

## PERFORMANCE EVALUATION OF COIR INDUSTRY IN TAMILNADU

### Article Particulars

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### Abstract

*Coir is a natural vegetable fibre extracted from coconut husk. It is one among the industrial hard fibres of great economic importance. Coir is extracted coconut husks either by the natural retting process or by mechanical extraction. The fibre extracted from green husks by the retting process is termed "white Fibre" and that from husks by mechanical process is "Brown Fibre". Both these methods are adopted in Tamilnadu.*

**Keywords:** *Coir Industry, Manufacturing Process, Method, Promotion, Export, Exhibition.*

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### Introduction

Coir is a versatile material which finds use in a variety of application due to the intrinsic characteristic of the fibre. It is a multi-cellular fibre with cellulose and lignin as the major constituents. The high lignin content contributes to the hard and rigid nature of the fibre. It's damp and rot resistant nature, with capacity to absorb and retain colouring material coupled with resilience, makes it so eminently suited for preferential use in the manufacture of brush mats, carpets, mattings and floor furnishing materials. The low heat conductivity of coir and its sound modulating characteristics prompt its use in thermal insulation and acoustic control.

India has the distinction of having the monopoly for supply of coir fibre, coir yarn, mats, mattings and carpets of superior quality to world markets. With the advent of synthetics, Indian export of coir and coir product has met with serious setbacks. In international markets, coir exports from India face competition from synthetics. Grass mats originating from China and South East Asian Countries offer serious competition to Indian Coir Products. Synthetic products are sold at half the price of the coir products. The labour intensive nature of the traditional coir industry concentrated in Kerala and the low productivity of the manufacturing technique of coir extraction and further processing of fibre into yarn and products have stood in the way of manufacturing coir products at reduced cost. There is an apprehension of displacement of labour on a

large scale by the adoption of power based but more productive and efficient methods which have stalled the progress of the traditional coir industry.

### **Coir Industry in Tamil Nadu**

In Tamilnadu, the existence of the first coir unit can be traced to the present Kanyakumari District of Tamilnadu in 1940 which was then in the erstwhile Travancore Cochin state. After independence a portion of the area of former Travancore Cochin State came to Tamilnadu in the Kanyakumari District where the Coir industry had already existed.

The coir industry flourished in the coastal areas of south India mainly in the west coast where backwater facilities were available. In the East Coast, coir industry was confined only to certain pockets in the following districts only where backwater facilities were available.

1. Kanyakumari district
2. Cuddalore in South Arcot districts
3. Mallipattinam, Muthupettai and Nagapattinam in Thanjavur District.

The Government of Tamilnadu started a coir school at Eathamozhi in Kanyakumari district in 1956 for imparting training in coir yarn spinning, weaving and dyeing. Brown fibre was first produced in 1967 in Tenkasi in the government bristle fibre unit started by the industries and commerce department. The manufacturing of coir using indigenous machinery for defibering of coir fibre, was started in 1973 in Kumbakonam and at Thiruvarur in Thanjavur district.

In 1974, indigenously fabricated coir machine installed units were started in Muthupet, Thuvarankurichi and Pattukottai. After watching the successful functioning of these units, more units were set up in Thanjavur district. Since then coir industry has been developing at a very rapid pace in Tamilnadu. Tamilnadu is the second largest producer of coir fibre in the country. In the brown fibre sector Tamilnadu occupies the pride of place as being the single largest producer of brown fibre contributing about 60 per cent of the total production in the brown fibre sector. The activities of the coir sector in Tamilnadu are coordinated by the department of industries and commerce. The department provides budgetary allocation for development of coir co-operatives. The year wise allocation during the 7th plan period is given below

### **Manufacturing Process**

The extraction of coir from coconut husk is done by two methods: viz., Natural method and mechanical fibre extraction method. Both these methods are adopted in Tamilnadu.

## **Natural Method – Retting Method**

Coconuts are plucked from the coconut trees and are immediately dehusked. The coconut husks are soaked in the saline backwater for six to eight months. Then the well soaked husks are taken out and beaten with wooden mallet and fibre is extracted. This method is not suitable in Tamilnadu as backwater facilities are not available in all the districts.

## **Mechanical Extraction Process**

Here again there are two methods.

1. Combing method
2. Beating method

### **1. Combing Method**

In the combing method, the dried husk is fed into defibering machine through wire rope or rotating wheels with catching arrangements to hold the husks subjecting it to the highly rotating combing drums with hard steel spikes which will comb the husks and remove the binding materials around the fibres, namely the pith. The long stapled fibre called bristle fibre falls at one end of the combing machine. This combing method is also used for fibre extraction from green husks.

### **2. Beating Method**

In this process the soaked husks (Green or dried husks) are fed into the beating machine also known as decorticator in which iron roads fixed at a particular angle on a rotating bar at high speed thrashes out the husks and fibre is separated.

“White Fibre” which is comparatively lighter in the natural tint is amenable for being twisted with ease for preparation of Coir Yarn Suitable for manufacture of coir mats and mattings of superior quality. “Brown Fibre” is tough and resilient and more suitable for making brushes, rubberized coir products and carpet underlay etc.

## **Market Promotion of Coir and Coir Products**

### **Domestic Market Promotion**

The promotion of the sales of coir products in India and abroad is one of the important functions of the coir board. The Domestic Market Promotion, includes efforts for enhanced sale of coir products through board’s showrooms and sales outlets, and also popularizing coir and coir products through publicity, organizing exhibitions in different parts of the country, using audio and visual media, carrying out sales campaign, press advertisement and distribution of pamphlets, installing hoarding etc. coir board has participated in 63 exhibitions during 2007-08 (up to December 2007) for popularization of coir and coir products in the domestic market out of which 6 exhibitions have been organized in North Eastern Region (NER).

The coir board has 30 showrooms and sales depots as marketing outlets. The sales through the board's showrooms during the year (up to December 2015) have been of the order of Rs.480.33 lakh.

### Export Market Promotion

The export promotion programme is one of the important programmes being implemented by the Coir board for sustainable development of the industry. Under this programme, the coir board, in association with trade and industry, is participating in major international fairs/ exhibitions on a country/ product specific basis, undertaking product promotion programmes, catalogue shows, extending external market development assistance to exporters etc.

With efforts of the coir board, the export of coir and coir products touched Rs.605.17 crore during 2013-14, recording a growth of 19 per cent in value terms, as compared to the previous year. This is the highest ever export for the coir industry. The details of exports of coir and coir products made during the XI plan and 2014-15 are given in Table 1.

**Table 1 Details of Export from Coir Sector**

items	Quantity (Metric Tonnes)	Value (Rs. lakh)
Coir fibre	2,19,103	41,923
Coir yarn	4070	3000
Handloom mat	25,345	23,946
Powerloom mat	161	225
Tuffed mat	41,284	39,725
Coir rope	614	391
Curled coir	12621	3732
Rubberized coir	897	1410
Coir pith	316425	43295
Coir other sorts	71	85
Total	620591	157732

**Source:** Data Collected form the Annual report of Coir Industry 2013-14 to 2017-18.

During the year 2007-08 (up to December 2007), the coir board participated in the following fairs and exhibitions for promotion of exports of coir and coir products are given in Table 2.

**Table 2 Participation in Fairs and Exhibitions**

Sl. No.	Name of Exhibition	Country/ Place	Period
1.	China Sourcing Fair	Hong Kong	20 – 23 April 2007
2.	Global Home Textile Show	Florida, USA	08- 10 May 2007
3.	Africa's Big Seven Exhibition	Johnesburg	15 – 17 July 2007
4.	House & Gift Fair	SaoPaulo, Brazil	18 – 21 August 2007
5.	International Autumn Fair	Birmingham, UK	2 – 5 September 2007

6.	Rwanda International Trade Fair	Kigali, Rwanda	3 October 2007
7.	International Horticulture Fair	Amsterdam	09-12 October 2007
8.	IITF	New Delhi	14 – 27 November 2007

**Source:** Directorate of Economics and Statistics and Ministry of Agriculture

Besides, for popularizing the coir and coir products and promoting their export, the Coir board has taken many steps like catalogue show during the year. The highlight was the India International Coir Festival held in Kochi between 7 December to 11 December 2007. As many as 108 participants from 33 countries took part in this event.

## Conclusion

Traditional uses for the resilient and durable coir fibre include rope and twine, brooms and brushes, doormats, rugs, mattresses and other upholstery, often in the form of rubberized coir pads. In the 1980s and 90s, global exports of coir fibre fell by almost half, as western consumers shifted to synthetic foam and fibres. Then, since 1990, rapidly growing domestic demand in India more than doubled global production benefiting exclusively the Indian coir industry. Finally, since 2001, a rising Chinese demand for coir, an expanding market for coir-based erosion control products, and the spread of coir pith as a peat moss substitute in horticulture has further pushed up global production and prices.

In the era of digital technology, every nation is prone to environmental pollution. The coir products are eco-friendly and relatively durable when compared with other competitive products. The future of nation could obviously depend upon the protection of its environmental and natural resources. The conduct of awareness programme frequently would result in the consumer awareness and encouragement of consumers to utilize coir products.

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