DETAILED PROJECT REPORT

Cluster Location: KRISHNAGIRI, TAMILNADU (Krishnagiri Coir Cluster Pvt Ltd)





Submitted to Coir Board, Kochi

Prepared by:



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EXECUTIVE SUMMARY

01.	Name of the cluster	KRISHNAGIRI COIR CLUSTER		
02.	Type of Cluster	Major Cluster		
03.	Location & Spread of the cluster	The cluster area is located in Krishnagiri district, extends over 6 Blocks viz. Kelamangalam, Krishnagiri, Sholagiri, Vepanapalli, Bargur and Kaveripatinam,. The cluster spreads in 41 villages viz. 10 villages in Krishnagiri, 5 villages in Kaveripattinam, 6 villages in Sholagiri 6 villages in Vepanapalli, 8 villages in Bargur and 6 villages in Kelamangalam are engaged in production of various coir products like fibre, two ply yarn, Curled coir, Pith blocks and Rubberized coir products. The Geographical spread of the cluster measures about 20-25 Km radius.		
04.	Product range	 The existing range of coir products produced in the cluster are: Coir Fibre Coir Yarn Curled Coir Coir Pith Block 		
05.	Size of cluster & Type of units	The total number of coir units available in the cluster area is around 70 units of which 25 Nos. are engaged in Fibre Extraction, 10 Nos engaged in Curled Coir, 30 Nos. engaged in Yarn Spinning and 5 Nos. engaged in manufacturing of Pith Blocks. The total number of beneficiaries estimated to be around 700 members which include the labor force in the cluster. Based on the number of cluster beneficiaries, the cluster is typified as Major Cluster.		

06.	Production & Turnover of Coir products in the		Product	No.c	of Prod	uction	Turnover	
	cluster	Coir Fibre		25	<u>s (in</u>	2500	18.75	_
		ר ז	Swoply Coir	30	1	125	3.93	
		(Curled Coir	10	18	7.50	0.42	
		C h	Coir Pith block	5	5	000	6.50	
		Image: Construction	Total				29.60	
07.	Employment & Income		Activity	7	Male	Femal	e Total	
	level		Fibre Extrac	tion	125	200	325	
			Twoply Yar	n	60	180	240	
			Curled Coir		30	50	80	
			Pith Block Making		20	30	50	
			Total		235	460	695	
		Tł	ne income le	vel fo	or the la	bours in	the cluste	r is
		R	s.350/- per da	ay for	male wo	orkers an	nd Rs.170 /	- to
	V 0	R	s.200/- per da	y for	temale v	vorkers	• • • • •	
08.	Key Concern areas of the cluster		 Cluster's intermed etc., whi Lack o graduati finished Limited Absence undertak common associati Coir pit Extraction eventhow reasonab products No awa Service adoption 	s pres liate ich fet f aw ng to produ availa e of co a con a pro- ion ex b, the on, is ugh ble an s are e arenes (BD) a and n	sent pro products ches red areness products oproduct icts. ability of ollective/ amon inf oblems, ists in the oblems, ists in the e by-pro not at all the avaid scope normous s of B S) prov market p	duction such a uced ma on the ction of skilled collabora itiatives as n e cluster duct fro l utilized uilability for values iders for romotion	is limited as fibre, y rgin only. e benefits value ad work force. ative effort and to add to registe om Coir Fi l in the clsu of pith ue added p Developm or technolon.	to varn of ded s to ress ered ibre iter, is pith nent ogy
09.	Proposed Strategic	So	oft Intervent	ions:	1.			
	Interventions	Capacity BuildingMarket Promotion						

		 Hard Interventions (Common facility creation): Land, Building for Common facility centre Common facilities proposed: 5 Kg Pith Block Making facility: PVC Tufting Mat Making facility Paper Board Making facility 			
		Thematic Intervention Participation in active international level br New Media marketing, as detailed in the guidelines	ns: ities such as and promotio E-commerce i SFURTI ir	national and n campaigns, nitiatives etc., nplementation	
10.	Budget for Soft	Rs. 16.00 Lakhs			
	interventions				
11.	Budget for Hard	Rs.320.60 Lakhs			
	interventions				
12.	Total Project cost (incl_WC & Agencies cost)	Rs.387.11 Lakhs			
13.	Means of Finance	Grant under SFURTI sch	eme : Rs. 296.9	6 lakhs	
		LA (CDV shares Dr. 00.15	1-1-1-		
14	Post Intervention	IA/SPV snare : Ks.90.15	lakns		
-	Scenario (Expected	Parameter	Pre-	Post-	
	Impact)		intervention	intervention	
	Impact)	Cluster Turnover	2960	3500	
		(Rs. Lakhs)	(00	050	
		(Rs Lakhs)	000	950	
		Employment (Nos.)	695	800	
		Wages per day (Rs.)	350	420 - 450	
		Profitability (%)	8% to 10%	Min.15%	
		Cluster Export	Nil	120	
		Earnings (Lakhs)			
		 Effective utilization fibre extraction un Coir yarn produced Establishment of various schemes Governments (such NEEDS, PMEGP) 	on of pith ge its and captive d within the clu new units b of State th as Coir Ud etc.) resulting	enerated from e utilization of ester. y converging and Central yami Yojana, in additional	

		investments in Coir sector by the cluster
		 members Emergence of specialized support service providers and their active involvement in the development process 100% Coverage of cluster members under social security schemes Improved access to financial capital for cluster members
15.	Cluster Management	The cluster is proposed to be developed under
		SFURTI (Scheme of Fund for Regeneration of
		Traditional Industries). The Coir Board is the Nodal
		agency (NA) and ITCOT Consultancy and Services
		Limited is the Technical Agency (TA) appointed by
		Coir Board. The Institute of Entrepreneurship
		Development, the NGO is proposed as the
		Implementing Agency (IA).
		A Special Purpose Vehicle (SPV) is formed and registered as Private Limited Company under sub- section (2) of section 7 of the Companies Act 2013 and rule 8 of the Companies (Incorporation) Rules, 2014 in the name of "KRISHNAGIRI COIR CLUSTER PRIVATE LIMITED" as per the Certificate of Incorporation issued by Registrar of Companies, Coimbatore dated 29.07.15. The CIN of the company is U36104TZ2015PTC021616. The registration has been carried out with 5 members and 18 additional members are being included and the total number of members of the SPV is 23. The SPV will be strengthened to manage the Cluster activities in sustainable nature after the project implementation is over.

PREAMBLE

The Coir industry has to its credit a tradition and heritage of centuries. But development of Coir industry in India has begun in an organized way only in 1959. Ever since this humble beginning, Coir products have been improving in quality, quantity and variety. For historical reasons, cultivation of coconuts and extraction of Coir fibre and its further processing have taken deep roots in the state of Kerala. The rapid expansion of coconut cultivation in non-traditional areas increased the production of coconut and the industry has also developed gradually in the states of Tamil Nadu, Karnataka, Andhra pradesh and Orissa. Coir industry in India is one of the important rural industries. It provides source of income to about 5 lakhs artisans in rural areas. Women constitute about 80% of the work force in coir industry.

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

With a view to making the traditional coir industries more productive and competitive and facilitating their sustainable development, the Central government has announced Scheme of Fund for Regeneration of Traditional Industries (SFURTI). ITCOT Consultancy and Services Ltd. (ITCOT) has been appointed as Technical Agency by Coir Board for SFURTI Coir clusters in Tamilnadu. Subsequently, Coir Board has entrusted the task of preparation of Detailed Project Report for the Coir Cluster located at Krishnagiri to M/s. ITCOT Consultancy and Services Limited, Chennai. Accordingly, ITCOT has prepared the Detailed Project Report (DPR) for submitting the same for seeking approval from the Scheme Steering Committee (SSC). This report is prepared based on interaction with coir industrialists in the clusters, coir industry workers, industry association members, NGO's and support institutions in the district, Informal interviews with industry participants, machinery suppliers and experienced entrepreneurs, collection of secondary information etc.

The Chapter scheme of the diagnostic study report is as follows:

Cluster Profile is given in Chapter 1. Cluster Value Chain Mapping is given in Chapter 2. Market assessment and Demand Analysis is given in Chapter 3. SWOT and Need Gap Analysis is given in Chapter 4. Profile of the Implementing Agency in Chapter 5. Project Concept and Strategy Framework are detailed in Chapter 6. Core SFURTI Project Interventions are given in Chapter 7. Detailed analysis of Soft Interventions is given in Chapter 8 and analysis of Hard Interventions is given in Chapter 9. Project Cost and Means of Finance (Core SFURTI) is given in Chapter 10. Plan for Convergence Initiatives are given in Chapter 11. Enhanced Project Cost and Means of Finance are given in Chapter 12. Project Timeline is illustrated in Chapter 13. Detailed Business Plan is given in Chapter 14. Proposed Implementation Framework is given in Chapter 15. Expected Impact is detailed in Chapter 16.

1 CLUSTER PROFILE

1.1 BACKGROUND

'Krishna' refers to 'black' and 'giri' refers to 'hill'. This district is gifted with black granite hillocks and named as "krishnagiri".

The historical importance and potential growth in education, economy and tourism of present Krishnagiri made it necessary to create a separate district. Krishnagiri was formed as 30th district by the Government of Tamil Nadu. Krishnagiri district was carved out of Dharmapuri district on 09th February 2004 with five taluks and ten blocks. Krishnagiri District has 2 Municipalities, 10 Panchayat Unions, 7 Town Panchayats, 352 Village Panchayats and 636 Revenue Villages. Thiru. Mangat Ram Sharma, I.A.S. has administered the office as first Collector of Krishnagiri District.

Krishnagiri district is bounded by Vellore and Thiruvannamalai districts in the East, Karnataka state in the west, State of Andhra Pradesh in the North Dharmapuri District in the south. Its area is 5143 Sq. Kms. This district is elevated from 300m to 1400m above the mean sea level. It is located between 11° 12'N to 12° 49'N Latitude,77° 27'E to 78° 38'E Longitude. Eastern part of the district experiences hot climate and Western part has a contrasting cold climate. The average rainfall is 830 mm per annum. March - June is summer season. July - November is Rainy Season and between December -February winter prevails.

1.2 Regional setting of the Cluster

The regional setting of the cluster extends over 6 Blocks viz. Kelamangalam, Krishnagiri, Sholagiri, Bargur, Vepanapalli and Kaveripatinam in 3 Taluks viz. Krishnagiri, Hosur, & Denkanikottai. The block map of Krishnagiri district is given below:



1.3 Location

The regional setting of the cluster extends over 6 Blocks viz. Kelamangalam, Krishnagiri, Sholagiri, Bargur, Vepanapalli and Kaveripatinam in 3 Taluks viz. Krishnagiri, Hosur, & Denkanikottai. The Geographical spread of the cluster measures about 20-25 Km radius.

1.4 Evolution of the Cluster

The Coir work can be observed across the District. The total coconut cultivation area of Krishnagiri district is 13,192 Hectares. It's mentioned that the coir industry at Krishnagiri is around seven decades old and gradually developed to the present level. At present the Coir activities are undertaken in 41 villages of 6 blocks of the District viz. 10 villages in Krishnagiri, 8 villages in Bargur, , 6 villages in Vepanapalli, 6 villages in Sholagiri, 5 villages in Kaveripattinam, and 6 villages in Kelamangalam are engaged in production of various coir products like fibre, two ply yarn, Curled coir, Pith blocks and Rubberized coir products.

1.5 Demography and Growth trends

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

Description	2011	2001
Actual Population	1,883,731	1,561,118
Male	960,232	803,077
Female	919,577	758,041
Population Growth	20.41%	19.62%
Area Sq. Km	5,129	5,129
Density/km2	367	307
Proportion to Tamil Nadu Population	2.61%	2.50%

1.6 Socio-economic aspects

There is lot of scope for introducing latest technology for production of value added products having global demand. Husk is available in good quantity and quality. But one can find some problem during May and June. Coconut is cultivated in 18,000 hectares in Krishnagiri District. 450 million nuts are produced and 4000 Metric Ton of fibre is produced per annum. The turnover is estimated around 150 crores per annum. There was a lot of demand for the fibre, two ply yarn and curled coir being produced here.

1.7 Human Development Aspects

The total number of workers engaged in the Coir activity gender wise is given below:

Activity	Male	Female	Total
Fibre Extraction	125	200	325
Twoply Coir Yarn	60	180	240
Curled Coir	30	50	80
Pith Block Making	20	30	50
Total	235	460	695

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

Activity	Wages per day			
	Male	Female		
Fibre Extraction	350	170		
Twoply Coir Yarn	350	170		
Curled Coir	350	200		
Pith Block Making	350	200		

It is observed that the income level for all activities is same for male as well as for female workers. Among these workers, 70% belongs to OBC category, 25% SC category and remaining 5% belongs to other categories.

1.8 Key Economic Activities in the region

Several industrialist of repute have started their units in Hosur. Hosur has been able to attract some of the most prestigious industrial houses in the country including the Tatas, The Birlas, the Hindujas, TVS group companies, Murugappa group of companies, Lakshmi group and also a number of MNC's. Hosur Industrial area is consists of about 700 industries comprising of Large, Medium, Small and tiny industries. The location of these industries are SIPCOT phase I & II, SIDCO industrial estates, SIDCO electronic industrial estate and the outside industries are scattered in private lands within 20 Kms radius of Hosur towards Krishnagiri, Royakottai & Thalli Roads and few major industries in Harita, Bagalur, Belagondapalli, Thorapalli and other areas.

The units located at Hosur manufacture sophisticated products ranging from Trucks, Automobiles and Automobiles parts, Motor Cycles, Mopeds, Diesel Engines, Power shift Transmission, Castings, Forgings, Cigarettes, Watches & Jewellery, Abrasives, Hosiery knilling needles. Machineries, Aircrafts and Pharmaceuticals, Biotech textiles, Chemicals, Electronic, electrical and general engineering.

INDUSTRIES AT HOSUR – SIPCOT

The State industrial Promotion Corporation of Tamil Nadu, (SIPCOT) has developed one of the largest industrial complexes in the country in Hosur in over an area of 1370 acres and to develop Large/Medium/Small industries with SIDCO offering comprehensive services for more than 500 industries. The industries in Hosur are the source of raising the standard of living of people in Krishnagiri district. It is producing goods varying from Pin to Aeroplance. The credit goes to the good climate, incentives and inspiration provided by the State government and Central government. It is at an altitude of 10000m from mean sea level. It is very near to Bangalore, the capital of Karnataka. Industries of various kinds such as electrical, electronic, automobile, chemical, iron & steel are flourishing because of the favorable conditions and infrastructure availability. Information technology has a great scup for investment because of the proximity of Bangalore.

TITAN INDUSTRIES LIMITED

Titan Industries Ltd., incorporated in 1984, a joint venture between the Tatas and the Tamil Nadu Industrial Development Corporation Limited, a Government of Tamil Nadu undertaking. The Company has its registered office in Hosur and its corporate office at Bangalore. Engaged in the manufacture and marketing of quartz wristwatches since the year 1987. Since 1994, has diversified into manufacturing and marketing of precision jewelry & jewelry watches, clocks & Bracelets in separate divisions. Reported a turnover of Rs.797.90 crores for the year ended 2002-03.

Watches

Titan is world's sixth largest manufacturer – brand in quartz watch manufacturing.

Clocks

Titan has become the approved vendor for supply of dashboard clocks to Ford Cars, UK.

Jewelry

Titan manufactures and market its jewelry products under the brand name "Tanishq". Tanishq, India's only national jeweler offer gold and gem-set jewelry (in 22 and 18 carat gold) in over 6000 traditional, western and fusion looks.

Jewelry products are manufactured in fully integrated manufacturing plant with state of the art equipment. The Tanishq retail chain currently includes 66 exclusive boutiques in 57 cities, making it India's first and largest jewelry retail store chain.

ASHOK LEYLAND MANUFACTURING UNITS LOCATED AT HOSUR

Founded in 1948, with assembly of Austin cars. Equity participation by Leyland UK,

1955. Commercial vehicle production starts. Product range includes

Trucks: 7T GVW to 145T GTW (model configuration: 70).

Buses: 19 seaters to 80 seaters (model configuration: 30).

Customized vehicles: Recent developments: Low-floor buses, CNG buses, Semiforward trucks, 4421/4021 (6x4 / 4x2) heavy duty articulated vehicles

Special application vehicles: Stallion, Crash Fire Tender, Dumper, TTF, Water Bowser, etc.,

Diesel engines from 30 KVA to 125 KVA for industrial, Genset and Marine applications.

T.V.S. MOTOR COMPANY LIMITED

Leading manufacturer of two-wheelers in the country - TVS Motor Company, is part of the TVS Group of Companies, achieved a turnover of Rs.2,726 crores in the year 2002-03. It manufactures the entire range of two wheelers – motorcycles, scooters and mopeds, having more than 8.4 million satisfied customers nationwide around 3000 employees at Hosur plant. The factory is situated at Harita in a green campus of about 250 acres with 26,000 trees. The Factory is located in the SIPCOT industrial complex at Hosur. SIPCOT Industrial complex is located at around 4 kms from Hosur town. The site area measures 16.5 acres. About 30% of the site area is currently built up and the rest of the open area is used for gardens and a coconut grove.

HINDUSTAN POWERPLUS LIMITED – HOSUR

Hindustan Powerplus Limited, a Caterpillar company, manufactures CATERPILLER Diesel engines and generator sets. The factory is situated at Poonapalli Village in Hosur Taluk, Tamil Nadu

The Company manufactures diesel engines in the range of 200 KVA to 750 KVA for applications such as generator sets, industrial, mining & construction equipment, marine and locomotives. Generator sets are manufactured in the range of 200 KVA to 2000 KVA. Two dealers, GMMCO LIMITED and TIL LIMITED, market the products countrywide.

EXIDE HOSUR – DOSSIER

Exide Industry is producing batteries for Industrials and Automobile use, it had its beginning 1997 AD .It was established in 74 Acres of Land.

HARITA GROUP OF COMPANIES – HOSUR

Harita group of companies comprises of 4 units namely Harita Seating Systems Limited, Sundaram Plastics, Harita Rubber Products and Sundaram Clayton Limited. It is situated at Bealgondapalli village which at a distance of 10 Kms from Hosur. The total area is 100 acres for four units.

S. No.	Name of the society	Line of activity
1	Vadamangalam Coir Indl. Coop. Society Ltd	Coir Yarn
2	Barugur Indl. Co- op. coir factory Ltd	Fibre Extraction and Coir Yarn
3	Veppalampatti Coir Workers Indl. Coop. Society Ltd.	Coir Yarn
4	Kallur Coir Workers Indl. Coop. Society Ltd.	Coir Yarn
5	The Bargur Gem Cutter Workers Industrial Co- operative Society	Artificial Gems
6	Krishnagiri Dist. Small Scale Service Industrial Co- operative Society Limited	Service
7	Krishnagiri District.Printers, Service Indl. Co op. Society Ltd	Service

INDUSTRIAL CO-OPERATIVE SOCIETIES

INVESTMENT IN COIR ACTIVITIES IN THE CLUSTER:

Activity	No. of	Per unit	Total
	units	(Rs.Lakhs)	(Rs.Lakhs)
Coir Fibre	25	15	375
Extraction			
Coir Yarn	30	5	150
(Two Ply)			
Curled Coir	10	5	50
Coir Pith block	5	10	25
Total			600

The investment of the existing Coir activities in the cluster area are given below:

1.9 Infrastructure details of Krishnagiri district

1	Area	5143.32 Sq.K.M.				
	Population (as per	18,83,731				
		Male	Female	Others	Total	
2	Provisional 2011	9,63,232	9,19,577	0	18,83,731	
	Census)	Rural	Urban		Total	
		4,28,548	14,55,183	1	8,83,731	
3	No.of Revenue Divisions			2		
4	No.of Taluks			5		
5	No.of Revenue Villages	636				
6	No.of Panchayat Unions	10				
7	No.of Village Panchayats	352				
8	No.of Town Panchayats	7				
9	No.of Municipalities		2			
10	Transportation	National	NH 7(I NH 46 NH 66 Bangal NH 20' NH 21'	Kanyakum (Chennai (Puduche ore) 7 (Sarjapu 9 (Krishna	nari -Varnasi) –Bangalore) rry – r – Bagalur) agiri –	

		Highways	Kuppam)	
11 Industries		Large Scale Industry – 10		
		Medium Scale Industry - 16		
		Existing Small S	Scale Cluster Units - 5	

2 CLUSTER VALUE CHAIN MAPPING

2.1 Product Profile

The following products are produced in the cluster presently.

- Coir Fibre
- Coir Yarn
- Curled Coir
- Coir Pith Block

2.2 Production Process

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



Coir Fibre:

The coconut husk (raw material) is collected from the farms and stored. The collected husk is soaked in water. Then soaked material is fed into the decorticator wherein the fibre and pith are separated. The fibre is dried in the sunlight and is pressed in the form of 35-Kg bundles by using balling press and dispatched for sales.

The process flow chart for Coir Fibre extraction is given below:



Coir Yarn:

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

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

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

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



Coir Pith Block:

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

The process flow chart for the Coir pith block making is given below:



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

2.3 Value Chain Analysis

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



It is observed that the value addition in the cluster is limited to intermediate product level and the need and scope for value addition for coir sector in the cluster is considered significant. The cost of Green husk including loading and unloading is valued at Rs.1.00, which is incremented to Rs.20.00 per Kg. of fibre, which is further incremented to Rs.40.00 per Kg. of yarn. Similarly the cost of Brown husk including loading and unloading is valued at Rs.1.8.00 per Kg. of fibre, which is incremented to Rs.18.00 per Kg. of fibre, which is incremented to Rs.18.00 per Kg. of fibre, which is further solution is further incremented to Rs.40.00 per Kg. of per Kg. of yarn.

2.4 Cluster Map

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



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



2.5 Principal Stakeholders

COIR BOARD

Coir Board is the Nodal Agency for the SFURTI scheme. The coir Board set up by the Government of India under an act of parliament the coir Industry act 1953. Coir Board provides financial, market development, skill training assistance for the development of coir Industry and also extends the technical guidance and advice for setting up of new units as well as for renewal/modernization of existing units for development and increasing productivity, quality up-gradation etc.

DISTRICT INDUSTRIES CENTRE (DIC)

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

TAMILNADU CORP. FOR DEVELOPMENT OF WOMEN (TNCDW)

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

NABARD

NABARD is the financial institution focusing on Agriculture and Rural Development activities. Presently, they are also focusing on artisan cluster development.

LEAD BANK

Indian Bank is the lead bank in Krishnagiri district. Lead bank will coordinate the credit activities of banks in the district in addition to performing leading role in the implementation of schemes launched by State/Central governments.

REGIONAL AGRICULTURAL RESEARCH CENTER OF TAMIL NADU AGRICULTURAL UNIVERSITY (RARCTNAU)

The Regional Agricultural Research Center of Tamil Nadu Agricultural University at Paiyur in Kaveripattinam, Krishnagiri District is located at about 15Kms from the Cluster, undertaking research projects in Crop Management, Horticulture and Agricultural Engineering.

ITCOT Consultancy and Services Limited (ITCOT)

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

Commercial & Cooperative Banks

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

3 MARKET ASSESSMENT AND DEMAND ANALYSIS

Coir industry is of great importance to the coconut producing states in India, as it contributes significantly to the economy of rural areas. Kerala is the largest producer of coconut, contributing as much as 45% of country's total production, whereas Tamilnadu stands second in cultivation of coconut and first in production of brown coir fibre in the country. The State wise potential for production of Coir Fibre is given below:

S.No.	State	Area ('000 Ha)	Production (in million nuts)	Coir fibre potential @ 60% husk utilization (MT)
1	Kerala	766.00	7057.88	338778
2	Tamilnadu	430.70	6211.21	298138
3	Karnataka	511.00	5915.33	283936
4	Andhra pradesh	142.00	1985.00	95280
5	Orissa	53.90	403.25	19356
6	West Bengal	29.10	395.28	18973
7	Gujarat	20.90	340.58	16348
8	Assam	20.80	304.47	14615
9	Other states/Uts	96.30	738.20	35403
Total		2070.70	23351.20	1120827

The export of coir products are in the increasing trend during the last 10 years as illustrated in the graph below:

The major products that are exported are Coir fibre, Coir pith and Mats. It has been observed that the percentage growth in value of export of Coir fibre has been 58.77% in 2013-14 compared to the previous year. Also the percentage growth in value of export of Coir pith has been 38.20% in 2013-14 compared to the previous year.

Q=Quantity in M.T					V= Value i	n Rs.Lakhs
	April -2013 - N	March 2014	April-2012 - M	arch- 2013	%Growth Cumulative	
ltem	Q	V	Q	v	Q	v
Coir Fibre	173902	32878.11	140693	20707.66	23.60	58.7
Coir Yarn	4247	2848.26	4202	2387.22	1.07	19.3
Handloom mat	22609	23623.82	24151	22810.10	-6.38	3.5
Powerloom mat	234	278.36	2	3.15	11600.00	8736.83
Tufted mat	43752	41776.39	37289	33572.91	17.33	24.43
Handloom matting	3425	3353.91	1418	1702.77	141.54	96.97
Powerloom matting	0	0	0	0	0.00	0.0
Geo textiles	4468	3503.78	3597	2628.74	24.21	33.29
Coir rugs & Carpet	93	105.99	95	133.38	-2.11	-20.54
Coir rope	498	390.17	420	282.41	18.57	38.16
Curled Coir	11263	2947.93	8883	2112.46	26.79	39.5
Rubberised Coir	965	1560.76	322	495.01	199.69	215.3
Coir pith	271495	34173.23	208399	24727.61	30.28	38.20
Coir other sorts	89	163.13	30	39.33	196.67	314.7
Total	537040	147603.84	429501	111602.75	25.04	32.2

The Product wise export details of coir products in 2013-14 is given below:

The percentage of share of each product with respect to total exports, both in Quantity and Value for the year 2013-14 is given below:

Name of the item	Apri2013-N	March 2014	Apri2012-March 2013		
	Qty %	Value%	Qty %	Value %.	
Tufted Mat	8.15	28.30	8.68	30.08	
Coir Pith	50.55	23.15	48.52	22.16	
Handloom Mats	4.21	16.00	5.62	20.44	
Coir Fibre	32.38	22.27	32.76	1 8.55	
Geo Textile	0.83	2.37	0.84	2.36	
Coir Yarn	0.79	1.93	0.98	2.14	
Curled Coir	2.10	2.00	2.07	1.89	
Handloom Matting	0.64	2.27	0.33	1.53	
Rubberised Coir	0.18	1.06	0.07	0.44	
Coir Rope	0.09	0.26	0.10	0.25	
Coir Rugs & Carpet	0.02	0.07	0.02	0.12	
Coir Other Sorts	0.02	0.11	0.01	0.04	
Powerloom Mat	0.04	0.19	0.00	0.00	
Total	100.00	100.00	100.00	100.00	

Composition of Export (Share in %)

The Top five County wise Exports of Coir and Coir products in the year 2013-14:

S.No.	Country	Quatity (in MTs)	Value (Rs.Lakhs)	Quantity (%)	Value (%)
1	China	192110.62	36050.66	35.77	24.42
2	USA	55091.03	30026.05	10.26	20.34
3	Netherlands	53786.54	10870.04	10.02	7.36
4	UK	11987.01	8600.98	2.23	5.83
5	South Korea	67042.97	7020.54	12.48	4.76

As far as the cluster is concerned the product line is limited to Coir Fibre, Coir Yarn and Pith blocks. The Coir Fibre produced in the cluster is utilized for yarn production and curled coir production within the cluster and also marketed through local dealers outside the cluster.

The Coir yarn produced in the cluster is directly marketed mainly to Salem yarn market. Curled coir produced in the cluster is marketed to Duroflex @ Karimangalam and also to Allepey, Kerala. Coir Pith block produced in the cluster is marketed through dealers for both domestic and export market. It is observed that the export potential for value added products are not at all tapped by the cluster with its current products and hence value added products having good export market potential needs to be identified to tap the existing market potential.

4 SWOT AND NEED GAP ANALYSIS

STRENGTHS:

- Existence of Fibre Extraction units and two ply yarn units in the cluster providing scope for value addition.
- Easy to adopt technology to manufacture value added/diversified products.
- > Existence of engineering infrastructure such as workshops and lathes.
- Readiness of the new generation to enter this trade
- > Well established physical infrastructure such as road, rail, power etc.
- > Excellent network of commercial and co-operative banks in the cluster.
- Limited competition from big players as the trade is labour intensive
- Presence of Support institutions such as Coir Board, District Industries Centre, Commercial banks, ITCOT etc.

WEAKNESSES:

- > Absence of collective/collaborative efforts to address common problems.
- As coconut palm does not withstand prolonged spells of extreme weather/ climatic variations, the uninterrupted availability of Coconut husk (basic raw material for coir sector) depends on weather/climatic conditions, which results in scarcity of raw material due to hot/dry summer.
- ▶ Limited availability of skilled labour force
- Lack of awareness on the incremental benefits of manufacturing of value added finished products.
- > Lack of formal networks for marketing and input procurement
- Limited contact with BDS providers and Technical Institutions
- Weak linkages with banks and financial institutions

OPPORTUNITIES:

- > Potential for product diversification and value addition from existing products.
- Increasing Domestic and Export market prospects for coir products.
- Good scope for manufacturing of value added /diversified products
- > Implementation of SFURTI Scheme for focused development of the cluster.

THREATS:

- > Competition from products such as Nylon, Jute Sisal fibre etc.
- Increasing production of products such as Tender coconut, Neera etc., which utilize pre-mature nuts may result in basic raw material(husk) scarcity for Coir sector, as Coir sector depends on husk from fully mature nuts as raw material.
- Competition from coconut growing country viz.: Sri Lanka, Indonesia & Philippines etc.
- Utilization of husk for fuel purposes

NEED GAP ANALYSIS:

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

- Cluster's present production is limited to intermediate products such as fibre, yarn etc., which fetches reduced margin only.
- Lack of awareness on the benefits of graduating to production of value added finished products.
- Limited availability of skilled work force.
- Absence of collective/collaborative efforts to undertake common initiatives and to address common problems, as no registered association exists in the cluster.
- Coir pith, the by-product from Coir Fibre Extraction, is not at all utilized in the clsuter, eventhough the availability of pith is abundant and scope for value added pith products are enormous.
- No awareness of Business Development Service (BDS) providers for technology adoption and market promotion.

5 PROFILE OF THE IMPLEMENTING AGENCY

The Institute of Entrepreneurship Development (IED) is a non-profit making Registered Charitable Trust established in 1999. IED is a pioneering institute for Entrepreneurship Development conducting training and entrepreneurship development activities in various parts of Tamilnadu state. The details of the agency are as given below:

Ι	Institutional Structure / Registration	on Details
B .1	Name of the Agency	The Institute of Entrepreneurship
		Development (IED)
B .1	Legal Status	Registered Charitable Trust
B.2	Registration Number & Date	208 / 1999
		21.05.1999
B.3	Registered Address	5/1358, T.A.M.S. Colony
		Ellakkiampatti
		Dharmapuri – 636705
		Tamilnadu
B. 4	Office Address / Locations	Krishnagiri District
		No.45, Dharmaraja Kovil Street
		Near Old Bus Stand
		Muthoot Finance Upstairs,
		Old Pet, Krishnagiri – 635002
		Salem District
		No.5/16-A, Renga Nagar
		Back side to Mosque
		Suramangalam
		Salem – 636005

II	Operational Profile	
B.5	Major objectives – Vision, Mission, Goal of the organization	Vision: To attain Income Generation, strengthen their assets and sustainable livelihood through the entrepreneurship and employment by providing counselling, guidance, capacity building, EDPs, skill development training to the Women, SC/ST, Physically Challenged, poor and educated youths.
		Mission: IED mission is ensuring economic self sustainability of the rural, SC/ST, women and poor people. Economic development and knowledge development through capacity building, EDPs, Skill Development trainings and Escort service.

		Objectives: IED object is to convert society as self sustainable through employment and self employment and enterprise formation.
B.6	What are focus areas of operation	 Entrepreneurship Development Programme Employability Training Hand holding services to prospective and existing entrepreneurs Consultancy on setting up of enterprise
B.7	Provide key project / activities being undertaken by the IA – Brief description including the project scope, size and duration (<i>mention</i> <i>specific experience in the area</i> / <i>sector of the proposed project</i>)	 Providing support services to Micro enterprises as UDYAMI MITRA under RGUMY scheme of Ministry of MSME. Conducting EDPs for NEEDS, PMEGP, UYEGP beneficiaries Conducting Skill Training Programme to scheme beneficiaries of Tamilnadu Women Development Corporation Limited. Formation of Joint Liability Groups (JLG), with the aim of providing institutional credit to small farmers Facilitated CSR activities of MALCO, Vedanda Group. Farmers Clubs organized with the support and financial assistance of NABARD with the concept of transmitting the latest agriculture techniques to the Farmers' field, adoption of latest post-harvest technology, value addition, etc. and enjoy the benefits of collective bargaining power both for procuring inputs and select their produce.
B.8	Mention key clients/donor associated with for project implementation along with details on the nature of association	NABARD, Tamilnadu Women Development Corporation Limited, KVIC, Directorate of Industries & Commerce, TamilNadu
B.9	Mention key partnership / alliances (if any)	NIMSME (for conducting trainings)
III	Management Profile	L
B.10	Background of key Personnel (Professionals and others) with brief profile of the senior management personnel)	Mr.P.Mohanram – Full time Director of IED, Have more than 20 years experience in Entrepreneurship development. Has presented research papers on EDP viz. Futurology of EDPs in India, Innovation approach of project implementation.

IV	Contact Details	
B.11	Name of Contact Person	P.MOHANRAM
B.12	Designation of Contact Person	DIRECTOR
B.13	Correspondence Address	No.45, Dharmaraja Kovil Street
		Old Pet, Krishnagiri – 635002,
		Tamilnadu.
B. 14	Contact Number	04343-231946, 098425-56130
B.15	Email Address	ied_edp@rediffmail.com
B.16	Website	www.iedtn.org

6 PROJECT CONCEPT AND STRATEGY FRAMEWORK

6.1 Project Rationale

The project rationale is to rejuvenate the existing product mix in the cluster and to enhance the competitiveness through capacity building of the entrepreneurs. Bridging the technological gaps and thereby reducing the cost of production, effective utilization of existing raw material resource, improving the quality of the products and establishing global marketing linkages elevates the cluster to a higher level in terms of value addition, turnover, employment and foreign exchange earnings.

6.2 Project Objective

- Strengthening linkages among the Cluster members and actors and to have a Collaborative setup to address common problems
- Effective utilization of available raw material resource (Coir yarn & pith) in the cluster by strengthening the linkages with raw material suppliers/farmers
- > To address current production and supply bottlenecks
- Exploit the benefits arising due to optimization of resources and economies of scale

6.3 Focus Products/Services

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

- I. 5 kg. Pith Block making facility Effective utilization of available pith
- II. PVC Tufting Mat facility Value addition
- III. Coir Paper Board Making facility Waste utilization/Value addition

6.4 Conceptual Framework / Project Strategy

- Strengthen linkages within the cluster with other SMEs, larger enterprises, support institutions, banks etc. At times such linkages are also created with important organizations (private/public) outside the cluster;
- Assist cluster stakeholders to develop a consensus-based vision for the cluster as a whole;
- Help stakeholders to coordinate their actions and pool their resources to move towards a shared vision for the cluster as a whole; and
- Create an autonomous governance framework, in a step-by-step process that will sustain dynamism and change in the cluster after the withdrawal of the implementing agency

7 PROJECT INTERVENTIONS (CORE SFURTI)

The Core SFURTI project interventions include Soft Interventions (as detailed in Chapter 8) and Hard Interventions (as detailed in Chapter 9), in addition to Crosscutting thematic interventions,

Capacity Building:

- <u>Trust Building</u>: For strong association among cluster members to address common problems.
- <u>Entrepreneurship Development Programme</u>: To foster entrepreneurship among cluster members.
- <u>Skill Upgradation Programme</u>: To increase the skilled labour force in the cluster to address the problem of limited skilled labour availability.
- <u>Exposure Visit</u>: Visit to other vibrant cluster, research institutions etc. to understand the synergic effect and dynamics of vibrant clusters and to demonstrate the technology and marketability for value added products.

Market Promotional Activities

- <u>Market Study Tour</u>: To enable the cluster members to gain a deeper understanding of the business environment and market dynamics in Coir sector.
- <u>Participation in Trade Fairs</u>: To conduct business, cultivate cluster's image and to examine the market. The main objectives of participation of trade fairs are:
 - Increased Sales
 - Product showcasing for enhanced product visibility
 - o Establish qualified leads

In addition, trade fairs are the ideal place for surveying the market, comparing prices and sales terms etc.

• <u>Buyer Seller Meet</u>: To meet various players in the value chain for building business contacts and enhance marketability

The hard interventions proposed to enhance the product mix of the cluster and to achieve increased cluster turnover thro' production of value added products are:

- I. 5 Kg Pith Block production facility
- II. PVC Tufting Mat production facility
- III. Coir Paper Board production facility

THEMATIC INTERVENTIONS:

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

8 SOFT INTERVENTIONS

CAPACITY BUILDING

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

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

S. No	Particulars	
1	Proposed Programme / Intervention	Skill upgradation Programme
2	Target group	Coir workers
3	No. of Batches	2
4	Batch size	25 nos
5	Training content	Skill Training for Coir PVC Tufting Mat, & Coir Paper Board .
6	Trainer / Training Institution	Coir Board (at CCRI, Alleppey)
7	Cost of Training programme	Rs. 2,00,000/-
8	Implementation timeline	Year I Quarter 3 & 4

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

MARKET PROMOTION

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

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

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

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

9 HARD INTERVENTIONS

CREATION OF COMMON FACILITY CENTRE:

Land:

The land to an extent of 1.45 acres is proposed to be purchased by the SPV at the cost of **Rs.5.80 lakhs** (as per the guidelines value), for which land has been identified and will be registered in the name of SPV, within two weeks from the date of approval of DPR. The location address is at RS No.78/9, RS No.88/3C & RS No.88/5C Pillanakuppam village, Veppanapalli Block, Krishnagiri Taluk, Krishnagiri District. The unit is proposed to house administration office, 5kg coir pith block, PVC coir tufting mat & coir paper board facility. The land is located in the Krishnagiri – Veppanapalli main road, about 11 Kms. from Krishnagiri town and 7 Kms from Chennai – Bangalore National Highways. The location has other infrastructural facilities such as road, power etc. and is suitable for the proposed CFC. The land documentation procedures would be completed in the first quarter of Year 1 of implementation.

CEC activities	Built up Area	Cost of Building	
Cr C activities	(in Sq.ft)	(Rs. in Lakhs)	
Coir Tufting mat Manufacturing Building	6250	50.00	
5 Kg Coir Pith Block Manufacturing Building & Godown	3000	24.00	
Coir Paper Board Manufacturing Building	3000	24.00	
Administration building	500	5.50	
Other Civil works (Water sump, Borewell, Electrical motor & pipeline)	-	3.00	
TOTAL		106.50	

Cost & Area of Building works:

The building and civil works would be completed before third quarter of the first year of implementation.

The following common facilities are proposed for the Krishnagiri Coir Cluster to enhance the product mix and market reach.

9.1 5 Kg Pith Block

9.1.1 Project Description

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

The pith block making process involves receiving of pith, washing, drying, seiving and compacting as 5kg. block on user charge basis. This facility is proposed in view of increasing the profitability of the cluster.

9.1.2 Project justification

The project is proposed to benefit the cluster members to utilize the facility on user fee basis and to exploit the availability of coir pith in the cluster.

9.1.3 Proposed machineries and cost

Coir 5 Kg Pith Block machinery with accessories	Rs.18.00 Lakhs
(180 to 200 blocks per hour capacity)	

Year	1	2	3	4	5
Installed capacity per annum	1800	1800	1800	1800	1800
(in Tons)	1000	1000	1000	1000	1000
Capacity utilization	80%	85%	90%	90%	90%
Production quantity per annum	1440	1530	1620	1620	1620
(in Tons)	1440	1550	1020	1020	1020

9.1.4 Installed capacity & production quantity

-

9.1.5 Operation and maintenance model

The IA is responsible for the operation and maintenance of the CFC assets until scheme period and the SPV has to manage the entire operation on its own after project implementation period is over. The operation and maintenance cost is proposed to be managed with the income from the operations of the Common facilities through User fee charges.User Charges for Making Coir Pith block Per Ton is estimated to be Rs.1500/- based on the existing market trends.

9.1.6 Market Strategy:

As the Pith block CFC is proposed to be operated on User fee model, for the benefit of cluster members running Coir fiber units, no external marketing initiatives is required. All the coir fiber units in the cluster would utilize the CFC for the manufacture of Coir Pith blocks and the units would undertake marketing of Coir Pith blocks on their own.

9.1.7 Implementation time line

Year I - Quarter 4 (Total Project timeline is given in Chapter 13)

9.2 PVC Tufting Mat

9.2.1 Project Description

PVC/Latex tufting machine is used to manufacture coir mats with PVC or Latex backing. The mat is made by tufting the coir yarn on the PVC or Latex base. This has the advantage of cutting into any shape without edge finishing.

The process flow chart for PVC Tufting Mat is given below:

9.2.2 Project justification

The project is proposed in order to enable the cluster to enter the manufacturing arena of value added marketable product. In addition, PVC Tufting Mat enjoys prospective export market.

9.2.3 Proposed Machineries and Cost

PVC/ Latex Tufting mat machine with Supporting Machinery: Thermic fluid Heater (wood fired), Chimney and its conneted work, Thermic fluid pipe line, valves etc for thermic heater . Temperature Control valve for thermic Heater with accessorises and panel board . Chiller Unit with pipe line, water tank etc. Air Compressor 10 HP, Shearing machine 120cm width and Spooling machine.

PVC Tufting machine (Width 120 Cms.) of	Rs.110.00 Lakhs				
Production Capacity 450 Sq.M. per shift					

Year	1	2	3	4	5
Installed capacity per annum (in Sq. m)	135000	135000	135000	135000	135000
Capacity utilization	80%	85%	90%	90%	90%
Production quantity per annum (in Sq. m)	108000	114750	121500	121500	121500

9.2.4 Installed capacity & production quantity

9.2.5 Raw material availability

The raw material (PVC and Coir Yarn) required for Tufting mat is estimated to be 2.30 Kgs of Coir yarn and 3.30 Kgs of PVC per Sq.M. of output. Coir yarn required will be sourced within the cluster and also from nearby cluster areas. PVC/Rubber materials are to be sourced from Bangalore & Kerala. An agreement will be executed with the yarn suppliers to ensure uninteruppted supply.

9.2.6 Operation and maintenance model

The IA is responsible for the operation and maintenance of the CFC assets scheme period and the SPV has to manage the entire operation on its own after project implementation period is over. The operation and maintenance cost is proposed to be managed with the income from the operations of the Common facilities through Sales realization.

9.2.7 Market Strategy:

- a. SPV has already identified prospective buyers for PVC Tufting Mat viz.
 - Duroturf Mats, Bangalore
 - Kem Tech Exports, Alleppey
 - Charankattu Coir, Alleppey
 - Brothers Coir mills P Ltd, Alleppey
 - Nat Fibres, Kochi
- b. Proposed to carry out aggressive local marketing with the mandate of 'One House, One Mat' in the district, to be achieved in six months from the date of commercial production.
- c. Establishing linkages with retail showrooms in Chennai, Bangalore, Mumbai & Delhi with attractive discount schemes
- d. Engaging Business Development Service providers to enhance the cluster market share in both domestic and export market for the product.

9.2.8 Implementation timeline

Year I - Quarter 4 & Year II – Quarter 1 (Total Project timeline is given in Chapter 13)

9.3 Coir Paper Board

9.3.1 Project Description

Coir Paper Board is manufactured from waste coir fibres from coir units and waste paper (Corrugated board waste) from local market. The fibre and paper strips are put into a treatment vessel and then fed into a beater along with water and sized additives to form a pulp type mixture. The pulp mixture is spread on a net which enables the water to settle down and form paper sheet. These paper sheets are blotted on a woolen / gada cloth. Water is drawn out from these sheets with the help of a hydraulic press and these sheets are detached from cloth and left to dry in sun light. After drying these sheets are passed through two heavy rollers and calendering in between two metal sheets for polishing the papers or boards. Lastly the sheet is cut into the required size and shape as required for marketing. The product finds its application in calendar, binding covers and note book covers.

The process flow chart for Coir Paper Board is given below:

9.3.2 Project justification

The project is proposed for effective utilization of wastage and to create value out of wastage. The coir paper board is the value added product from waste fibre and waste paper, an alternate product of paper board, which reduces the usage of wood (raw material for normal paper board).

9.3.3 Proposed machineries and cost

Coir Fiber Sheredder 10 HP Drive, Hollender Beater 10 HP Drive, Hydro pulped 15 HP drive 150kg charge , TDR Refiner 5 HP, Cylinder mold Board Maschine 3 HP Drive 30:x36: size One tone per 8 hrs capacity, Hydraulic power press 5 HP , Pulp Agitator 2 nos 2 HP drive, Pulp Pumps 3 nos, Calendaring Machine 5 HP Drive, Cutting Machine 42 : 3 HPDrive, Trollery , Balance and Tools

Coir Paper board of 1 Ton per shift capacity**Rs.24.00 Lakhs**

Year	1	2	3	4	5
Installed capacity per annum (in Tons)	300	300	300	300	300
Capacity utilization	80%	85%	90%	90%	90%
Production quantity per annum (in Tons)	240	255	270	270	270

9.3.4 Installed capacity & production quantity

9.3.5 Raw material availability

The raw material (Waste Coir Fibre and Waste Paper) required for the proposed installed capacity of Coir Paper Board production is 500 Kgs. of waste fibre and 500 Kgs. of waste paper per ton of output. Waste Fibre is proposed to be sourced within clusters and also from nearby cluster areas. Waste Paper is to be sourced from corrugated box units and also from local market.

9.3.6 Operation and maintenance model :

The IA is responsible for the operation and maintenance of the CFC assets until scheme period and the SPV has to manage the entire operation on its own after project implementation period is over. The operation and maintenance cost is proposed to be managed with the income from the operations of the Common facilities through Sales realization.

9.3.7 Marketing strategy:

a. Establishing linkages with stationary manufacturers locally in Hosur, Salem and Bangalore.

:

- b. SPV has already identified prospective buyers for Coir Paper Board viz.
 - a. Krishnagiri Printing Cluster, Krishnagiri
 - b. Direct Market Hosur, Salem and Bangalore

9.3.8 Implementation timeline

Year I - Quarter 4 (Total Project timeline is given in Chapter 13)

10 PROJECT COST AND MEANS OF FINANCE (Core SFURTI)

The estimated project cost based on the computations of the project interventions and the means of finance for the project is given below:

S No	Proposed Interventions	Project Cost	GOI Share	SPV Share
3.110.	r roposed interventions	(in lakhs)	(in lakhs)	
1	SOFT INTERVENTIONS			
1.1	Capacity Building			
1.1.1	Trust building and motivational programme	1.00	1.00	-
1.1.3	Entrepreneurship Development Programme	2.00	2.00	-
1.1.4	Skill Upgradation Programme	2.00	2.00	-
1.1.5	Exposure Tour	3.00	3.00	-
	Total Capacity Building cost	8.00	8.00	
1.2	Market Promotion			
1.2.1	Market Study Tour	2.00	2.00	-
1.2.2	Participation in Trade fairs	3.00	3.00	-
1.2.3	Buyer Seller Meet	2.00	2.00	-
1.2.4	Tie up with Business Development Service (BDS) providers	1.00	1.00	-
	Total Market Promotion cost	8.00	8.00	-
	Total Soft Interventions Cost	16.00	16.00	-
				CONTD

2	HARD INTERVENTIONS			
2.1	Land for CFC (1.45 Acres)	5.80	-	5.80
2.2	Land, Building and Machinery for Common Facility Center (CFC)			
2.2.2	Building and civil works	106.50		
2.2.3	5 Kg Coir Pith Block Machinery (180 to 200 blocks per hour capacity)	18.00		
2.2.4	PVC Tufting Mat (120 cm. width, 450 Sq.m./shift capacity)	110.00		
2.2.5	Coir Paper Board Making machinery	24.00		
2.2.6	Handling Equipments	12.00		
2.2.7	Electricals & accessories	4.30		
	Total Land, Building & Machinery infra cost	274.80	210.45	64.35
2.3	Working Capital for one cycle of operation	40.00	30.00	10.00
	TOTAL HARD INTERVENTIONS COST	320.60	240.45	80.15
	TOTAL INTERVENTIONS COST (SOFT & HARD)	336.60	256.45	80.15
3	Other Project Components			
3.1	Contingencies	6.00	-	6.00
3.2	Deposit	2.25	-	2.25
3.3	Preliminary & Preoperative Expenses	1.75	-	2.75
	Total Other Project Components	10.00		10.00
3	Cost of TA (8% of Interventions)	20.51	20.51	-
4	Cost of IA/SPV including CDE	20.00	20.00	-
	TOTAL PROJECT COST	387.11	296.96	90.15

11 PLAN FOR CONVERGENCE OF INITIATIVES

The initiatives for convergence of schemes and leveraging of resources from various sources are under exploration viz.

- Dovetailing the benefits of other Coir Board schemes such as Coir Udyami Yojana, Export market promotion scheme etc. and also from other MSME schemes such as NEEDS, Capital subsidy scheme etc. to cluster members
- Exploring the opportunities for private sector participation in the cluster development project
- Exploring Corporate Social Responsibility (CSR) foundations with proven track record for additional funding.
- Exploring the possibilities to dovetail funds from various state and central government schemes over and above the funds sanctioned for SFURTI scheme (without duplication of funding for a specific project component).

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

Scheme	No. of	Cost of	Scheme	Bank	Promoter
	beneficiaries/	project	Funding	Loan	Contribution
	Activity				
Coir	10 (Coir two	10 members x	Rs.40.00	Rs.55.00	Rs.5.00
Udyami	ply units)	Rs.10.00 lakhs	Lakhs	Lakhs	Lakhs
Yojana		= Rs.100 lakhs			
PMEGP	5 (Coir Fibre	5 members x	Rs.43.75	Rs.75.00	Rs.6.25
	Extraction	Rs.25.00 lakhs	Lakhs	Lakhs	Lakhs
	units)	= Rs.125.00			
		lakhs			
	TOTAL	Rs.225.00	Rs.83.75	Rs.130.00	Rs.11.25
		Lakhs	Lakhs	Lakhs	Lakhs

The additional investment estimated in the cluster is Rs.225.00 Lakhs with the scheme funding of Rs.83.75 lakhs, bank credit of Rs.130.00 lakhs and the promoter's contribution of Rs.11.25 lakhs.

12 ENHANCED PROJECT COST AND MEANS OF FINANCE

The Project cost and Means of Finance of CORE SFURTI project is illustrated in **Chapter 10**. Convergence of initiatives such as Dovetailing the benefits of other Coir Board schemes such as Coir Udyami Yojana, Export market promotion scheme etc. and also from other MSME schemes such as NEEDS, Capital subsidy scheme etc. to cluster members, would be undertaken to improve the viability of projects, strengthening the value chains and market linkages and to enable the overall improvement of the level of human development in the area.

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

				(Rs.Lakhs)
S.No.	Component	Total Cost	Grant	Promoter's
			Component	Contribution &
				Bank Loan
01.	Core SFURTI	387.11	296.96	90.15
02.	Convergence initiatives (Establishment of individual units under various schemes)	225.00	83.75	141.25
	TOTAL	612.11	380.71	231.40

The enhanced project cost including the Core SFURTI and other convergence initiatives works out to Rs.612.11 lakhs, whereas the corresponding Grant component is Rs.380.71 lakhs and that of Contribution and bank loan is Rs.231.40 lakhs.

13 PROJECT TIMELINE

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

S.No.	oposed Interventions Period		
		Year	Quarter
1	SOFT INTERVENTIONS		
1.1	Capacity Building		
1.1.1	Trust building and motivational programme	Ι	Q1
1.1.2	Entrepreneurship Development Programme	Ι	Q2
1.1.3	Skill Upgradation Programme	Ι	Q3,Q4
1.1.4	Exposure Tour	Ι	Q2
1.2	Market Promotion		
1.2.1	Market Study Tour	Ι	Q3,Q4
1.2.2	Participation in Trade fairs	II	Q1,Q2
1.2.3	Buyer Seller Meet	II	Q3,Q4
1.2.4	Tie up with Business Development Service	II	Q1,Q2
	(BDS) providers		
2	HARD INTERVENTIONS		
2.1	Land Purchased	Ι	Q1
	(1.45 acres)		
2.2	Building for CFC	Ι	Q2,Q3
2.3	Machinery for Common Facility Proposed		
2.3.1	Coir Pith Block (5 Kg block) Facility	Ι	Q4
2.3.2	Coir Paper Board Making	Ι	Q4
2.3.3	PVC Tufting mat Facility		Q4,
		II	Q1

PROJECT TIMELINE CHART

Desired and 14		Ye	ear 1		Year 2			
Project activity	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
SOFT INTERVENTIO	DNS:	·						
Capacity Building								
Trust building and motivational programme								
Entrepreneurship Development Programme								
Skill Upgradation Programme								
Exposure Tour								
Market Promotion								
Market Study Tour								
Participation in Trade fairs								
Buyer Seller Meet								
Tie up with Business Development Service (BDS) providers								
HARD INTERVENTI	HARD INTERVENTIONS:							
Building for CFC								
Coir Pith Block (5 Kg block) Facility								
Coir Paper Board Making								
PVC Tufting mat Facility								

14 DETAILED BUSINESS PLAN

The cost of production and profitability projection are presented in Statement-3. The assumptions for working the cost of production & profitability are given below:

a. Coir Pith Block (5 Kgs.)		
Installed Capacity per machine per shift	6.00	Tons
Number of machines	1	
Number of shifts per day	1	
Number of days per annum	300	
Installed Capacity per annum	1800.00	tons
User Charge	Rs. 1,500.00	per ton of output
b. PVC Tufted Mat		
Installed Capacity per shift	450	Sq.M.
Number of machines	1	
Number of shifts per day	1	
Number of days per annum	300	
Installed Capacity per annum	135000	Sq.M.
Selling Price	Rs. 360.00	per Sq.M. (Width:120 cms)
Raw material (Yarn) reqt. per Sq.M.	2.30	Kgs.
Cost of Yarn	Rs. 38.00	per Kg.
Raw material (PVC) reqt. per Sq.M.	3.30	Kgs.
Cost of PVC	Rs. 45.00	per Kg.
c. Coir Paper Board		
Installed Capacity per shift	1	Ton
Number of machines	1	
Number of shifts per day	1	
Number of days per annum	300	
Installed Capacity per annum	300	Tons
Selling Price	Rs. 22,600.00	per Ton
Raw material (Waste Coir Fibre) reqt.	0.50	Tons per ton of output
Cost of Waste Coir Fibre	Rs. 5,000	per Ton
Raw material (Waste Paper) reqt.	0.50	Tons per ton of output
Cost of Waste Paper	Rs. 12,000	per Ton
Capacity Utilisation		
- First year	70%	
- Second year	80%	
-Third year onwards	90%	

Power Cost	Rs.6.50	per KWH
Repairs & Maintenance	2.00%	Of plant and machinery cost
		in the I year and 10%
		increase in every next year
Administrative Expenses	1.00%	Of sales realisation
Selling Expenses	2.00%	Of sales realisation

Project Financial Indicators

	Year I	Year 2	Year 3	Year 4	Year 5
Annual User fee/ Sales Realization	464.64	493.68	522.72	522.72	522.72
Profit Bef. Tax	104.10	111.98	119.75	117.38	114.87
Prov. for taxation	23.36	30.23	36.09	37.67	38.66
Profit after Tax	80.74	81.76	83.66	79.70	76.22
Break Even Point	35%	34%	33%	35%	36%

Net Present Value : Rs.74.84 Lakhs

Internal Rate of Return : 15.19 %

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

Statement 1: Cost of Project and Means of Finance

Statement 1.1: Estimation of Deposits / Advances

Statement 1.2: Preliminary and Preoperative Expenses

Statement 2: Assessment of Working Capital

Statement 3: Cost of Production & Profitability

Statement 4: Assumptions for Cost of Production and Profitability

Statement 5: Calculation of Income Tax

Statement 6: Estimation of Power Cost

Statement 7: Manpower Requirement and Estimation of Cost

Statement 8: Estimation of Depreciation

Statement 9: Projected Cash-Flow Statement

Statement 10: Projected Balance Sheet

Statement 11: Estimation of Break-Even Point

Statement 12: Estimation of Net Present Value and Internal Rate of Return

Statement 13: Sensitivity Analysis

15 PROPOSED IMPLEMENTATION FRAMEWORK

15.1 Role of Implementing Agency

The role and responsibility of the IA includes the following:

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

15.2 Details of Strategic Partners

The cluster is proposed to be developed under SFURTI (Scheme of Fund for Regeneration of Traditional Industries). The Coir Board is the Nodal agency (NA) and ITCOT Consultancy and Services Limited is the Technical Agency (TA) appointed by Coir Board. The Implementing agency proposed is **THE INSTITUTE OF ENTREPRENEURSHIP DEVELOPMENT**, the Non Government Organization, having its registered office at Dharmapuri and project offices at Krishnagiri and Salem. The above agencies work in tandem towards the successful implementation of the project in a sustainable manner.

15.3 Structure of the SPV

A Special Purpose Vehicle (SPV) is formed and registered as Private Limited Company under sub-section (2) of section 7 of the Companies Act 2013 and rule 8 of the Companies (Incorporation) Rules, 2014 in the name of **"KRISHNAGIRI COIR CLUSTER PRIVATE LIMITED"** as per the Certificate of Incorporation issued by Registrar of Companies, Coimbatore dated 29.07.15. The CIN of the company is U36104TZ2015PTC021616. The registration has been carried out with 5 members and 18 additional members are being included and the total number of members of the

SPV is 23. The SPV will be strengthened to manage the Cluster activities in sustainable nature after the project implementation is over.

15.4 Composition of the SPV

An SPV is formed with 23 members and the list is given below:

S.No.	Name	Designation	Present Activity
1	P.V. Vijayakumar	Chairman	Coir fibre
2	K. Selvam	Managing Director	Coir yarn
3	N. Sankar	Executive Director	Coir fibre
4	G. Venkatajalapathy	Executive Director	Coir yarn
5	P. Dhanapal	Executive Director	Curled coir
6	R. Tamilselvam	Member	Coir fibre
7	P.V. Santhaa Kumar	Member	Coir fibre
8	P. Selvi	Member	Coir fibre
9	G. Punitha	Member	Coir yarn
10	T. Saradha	Member	Coir yarn
11	M. Kalaiselvi	Member	Coir fibre and coir pith
12	R. Jagatha	Member	Coir yarn
13	Radhakrishnan	Member	Coir yarn
14	V. Mahendiran	Member	Coir fibre and coir pith
15	P. Thirunavukkarasu	Member	Coir yarn
16	A. Murugesan	Member	Coir yarn
17	A. Saravanamoorthy	Member	Coir fibre and coir pith
18	B.V. Govindarajulu	Member	Coir fibre and coir pith
19	R. Rajeswari	Member	Coir yarn
20	M. Sridhar	Member	Coir paperboard
21	P.V. Ramajayam	Member	Coir paper board
22	L. Arumugam	Member	Coir yarn
23	P. Varatharaj	Member	Coir yarn

16 EXPECTED IMPACT

S.No.	Parameter	Pre-	Post-
		intervention	intervention
1	Cluster Turnover (Rs. Lakhs)	2960	3500
2	Investment (Rs. Lakhs)	600	950
3	Employment (Nos.)	695	800
4	Wages per day (Rs.)	350	420 - 450
5	Profitability (%)	8% to 10%	Min.15%
6	Cluster Export Earnings (Lakhs)	Nil	120

- Effective utilization of pith generated from fibre extraction units and captive utilization of Coir yarn produced within the cluster.
- Establishment of new units by converging various schemes of State and Central Governments (such as Coir Udyami Yojana, NEEDS, PMEGP etc.) resulting in additional investments in Coir sector by the cluster members
- Emergence of specialized support service providers and their active involvement in the development process
- > 100% Coverage of cluster members under social security schemes
- > Improved access to financial capital for cluster members.