above data it can be seen that coir pith, coir fibre, tufted mat and handloom mat occupy top 4 slots in the value of exports. Above data also indicates that domestic consumption of coir products is 60% and exports constitute 40% of the total production. In other words while export market is growing the domestic market for coir products is also very large and broad based



Export destination:

During the period April 2013-March 2014, 103 countries imported coir and coir products from India. China is the major importer of coir and coir products both in terms of quantity and value with a share of 36% and 24% respectively. USA which was the major importer of Coir Products for the past few years has now been ranked 2nd position with overall share of 20% in value. The combined exports to all the EU countries are 26.21% in terms of quantity and 32.90% in terms of value. The other countries, which imported substantial quantities of coir during the year under report, are South Korea, Australia, Russia, Canada, Brazil, and Japan.

India's coir and coir products exports to top seven countries during 2013-14.

Country	% of quantity	% of value
China	36	24
USA	10	20
Netherlands	10	7
UK	2	6
South Korea	12	5
Germany	1	5
Italy	4	4
Total	75	71

As can be seen from the above data, in addition to the conventional Indian coir export markets like China and US, new and emerging markets in Europe and Asia offer good export potential to Indian coir products. It can also be seen from the above data that market for coir products both domestic and foreign markets are expanding steadily and India is leveraging on production and marketing of high value coir products.

3.4 Market scope and marketing strategy for the Chittor cluster:

Currently towns in the Chittor district like- Chittor, Tirupathi, Kalahasti etc., buy coir rope from Tamilnadu . Therefore, the proposed cluster in Chittor will have ample scope to sell their coir ropes to these towns in Chittor district as they are located within a radius of 30-120 Kms. Additionally market potential is also available to sell the coir ropes to centres like- Chennai, Vellore, Bangalore and Hosur. There are around 10-15 poultry centres near to pallipattu village that require coir pith manure for their poultry. There are several fruit processing units in Chittor district which also use coir pith manure.

4.1. SWOT Analysis.

Strengths

- Reasonably established in the market with successful track record.
- Access to raw material source.
- Uninterrupted power supply throughout the year.
- Availability of labour/artisans.
- Strategically located with easy market access to buyers of coir products from main centres of states like- Tamilnadu, Karnataka, Goa and Telangana.
- Connectivity to district road, highways and located near to airport, sea ports.

Weaknesses

- Inability to expand the coir products range to cover value added items and items of high profit margins.
- Low level of technology.
- Absence of branding.
- Unskilled and semi skilled labour/artisans.
- Lack of aggressive marketing strategies.

Opportunities

- Availability of logistics for exports.
- Scope for backward and forward integration.
- Potential to capture new market segments.
- Enhance the skill sets of labour/artisans through training from Coir Board.
- Access to better technology by availing the SFURTI scheme.
- Financial assistance from banks and financial institutions to scale up the operations.
- Provide coir bags as substitutes to plastic bags as eco friendly items.

Threats/ Challenges

- Competition from established players in AP-Tamilnadu border areas.
- Shifting of occupation by labour/artisans from traditional vocation to industrial employment.
- Alternative products as substitutes at cheaper prices.
- Job guarantee scheme by Govt under MGNREGA where people get Rs.180/ per day.

4. 2. Need Gap Analysis

- Inability to expand the coir products range to cover value added items and items of high profit margins:

Currently the few existing coir units at Chittor are into production and sale of –coir ropes, mats, coir pith (manure). Cluster activity of coir in Chittor district is virtually absent as these units are scattered and function independently. However, Chittor is strategically positioned with proximity to places like- Chennai, Erode, Coimbatore, Hosur, Bangalore etc., where there is good market for coir based products. Krishnapatnam port, Chennai port, Tirupathi and Chennai airports are located near to Chittor. Raw material for coir- coconut husk is available near to Chittor. Therefore, Chittor has all the required basic infrastructure and locational advantages, logistics and connectivity to promote coir cluster.

- Low level of technology:

The existing units in Chittor district are mainly labour intensive and not using high capital intensive / modern technology in their operations. This provides scope not only to promote coir clusters but initially develop these clusters with basic technology and go for high end technology in due course after enhancing the skills of the artisans/workers.

- Absence of branding:

In view of scattered operations and independent functioning of the units and absence of clusters there is no significant brand image for the coir products at Chittor. The proposed cluster formation will pave the way for branding of Chittor coir products over a period of time.

- Unskilled and semi skilled labour/artisans:

Due to scattered operations of the coir units there is not much focus on improving the skills of labour/artisans. Adhoc approach of the units in recruiting the labour based on their current needs has resulted in limiting the growth of skilled labour/artisans.

- Weak links in backward and forward integration:

In view of scattered approach the coir units in Chittor are unable to leverage on the advantages available to them in raw material procurement and marketing of coir products, though opportunities for such advantages do exist. The proposed cluster approach will provide scope for bulk procurement of raw material and common production under one roof- i.e., CFC as well as negotiating with customers for bulk sales of coir products.

There is a strong need to bridge the above gaps through appropriate interventions in order to control the cost of operations and improve the quality of production to gain competitiveness.

Chapter- 5

Profile of Implementing Agency

5.1 Institutional Structure:

APITCO was established in the year 1976 with IDBI as the lead promoter. The shareholding of IDBI was subsequently transferred to SIDBI.

APITCO is one of the 18 TCOs formed by the key national level financial institutions in association with state level institutions and banks.

All India financial institutions, nationalized commercial banks, state level industrial development bodies & financial institutions and employees are the shareholders of APITCO. The registered corporate office is located in Hyderabad, Telangana, with a wide spread network of offices set up in all the districts of Telangana and Andhra Pradesh States.

APITCO also has offices in Orissa, Chattisgarh, Kerala, West Bengal and Karnataka and has provided its consulting services across the Country. The Organisation has also handled International Assignments in Middle East, South Africa and South Asia.

5.2 Governance Structure

The strategic team of APITCO consists of qualified professionals as board of directors headed by Managing Director. Executive leadership team takes care of functional aspects, which reports to MD.

5.3 Operational Profile

The operational team consists of 13 branches located in 8 states headed by Regional managers. The activities undertaken by APITCO includes- asset reconstruction & management, energy & power management, entrepreneurship development, environment & resources management, food & agri business management, human resource consulting, industrial cluster development, project management consulting, skill development training, tourism infrastructure development. APITCO has professional team with the respective domain skills to handle the above activities.

5.4 Management Profile

The BOD comprises of totally 10 directors including Chairman and Managing Director. Managing Director is in-charge of the executive team to functionally co-ordinate the activities of the operations team to achieve the corporate goals.

5.5 Financial Position

APITCO's consultancy revenues have reached the level of Rs.1330.41 lakhs during 2013-14.

Key financials: (in INR Lacs):

Particulars	2013-14	2012-13
Gross Income	1330.41	1447.16
Profit after tax	104.21	193.48
Net worth	2250.00	2169.00

Chapter – 6

Project Concept & Strategy Framework

6.1. Project Objective:

To make the traditional activity of coir industry more productive as a cluster and competitive in the market, thereby providing sustainable growth to the stake holders, i.e., workers/ artisans.

6.2. Project Strategy:

To provide both back ward and forward linkages and total supply chain integration in coir products manufacturing and establish a common facility centre to centralize various activities to gain economies of scale and provide the required technology and up gradation of skills of the workers/ artisans in order to make the activities not only competitive in domestic markets but also in global markets and have a good product mix to improve the overall profitability of operations.

Raw material procurement in bulk is possible since the proposed CFC area is the hub for supply of husks. Transportation costs are also cheaper due to the proximity of the clusters to the source of raw material supply.

Adequate common storage facility at the CFC will enhance the image and create brand value in due course. The CFCs will also function as a one stop hub for raw material procurement, common manufacturing of all the coir products.

Setting up of Common Facility Centre will enable the artisans/workers to have access to bulk raw material procurement at the nearby source at cheaper rates.

CFCs will create a platform for common production of coir products and collective working by artisans/workers leading to several costs advantages as well as sustainable growth. The strategic location of the CFCs near to the source of raw material will strengthen back ward linkages. In the near future the SPV formed to manage the CFCs at these two villages can venture into opening show rooms at Chittor and Tirupathi to market their coir products and evolve into a brand.

Chapter 7

Project Interventions

7.1. Interventions under the project

The interventions under the SFURTI have been proposed keeping in view the awareness of the people about the activity, capacity building of the people for bringing them together for common activities in future.

A) Soft interventions

The Technical Agency in association with Implementing Agency and Nodal Agency conducts necessary training programmes, meetings and workshops to create awareness, counseling, motivation & trust building, skill development and capacity building apart from exposure visits and participation in trade fairs. The detailed activity plan is given below:

Action Plan for Soft Interventions (2016 – 17)

Sr. No.	Item	IA	NA	Amount (Rs in Lakhs)	Justification	Expected outcome/target
1	Capacity Building					
1.1.	Skill Upgradation programs for Artisans and distribution of electronic rats	-	8.00	8.00	Poor utilization of husk, need for up-gradation of skills and improve marketing	New networks for collection, processing, production and marketing. Improved profits.
1.2	Training of CDE, IA and SPV members	-	1.00	1.00	Production of low quality yarn and mats	Awareness on SFURTI, Improved quality, reduced cost leads to productivity
Total		-	9.00	9.00		

**Action Plan for Soft Interventions
(2017 – 18)**

Sr. No.	Item	IA	NA grant	Amount (Rs in Lakhs)	Justification	Expected outcome/target
1	Product Design and Development					
1.1	Exposure visit for artisans to understand market demand, and make new designs	-	2.00	2.00	Lack of knowledge in market awareness and customer preferences	understand market demand, customer taste and awareness on competitors products, and their quality
1.2	Development of new product range (Handicrafts) by involving experts from NIFT/NID or other service providers	-	5.00	5.00	Traditional and regular designs Not much variation in design	Development of new product range including handicrafts
2	Market Promotion					
2.1	Market survey	-	3.00	3.00	Poor market linkages	Identification of new markets and products
2.2	Training programme on Marketing for SHG members	-	1.00	1.00	Lack of marketing skills and market information	Improved knowledge on marketing
2.2.	Printing of brochures and catalogues	-	2.00	2.00	To reach out customers	Facilitates in exhibitions and trade fairs
2.3	Participation in National Marketing events (Stall Rent and T.A & D.A for participant artisans)	-	3.00	3.00	Selling in regional markets only	Networking and market expansion and also reach national market
Total			16.00	16.00		

B). Hard interventions-

This support will be one time recurring grant from Government of India to CFC. The estimated expenditure suggested is based on the needs of the project and prevailing cost of the related items.

The Cluster CFC is to be set up at the site to be acquired by SPV and required equipments and machines. The construction cost for civil work is also taken into account. The components of hard intervention and estimated cost will be as under:

I.A. to guide the cluster members in setting up the CFC (Common Facility Centre) and go for bulk procurement of raw materials from suppliers to maintain optimum stocks by following the principles of EOQ. I.A. has to oversee the up- gradation of production infrastructure and centralized warehousing facilities. The total cost of hard interventions is Rs. 80.28 lakh and the SPV's contribution is envisaged as per the scheme of funding at Rs. 20.07 lakh.

S. No	Description	Amount (INR Lacs)
3.	SPV contribution (25%)	20.07
4.	NA Contribution (75%)	60.21
	Total	80.28

C. Cost for Technical Agency

The project involves the preparation of Diagnostic Study Report and Detailed Project Report and guidance for identification of suitable machines from the approved panels of Coir Board suppliers. The implementing agency, nodal officer and cluster executive are to be trained on cluster development and mentoring services need to be provided for all agencies involved in the project. The remuneration to be paid to the technical agency as envisaged under the SFURTI guidelines. 8% of the project cost covering the cost of soft intervention and hard intervention has been taken as under:

Technical agency fee: 8% of (Rs. 25.00 + 60.21 lakh) = Rs. 6.82 lakh)

D. Remuneration to Cluster Development Executive and Implementing Agency Expenses

As per the provision made under the scheme, Cluster Development Executive will be engaged in executing the programme. The implementing agency is to meet expenditure involved in implementation of the project like conducting review meetings; documentation etc. The grant support for the purpose as covered under the scheme is Rs. 20.00 lakh.

Chapter 8

Project Cost and Means of Finance

8.1. Project cost

The project cost including the grant support for soft interventions, remuneration to technical agencies and remuneration to CDE will be as under:

S. No.	Particulars	NA	SPV	Total
1	Hard Interventions	60.21	20.07	80.28
2	Soft Interventions (2015-16 & 2016-17)	25.00	-	25.00
3	Cost of TA (8% of 60.21+25.00)	6.82	-	6.82
4	Cost of IA/CDE	20.00	-	20.00
		112.03	20.07	132.10

8. 2. Means of Finance

S. No	Description	Amount (INR Lacs)
5.	SPV contribution (25%)	20.07
6.	NA Contribution (75%)	112.03
	Total	132.10

Chapter 9

Plan for Convergence Initiatives

1. District Rural Development Authority (DRDA) and Department of Agriculture will be involved in capacity building of SHG members and also production and marketing of coir pith compost.
2. Attempts will be made to set-up sales outlet at Tirupathi, Tirumala and Srikalahasti, Vizag, Rajahmundry holy places as well as Vellore of Tamil Nadu State for marketing of coir products.
3. Initiatives will be taken to associate with corporate CSR foundations and Sri City Food Park to market coir pith compost.

10.1 Project Planning

During preparation of Diagnostic Study Report (DSR) and also Detailed Project report (DPR), the Technical Agency, **ni-msme** had discussed with the implementing agency and proposed SPV members to be associated in the project on critical problems, suitable interventions to overcome the problem areas including soft and hard interventions.

The representatives from implementing agency and also artisans have given their views and suggestions for designing suitable interventions. The details of soft interventions are mentioned in earlier report.

The successful implementation of the project will depend on the following aspects:

- Scheduling of above activities to implement within the time frame
- Regular follow-up with NA & TA, supervision of project progress and managing the same
- Undertaking work as per the defined time frame in the schedule
- Regular review of project by NA at Cluster /State level

In order to implement the project successfully, the SPV, NA (Cair Board), IA (APITCO Ltd), TA (**ni-msme**), and CDE need to work as a team and coordinate each other from time to time. At the same time it is suggested to carry out these activities simultaneously to reduce the time. All the concerned agencies have to play their role at the appropriate time for successful implementation of the project. It's the responsibility of IA to regularly interact with NA and TA for their requirements and also to attend or solve any issues.

Some important activities of the above agencies are outlined in the following:

10.1.1. Regional office, Coir Board: The Regional Office of Coir Board at Rajahmundry is local office of the nodal agency. The nodal agency facilitates IA in smooth implementation of the project. The Regional Office monitors the progress of proposed CFC in addition to appraising implementation and progress of the CFC to the head office at Kochi.

10.1.2. District Industries Centre, Chittoor District: On behalf of the Government of Andhra Pradesh, the District Industries Centre plays an important role in successful implementation of the project. The DIC also acts as one of the facilitator in smooth governing of CFC in long run and also helps in fulfilling requirements of IA/SPV for successful operation of CFC.

10.1.3. National Institute for Micro, Small & Medium Enterprises (ni-msme): The Technical Agency, ni-msme monitors the cluster on regular basis, and reports to the field office of Nodal Agency, and assists Nodal agency in disbursement of funds.

10.1.4. APITCO:

APITCO, the IA would coordinate with the SPV, to undertake procurement of machinery and appointment of contractors for civil works, and oversees the operation and maintenance of common facilities in association with other NA and TA. The required land for CFC has already been identified.

10.1.5. Special Purpose Vehicle (SPV) has been established in the name of Chittoor Coir Development Society which will be mobilise 25% of the project cost

10.2. Implementation, Monitoring & Evaluation:

As mentioned above IA plays vital role in implementation of the project. After receiving final approval of the project from Scheme Steering Committee (SSC), the Implementing Agency establishes Cluster Advisory Group headed by

District Magistrate and Working Committee for regular monitoring of the project apart from a purchase committee for procurement of machinery for CFC.

10.2.1. Cluster Advisory Group

The Cluster Advisory Group is to be established under the chairmanship of District Magistrate with representation from District Rural Development Authority, Educational Institution, Lead Bank, with the objective of fostering increased level of involvement of various cluster stakeholders and strengthening the implementation of the project.

10.2.2. Working Committee

The working committee is to be formed having nominated members from State office, Coir Board, Implementing Agency, Technical Agency, District Industries Centre, District Rural Development Authority, Commercial Bank/ Lead Bank Manager, Technical Institution and also Cluster Development Executive & senior artisans.

The Working Committee will be chaired by representative not below the rank of Assistant Director of the State/ Divisional office of the Nodal Agency and will meet at least once in a month to review the operational and maintenance aspects of the CFC and suggest corrective measures if required to strengthen the functioning of CFC. The IA will closely interact with the representatives of the CFC to keep a track of the day today running of the CFC and provide necessary support and guidance in the smooth functioning of the CFC. IA is to give greater focus on advising and assisting the CFC in procurement of quality raw material at lower costs, implementing cost control measures in day today

activities of CFC, provide necessary support in marketing the coir based products of CFC, prepare an action plan for capacity building and skill development of the artisans/ workers and ensure smooth implementation of the same in coordination with IA, Coir Board, Rajahmundry.

10.2.3. Purchase Committee

Facilitating the IA in identification of suitable suppliers of machinery, inviting tenders, bid processing and finalizing tenders are some of the important functions of purchase committee. The Committee will be formed for short term duration at the time of purchase of plant and machinery. Nominated members from a technical institution, NA, TA, DIC, and senior artisans will be the members in the committee and the committee is to be chaired by the Regional Officer of Coir Board.

Chapter – 11

Business Plan

11. 1. Project Cost

S. No.	Description	Amount (INR Lacs)
1.	Fixed capital	59.90
2.	Working capital*	13.38
3.	Preliminary/ pre-operating expenses	7.00
	Total project cost	80.28

(* 20% of hard intervention cost Rs.51 lacs)

11.2. Means of Finance

S. No	Description	Amount (INR Lacs)
7.	SPV (25%)	20.07
8.	SFURTI grant (75%)	60.21
	Total	80.28

Cost of the Project	Amount Rs. In lakhs
Land	0.00
Building	18.00
Machinery & Equipment	48.90
	66.90
Working Capital	13.38
	80.28
Machinery and Equipment	Amount Rs. In lakhs
2 mobile defibering units	46.9
16 automatic coir spinning	
1 willowing machine	
1 slivering machine	
6 mat frames press	
2 coir pith manure units with Bore well	
	46.90
Furniture and Fixtures	Amount Rs. In lakhs
Storage Facilities and others	2.00
Capital Investment	Amount Rs. In lakhs
Land	0.00
Civil - Shed, Borewell, water tank	18.00
Machinery & Equipment	48.90
Furniture & Fixtures	0.00
	66.90
Fixed Capital (Assets)	Amount Rs. In lakhs
Land	0
Building	18
Machinery & Equipment	48.90
Furniture and Fixtures	0

Transportation and others	0
Preliminary and Pre opr. Expenses	0
	66.9
Raw Materials	Amount Rs. In lakhs
Husk	147.84
	147.84
Utilities	Yearly Amount Rs. In lakhs
Electricity	5.64
Water	
	5.64
Salaries and Wages	Yearly Amount Rs. In lakhs
Supervisor	
Accountant	
Skilled	
Unskilled (Helpers, Workers)	
	2.00
Other Expenses	Yearly Amount Rs. In lakhs
Stationery, telephone, phone and postage	0.60
Consumables	0.60
Advertising	1.00
Conveyance and Transport	2.00
	4.20
Total Working Capital	Yearly Amount Rs. In lakhs
Raw Materials	147.84
Utilities	5.64

Salaries and Wages	2.00
Other	4.20
	159.68
Total Capital Investment	Amount Rs. In lakhs
Fixed Assets	66.9
Working Capital for one month	13.31
	80.21
Cost of Production	Yearly Amount Rs. In lakhs
Total working Capital	159.68
Depreciation on Machinery, Furniture and Fixtures	7.33
Depreciation on Building	1.80
	168.81
Sales Turnover	Yearly Amount Rs. In lakhs
By sale of fibre, Yarn, door mats and craft items	220.59
Fixed Cost per annum	Yearly Amount Rs. In lakhs
Depreciation on Machinery	7.335
Depreciation Furniture and Fixtures	0
Depreciation on Building	1.80
Interest on total investment	0
Salaries and Wages - 40%	0.8
Utilities - 40%	2.256
Other expenses 40%	1.68
	13.871

Variable Cost	Yearly Amount Rs. In lakhs
Cost of Production	168.81
Less : Fixed Cost	13.87
	154.94
Profit	Yearly Amount Rs. In lakhs
Sales	220.59
Cost of Production	168.82
	51.77
Less : Selling and Admn. Expenses 2% of sales)	9.6
	42.17

Particulars	1st Year	2nd Year	3rd Year	4th Year	5th Year
Raw Materials	147.84	162.624	178.89	196.78	216.45
Utilities	5.64	6.204	6.82	7.51	8.26
Salaries & Wages	2	2.2	2.42	2.66	2.93
Other Expenses	4.2	4.62	5.08	5.59	6.15
Depreciation on Machinery	7.335	6.23475	5.30	4.50	3.83
Depreciation on Furniture	0	0	0.00	0.00	0.00
Depreciation on Building	1.80	1.71	1.62	1.54	1.47
Interest on Investment	0	0	0.00	0.00	0.00
Total	168.815	183.59	200.14	218.58	239.08

Key Financial Indicators					
BEP	0.21	0.19	0.17	0.16	0.14
Return On Investment = Return /Investment (without working capital)	0.77	0.29	0.33	0.37	0.41
% of profit over sales	23	24	25	25	25

Chapter – 12

Proposed Implementation Framework

During preparation of Diagnostic Study Report (DSR) and also Detailed Project report (DPR), the Technical Agency, **ni-msme** had discussed with Coir Board (Nodal Agency) and APITCO (Implementing Agency) to be associated in the project on suitable interventions (including soft and hard interventions) to promote the proposed coir cluster at Chittor district, A.P.

The management representatives from these two institutions and also key people among the villages have given their views and suggestions for designing suitable interventions. The details of soft interventions had been mentioned in earlier.

With respect to the hard interventions, the following were finalized:

Automatic coir spinning machines -16 Nos – (including 2 willowing machine, 2 slivering machine and other accessories)

Mobile defibering unit -2 Nos.

Mat frame with press -6 Nos.

Borewell- 2 Nos.

CFC with coir pith manure unit- 2 Nos.

The following important tasks are required to be completed during installation of the above infrastructure and construction of Common Facilities Centres (CFC).

- Formation of purchase committee with representation from, NA, TA, IA, CDE, Financial Institution (or Financial expert), Technical Institution (or Technical Expert) and senior artisans/ workers.
- Identification and selection of machinery suppliers
- Procurement of machinery

- Necessary Civil Works at CFC for production, storage and coir pith manure unit.
- Installation & Electrification
- Borewell installation.
- Trial production
- Commercial production

Implementation Framework

1. The SPV will be taken the initiatives in mobilizing the artisans in the cluster. Capacity building of the artisans will be the crucial factor for implementation of the project.
2. IA will be registering the SPV under Industrial Cooperative Society having jurisdiction with in the district.
3. The members' contribution will be collected for formation of the society
4. Bye-laws will be prepared by the IA.
5. IA has already trained large number artisans with the help of Coir Board, DRDA etc.
6. The land has been identified in Cherala which is having the water and also electricity
7. CFC will be created with the help of Government assistance at Cherala
8. Artisans will be given coir fiber for further processing into the value addition.
10. Marketing of the products will be done by the artisans. Fiber will be purchased from CFC.
11. The final products made by the artisans will be displayed time to time at trade fairs
12. CFC will also do the marketing if required by the members.

Chapter- 13

Expected Impact

One year after the commencement of operations the livelihoods of artisans/workers is expected to improve with steady flow of monthly income.

During the second year the artisans/workers are expected to upgrade their skills and start producing more coir based handicrafts items, which will enhance their monthly incomes apart from getting a reasonable share in the profits of the cooperative society annually.

During the third year the cluster is expected to further consolidate its operations by starting show rooms at Chittor and Tirupathi to show case their coir based products with greater focus on value added items like- mats, mattresses, rugs and other handicraft items.

In due course the cluster can venture into global markets to export its coir based products , with emphasis on high value items as the required logistics like sea ports (Krishnapatnam, Chennai port) and air ports (Tirupathi, Chennai) are located nearby.

The project envisages creating coir cottage units for the rural people particularly women. After the training, it is expected to start de-husking and spinning with the help of CFC and equipment provided for the artisans. Further the artisans make value added products like mat, matting and handicrafts to get more profit. This activity will give the additional income to the artisans/ workers and empower women.

By setting up the unit, artisans/workers will get the income throughout the year and provides employment to 90 people in CFCs. The direct and indirect employment generation will be to the extent of 400 people.

These clusters could pave way for the rural industrialization in the district with focus on agro based activities. Success of the cluster would pave the way for starting new coir industries in the Chittor district.

Agriculture Marketing and Co-operation Department, and Horticulture Department will extend marketing support of coir cluster products in the domestic market. The coir handicraft products will be added to the product range of Lepakshi. Further the implementing agency APITCO and Coir Board will also provide marketing support for marketing of coir products of the cluster.

The CFC will become Training cum production centre in coir sector in the Chittor district of AP. This will pave the way for future coir clusters in Chittor district. In due course retail outlets/ show rooms can be started in strategic locations like- Tirupathi, Chittor, Madanapalli, Kanipakkam, Vizag, Rajahmundry to show case the coir products, especially handicrafts and build a brand image. In the long run export initiatives can be taken up with this brand building exercise to sell value added coir products which has good market potential. The production of coir based products will be increased by at least 50% which lead to 50% increase in profitability and turnover by at least 30%