

SFURTI

Detailed Project Report **KADIYAPULANKA COIR CLUSTER**



Nodal Agency
COIR BOARD,
Kochi

Technical Agency
National Institute for Micro, Small and Medium Enterprises (ni-msme)
Hyderabad

Implementing Agency
ADITYA GLOBAL BUSINESS INCUBATOR
NUZVID, KRISHANA DISTRICT

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PROJECT SUMMARY

- 1. Cluster Category:** Major
- 2. Name of Cluster:** Kadiyapulanka Coir Cluster
- 3. Location**
State: Andhra Pradesh
District: East Godavari District
Mandals: Kadiyam, Mandapeta, Atreyapuram,
Anaparthi, Rayavaram, and
Ramachandrapuram
- 4. Craft/ Industry:** Village Industry
- 5. Current Product Portfolio:** Coir Fibre, Yarn, Curled Coir and Coir Pith compost
- 6. Name of IA:** Gowthami Coir Cluster Society, Alamuru,
East Godavari Dist, Andhra Pradesh

7. Project Objectives:

- To increase present turnover by at least 50% with introduction of new and value added products
- To set-up at least 50 new enterprises which target hotels, restaurants, and tourism destinations.
- To create at least 20% of additional employment opportunities
- To enhance at least 30% in the income of the coir workers
- To manufacture and supply coir pith blocks, curled coir and coco peat

8. Key Gaps Identified

Technology related:

- Out dated technology/ machinery
- Lack of awareness on latest technologies to make value added coir products for supplying to fruit and flower nurseries
- Absence of technology based enterprises

Market related:

- The cluster produces only traditional products for domestic units.
- Untapped export opportunities
- Negligible profit
- Lack of marketing facilities and buyers information

Labour/ Entrepreneurs related:

- Wages of artisans are low
- Lack of skills for production of high value products
- The enterprises are operating in isolation.
- Poor cooperation among the units

Finance:

- Insufficient working capital
- Banks are not willing to finance coir enterprises due to their unorganized nature of operations.

Others:

- Low level of interactions with BDS providers, machinery suppliers and technical institutions including coir board hindering the growth of the cluster.
- Purchase of husk by power plants/ brick making units
- Poor interaction with potential nurseries (forward linkages)

9. Proposed Interventions**Soft Interventions**

- Exposure visits to machinery suppliers and coir industries
- Training of prospective entrepreneurs on latest machinery through machinery suppliers/ CCRI
- Training on Export procedure & e-commerce
- Design of publicity and packaging materials and branding cluster products
- BDS for Market Research & identification of markets
- Participation in trade fairs
- Launching Website

Hard Interventions

- Creating common facility centre for production of pith blocks, coir pith compost manure and curled coir

10. Project cost & Means of Finance

(Rs. Lakhs)

| S. No. | Intervention | NA | SPV | Total |
|--------|-------------------|---------------|--------------|---------------|
| 1 | Soft intervention | 25.00 | - | 25.00 |
| 2 | Hard Intervention | 311.46 | 34.61 | 346.07 |
| 3 | TA cost | 27.69 | - | 27.69 |
| 4 | IA/ CDE cost | 20.00 | - | 20.00 |
| Total | | 384.15 | 34.61 | 418.76 |

Means of Finance

(Rs. Lakhs)

| Particulars | Amount in |
|------------------|---------------|
| SPV contribution | 34.61 |
| GoI Grant | 384.15 |
| Total | 418.76 |

11. Scheduling

Soft Interventions

| S.No. | Activity | 2019-20 | | 2020-21 | | | | 2021-22 | | |
|-------|---|---------|--------|---------|-------|-------|-------|-----------|-----------|-----------|
| | | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 |
| 1 | Exposure visits to machinery suppliers and coir industries | | Yellow | | | | | | | |
| 2 | Training of prospective entrepreneurs on latest machinery through machinery suppliers/ CCRI | | Blue | | | | | | | |
| 3 | Training on Export procedure & e-commerce | | | Red | | | | | | |
| 4 | Design of publicity and packaging materials and branding cluster products | | | Green | Green | Green | Green | | | |
| 5 | BDS for Market Research & identification of markets | | | Pink | Pink | Pink | Pink | | | |
| 6 | Participation in trade fairs | | | | | | | Dark Blue | Dark Blue | Dark Blue |
| 7 | Launching Website | | | | | | | | | Cyan |

Hard Interventions

| | | <i>Financial Year</i> | | | | | | | |
|-------|---|-----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | 2019-20 | | | | 2020-21 | | | |
| S. No | Activity | <i>Q1</i> | <i>Q2</i> | <i>Q3</i> | <i>Q4</i> | <i>Q1</i> | <i>Q2</i> | <i>Q3</i> | <i>Q4</i> |
| 1 | Civil works | | | | Red | | | | |
| 2 | Bidding process for machinery | | | | Blue | | | | |
| 3 | Electrical works | | | | | Purple | | | |
| 4 | Installation of Machinery & commissioning | | | | | Yellow | Yellow | | |
| 5 | Trial production | | | | | | | Pink | |
| 6 | Commercial Production | | | | | | | | Green |

12. Scope for convergence

- Networking with Coconut Development Board, Department of Agriculture, Department of Horticulture for strengthening of backward linkages
- Networking with NGOs/ CSR foundations to train artisans to make specialized products and discourage supply of husk to power plants
- Manufacturing and supply of garden articles, coir pith compost and coir pith blocks to tourism and R&B departments

13. Proposed SPV

A group of 21 young entrepreneurs have registered Special Purpose Vehicle (SPV) in the name of GOWTHAMI COIR CLUSTER SOCIETY under societies registration act for establishment of Common Facility Centre to manufacture coir pith blocks, curled coir and coco peat. The SPV members are ready to deposit their contribution of 10%. They have also hired infrastructure on lease for 15 years.

14. Key impact

| Parameter | Post-project Impact |
|-------------------------------|---|
| Cluster Turnover | 50% increase in the present turnover of the Cluster with introduction of new and value added coir products |
| New enterprises | Establishment of at least 50 new specialized enterprises to target hotels, restaurants, tourism destinations and real estate firms/villas |
| Employment | 20% of additional employment opportunities through new enterprises and CFC |
| Income | At least 30% increase in the income of coir workers engaged in the sector |
| Product Range | Manufacture and supply of curled coir, pith blocks and coco peat |
| Profit Margin for Enterprises | 20- 25% increase in profit margins through product and process improvements |

1.1. Background

India is endowed with more than one million traditional manufacturing enterprises which are micro in nature and fall under unorganized sector. Since ages the artisans are producing handlooms, handicrafts and coir products across the country especially in rural areas and are concentrated in clusters across the country due to availability of skilled manpower and quality raw materials at lower price. These clusters are playing an important role in providing employment opportunities in rural areas and even exporting to global markets due to uniqueness of the products. However issues like labour intensive nature, low volumes of production, limited focus on value addition are hindering their growth and making them incompatible with competitors at national and international markets.

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.

During 11th Plan, Coir Board has implemented SFURTI scheme successfully in 26 clusters and continuing the 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 (DPR) of Kadiyam Coir Cluster.

1.2. District Profile

East Godavari District can be broadly classified into three natural divisions namely the Delta, Upland and Agency or hill tracts. The general elevation of the district varies from a few meters near the sea to about 300 meters in the hills of the agency. The Eastern Ghats rise by gradations from the level of the coast and spread throughout the erstwhile agency Taluks of Rampachodavaram and Yellavaram. The delta portion constituting the whole of Konaseema and portions of Kakinada, Ramachandrapuram and Rajahmundry erstwhile Taluks, presents a vast expanse of rice-fields surrounded by plantain, betel, coconut gardens and innumerable palmyrahs. The erstwhile Taluks of Tuni, Pithapuram, Peddapuram and Portions of Kakinada, Ramachandrapuram and Rajahmundry constitute the upland areas. The main soils in the district are alluvial (clay loamy) red soil, sandy loam and sandy clay. There is mostly alluvial soil in Godavari delta and sandy clay soil at the tail end portions of Godavari river, red loamy soil in upland and agency area of the district.

Economy

Being the largest part of the rich Godavari delta, agriculture and aquaculture are major parts of the economy for this District. With the discoveries of oil and natural gas, it has increased its industrial sector. It is the home of two major fertilizer factories and in addition, gas based power plants and oil refineries. Now it is one of the largest oil & gas hubs in India

Resources

East Godavari is famous for agriculture because of fertile lands which are adequately irrigated throughout the year. Thanks to sir Arthor Cotton Who turned entire Godavari region to fertile position with his wonderful engineering mind, he constructed Dowlesawaram Barrage Across the river Godavari. and is the most prosperous district in the state and is the one of richest district in the country. Statistically it is a potential hinterland for oil and natural gas reserves in the country as many areas are identified as richest sources for oil and Natural gas in Godavari basin

Population

In 2011, East Godavari had population of 5,154,296 of which male and female were 2,569,688 and 2,584,608 respectively. In 2001 census, East Godavari had a population of 4,901,420 of which males were 2,459,640 and remaining 2,441,780 were females

1.3. Kapiyapulanka Coir Cluster

Location:

Kadium Mandal is bounded by by Atreyapuram Mandal towards South , Mandapeta Mandal towards East , Anaparthi Mandal towards East , Alamuru Mandal towards South . Rajahmundry City , Mandapeta City , Nidadavole City , Kovvur City are the nearby Cities to Kadium. Kadium consist of 15 Villages and 11 Panchayats . Damireddipalle is the smallest Village and Kadium is the biggest Village . It is in the 15 m elevation(altitude) . This Place is in the border of the East Godavari District and West Godavari District.

Demography

Telugu is the Local Language here. Total population of Kadium Mandal is 83,857 living in 20,784 Houses, Spread across total 15 villages and 11 panchayats . Males are 41,681 and Females are 42,176

Weather and Climate

It is Hot in summer. Kadiam summer highest day temperature is in between 34 ° C to 44° C . Average temperatures of January is 24 ° C , February is 26 ° C , March is 28 ° C , April is 31 ° C , May is 34 ° C .

Economy

The district accounts for more than 60 per cent of the total coconut production in Andhra Pradesh. Out of the estimated 1,100 million nuts produced in Andhra, a good portion is partially de-husked and transported to other states. Husk equivalent to 700 million nuts is available for iprocessing in the District. Kadiapulanka, adjacent to the National Highway-5 and 20 Km from Rajahmundry is the hub of nurseries of numerous varieties of flowers and fruits. The nurseries are spread over 3500 acres comprising the villages of Kadiam, Kadiapulanka, Burrilanka, Veeravaram, Pottilanka, Venkatayammamapeta and Damireddipalli. The nurseries in Kadiam are as old as 100 years and at present there are more than 800 nurseries, the extent of each ranging from just 0.5 cents to 200 acres. Kadiyam nurseries are doing good business and providing considerable employment to about 20,000 agriculture labour.

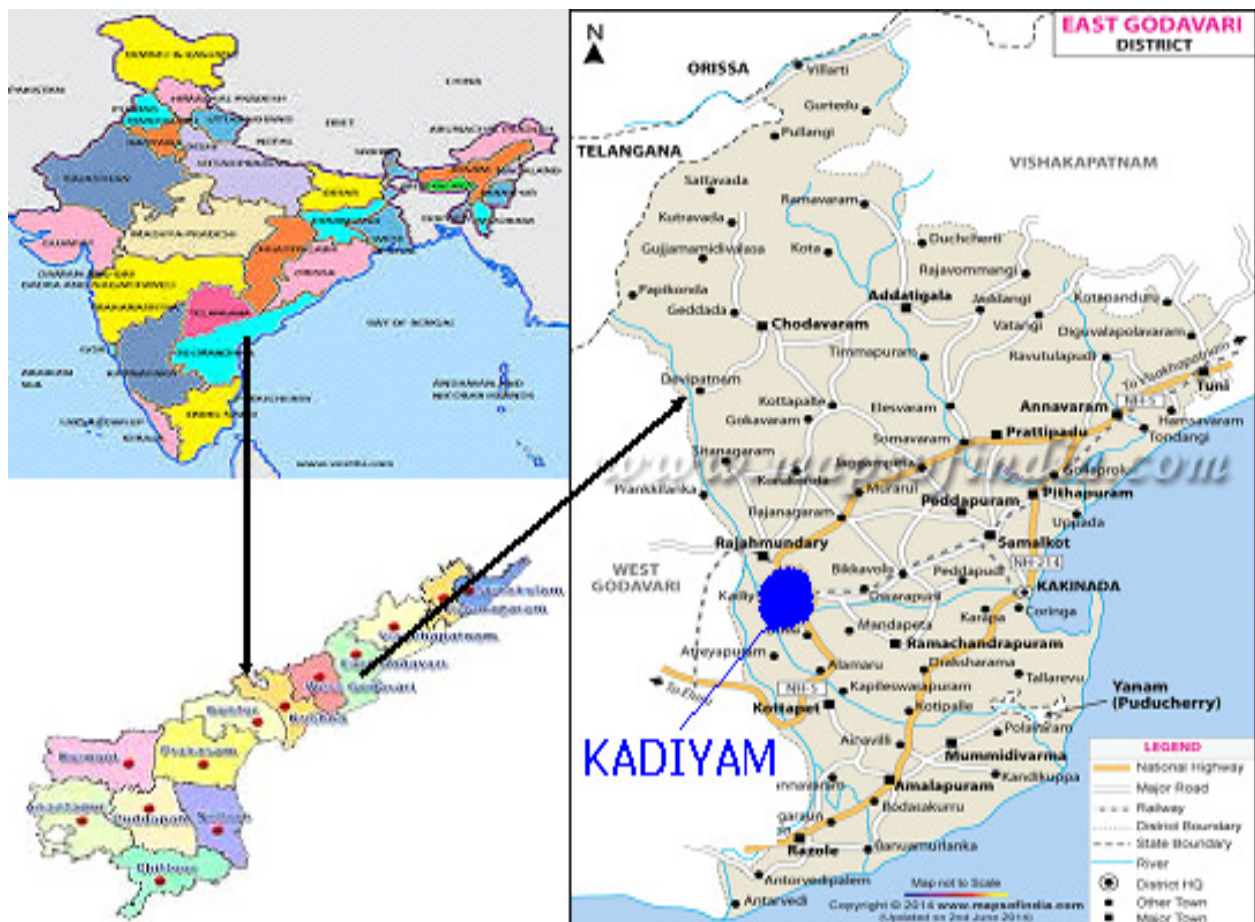
There are 25 active coir units in the organized sector and around 100 household enterprises in the unorganized sector are involved in coir activity. The units produce coir fibre, yarn, rope, coir pith manure, pith blocks and garden articles. Coir pith is obtained during the extraction of coir fibre from husk. A multi-utility product, coir pith has a high lignin (31 per cent) and cellulose (27 per cent) and a carbon-nitrogen ratio of 104:1. It can absorb water 5-6 times of its weight and store it for 25-40 days. When dried, it is used in making bricks, which are used extensively in horticulture for its water storage properties. This system of providing moisture to plants though coir bricks is widely practised in countries like the US, UK, the Netherlands, Korea, Japan

and the Gulf. As there are large number of nurseries and also demand for exports, many entrepreneurs are now showing interest to join this business.

| | |
|-----------------------------------|---|
| Current Product Portfolio: | Coir Fibre, Yarn, Curled Coir and Coir Pith compost |
| Age of the cluster: | More than 50 years |
| No. of units: | 25 registered micro enterprises and 100 household enterprises |
| Cluster Radius: | 20 kms |
| No. of artisans/ workers: | More than 1500 |
| Wages of artisans: | Men: Rs 250/- per day; Women: Rs 200/- per day |
| Cluster Turnover: | Rs 4 crore per annum |

In India, there are about 20,000 nurseries employing 60,000 people. But in Kadiam nurseries alone, more than 25,000 people are engaged in the 800-odd nurseries. It was some 90 plus years back that one Ravi Chinna Rao started grafting of fruit plants and flowers as a hobby, but production on commercial lines was initiated by one Akula Subbarao, a name that is inevitably linked with the development of nurseries in these parts. Nursery products from Kadiapulanka are exported to every nook and corner of the country. But export potential to foreign countries is yet to tap in full fledged way.

The proposed Kadiapulanka coir cluster proposes to produce coir pith compost manure in large quantities keeping in mind business opportunities from these nurseries and also add other products like garden articles and pith blocks keeping in mind export potential for coir products. There is very good scope to market their products through local nurseries and networking with buyers who visit this place regularly may help to increase their sales considerably.



The details of coir enterprises in the cluster area are mentioned below. The most of them are manufacturing Coir Fibre, Yarn, Curled Coir and Coir Pith compost etc. A few artisans are making door mats and other products.

| Sl. No. | Name of the Unit | Types of products | No. of workers | Year of Estbl. |
|---------|-------------------------------|-------------------|----------------|----------------|
| 1 | Rajamahendri Fibres (P) Ltd., | Curled coir | 20 | 1994 |
| 2 | Indira Mahila Mandali, | 2ply yarn | 15 | 1994 |
| 3 | Sri Shiridi Sai Coir Inds., | FM | 8 | 1995 |
| 4 | Dunaboyana Suryakumari | M.ratt | 1 | 1995 |
| 5 | Korumilli Aruna M.Spinning | M.ratt | 1 | 1995 |
| 6 | Geddam Baby Rani | M.ratt | 1 | 1995 |
| 7 | Guttula Ramadevi M.Spinning | M.ratt | 1 | 1995 |
| 8 | Guttula Ganga Bhavani | M.ratt | 1 | 1995 |
| 9 | Kudipudi Venkata Lakshmi | M.ratt | 1 | 1995 |
| 10 | Surya Coir Industry, | 2 ply yarn & | 4 | 1995 |

| | | | | |
|----|--------------------------------|---------------------------|-----|------|
| | | FM | | |
| 11 | Nurjahan Coir Inds., | M.ratt | 1 | 1996 |
| 12 | Veni Coir Industry | M.ratt | 1 | 1996 |
| 13 | Saraswathi Coir Indy. | M.ratt | 1 | 1996 |
| 14 | Sree Devi Coir Industry, | M.ratt | 1 | 1996 |
| 15 | Manikyamala Coir Industry, | M.ratt | 1 | 1996 |
| 16 | Sujatha Coir Industry, | M.ratt | 1 | 1996 |
| 17 | Sri Vijaya Lakshmi Coir Indy. | M.Ratt | 1 | 1996 |
| 18 | Subbalakshmi Coir Indy. | M.ratt | 1 | 1996 |
| 19 | Polavathi Coir Indy., | M.ratt | 1 | 1996 |
| 20 | The Akkamatalli ICS Ltd., | Coir Yarn, Rope & FM | 58 | 1992 |
| 21 | Kandukuri Veeresalingam | 2 ply yarn | 13 | 1999 |
| 22 | Rajamaheandri Yarns, | Automatic Spinning | 12 | 2001 |
| 23 | Jaya Coir Enterprises, | Coir fibre | 10 | 2005 |
| 24 | Rajahmundry Central | 2 ply yarn & Frame Mat | 246 | 2007 |
| 25 | Dr. Ambedkar Vikalangula | 2 ply yarn & Frame Mat | 70 | 2007 |
| 26 | K.V.State Home,Rajahmundry, | Frame Mat | 10 | 2007 |
| 27 | Rajahmundry Rural Mandal | 2 ply yarn & Frame Mat | 80 | 2007 |
| 28 | Akkamatally Coir Workers Indl. | 2 ply yarn & Frame Mat | 58 | 1992 |
| 29 | Sri Andhra Mahila Rakshna | 2 ply yarn & Frame Mat | 10 | 2007 |
| 30 | Sramika Mahila Ashram | 2 ply yarn & Frame Mat | 10 | 2007 |
| 31 | Vivekavardhini Vidya | 2 ply yarn & Frame Mat | 11 | 2007 |
| 32 | Sri Kandukuri Veeresalingam | 2 ply yarn & Frame Mat | 10 | 2007 |

| | | | | |
|----|---|------------------------|----|------|
| 33 | Indira Mahila Mandali | 2 ply yarn & Frame Mat | 12 | 2007 |
| 34 | Institute of Social Empowerment | 2 ply yarn & Frame Mat | 10 | 2007 |
| 35 | Surya Teja Rehabilitation | 2 ply yarn & Frame Mat | 12 | 2007 |
| 36 | Grameena Yuvajana Sangam | 2 ply yarn & Frame Mat | 12 | 2007 |
| 37 | Chaitanya Voluntary | 2 ply yarn & Frame Mat | 10 | 2007 |
| 38 | Sri Rama Educational | 2 ply yarn & Frame Mat | 10 | 2007 |
| 39 | Society for Aids Awarness | 2 ply yarn & Frame Mat | 8 | 2007 |
| 40 | Sri Rajamahendri Yarns | Curled coir | 48 | 2007 |
| 41 | M/s Sri Lakshmi Sravani Coir Industry | Fibre extraction | 30 | 2010 |
| 41 | M/s Madhava & Rahul Coir, R.S.128 | Rubberised Coir | 18 | 2011 |
| 42 | M/s Navjeev Coir industry, Isukapudi, Ambajipeta Mandal, | Automatic Spinning | 8 | 2010 |

Chapter - 2 Cluster Value Chain Mapping

2.1. Product Profile:

Sufficient quantity of raw material (Coir Husk) though produced in the cluster is diverted as fuel in the Brick Manufacturing units along with Firewood during summer season. None of the entrepreneurs mentioned about raw material problem. Nowadays there is no much demand for husk as the export of coir fibre has been lowered. The coir units however produce traditional coir products like Fibre, Yarn and Curled coir and sell in domestic markets and also at national level. As the profit margins are less, the entrepreneurs are purchasing the coir husk at lower price.

The main cluster products include coir fibre and curled coir.

a) Coir Fibre

Coir fibre is extracted from the fibrous outer cover of the fruit of the coconut palm, with or without retting. Coir fibre is graded based on its nature of extraction, colour, presence of long and short fibres, impurities etc.

b) Curled Coir

Curled Coir is mainly used for manufacturing rubberized mattresses, pillows and cushions.

2.2. Production Process

Majority entrepreneurs are adopting traditional technology for manufacturing coir fibre, curled coir in their units and some of the entrepreneurs are adopting available latest technology in their units

All the units in the cluster have regular production throughout the year and for some units the Coconut Husk (Raw material) is not available during rainy season for two months i.e. from July to August every year.

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 near by Districts & States.

b) Automatic two ply yarn Spinning

Coir yarn spinning is similar to cotton yarn spinning. The processes involved given here under: Willowling, Slivering, Spinning, 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 the place the fibre and parallel to each other. The fibre is then fed in to slivering machine wherein it is converted in to sliver form. The slivers are spun into yarn as per specifications in the spinning machine. The yarn is then cleaned and wound in to rolls and is now ready for the market.

c) Curled coir

Coir fibre obtained from fibre extraction units is wetted by spraying water. Then the fibre was cleaned by using of 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.

Presently the units are working with traditional manufacturing techniques that are obsolete. Practically the tiny units of this cluster are not using any machinery and all operations are carried out by hand by the artisans. Now-a-days everything has got mechanized in several areas. These machines will be made popular through the cluster

development program to make this cluster to convert into mechanization and value addition. The machineries widely used for fibre extraction is Decorticator. The Spinning process is mostly done by Automatic Yarn Spinning Machine. (Single headed machine & double headed machine). The machinery manufacturers namely Kartikeya Engineering Works & Sri Lakshmi Coir Machines are available at the cluster itself. So, the machinery manufacturer's support as well as service is easily availed at the cluster anytime.

2.3. Value Chain Analysis

Yield of nuts per acre of plantation: 6000 to 10000

Average Yield of nuts per acre of plantation: 8000

Cost of 4000 Nos of husks to carry in tractor to processing unit:

Amount paid to farmer: Rs 2500

Loading & Unloading charges: Rs 2000

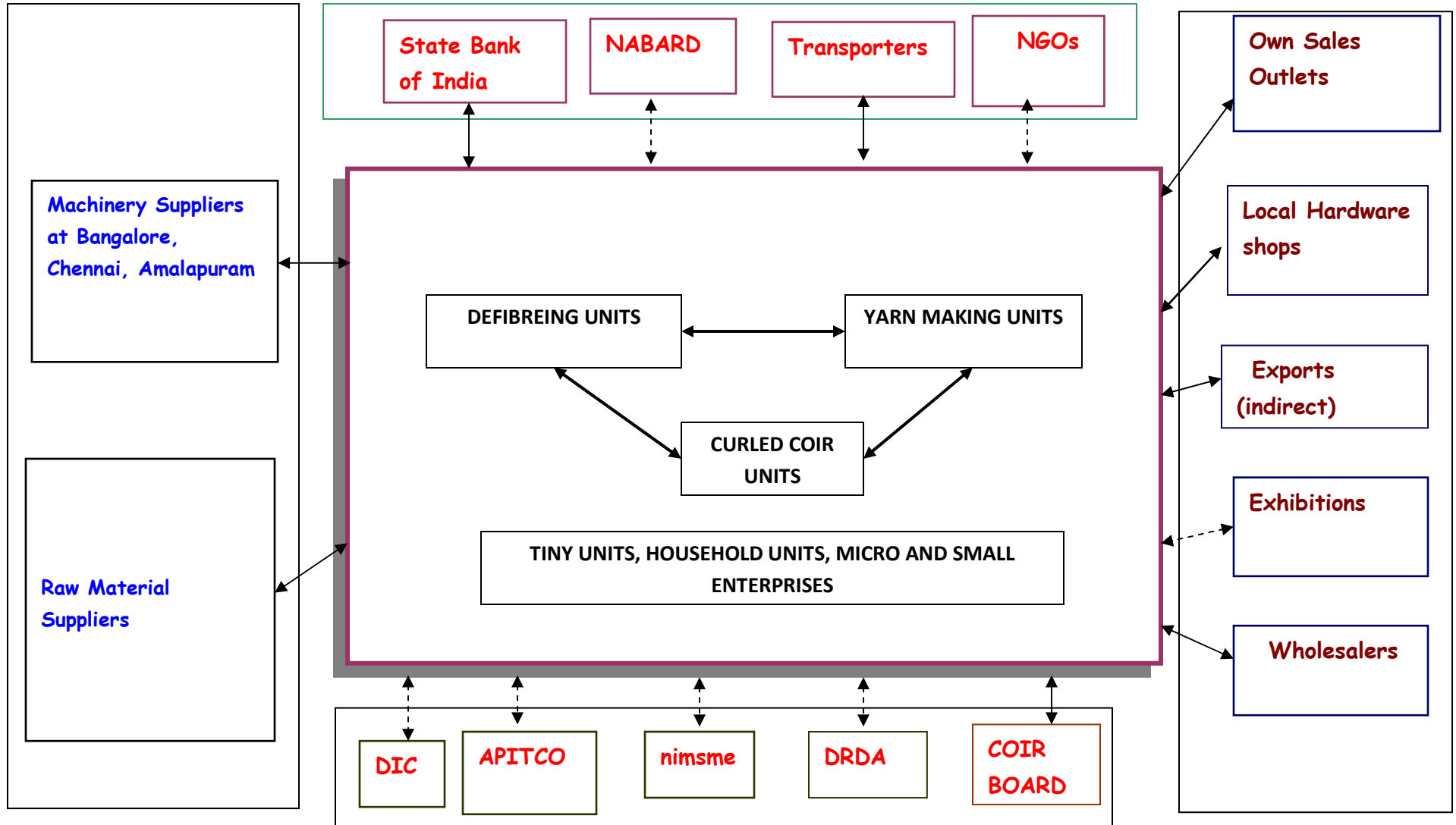
Tractor Freight: Rs 1500

Total cost: Rs 6000

Cost of each husk including transport: Rs 1.50

| | | | | | | | | | | | | | | | | |
|---|---|------------|------------|-----------------------------|------|----------------------------|----------------------------|------------------|--|-----------------|--|---------------|--|-----------------|--|--|
| <p>Fibre Extraction: (One Tractor i.e. 4000 husks)</p> <p>Husk ↓</p> <p>Decorticator ↓</p> <p>Soaked in water for 2-3 days ↓</p> <p>Disintegrator ↓</p> <p>Drying of the fibre ONE/TWO days as per moisture ↓</p> <p>Production of Fibre</p> <p>Production cost of the Fibre: Rs. 9.00 Sales price of the fibre : Rs. 11.00 (Domestic) Rs. 14.00 (Exports)</p> | <p>2 Ply Yarn : (One Ton)</p> <table border="0"> <tr> <td style="text-align: center;">Fibre ↓</td> <td style="text-align: center;">Fibre ↓</td> </tr> <tr> <td style="text-align: center;">2 Ply Yarn Feeding (Manual)</td> <td style="text-align: center;">Auto</td> </tr> <tr> <td style="text-align: center;">25 Kg. to 40 kg. (Per day)</td> <td style="text-align: center;">50 Kg. to 60 kg. (Per day)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Production cost:</td> </tr> <tr> <td colspan="2" style="text-align: center;">Rs 25/- to 26/-</td> </tr> <tr> <td colspan="2" style="text-align: center;">Sales Price :</td> </tr> <tr> <td colspan="2" style="text-align: center;">Rs 30/- to 32/-</td> </tr> </table> | Fibre ↓ | Fibre ↓ | 2 Ply Yarn Feeding (Manual) | Auto | 25 Kg. to 40 kg. (Per day) | 50 Kg. to 60 kg. (Per day) | Production cost: | | Rs 25/- to 26/- | | Sales Price : | | Rs 30/- to 32/- | | <p>Curled coir : (One Ton)</p> <p>Production Price: Rs 15-Rs 16/-</p> <p>Sales Price : Rs 20- to 21/-</p> |
| Fibre ↓ | Fibre ↓ | | | | | | | | | | | | | | | |
| 2 Ply Yarn Feeding (Manual) | Auto | | | | | | | | | | | | | | | |
| 25 Kg. to 40 kg. (Per day) | 50 Kg. to 60 kg. (Per day) | | | | | | | | | | | | | | | |
| Production cost: | | | | | | | | | | | | | | | | |
| Rs 25/- to 26/- | | | | | | | | | | | | | | | | |
| Sales Price : | | | | | | | | | | | | | | | | |
| Rs 30/- to 32/- | | | | | | | | | | | | | | | | |

2.4. Cluster Map



2.5. Principal Stakeholders:

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

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. Coir Board is implementing SFURTI scheme for revival of traditional coir industries.

District Industries Centre:

The 'District Industries Centre' (DIC) was started by the central government in 1978 with the objective of promoting micro, small, and medium industries in a particular area and to make available all necessary services and facilities at one place. DIC acts as the focal point of the industrialization of the district, prepares the industrial profile of the district, counsel and assists entrepreneurs in selection of business ideas; provide information about local sources of raw materials and their availability, manpower assessment with respect to skilled, semi-skilled workers. 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, gives SSI registration and prepares techno-economic feasibility report. The entrepreneurs expressed that DIC is providing techno-managerial services for the cluster enterprises.

APITCO Ltd

APITCO, incorporated in 1976, is a premier Technical Consultancy Organisation promoted jointly by all-India financial institutions (IDBI, IFCI, ICICI), industry development corporations in Andhra Pradesh (APIDC, APSFC) and Commercial Banks (Andhra Bank, Indian Bank, State Bank of India, Syndicate Bank). APITCO provides a wide range of consulting services, especially to SMEs in project identification, project counselling, pre-feasibility reports, detailed project feasibility studies, infrastructure planning, market assessment, expansion, diversification and turnaround strategies, energy audits, waste minimisation, environment impact assessment, valuation of fixed assets, skill development etc. Extending handholding to micro entrepreneurs through its 'escort services' is APITCO's USP. 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 Rajahmundry and Srikakulam Coir Clusters

Machinery Suppliers:

There is good number of machinery suppliers supporting the cluster enterprises. M/s Kartikeya Coir Machinery manufacturers and M/s Sri Lakshmi Coir Industries are existing in the cluster. The well known machinery suppliers like M/s Sukumar Engineering Exports have branch office in Amalapuram. Some of the other machinery suppliers are mentioned below:

1. 2M Engineering Company, Bangalore for manufacturing of Coir Fibre process
2. S.G. Engineering Company, Tirunalveli for manufacturing of coir rope
3. Balu Engineering Company, Tirunalveli for manufacturing of coir rope
4. Venkateswara Engg. Works, Yelamanchili for manufacturing of coir fibre
5. Indira Industries, Coimbatore for loading of materials and manufacturing of fibre
6. Godwell Engineering Products, Coimbatore make all kinds of coir machinery

R&D, Testing & Training Institutions:

The two associate institutes of coir board namely Central Coir Research Institute and National Coir Training & Design Centre provide requisite information for the entrepreneurs and also conduct training to create skilled manpower, evolve new designs and popularize the same. Further they also undertake research activities for development of new products/ processes.

Commercial banks & Micro finance institutions:

Entrepreneurs are getting finance mainly from State Bank of India, Andhra Bank, and Indian overseas Bank. NABARD and Chaitanya Godavari Grameena Bank are providing MSME loans and other financial products for cluster enterprises.

ni-msme:

National Institute for Micro, Small and Medium Enterprises (**ni-msme**) is a reputed national level entrepreneurship development institute with expertise in cluster development methodology. **ni-msme** helps the practicing entrepreneurs through a host of services like research, consultancy, information, training, education and extension. It is the technical agency for the clusters approved under the SFURTI scheme. The institute assists the nodal agency in training of the cluster development agents, the implementing agency, validation of cluster action plans, monitoring, and evaluation etc.

Chapter - 3

Market Assessment and Demand Analysis

Indian coir industry has come a long way from manufacturing simple ropes to various heightened lifestyle products. The establishment of the first coir factory in 1859 in Alleppey, Kerala, by an Ireland born American initiated the process of coir making in India from an unorganised cottage industry to a professional and modernised industrial activity. Today, India is the leading coir manufacturer in the world. Coir is in great demand due to its natural, bio-degradable and environmental friendly qualities. It has acquired an important position in international markets, the reason for which could not be solely its value as a commodity but also its value in trade. The golden textured Indian coir fibre, which has earned the unofficial brand name —Golden Fibrel, captured the European and world markets in no time. At present, coir industry has a phenomenal share of 89 per cent of the global market for value-added coir products. World production of coir fibre is estimated at 3,85,000 tonnes whereas the combined world production of other similar hard fibres such as sisal, henequen and abaca is two to three times that of coir fibre.

Coir industry emerges as the largest employment generating industry employing a staggering more than half a million people in the country. Equally significant is the fact that most of these people are from the economically disadvantaged classes and as much as 80 per cent of the workers are women in the industry. Moreover, thousands of entrepreneurs are directly and indirectly involved in activities ranging from the manufacture of coir fibre to producing and marketing of value-added products of coir. These new breed of entrepreneurs find the scope offered by the industry with comparatively low investment an exciting opportunity. The Coir Industry is one of the oldest industries in India. The raw material of which is coconut husk and it is a waste of coconut. The extracted

coir out of the coconut husk has been used in several products like door mats, floor covering, brooms and brushes for regular use in day to day life. This Industry is providing employment to the rural masses that need not to relocate their native places. The final products from coir are mostly eco friendly and have good export potential. Both Union and State Governments are announcing several packages for the growth of this Industry and extending their support. The coir Industry is creating wealth from waste and creating employment in rural areas thereby not only avoiding migration of labor but also strengthening the rural economy. By recognizing the importance of Coir Industry, the Government of India set up a separate Board for its overall development called Coir Board working under the ministry of MSME.

Currently, the global annual production of coir fiber is about 350,000 metric tons (MT). The world's top two producers, India and Sri Lanka, which account for about 90% of global coir fiber production, process only a fraction of the available husks. 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.

Exports of Coir & Coir Products from India (April 2016- March 2018)

| EXPORT OF COIR PRODUCTS FROM INDIA MARCH- 2018 | | | | | | | | | | | | |
|--|--------------|-----------------|---------------|-----------------|-----------------|-----------------------|------------------|------------------|-------------------|------------------|---------------------|-------------|
| Q = Quantity in MT | | | | | | V = Value in Rs.Lakhs | | | | | | |
| Item | MARCH 2018 | | MARCH 2017 | | %Growth Monthly | | April 17- Mar 18 | | April 16 - Mar 17 | | % Growth Cumulative | |
| | Q | V | Q | V | Q | V | Q | V | Q | V | Q | V |
| Coir fibre | 17798 | 3738.47 | 47530 | 7336.72 | -62.6 | -49.0 | 374320 | 70177.88 | 370357 | 53913.63 | 1.1 | 30.2 |
| Coir Yarn | 356 | 299.52 | 297 | 200.79 | 19.9 | 49.2 | 3328 | 2457.68 | 4426 | 2948.32 | -24.8 | -16.6 |
| Handloom Mat | 1596 | 1841.82 | 1647 | 1761.77 | -3.1 | -6.8 | 18277 | 18613.96 | 20143 | 21316.31 | -9.3 | -12.7 |
| Powloom Mat | 32 | 51.90 | 0 | 0.00 | | | 37 | 57.75 | 166 | 196.38 | -77.8 | -70.6 |
| Tufted Mat | 4150 | 3852.00 | 4759 | 4349.02 | -12.8 | -11.4 | 54279 | 49591.41 | 51718 | 48442.83 | 5.0 | 2.4 |
| Handloom Matting | 72 | 120.83 | 123 | 130.90 | -41.9 | -7.7 | 1117 | 1394.79 | 1272 | 1535.25 | -12.2 | -9.1 |
| Powerloom Matting | 63 | 101.17 | 0 | 0.00 | - | - | 131 | 216.49 | 0 | 0.00 | - | - |
| Coir Geotextiles | 586 | 389.94 | 619 | 349.08 | -8.5 | 11.7 | 5845 | 3996.59 | 6219 | 4481.04 | -8.0 | -10.8 |
| Coir Rugs & Carpets | 11 | 11.74 | 29 | 33.24 | -61.7 | -64.7 | 254 | 269.58 | 205 | 271.92 | 24.0 | -0.9 |
| Coir Rope | 52 | 40.08 | 59 | 38.99 | -12.6 | 2.8 | 491 | 401.72 | 484 | 388.50 | 1.4 | 3.4 |
| Curled Coir | 925 | 262.57 | 713 | 163.82 | 29.8 | 60.3 | 8800 | 2316.26 | 10356 | 2419.30 | -15.0 | -4.3 |
| Rubberised Coir | 165 | 298.02 | 226 | 288.90 | -27.1 | 3.2 | 900 | 1388.64 | 888 | 1295.64 | 1.4 | 7.2 |
| Coir Pith | 70564 | 13209.02 | 56703 | 10253.17 | 24.4 | 28.8 | 548479 | 101846.82 | 490552 | 90539.11 | 11.8 | 12.5 |
| Coir Other Sorts** | 10 | 18.10 | 60 | 76.38 | -83.9 | -78.3 | 306 | 498.29 | 256 | 416.59 | 19.4 | 19.6 |
| Total | 96359 | 24035.18 | 112764 | 24982.78 | -14.5 | -3.8 | 1016564 | 253227.84 | 957045 | 228164.82 | 6.2 | 11.0 |

Quantity is Rounded off

** Coir Braids, Poles, Bags, Fenders & Coir Fancy Items.

Andhra Pradesh is the largest state in the southern peninsular region, with an area of 2,75,100 sq. kms and a coastal line of 974 kms. Out of 2.75 lakhs Sq. Kms of the State, 14.5 Lakhs hectares are under cultivation. 1.02 lakhs hectares are under coconut cultivation. 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 utilisation 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 plenty available. To satisfy the needs of the local Coir Industry, the Coir Board establishes one of its regional offices at Visakhapatnam in Andhra Pradesh and later on it was

shifted to Rajahmundry, East Godavari District to make available to the larger number of beneficiaries.

Around 500 micro and small coir industries are working in East Godavari district and producing coir fibre, yarn, mats and curled coir. Disposal of coir pith is a major problem in this industry few years back but with the use of coir pith as a bio fertilizer, there is large demand for coir pith now a day. Further, there is export potential for coir pith blocks and scope for geo textiles, coir ply boards and other productions for new state capital of the state. Coir Board has taken up an aggressive action plan to develop coir units during 12th plan period and DIC is giving its full fledged support. In view of the above, there is good scope for production of value added coir products like geo-textiles, coir pith blocks, coir pith compost, garden articles etc.,

4.1 SWOT analysis

Strengths

- Eco friendly products
- Availability of large quantity of coir pith for value addition
- Demand for pith blocks and pith manure in national and international markets
- Support from State Government and Coir Board for sector development
- Requirement of low capital to start coir activity
- Availability of Labor at reasonable wages

Weaknesses

- Requirement of large area for Coir pith compost unit
- Lack of collective marketing efforts
- Presence of middle men
- Lack of business skills
- Poor financial linkages

Opportunities

- Growing Domestic and International Markets especially for pith blocks and pith manure
- Locational advantages. More than 800 nurseries exist in cluster area
- Nearness to Visakhapatnam and Kakinada ports which facilitate for exports

Challenges

- Production fluctuation due to floods/ influence of middlemen
- Usage of Husk as fuel by power plants and brick making units

4.2 Need Gap analysis

There is huge scope for product diversification. The entrepreneurs are keen to make value added products suitable for nearby nurseries. But, the owners of nurseries are occupied with their own activities and not showing interest to support coir enterprises for mutual benefit. But, a group of 21 young entrepreneurs from coir industry have taken initiatives to convince nursery owners

and also came forward to make value added products like curled coir, pith blocks and coco peat by taking support from the Government.

The entrepreneurs have formed SPV in the name of Gowthami Coir Cluster Society under Andhra Pradesh Societies Act and taken requisite infrastructure on lease basis for 15 years. There is 2.54 acre of land with two huge sheds having electrical connection. The site is located on highway and convenient for buyers. The new products proposed to be manufactured would benefit both nursery owners and coir entrepreneurs.

The coir entrepreneurs depend on Chennai based units for indirect export. The middlemen also create problems hence the entrepreneurs are selling at minimum price reducing their profit margins due to insufficient working capital.

As Kadiyam is known for horticulture products across the globe, there is scope for introducing new value added products and marketing is also become easy.

The SPV is interested to create common facility to manufacture curled coir, coir pith blocks and coco peat in addition to fibre and yarn.

Profile of the Implementing Agency

ADITYA GLOBAL BUSINESS INCUBATOR, KAKINADA funded by Department of Science & Technology, Government of India which is registered under the Andhra Pradesh Societies Registration Act 2001.

Aditya group has established a Global Business Incubator, which acts as a springboard to budding entrepreneurs who wish to launch themselves into the world of business. It fosters the innovative and smart ideas of students and provides necessary support for successful completion. AGBI provides infrastructure, access to business support services, mentoring, training programs to enhance skills of entrepreneurs and seed capital. The Institute has wide network with various Engineering Colleges in Andhra Pradesh and Telangana.

Since its inception AGBI has been organizing various events like Google-start-up weekend, e-weekend, hackathons, seminars and others awareness programs to push the ideas of students in the right direction. The main objective of all these programs is to find innovative projects that solve local problems.

So far 96 business ideas have been developed

- 100 + business ideas have been identified as commercially viable business models.
- 4 business models are in implementation stage.
- 2 business models getmytailor.com and getmybooks.com have registered as companies and are reaping benefits.
- 30 + business models have registered as companies and are reaping benefits.



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GOVERNMENT OF ANDHRA PRADESH

REGISTRATION AND STAMPS DEPARTMENT

THE REGISTRAR OF SOCIETIES

VIJAYAWADA (EAST)

Certificate of Registration

(No : 125 of 2016)

I hereby certify that 'ADITYA GLOBAL BUSINESS INCUBATOR' , D No 3-28/ Gollapalli Post/ Nuzvid/ Krishna/ Andhra Pradesh/ India/ on this day registered under the Andhra Pradesh Societies Registration Act , 2001



[Handwritten Signature]

REGISTRAR OF SOCIETIES
VIJAYAWADA (EAST)

VIJAYAWADA (EAST)

Date : 6/Aug/2016



Note: This is a Digitally Signed Certificate, does not require physical signature. And this certificate can be verified by furnishing the application number mentioned in the Certificate

Profile of SPV

As mentioned above, a group of 21 young entrepreneurs from coir industry have taken initiatives to convince nursery owners and also came forward to make value added products like curled coir, pith blocks and coco peat by taking support from the Government.

The entrepreneurs have formed SPV in the name of Gowthami Coir Cluster Society under Andhra Pradesh Societies Act and taken requisite infrastructure on lease basis for 15 years. There is 2.54 acre of land with two huge sheds having electrical connection. The site is located on highway and convenient for buyers. The new products proposed to be manufactured would benefit both nursery owners and coir entrepreneurs.

The SPV will act as implementing agency and made all arrangements for implementation of the project. The group has decided to take readily available infrastructure on lease basis for 15 years as it is difficult to purchase land which is of high cost. The group is regularly organizing meetings and also encouraging other coir entrepreneurs to join them. The group has regular interaction with coir board, District Industries Centre, **ni-msme** and commercial banks for their group requirements.

The SPV is ready to deposit SPV contribution in the bank and already invested to take infrastructure on lease. The details of SPV members and other entrepreneurs are mentioned in the next page.

| INDUSTRY NAME | TYPE OF ACTIVITY | PROPRIETOR | PLACE | CONTACT NUMBER | |
|-------------------------|---|------------------------|---|----------------|-----------------|
| MOKSHA INDUSTRIES | 2 PLY YARM & COIR DOOR MATES & HANDY CRAFTS | N.V.V PHANI KUMAR | 2-205, CHODAVARAM VILLAGE, RAMACHANDRAPURA M MANDAL, EAST GODAVARI DIST, ANDHRA PRADESH. | 9948733667 | PRESIDENT |
| SARAVANA FIBRES PVT LTD | COIR FIBRE, COIR PITH | K.MURALI KRISHNA | 385/3, JONNADA ROAD, ALAMURU, ALAMURU MANDAL, EAST GODAVARI DIST, ANDHRA PRADESH | 9491444232 | SECRETARY |
| | | A.PHANI KRISHNA | | | |
| SIVA GANESH COIRS | COIR FIBRE, COIR PITH | T.CHANDRA SHEKHAR BABU | 308-1, NEAR SIVA GANESH RICE MILL, KOLANKA, KAJULURU MANDAL, EAST GODAVARI DIST, ANDHRA PRADESH | 9440164309 | VICE PRESIDENT |
| SURYA COIR INDUSTRY | 2 PLY YARN | K.VARALAXMI SUJATHA | 4-127, SANTHA MARKET, DULLA, KADIYAM MANDAL, EAST GODAVARI DIST, ANDHRA PRADESH | 8328524013 | JOINT SECRETARY |
| KEERTHANA COIRS | 2 PLY YARN & SUPPLIER OF FIBRE | K.AYYAPPA | NEAR AMARAVATHI SCHOOL, CHOPPELLA ROAD, DULLA, KADIYAM MANDAL, EAST GODAVARI DIST, ANDHRA PRADESH | 9553131877 | TRESURER |
| SAIRAMA COIR INDUSTRY | COIR FIBRE, COIR PITH | M.SUBBARAO | 1-140, GANGAVARAM VILLAGE, K.GANGARA M MANDAL, EAST GODAVARI DIST, ANDHRA PRADESH | 9493861111 | MEMBER |
| HANUMAN COIR INDUSTRY | COIR FIBRE, COIR PITH | A.SRINIVASA RAJU | YERUPALLI VILLAGE, RAMACHAN DRAPURAM MANDAL, EAST GODAVARI DIST, ANDHRA PRADESH | 9840917333 | MEMBER |
| SURYA COIR INDUSTRY | 2 PLY YARN | V.VENKANNA BABU | 1-53, BEHIND PANCHAYATHI OFFICE, VODURU VILLAGE, RAMACHANDRAPURA M MANDAL, EAST GODAVARI DIST, | 8367365175 | MEMBER |

| | | | | | |
|----------------------------------|----------------------------------|------------------|--|------------|--------|
| | | | ANDHRA PRADESH | | |
| PKR COIR INDUSTRY | 2 PLY YARN | P.UMADEVI | 3-68, AMBEDKHAR STREET,PINAPALLA,A LAMURU MANDAL,EAST GODAVARI DIST, ANDHRA PRADESH | 9963030430 | MEMBER |
| JAYA COIR PRODUCTS | COIR FIBRE,COIR PITH | M.SPANDANA | 10-156,NEAR SIDDHARTHA SCHOOL, ALAMURU, ALAMURU MANDAL,EAST GODAVARI DIST,ANDHRA PRADESH | 8985844631 | MEMBER |
| J.P COIR INDUSTRY | 2 PLY YARN | V.MURALI KRISHNA | NEAR AMARAVATHI SCHOOL,CHOPPELLA ROAD, DULLA, KADIYAM MANDAL,EAST GODAVARI DIST,ANDHRA PRADESH | 6301504297 | MEMBER |
| SRI SAI BALAJI COIR INDUSTRY | COIR FIBRE,COIR PITH | V.RAM GOPAL | 714-13, BURUGUPUDI VILLAGE,KORUKONDA MANDAL,EAST GODAVARI DIST,ANDHRA PRADESH | 9494488338 | |
| VENKATA PADMAVATHI COIR INDUSTRY | CURLED COIR | V.PADMAVATHI | 714-13, BURUGUPUDI VILLAGE,KORUKONDA MANDAL,EAST GODAVARI DIST,ANDHRA PRADESH | 9494002233 | |
| NAGAMANI CURLED COIR UNIT | CURLED COIR | M.ANIL KUMAR | 10-156/1,NEAR SIDDHARTHA SCHOOL, ALAMURU, ALAMURU MANDAL,EAST GODAVARI DIST,ANDHRA PRADESH | 8500882656 | |
| SRI BALAJI COIR PRODUCTS | COIR FIBRE,COIR PITH,CURLED COIR | B.RAMANA MURTHY | NEAR SIDDHARTHA SCHOOL,ALAMURU,ALAMURU MANDAL,EAST GODAVARI DIST,ANDHRA PRADESH | 9989591150 | |
| LAXMI GANAPATHI COIR INDUSTRY | COIR FIBRE,COIR PITH | G.VEERA PRASAD | NARALAVARI STREET, MAIN ROAD, VENTURU,RAYAVARAM MANDAL, EAST | 9247280122 | |

| | | | | | |
|--------------------------------|---|-----------------------------|---|------------|--|
| | | | GODAVARI DIST, ANDHRA PRADESH | | |
| HARANI COIR PRODUCTS | CURLED COIR | ALLURI SATYANARAYA NA | AMJURU VILLAGE, K.GANGAVARAM MANDAL, EAST GODAVARI DIST,ANDHRA PRADESH | 9985566688 | |
| VENKATESW ARA INDUSTRIES | COIR FIBRE,COIR PITH,2 PLY YARN | K.VENKATESWA RAO | TIPPARAJU PALEM, KAJULURU MANDAL,EAST GODAVARI DIST, ANDHRA PRADESH | 9849995596 | |
| JOSHIKA COIR PRODUCTS | SUPPLIER OF COIR FIBRE | CH. SUBBARAJU | YERUPALLI VILLAGE,RAMACHAN DRAPURAM MANDAL,EAST GODAVARI DIST,ANDHRA PRADESH | 8121401404 | |
| SHANMUGH A ORGANICS | COCO PEAT ORGANIC MENURE &GARDEN ARTICALS | L.BALASUBRAH MANYAM | 11-92,PULLE VARI STREET,ALAMURU VILLAGE,ALAMURU MANDAL,EAST GODAVARI DIST,ANDHRA PRADESH | 8309523207 | |
| ANNAPURN A COIRS | COIR FIBRE,COIR PITH | T. ANNAPURNA | 308/1, NEAR SIVA GANESH RICE MILL, KOLANKA, KAJULURU MANDAL,EAST GODAVARI DIST,ANDHRA PRADESH | 9493339143 | |
| SRI MOKSHA COIR ROPES | 2 PLY YARN | N.L.N MALLIKA | 2-205/1, CHODAVARAM VILLAGE,RAMACHAN DRAPURAM MANDAL,EAST GODAVARI DIST, ANDHRA PRADESH | 8019433667 | |

Chapter - 6

Project Concepts & Strategy Framework

6.1. Project Rationale

The cluster area is known for horticulture products across the globe which needs coir based products like coir pith blocks, coco peat and pith manure and there is demand for these products in both domestic and international markets.

It is proposed to create infrastructure for making above mentioned products involving both coir and nursery units. The coir entrepreneurs have taken lead and initiated discussions with nursery owners.

The production of value added products is going to increase profitability of individual enterprises and also wages of the workers. Further in order to create dual income for the artisans and also attract new artisans and provide sustained employment, it is proposed to focus on manufacturing of value added products involving large number of enterprises and workers of the cluster.

6.2. Project Objectives

- To increase present turnover by at least 50% with introduction of new and value added products
- To set-up at least 50 new enterprises which target hotels, restaurants, and tourism destinations.
- To create at least 20% of additional employment opportunities
- To enhance at least 30% in the income of the coir workers
- To manufacture and supply coir pith blocks, curled coir and coco peat

6.3. Strategy:

1. Create awareness on latest technologies and scope for manufacturing value added coir products like pith blocks, curled coir, coco peat and garden articles etc
2. Exposure visit to pith blocks, compost and garden articles making units in Tamil Nadu and also Central Coir Research Institute
3. Development of new designs and new products including packaging and publicity materials by availing services from NIFT and other technical institutions
4. Creating awareness on export opportunities for coir products and organizing training on export procedure and e-commerce
5. Using social media to reach new markets and customers
6. Organization of exhibitions to attract buyers and, dissemination of information
7. Establishment of Common Facility Centre for manufacturing of coir products like pith blocks, garden articles, coir pith compost etc.

Chapter - 7 Project Interventions

Based on the cluster analysis and interaction with the entrepreneurs, the following interventions are proposed under SFURTI programme.

7.1. Soft Interventions

- Exposure visits to machinery suppliers and coir industries
- Training of prospective entrepreneurs on latest machinery through machinery suppliers/ CCRI
- Training on Export procedure & e-commerce
- Design of publicity and packaging materials and branding cluster products
- BDS for Market Research & identification of markets
- Participation in trade fairs
- Launching Website

7.2. Hard Interventions

- Creating common facility centre for production of pith blocks, coco peat and curled coir in addition to coir fibre and yarn

Chapter - 8

Project Cost and Means of Finance

8.1. Project cost

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

Project cost & Means of Finance

(Rs. Lakhs)

| S. No. | Intervention | NA | SPV | Total |
|--------|-------------------|---------------|--------------|---------------|
| 1 | Soft intervention | 25.00 | - | 25.00 |
| 2 | Hard Intervention | 311.46 | 34.61 | 346.07 |
| 3 | TA cost | 27.69 | - | 27.69 |
| 4 | IA/ CDE cost | 20.00 | - | 20.00 |
| Total | | 384.15 | 34.61 | 418.76 |

Means of Finance

(Rs. Lakhs)

| Particulars | Amount in |
|------------------|---------------|
| SPV contribution | 34.61 |
| GoI Grant | 384.15 |
| Total | 418.76 |

Chapter - 9

Plan for Convergence Initiatives

Potential convergence initiatives could be

- Networking with Coconut Development Board, Department of Agriculture, Department of Horticulture for strengthening of backward linkages
- Networking with NGOs/ CSR foundations to train artisans to make specialized products and discourage supply of husk to power plants
- Manufacturing and supply of garden articles, coir pith compost and coir pith blocks to tourism and R&B departments

Chapter - 10

Action Plan

10.1. Soft Interventions

(Rs in lakhs)

| | | |
|---|--|-------|
| 1 | Exposure visits to machinery suppliers and coir industries | 2.00 |
| 2 | Training of prospective entrepreneurs on latest machinery | 2.00 |
| 3 | Training on Export procedure & e-commerce | 2.00 |
| 4 | Design Development and Branding | 3.00 |
| 5 | Participation in trade fairs | 5.00 |
| 6 | BDS for Market Research & identification of markets | 8.00 |
| 7 | Launching Website | 3.00 |
| | Total | 25.00 |

10.2. Hard Interventions

(Rs in lakhs)

| Machinery and Equipment | Cost |
|--|-------|
| Coir Fiber Extraction Unit (2-5 to 3 tonnes/shift) | |
| Decorticator (2 Nos) | 5.00 |
| Disintegrator (2 Nos) | 5.00 |
| 50 Kg Hydraulic Press (1 No) | 2.00 |
| Auto Feeder arrangement (4 Nos) | 20.00 |
| Conveyors (1 No) | 20.00 |
| Material handling Equipment | |
| Hydraulic Loader with Grabber Bucket (1 No) | 17.50 |
| Mini Tractor with rotovator (1 No) | 2.50 |

| | |
|--|---------------|
| Coir Spinning Unit | |
| 2 ply Yarn Machinery with feeders (10 Nos) | 35.00 |
| Willowing Machine (3 Nos) | 1.50 |
| Rewinding Machine (3 Nos) | 0.45 |
| Bobbins and others (1 No) | 0.25 |
| Coir Curling Unit | |
| Curling Machine with feeder (6 Nos) | 60.00 |
| Turbo Cleaner (2 Nos) | 1.20 |
| Rewinding Machine (2 Nos) | 1.50 |
| Coir Pith Processing Unit | |
| 650 gms Pith briquettes Machine (1 No) | 13.50 |
| Shrink wrapping machine (2 Nos) | 3.50 |
| Sub Total | 188.90 |
| Renovation of Buildings and repairs | 40.00 |
| Office furniture and computers | 5.00 |
| Preliminary and Pre opr. Expenses | 5.00 |
| Working Capital for one month | 37.87 |
| Grand Total | 346.07 |

Chapter 11 Project Time Line

11.1. Soft Interventions

| S.No. | Activity | 2019-20 | | 2020-21 | | | | 2021-22 | | |
|-------|---|---------|----|---------|----|----|----|---------|----|----|
| | | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 |
| 1 | Exposure visits to machinery suppliers and coir industries | | | | | | | | | |
| 2 | Training of prospective entrepreneurs on latest machinery through machinery suppliers/ CCRI | | | | | | | | | |
| 3 | Training on Export procedure & e-commerce | | | | | | | | | |
| 4 | Design of publicity and packaging materials and branding cluster products | | | | | | | | | |
| 5 | BDS for Market Research & identification of markets | | | | | | | | | |
| 6 | Participation in trade fairs | | | | | | | | | |
| 7 | Launching Website | | | | | | | | | |

11.2 Hard Interventions

| S. No | Activity | Financial Year | | | | | | | |
|-------|---|----------------|----|----|----|---------|----|----|----|
| | | 2018-19 | | | | 2020-21 | | | |
| | | 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 | | | | | | | | |
| 6 | Commercial Production | | | | | | | | |

Chapter 12 Business Plan

- It is proposed to create infrastructure to manufacture coir fibre, yarn, curled coir, coir pith blocks and coco peat to market in domestic and international markets.
- The machinery is to be established in the leased premises which is located at Choppal village, Alamuru mandal of East Godavari District
- The existing factory sheds to be repaired and renovated as per the project requirements in consultation with machinery suppliers
- The SPV has already identified a team to look out day to day activities
- It is assumed that 70% of the capacity may be utilized in the first year with incremental 5% in subsequent years

Financial Analysis

| Cost of the Project | Amount Rs. In lakhs |
|--|------------------------------------|
| Land | 0 |
| Renovation of Buildings and repairs | 40.00 |
| Machinery & Equipment | 258.20 |
| Office furniture and computers, Laptop etc | 5.00 |
| Preliminary and Pre opr. Expenses | 5.00 |
| Total | 308.20 |
| Working capital | 37.87 |
| Grand total | 346.07 |

Machinery and Equipment

| Machinery and Equipment | Amount Rs. in lakhs |
|---|----------------------------|
| Coir Fiber Extraction Unit: | |
| Coconut husk burster (1) 20 HP | 5.00 |
| Coconut husk beater (1) 40 HP | 5.00 |
| 50 Kg Hydraulic Press (1) | 2.00 |
| Auto Feeder arrangement (1) | 20.00 |
| Conveyors system, screeners 3 Nos | 20.00 |
| Hydraulic Loader with Grabber Bucket (1) | 17.50 |
| Mini Tractor with rotovator (1) | 2.50 |
| Coir Spinning Unit | |
| 2 ply Yarn Machinery with feeders (20) | 100.00 |
| Willowing Machine (2) | |
| Rewinding Machine (3) | |
| Bobbins and others (1) | |
| Coir curling Unit | |
| Curling Machine with feeder (6) | 60.00 |
| Turbo Cleaner (2) | 1.20 |
| Rewinding Machine (2) | 1.50 |
| Coir Pith Processing Unit | |
| 650 gms Pith Block Machine (1) Pith lab including laminar air flow chamber and autoclave | 20.00 |
| Shrink wrapping machine (2 Nos) | 3.50 |
| Total | 258.20 |

| Office furniture and Computer | Amount Rs. in lakhs |
|--|----------------------------|
| Office Furniture | 2.00 |
| Desk top, Laptop, printer, Scanner and Xerox | 3.00 |
| Total | 5.00 |

| Preliminary and Pre Operative Expenses | Amount Rs. In lakhs |
|---|--------------------------------|
| Registration and Documentation | 5.00 |
| Taxes, Licenses etc | |
| Total | 5.00 |

| Fixed Capital (Assets) | Amount Rs. In lakhs |
|-----------------------------------|--------------------------------|
| Machinery & Equipment | 258.20 |
| Renovation of building & Repairs | 40.00 |
| Office furniture and computer etc | 5.00 |
| Preliminary and Pre opr. Expenses | 5.00 |
| | 308.20 |

| Raw Materials | Amount Rs. In lakhs |
|---|--------------------------------|
| 425@ Rs 6000 per Truck(Including Transport and labor) for 12 months | 302.04 |
| | 302.04 |

| Utilities | Yearly Amount Rs. In lakhs |
|--|---|
| Electricity | 85.58 |
| (1,32,000 Units) | |
| | 85.58 |
| Salaries and Wages | Yearly Amount Rs. In lakhs |
| Unskilled (10) Rs 80,600 /month | |
| Semi skilled (8) Rs Rs 57,200/month | |
| Skilled (8) Rs 67,600/month | |
| Technical Officer (1) Rs 25,000/month | |
| Marketing Officer (2) Rs 50,000/month | |
| Production Manager (1) Rs 25,000/month | |
| | 36.65 |

| | |
|------------------------------|---|
| Other Expenses | Yearly Amount Rs. in lakhs |
| Consumables | 6.00 |
| Repairs & maintenance | 6.00 |
| Fuel & Lubricants | 12.00 |
| Staff Welfare | 4.00 |
| | 28.00 |
| Total Working Capital | Yearly Amount Rs. in lakhs |
| Raw Materials | 302.4 |
| Utilities | 85.58 |
| Salaries and Wages | 36.65 |
| Other | 28 |
| Lease amount | 1.8 |
| Per annum | 454.43 |
| Per month | 37.87 |

| | |
|-------------------------------------|---|
| Total Capital Investment | Amount Rs. in lakhs |
| Fixed Assets | 308.2 |
| Working Capital for one month | 37.87 |
| | 346.07 |
| | |
| Cost of Production | Yearly Amount Rs. in lakhs |
| Total working Capital | 454.43 |
| Depreciation on Machinery | 28.33 |
| Depreciation Furniture and Fixtures | 0.45 |
| Depreciation on Building | 1.00 |
| | 484.22 |

| Sales Turnover | Yearly Amount Rs. in lakhs |
|--|-----------------------------------|
| 4,000 Kgs Coir Fibre/month @ Rs 12.50 | |
| 750 Kgs Coir Yarn @ Rs 30 | |
| 4,000 Kgs Curled coir @ Rs21 | |
| 22,000 Kgs Coir Pith (Unsieved) @ Rs 1.5 | |
| 2,000 Kgs Coir Pith Blocks @ Rs 16 | |
| 6,000 Kgs C-POM @ Rs 12 | |
| 4,000 Kgs Coir Fibre/month @ Rs 12.50 | |
| | |
| (Considering 70% of above) | 641.00 |

| Fixed Cost per annum | Yearly Amount Rs. In lakhs |
|-------------------------------------|-----------------------------------|
| Depreciation on Machinery | 38.73 |
| Depreciation Furniture and Fixtures | 0.45 |
| Depreciation on Building | 4.00 |
| Interest on total investment | 0 |
| Salaries and Wages - 40% | 14.66 |
| Utilities - 40% | 34.232 |
| Other expenses 40% | 11.2 |
| | 103.272 |
| | |
| Variable Cost | Yearly Amount Rs. In lakhs |
| Cost of Production | 497.61 |
| Less : Fixed Cost | 103.272 |
| | 394.338 |

| Profit | Yearly Amount Rs. In lakhs |
|--|---|
| Sales | 641.00 |
| Cost of Production | 497.61 |
| Gross profit | 143.39 |
| Less : Selling and Admn. Expenses 2% of sales) | 11.08 |
| Net Profit | 132.31 |

Projected - Break Even Analysis

| Particulars | 1st Year | 2nd Year | 3rd Year | 4th Year | 5th Year |
|---------------------------------------|-------------|-------------|-------------|-------------|-------------|
| Sales | 641.00 | 705.10 | 775.61 | 853.17 | 938.49 |
| Variable Cost | 394.34 | 433.77 | 477.15 | 524.86 | 577.35 |
| Contribution (Sales-VC) | 246.66 | 271.33 | 298.46 | 328.31 | 361.14 |
| Fixed Cost | 103.27 | 103.27 | 103.27 | 103.27 | 103.27 |
| Profit Contribution -Fixed cost | 143.39 | 168.06 | 195.19 | 225.04 | 257.87 |
| BEP | 0.42 | 0.38 | 0.35 | 0.31 | 0.29 |

Estimated Annual Cost of Production

| Particulars | 1st Year | 2nd Year | 3rd Year | 4th Year | 5th Year |
|------------------------------|-------------|-------------|-------------|-------------|-------------|
| Raw Materials | 302.4 | 332.64 | 365.90 | 402.49 | 442.74 |
| Utilities | 85.58 | 94.138 | 103.55 | 113.91 | 125.30 |
| Salaries & Wages | 36.65 | 40.315 | 44.35 | 48.78 | 53.66 |
| Other Expenses | 28 | 30.80 | 33.88 | 37.27 | 40.99 |
| Depreciation on Machinery | 38.73 | 32.9205 | 27.98 | 23.79 | 20.22 |
| Depreciation on Furniture | 0.45 | 0.3825 | 0.33 | 0.28 | 0.23 |
| Depreciation on Building | 4.00 | 3.8 | 3.61 | 3.43 | 3.26 |
| Total | 495.81 | 535.00 | 579.60 | 629.94 | 686.41 |

| Key Financial Indicators | | | | | |
|---------------------------------|------|------|------|------|------|
| BEP | 0.42 | 0.38 | 0.35 | 0.31 | 0.29 |
| ROI | 0.47 | 0.55 | 0.63 | 0.73 | 0.84 |
| % of profit over sales | 22 | 24 | 25 | 26 | 27 |

Chapter 13

Project Planning, Implementation and Monitoring

13.1 Project Planning

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

The details of soft interventions are mentioned in earlier report.

- Exposure visits – Central Coir Research Institute (CCRI), Kalavoor and Central Institute of Coir Technology (CICT), Bangalore
- Visit to Curled coir, Coir pith blocks and Coco peat making units as per the interest of SPV members and other micro enterprises
- Design of publicity and packaging materials including Product logo design, Company logo, brochure, leaflet, advertising/ display material
- Participation in trade fairs
- BDS for Market Research, marketing and sales
- Training Programme on Export procedure and e-commerce
- Launching cluster website

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

| Machinery Name | Quantity | Power Per Unit | Total Horse Power |
|--------------------------------------|-----------------|-----------------------|--------------------------|
| Coir Fiber Extraction Unit: | | | |
| Decorticator | 1 | 50 HP | 50 HP |
| Disintegrator | 1 | 60 HP | 60HP |
| 50 Kg Hydraulic Press | 1 | 5 HP | 5 HP |
| Auto Feeder arrangement | 4 | 7 HP | 28 HP |
| Conveyors | 1 | 11 HP | 11 HP |
| Hydraulic Loader with Grabber Bucket | 1 | - | - |
| Mini Tractor with rotovator | 1 | - | - |
| | | | 154 HP |
| Coir Spinning Unit | | | |
| 2 ply Yarn Machiners with feeders | 10 | 2.5 HP | 25 HP |
| Willowing Machine | 3 | 1 HP | 3 HP |
| Rewinding Machine | 3 | 0.5 HP | 1.5 HP |
| Bobbins and others | 1 | 0.5 HP | 0.5 HP |
| | | | 30 HP |
| Coir Spinning Unit | | | |
| Curling Machine with feeder | 6 | 8 HP | 48 HP |
| Turbo Cleaner | 2 | 5 HP | 10 HP |
| Rewinding Machine | 2 | 2 HP | 4 HP |
| | | | 62 HP |
| Coir Pith Processing Unit | | | |
| 650 gms Pith Block Machine | 1 | 20 HP | 20 HP |
| | | | 20 HP |

The interested cluster entrepreneurs have created SPV in the name of Gowthami Coir Cluster Society and agreed to invest the contribution of 10% as per the project requirement.

The following important tasks are required to be completed during establishment of the above infrastructure at Common Facilities Centre (CFC).

- Formation of purchase committee with representation from IA, NA, TA, CDE, Financial Institution (or Financial expert), Technical Institution (or Technical Expert) and entrepreneurs
- Identification and selection of machinery suppliers
- Procurement of machinery
- Renovation/ Repair of factory sheds
- Installation & Electrification of machinery
- Trial production
- Commercial production

The successful implementation of above activities will depend on the following aspects:

- Scheduling of above activities to implement within the time frame
- SPV has to regularly follow-up with NA & TA; supervision of project progress and managing the same
- Undertaking work by SPV as per the defined time frame in the schedule
- Regular review of project by NA

In order to implement the project successfully, the SPV, NA (Coir Board), IA (SPV), 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 SPV 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:

13.1.1. Field office, Coir Board

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

13.1.2. District Industries Centre, East Godavari 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 functioning of CFC in long run and also helps in fulfilling requirements of IA/SPV for successful operation of CFC.

13.1.3. 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.

13.1.4. Special Purpose Vehicle (SPV)

A total of 21 micro enterprises have agreed to contribute 10% of creation of CFC as part of the project under SFURTI. Accordingly a cooperative society which acts as SPV is established. All the SPV members together manage the common facilities. The

CFC produces curled coir, pith blocks, coco peat and markets to make profit. The SPV has been registered in the name of Gowthami Coir Cluster Society.

13.2. Implementation, Monitoring & Evaluation

After receiving final approval of the project from Scheme Steering Committee (SSC), the SPV 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.

13.2.1. 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.

13.2.2. Working Committee

The working committee is to be formed having nominated members from Regional 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 entrepreneurs from SPV.

The Working Committee will be chaired by Regional officer of coir board and will meet at least once in a month to review the operational and maintenance aspects of the CFC and decide about the user charges. The SPV will open and maintain a corpus fund for maintenance of the CFC. The user charges will go to the corpus. The SPV

on the basis of recommendation of Working Committee may incur expenditure towards maintenance/ augmentation of the CFC.

13.2.3. Purchase Committee

Facilitating the SPV 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. The Nodal officer of Coir Board, nominated members from a technical institution, TA, IA, DIC, and senior entrepreneurs will be the members in the committee and the committee is to be chaired by the Nodal Officer.

Chapter 14

Project Outcome

| Parameter | Post-project Impact |
|-------------------------------|--|
| Cluster Turnover | 50% increase in the present turnover of the Cluster with introduction of new and value added coir products |
| New enterprises | Establishment of at least 50 new specialized enterprises to target hotels, restaurants, tourism destinations and real estate firms/villas |
| Employment | 20% of additional employment opportunities through new enterprises and CFC |
| Income | At least 30% increase in the income of people engaged in the sector |
| Product Range | Diversification of product range: Manufacture and supply of garden articles, and other support materials for nurseries for quality and productivity improvement apart from development of new product range. |
| Profit Margin for Enterprises | 15-20% increase in profit margins through product and process improvements |

CLUSTER PRODUCTS



CFC SITE (INFRASTRUCTURE HIRED ON LEASE BASIS)



SPV Registration



GOVERNMENT OF ANDHRA PRADESH **AP12 65494774**
REGISTRATION AND STAMPS DEPARTMENT
THE REGISTRAR OF SOCIETIES
KAKINADA

Certificate of Registration

(No : 406 of 2018)

I hereby certify that 'GOWTHAMI COIR CLUSTER SOCIETY' , 2-205/
Chodavaram/ Ramachandrapuram/ East Godavari/ Andhra Pradesh/ India/
on this day registered under the Andhra Pradesh Societies Registration
Act., 2001



REGISTRAR OF SOCIETIES
KAKINADA

KAKINADA

Date : 29/Jun/2018

Signature valid

Digitally signed
by Shakti
Shankar
Date: 2018.06.29
17:56:46 IST

Note: This is a Digitally Signed Certificate and does not require physical signature. This certificate can be verified at meseva.gov.in/ by furnishing the application number mentioned in the certificate.

LEASE AGREEMENT



ఆంధ్ర ప్రదేశ్ ఆంధ్ర ప్రదేశ్ ANDHRA PRADESH
No. 4080
Date 5-9-2018
RS: -100
Gowthami Coir Cluster Society - Chodavaram
President: - Nanduri Venkata -
Veerabhadra Phani Kumar
S/o Rajeswara Rao
V. PadmaVathi
VADDIPARTHI PADMAVATHI
STAMPVENDOR - MADIKI - 533125
L.No. 04-01-01-2009 PL. No. 04-01-01-2016
Cell: 9649275445

Lease Deed for an Industrial Shed with monthly rental of Rs. 15,000/- per month with an advance of Rs. 3, 00,000/- for a period of 15 (Fifteen) years

This agreement is made on this day 12th September, 2018 between

Shri M.D.V.V.S.N Uday Bhaskara Rao,
S/o M. Subbarao, Resident of Madiki Village, Alamuru Mandal, East Godavari District

(herein after called the First Party) – Managing Partner of Bhaskara Raw & Boiled Rice Mill, Empty Shed without Rice Mill Machinery - Choppella and M/s Gowthami Coir Cluster Society, Chodavaram Village, Ramachandrapuram Mandal, East Godavari District represented by its president and Secretary

- 1) Nanduri Venkata Veerabhadra Phani Kumar, S/o N. Rajeswara Rao
- 2) Kankipati Murali Krishna, S/o K. Jaganmohan Sairam

[Handwritten signature]
1st Party

[Handwritten signature]
2nd Party