

**SETTING UP OF LIVELIHOOD BUSINESS INCUBATION CENTRE
UNDER
A SCHEME FOR PROMOTING INNOVATION, RURAL
INDUSTRY & ENTREPRENEURSHIP
(ASPIRE)**

AT

**AT REGIONAL EXTENSION CENTRE, COIR BOARD, THANJAVUR,
TAMIL NADU**

COIR BOARD

Ministry of Micro, Small and Medium Enterprises

Kochi, Kerala

www.coirboard.gov.in

Background

- 1.1 Coir industry is an agro based traditional industry providing means of livelihood for more than 7 lakhs of workers predominantly women. The industry is still using age old equipments and technologies for the spinning of coir yarn and manufacture of coir products. Realising the need for modernization of the industry, Coir Board through its research and development programmes have developed different modern machineries and technologies for production and processing of coir and coir products. The Board has also evolved schemes for providing financial assistance to the entrepreneurs for setting up of coir units with modern machinery items. In spite of these, the entrepreneurs are not keen to acquire new technologies and install modern machinery without getting convinced on the viability of these machineries and technologies.
- 1.2 The centrality of entrepreneurship in the economic growth of nations is increasingly coming into focus. In modern open economies, entrepreneurship is argued to be far more important than it ever was. There is a general consensus that almost all new jobs in the last couple of decades have been created by startups spearheaded by energetic entrepreneurs. The large companies, if anything, have been steadily losing jobs. The economic growth led by entrepreneurship is believed to be more comprehensive. The coir sector has also take advantage of the emerging scenario.
- 1.3 India is a young country with about 63% population currently being in the age group of 15-59 years. Every year India adds more than 5 million people eligible for securing jobs. India's young demographic profile has placed the country favourably in terms of manpower availability. People can be turned to economic assets if they can be gainfully employed. This demographic dividend requires engaging our youth in creative pursuits through developing appropriate skills, including entrepreneurial skills in coir industry also. Added to this are the burning issues of unemployment and poverty that continue to pose serious challenges to polity and economy of the nation. The need of the hour, therefore, is to create 'job providers' in large numbers rather than 'job seekers'. Coir sector provides scope for creating 'job providers' in the modern coir projects.
- 1.4 The myth that the entrepreneurs are born, no more holds good, rather it is well recognized now that entrepreneurs can be created and nurtured through appropriate interventions in the form of entrepreneurship development programmes.

1.5 The objective of promoting entrepreneurship development in the country can be achieved by providing handholding support to first generation entrepreneurs by helping them to set up their own micro and small enterprises. In addition, in order to inculcate entrepreneurial skills to the youth, skill development needs to be encouraged through which the youth can become employable and/ or create their own enterprise. There are several trades which can be covered to cater to the skill demands. Coir sector is one such trade which could be developed in the coconut producing states. With the concerted efforts of the Coir Board and the respective state governments, the coir industry has now proliferated to more than 14 States and Union Territories of the country.

2. Statement of problems:

2.1 Various Ministries / Departments of Government of India are operating a number of schemes to support first generation entrepreneurs. However, most of these schemes/ departments are working in silos. There is a need for establishing a network, building a database of these efforts in order that these are easily accessible to the entrepreneurs to select and convert them into commercial ventures. This would also provide a platform for sharing best practices, technological advancements and could ultimately bring up the ground realities before the policy makers for making policy changes.

2.2 .Development of the rural economy has been one of the prime concerns for Government of India. Accordingly, efforts have been made on a continuous basis for improving the economic and social well-being of people in rural areas on a sustainable basis. Despite the sincere efforts, the problems of poverty, unemployment, drudgery and migration still exist in rural economy. There is a need to address these problems by creating employment opportunities in the rural areas and this could be done by setting up of small enterprises in the Coir- based industry sector more so as nearly 80 % of the workforce are women. There is ample scope for innovation, value addition and entrepreneurship development in this sector. This is possible only by skill up-gradation, handholding, mentoring, incubation and credit support aimed especially at rural youth and women providing them employment opportunities at their doorstep.

3. Livelihood Business Incubation (LBI) Model for Coir.

The intention is to set up business incubators to incubate, impart entrepreneurship, skill development training to youth, mentoring and hand holding with facilitation for funding with a view to empower them to set up own business enterprises in coir sector. The prime focus of these incubators is to create jobs at local level and reduce un-employment by creating a favourable ecosystem for entrepreneurial development in the country.

The idea under the livelihood incubation is for enabling youth to take up those commercial activities which are already established to create enterprises on a large scale. It is proposed that Coir Board to replicate the 'Rapid Incubation Model' which is a mix of "promotion of entrepreneurship and skill development" and involves setting up of live "demo projects".

4.Objectives of Coir based Livelihood Business Incubation Centre

The main objectives of the scheme are to:

- (i) Create new jobs and reduce unemployment,
- (ii)** Promote entrepreneurship culture in coir sector through skilling.
- (iii)** Grassroots economic development at state level,
- (iv)** Facilitate innovative business solution for un-met social needs, and
- (v)** Promote innovation to further strengthen the competitiveness of coir sector.

All the above objectives are interlinked and different tools and methods are there to achieve these objectives. In order to have a one-stop solution to address all the objectives with special focus on job creation, entrepreneurship and innovation through value addition for the growth in the coir-industry sector besides keeping the flexibility and ease of implementation the following scheme has been designed.

4.1 Schedule of setting up of centres

Coir Board proposes to set up 5 LBI centres in various primary coir producing states during the year 2015-16 as detailed below:

Sl. No.	Organisation	State
1	Central Coir Research Institute, Kalavoor, Alappuzha	Kerala
2	Central Institute of Coir Technology, Bangalore	Karnataka
3	Regional Office, Rajamundry	Andhra
4	Regional Extension Centre, Thanjavur	Tamil Nadu
5	Regional Office, Bhubaneswar	Odisha

4.2 Promoting entrepreneurship through Livelihood Business Incubation (LBI) Model.

4.2.1 There is a need for demonstrating the modern production processes and technologies to convince the prospective entrepreneurs that they could run the units in a viable manner employing innovative technologies. Keeping this in mind, Coir Board was in the process of establishing a model of Coir Technology Incubation Centre at the Central Coir Research Institute, Kalavoor, Alleppey, Kerala. Some of the modern machinery items developed and successfully trial run by the Institute have been installed in the Incubation Centre for demonstration to the interested entrepreneurs. It is proposed to enlarge it and provide Livelihood Business Incubation training to the prospective entrepreneurs and the existing entrepreneurs in the new machineries and technologies for a period varying from 16 to 2000hrs (02-250 days) so as to enable them to get good knowledge in the working of the units and set up units for processing & manufacturing of coir products. Further, the artisans will also be trained in operating the machines or equipments for making them employable in the new units.

4.2.2 The Board will notify establishment of the Centres in the respective regions and will invite applications for undergoing training programmes in the Livelihood Business Incubation Centres. The candidates selected will be trained in the Centres in the respective incubation technologies for the specified duration after realizing a course fee of Rs.2,000/- (+ Service Tax at applicable rates) for entrepreneurs. The candidates attending the Advanced Coir Training Courses and Coir Artisan's Training Courses will be provided stipend @ Rs.1000/- month. During the course, besides giving hands on training, the candidates will be exposed to other schemes of the Board/State /Central Govt. for

extending financial assistance to set up new coir units and also arrange loans through the financial institutions. Tailor made training programme could also be organized in a particular type of machinery/technology to suit the requirements of the entrepreneurs. After successful incubation training, the entrepreneur will set up coir units by engaging trained artisans, thus creating new employment opportunities .

4.2.3 The Incubation Centres will be owned by the Board. An Advisory Committee consisting of the representatives of trade and industry with the head of the incubation centre as Convener will be constituted to oversee the activities of the training and maintenance of the Centre and to suggest activities to be taken up from time to time by the Centre through the Livelihood Coir Business Incubation.

4.2.4 The above objectives shall be primarily achieved by way of providing comprehensive skill development training and package of services in the areas of training for entrepreneurial skill development, selection of projects, preparation of project profile/reports, identification and sourcing of plant, machinery and equipments, facilitating sanction of credit facility and providing support services in order to boost the development of micro and small enterprises in manufacturing and services sector in coir industry. The hands on training in selected projects in manufacturing and service sectors shall facilitate the transformation of unemployed youth into budding entrepreneurs within a period ranging from 1 to 12 months depending on the nature of the project.

4.2.5 Tamil Nadu is the second largest Coconut producing in the country. Adequate availability of husk and application of modern technologies in the state attracted the entrepreneurs to produce Coir Fibre, Yarn, curled Coir, Coir Mattress Coir Pith Blocks and Pith Manure. There are 3824 registered coir units as on 31.03.2014 in the state. Tamil Nadu is the leading exporter of coir fibre. The Coconut production in Tamilnadu and A&N Islands which come under the jurisdiction of the Regional Office, Pollachi, is estimated as 4760 MT and 90 MT respectively. Since there is immense scope for value addition, skill of the artisans has to be improvised. With a view to generate awareness among the existing coir entrepreneurs and bring in new entrepreneurs to set up coir units, it is proposed to set up one LBI at Regional Extension Centre, Thanjavur in Tamil Nadu during the period 2015-16. It is proposed to impart training to 800 entrepreneurs per year at the proposed incubation centre.

4.3 Project Cost of CLBIC:

(Rs. in lakhs)

Sl.No.	Particulars	Amount
Capital Expenditure		
1.	Fibre Extraction Machine & accessories a. Screener b. Bailing press	4.00
2.	Spinning machineries a. Willowing machine b. Motorized Traditional Ratt c. Electronic Ratt d. Auto feed spinning machine	4.50
3.	Tufting Plant (60 cm width)	25.00
4.	Spray bleaching and stenciling unit	19.00
5.	Coir Polyester moulding	1.50
6.	Garden article making unit	15.00
7.	Equipment /Accessories for Cocolawn manufacturing	5.00
8.	Green house	7.00
9.	Pith composting accessories	2.00
10.	Paper making machines	7.00
	<i>Total</i>	<i>90.00</i>
Revenue Expenditure		
7	*Administrative &Scheme management expenses	8.00
8.	Monitoring and evaluation	2.00
	TOTAL	100.00

4.4. *Administrative & Scheme management expenses:

The manpower required for providing training, maintenance of machinery items etc. are detailed in the table given below

Revenue Expenditure:

(Rs. in lakhs)

Sl. No	Name and pay of Project Staff	No. of staff required	Qualification	Amount
1.	Trainer/Instructor with a consolidated pay of Rs.12,000/month	1No.	Degree with Advanced Training Course in Coir Technology	1.44
2.	Machine Operator with a consolidated pay of Rs.12,000/month	1No.	ITI in the trade of Machinist/ Fitter/ Turner	1.44
3.	Electrician with a consolidated pay of Rs.12,000/month	1No.	ITI in the respective trade	1.44
4.	Purchase of raw-material, office automation equipments, maintenance, outsourcing of data management services and development of scheme management software, stationery etc. and expenses for travel/exposure visits of the officials for monitoring the scheme activities , contingency etc.			3.68
	Total			8.00

4.5 Implementing Agency

The Director, RDTE, CCRI will be the nodal officer for implementing the Scheme .

4.6 Setting up of Incubation Centre

The Incubation Centre shall be set up by Coir Board under the Ministry of MSME.

4.7 Monitoring and Evaluation of the scheme

- 4.7.1 A State Level Governing Body of ASPIRE may be constituted, consisting of one nominee from KVIC, NSIC (both State level heads), Coir Board Regional Officer from the concerned state, General Manager, District Industries Centre and one nominee of Director of Industries.
- 4.7.2 A Screening Committee will be constituted consisting of Regional Officer/ESO of the concerned region, Manager of the Centre, two external experts, Manager, Lead Bank, a representative from the technical agency identified for SFURTI Cluster and one successful Entrepreneur from concerned region/area.
- 4.7.3. A Core committee at HO will be constituted consisting of Director, RDTE (Chairman of the committee), Director (Marketing), Joint Director (Plg), Senior Accounts Officer and Deputy Director (S&T). The DD (S& T) will be the convener of the Committee.

4.8 Review of the scheme

Joint Secretary, Min. of MSME(ARI) and Chairman, Coir Board will review the progress of the scheme.

4.9 Types and duration of the incubation training courses

The incubation training courses offered at the centre are as detailed in the table below.

Sl. No	Name of incubation training course	Duration
1	Training on Mobile Fibre Extraction Machine	200hrs(25 days)
2	Training for Pith composting & Pith block making	400hrs(50 days)
3	Fibre treatment processes	016hrs(02 days)
4	Training for fibre extraction in Decorticating Unit	200hrs(25 days)
5	Spinning on coir yarn on motorised traditional ratt	400hrs(50 days)
6	Manufacture of coir composites	400hrs(50 days)
7	Spinning on automatic spinning machine	200hrs(25 days)
8	Spinning coir yarn on Electronic ratt	200hrs(25 days)
9	Manufacture of coir handicrafts and gift articles	600hrs(75 days)
10	Manufacture of coir garden articles	200hrs(25 days)
11	Manufacture of PVC tufted coir mats shearing , bleaching and stenciling	200hrs(25 days)
12	Manufacture of Handmade paper	200hrs(25 days)
13	Manufacture of coir and Polyester moulded articles	200hrs(25 days)
14	Manufacture of coir needled felt	400hrs(50 days)

15	Training for Weaving coir geotextiles on Anugraha / Anupam Loom	200hrs(25 days)
16	Manufacture of Cocolog	200hrs(25 days)
17	Manufacture of Diversified coir products	400hrs(50 days)
18	Home garden/Cocolawn using coir pith	200hrs(25 days)
19	Advanced Coir Training Course	2000hrs(250 days)
20	Coir Artisan's Training Course	1000hrs(125 days)

A brief note on a few technologies are described in the Annexure I

5.Participants

Persons engaged in the Coir Industry in Managerial/ Executive level and persons who are responsible to guide the formulation and execution of schemes for the development of coir industry in the states and sponsored by the Coir Industrial firms are eligible to participate in the incubation training courses.

- 5.1 Age** : 18 years and above
- 5.2 Working Hours** : 10.00 AM to 05.00 PM on all working days.
- 5.3. Venue** : Regional Extension Centre, Coir Board
Thanjavur, Tamil Nadu
- 5.4. Accommodation and other facilities** : The participants shall bear the expenses for accommodation and food at their own cost during the training period
- 5.5. Strength of participants** : 10 nos. per batch

6. Technology support

- ❖ Skill development and identification of suitable technology for the entrepreneur
- ❖ Project preparation based on product selection
- ❖ Hands on experience in the process / manufacture of coir and coir products
- ❖ Guidelines for establishing coir industrial firms
- ❖ Trouble shooting in setting up of an industrial unit including pollution free process, costing and pricing, marketing and working capital management
- ❖ Testing and quality specifications
- ❖ Bank and scheme linkages procurement of equipments and raw materials including installation and commissioning, market support etc.

❖ Monitoring of the projects

7. Fees for incubation training:

An amount of Rs. 2000/- + service tax per project per trainee

8. Funding support through ASPIRE:

As per the project proposal an amount of Rs. 100.00 lakhs is envisaged for the setting up of one LBIC at Coir Board Regional Extension Center at Thanjavur, Tamil Nadu in the year 2015-16.

9. Grant for the incubation training courses

The assistance for the conduct of the programme will be met from the ATI Scheme of the MS& ME / Skill Development programme of Coir Board under the CVY.

Annexure I

1.Mobile Fibre Extraction Machine (MFEM)



The traditional coir industry is facing an acute crisis of fibre shortage. The industry feels that there is an untapped stock of husks in the rural areas from where collection is difficult as onsite defibering is not possible. Central Coir Research Institute, Kalavoor developed a Mobile Fibre Extraction Machine that is being demonstrated before the coir industry. This invention has got the NRDC award for the year 2010 and the prestigious World Intellectual Property Organization (WIPO) Gold medal has been conferred to

India as the best invention of the year 2010.

2.Coir Polyester composites

Composite coir articles can be manufactured from general purpose polyester resin and coir fibre/pith. The so produced composites are of high strength, water resistance and durability. The coir reinforcement should be dried properly before composite manufacturing.



3.Manufacture of fine yarn / fabric by blending coir fibre with other natural fibres

The coir fibre is twisted in to yarn of 800 to 1200 runnage of single strand or doubled can be used as weft and cotton yarn as warp. The weaving process can be done in traditional looms as per required width. Natural or bleached coir yarn can be used as per the quality requirement of the product

COIR JACKETS**COIR FANCY BAGS*****4.ANUGRAHA, a metallic hand loom for weaving coir geo textiles***

Central Coir Research Institute, the prime research centre of Coir Board has developed a metallic handloom named “ANUGRAHA” for weaving coir geo textiles. The operation of wooden coir handlooms requires exertion of a large force and therefore can be operated mainly by persons having sound physique. Anugraha loom has been so designed that it can weave a coir fabric with a close weave of 6 mm to a fabric having a mesh size of 25 mm. As there is no power to operate this loom, it can be installed in the remote village where women can easily operate it as it has a simple pedal for treading. The loom can be converted in to wide width or a multi shaft loom to make it more versatile to produce intricate designs on coir. The metallic loom could save trees, which are considered to be essential for maintenance of ecology. This loom has fetched NRDC award for the year 2004 as the meritorious invention. Anugraha is light weight; compact, easy to shift from one place to another as it needs no foundation. It needs less maintenance and occupies less space. It is easy to operate compared to wooden handloom. Anugraha loom is a big success in the coir industry and there is a tremendous scope for the generation of women employment.

5.ANUPAM, a versatile loom for weaving all types of coir mats and mattings

Anupam loom is a versatile pneumatic loom designed and developed by the Central Coir Research Institute of Coir Board. It is capable of weaving different kinds of coir products like coir mats such as rod mat, rod inlaid mat, carnatic mat, creel mat, fibre mat, different types of two shaft and 3 shaft coir matting, carpets and geo textiles whereas separate wooden loom is required for each product. The operation of wooden coir handloom requires a load of 30 kg for movement of the treadles, which is applied manually by workers. In Anupam loom, the treadles are replaced by pedals, which are no longer manually operated. The pneumatic cylinders are connected to the pedal for the up and down movement of the heddles. A second pedal is provided for causing the movement of the sley. Therefore beating is not manual as in wooden handlooms. This is more advantageous for a women worker who has no difficulty in operating the Anupam loom. The additional advantage is that the exhaust air can be used for stenciling of coir mats/mattings.



6.Paper making machine for coir



Research on utilization of fibre and pith from green / dry, tender husk is being carried out at Central Coir Research Institute under Coir Board. Laboratory scale studies succeeded in pulping of coir fibre and pith which could produce handmade paper, garden

articles, egg cartons, visiting cards, gift boxes etc. The waste paper collected by rag pickers and paper shredder etc. normally comes to the big plants to recycle it. Generally, the raw material for the pulp is “wood chips”. Hence there is a need to prepare good quality pulp from lingo cellulosic materials like coir which is an excellent wood substitute in making paper.

7.COCOLAWN™, a readymade soil less instant coir lawn



Central Coir Research Institute, Alappuzha has developed **COCOLAWN™**, a lush green readymade lawn of grass. Grasses of choice can be grown to prepare the lawn. The lawn is encased in a composite comprising a single or multiple layers of non woven coir fabric embedded in a coir netting. A layer of coir pith is placed on the non woven layer/s. Grass slips are planted on the coir pith bed so made and C-POM is sprinkled thereon to form a thin layer. 'COCOLAWN' is a natural, eco friendly lawn and a better substitute to synthetic lawns. This technology has been conferred NRDC meritorious award for the year 2002.

8.Composting of coir pith using "PITHPLUS"

The Central Coir Research Institute, Alappuzha has developed a technology for the bioconversion of coir pith into organic manure which has applications both in the agriculture and horticulture fields. The product obtained after bioconversion has excellent properties for use as a growth medium for all types of plants. The coir pith is available in huge quantities in our country, which needs to be processed into a form suitable for agricultural and horticultural use especially for the floriculture production and landscaping. The coir pith could be an excellent substitute for various peat products since it also has high water holding capacity and ability to last long in the soil.

Method of bed composting

- Spread uniformly 100 kg coir pith in an area x 3M



5M

- Apply one packet of Pithplus (400gm) uniformly over it
- Cover with 100 kg coir pith and apply 1 kg urea uniformly over it.
- Spread 100 kg coir pith again
- Repeat the sandwiching process
- Moisten the heap by sprinkling 25 buckets (approx) of water daily.
- Allow the heap to decompose for 30 days

200 % Moisture

- 1 Ton Coir Pith + 2kg Pithplus + 5 kg Urea -----> C-POM
30 days

The organic manure thus obtained is richer in nitrogen, phosphorus and potassium.

The correct moisture is crucial. To ensure the moisture content at all times, the mixture should be wetted initially and again when necessary during the composting process.

9. MINI TUFTING PLANT



Since a few exporters had imported PVC Tufting Machinery costing about Rs.30 million per unit as investment, handloom mats and other products went out of market, with the coming of new product, and this very badly affected small entrepreneurs in the coir sector, and they had to close their units for want of orders. The investment cost of standard tufting unit was very high, and beyond their reach therefore, many small production units were closed and their employees were jobless.

This was a serious issue in the coir market, therefore Coir Board took the initiative and provided guidance to develop a Mini Tufting unit costing less, and which can be used by small units, with least investment i.e. less than 2 million rupees. Hence the Central Coir Research Institute of Coir Board has developed a Mini Tufting Machine for tiny units to enhance the productivity with least investment. The present invention discloses a mini tufting machine for making PVC backed non woven mat in 50cm width and different length as per the customer's choice. The machine is worked with automatic shearing blades moving up and down motion which operated with least power consumption.

The two ply yarn/single ply yarn is wound on a bobbin/creel arrangement stand. The mini tufting machine draws about 80 coir yarn to the tufting machine with the help of a pair of rolls running at uniform speed, and feeds into a pair of rolls which intermittently

feeds required length of coir yarn depending on the pile height. After the end of each feeding movement, the top knife cuts the yarn and pushes into a curved chute to feed the piles over the conveyor, running at required speed below the chute. PVC mix is spread onto the conveyor, at the starting point and spread over the conveyor at required uniform thickness by a doctor blade.

The yarns coming out of the chute are pressed into the PVC coating, and these piles embedded in the PVC coating slowly moves with the belt like a mat, and heated to 150°C by the heating panels below the conveyor. After traveling for about 8mtrs., with a speed of 0.5 mtr. /minute, the PVC gets cured and after this mat is cooled by circulation of water at room temperature. Then this mat is rolled in a rolling machine. This is then cut to required size into door mats.

This invention will help the ordinary entrepreneurs to start mini tufting units for their profit and also give employment opportunity to the unskilled manpower. Women can operate the machine easily for more wages, and earn profit.

