



COIR INDUSTRY IN INDIA: AN OVERVIEW ON PERFORMANCE, PROBLEMS & PROSPECTS

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Abstract

India is that the largest coir producer within the world accounting for more than 80 per cent of the entire world production of coir fibre. The coir sector in India is extremely diverse and involves households, co-operatives, NGOs, manufacturers and exporters. India is the largest producer and exporter of coir and coir products. In this study analysis of Performance Regarding Manufacturing of Coir in MSMEs by analyzing their Production of coir, Exports of Coir, Growth in production of coir products. This article analyses the performance of Coir Industries in terms of Coir Fibre Production in India during last Five years and current financial year , Growth in production of coir products during 2018-19 to 2020-2021, Exports of Coir during Last 5 Years and current financial year , Major importers of Coir from India, SWOT Analysis on the Opinion of Artisans in the Employment in Coir Industry.

Key Words: *Coir, Coir Fiber, Coir Industry, Coir Products, MSME, Value added product.*

INTRODUCTION

Rural or traditional industry, one of the sub-sectors of small-scale industry, has a direct and important influence on sustainable economic development. It is a matter of common knowledge that India is a land of villages and two-thirds of its population lives in rural areas. The future of India lies in these teeming rural million. It is only from a progressive, growing and dynamic rural society that India could put herself on the desired developmental path. Rural small-scale industries play an important role under the peculiar Indian conditions. Coir Industry one of the few rural or traditional industries converting the coconut husk, a waste, into wealth. This industry is the largest producer of coir, accounting for more than 80 per cent of the world's production of coir fibre Coir Industry has to its credit a tradition and heritage of centuries. It is one of the few rural or traditional industries' converting the coconut husk, a waste, into wealth. This industry is the largest producer of coir, accounting for more than 80 per cent of the world's

production of coir fibre.

Coir industry is one of the traditional cottage industries of India. The industry thrived in India primarily because of the traditional craftsmanship of the rural artisans. The world's largest producer of coir is India. Coir industry is of great importance to coconut producing states in India as it contributes significantly to the economy of these states. This is because coconut husk, the raw material for coir industry is available in abundance as a by-product of coconut industry in regions of concentrated cultivation. Coir industry in India provides source of income to about 5 Lakhs artisans in rural areas. The Coir Industry is a labour intensive and export oriented industry employing more than seven lakh workers predominantly women. The decentralized operations in the coir industry without adequate training of spinners, weavers and artisans engaged in value added product manufacturing have been posing problems particularly for ensuring the desired level of quality in the ultimate products. Historically, the coir industry started and flourished in Kerala which has a long coast line, lakes, lagoons and backwaters providing natural conditions required for retting. However, with the expansion of coconut cultivation, coir industry has also picked up in Tamil Nadu, Karnataka, Andhra Pradesh, Orissa, West Bengal, Assam, Tripura, Pondicherry and the Union Territories of Lakshadweep and Andaman & Nicobar Islands through the efforts of Coir Board.

The Coir Board is a statutory body established under the Coir Industry Act, 1953 for promoting the overall development of the coir industry and improvement of the living conditions of the workers engaged in this traditional industry. The functions of the Coir Board for the development of coir industry, inter-alia, include undertaking scientific, technological and economic research and development activities; collection of statistics relating to exports and internal consumption of coir and coir products; development of new products and designs; publicity for promotion of exports and internal sales; marketing of coir and coir products in India and abroad; preventing unfair competition among producers and exporters; assisting in the establishment of units for the manufacture of products; promoting co-operative organizations among producers of husk, coir fibre, coir yarn and manufacturers of coir products; ensuring remunerative returns to producers and manufacturers, etc.

Origin of the word “Coir”

The name of coir is said to come from the Malayalam word “Kayar” (from the verb “Kayaru”- meaning “to twist”) through the Portuguese corruption “coire”. But the Malayalam “kayar” does not mean what the word “coir” has now come to denote the word appears in early Arabic writings as “Kaanbar” and “Kanbaar” arising probably from some misreading of the diacritical points (from “Kaiyer”). The first time the word appeared in English language was in that New English Dictionary, as “COIRE” in 1697 and later as “COIR” in 1779. “Kayar” or “kayer” is also the word for “rope” in ancient Tamil or ancient “Adiravidian” language.

Coir is the fibre or thread obtained from the husk of the fruit of the coconut (*cocos nucifera*). Thus “coir” means “the fibre” obtained from the husk of the fruit of the coconut palm tree. In other words, it is one of the innumerable products of the coconut palm, and is a by-product of the coconut industry.

REVIEW OF LITERATURE

The following is the gist of earlier researches which were reviewed for the present study.

Y. Gangi Reddy (1989) in his article “Growth Performance of Village and Small Industries” analysed the growth performance of the rural industries (khadi and village industry, handloom, sericulture, handicrafts, coir) vis-a-vis small-scale industries during the last few decades in the light of the assistance received from time to time. In his study four variables—production, capital, employment and export — were considered find out the growth of village and small industries.

Chilar Mohamed and Shahul Hameed (2003) in their article “Indian Coir Industries Challenges and Future Prospects” have stated that with the advent of synthetic fibres in European countries, Indian exports of coir and coir products have met with a serious setback. They concluded that some form of technological improvement in the coir industry is the need of the hour so as to maintain its position in the world market for its products and sought innovative marketing methods including development of new products which alone could reverse the stagnation in India’s coir exports.

Nayak & Mahapatra (2016) discussed that Coir industry is one of the traditional cottage industries of India. Coir industry is of great importance to coconut producing states in India as it contributes significantly to the economy of these states. This is because coconut husk, the raw material for coir industry is available in abundance as a by-product of coconut industry in regions of concentrated cultivation. Coir industry in India provides source of income to about 5 Lakhs artisans in rural areas.

Richard Paul (2004) in his study on “A Study on Production and Marketing of Coconut in Theni District” examined the nature of returns to scale and analysed the resource-use efficiency in the production and marketing of coconut with the help of the marginal value product using the Cobb-Douglas production function. He observed that the sum of the production elasticity for the yield of small, large and overall growers indicated a decreasing return to scale.

Christy Fernandez (2003) analyzed India is major exporter of value added coir goods. The R&D efforts in India have been successful in developing many new products, could be utilized for a variety of applications that are cost effective and environment friendly, capacity building and quality up gradation of the widely scattered house hold production units are critical in improving the domestic coir industry prevent unhealthy competition, offer directions for production including a supply side management and take up issues of common interest the survival of coir industry depends on its ability to adapt itself quickly to the fast changing consumer preference and widening choices. Whether for domestic of export purposes, the coir sector has to diversity, keep the quality of products and service high ensure cost effectiveness.

Chandaran (2005) in his article on “The Indian Coir Industry” pointed out that the high labour cost in Kerala forced the manufacturers to take the coconut husk to the neighbouring state for defibring and bring it back as fibre to Kerala which was another reason for the increase in the price of fibre. Further, he observed that when demand had gone up on account of short supply of fibre to the production centers, there had been an unprecedented increase in the price of fibre

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Kumarasamy Pillai (2005) in his article “Towards self-reliance in Coir Fibre Production” stated that it might not be possible to utilise the entire coconut husks produced in the country for coir production due to a variety of reasons such as lack of a well-defined mechanism for collection of husks, increased cost of transportation, lack of awareness among the coconut producers, dealers and domestic households about the economic value of husk.

Dr. R. Venkatesh and Dr. K. Kumaran (2019) in their article entitled “Export Performance of Coir Industry in India” found that the export performance of Handloom Mats, Power loom Mats, Rubberized Coir and Tufted Mats have increased gradually after globalization. The export performance of other coir products showed a wavering trend except the export of Curled Coir which shows a decreasing trend. The export performance of Handloom Mats, Power loom Mats, Rubberized Coir and Tufted Mats is satisfactory. This trend should be continued in the future also. The authors also suggested that state government as well as the Coir Board should encourage the entrepreneurs to go for the manufacture of value-added coir products and the Self-help groups which have a strong presence in the study area may be motivated and helped to undertake the manufacturing of traditional coir products like mats, mattresses, coir ropes, carpets and innovative coir products like coir composites, coco-lawn, coir bricks and coir geo-textiles.

K. Praveenkumar and Dr. G. Vinayamoorthi (2017)² in their article entitled “A Study on Export Performance of Coir Industry in India” observed that China is the major importer of Indian coir products. Coir pith is used in various forms of products in central European countries. Export promotion council of India and coir board of MSME give full support to increase the export of coir products and also governments have many plans to develop the industry. It was also observed that the people involved in the industry are lacking awareness on the devolvement, promotional and subsidy schemes available for coir industry.

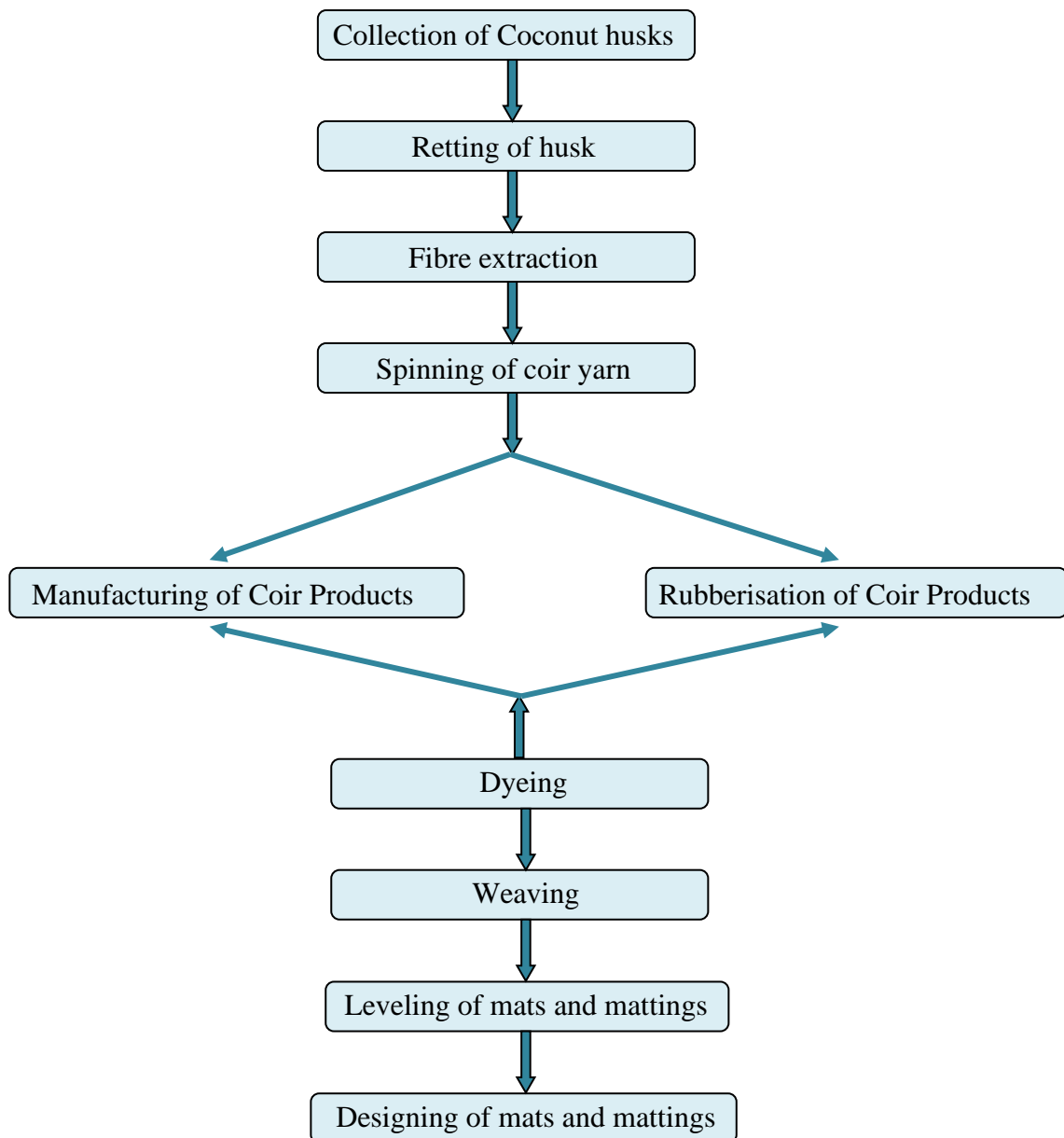
R. Senthilkumar. R (2015)³ in his study recorded that even though Coir Industries in India are facing lot of problems, it has various opportunities for further growth and development. The coir industry has wide future prospects in terms of availability of coconut husks, providing employment, reducing unemployment, generating income, alleviating poverty, improving the standard of living of the people, creating great demand in both domestic as well as international markets, developing entrepreneurship and promoting the country’s economy. He concluded that the Government of India, through Coir Board, can promote the coir industry in terms of solving the various problems faced by the coir industry in India and opening the gateway for future prospects.

Dr. K. Ramamurthy, G. Brintha K. Kanimozhi.(2013) had coir exports facing challenges of first, the quality of coir products is often difficult to maintain because of the very natural and availability of raw materials like fibre, yarn, dyes and chemicals. Besides the production infrastructure in India is obsolete and often in dilapidated condition. Second think is inadequate, ready- to- use information keeps the manufacturers mostly running small units, ignorant of the market conditions and consumer preferences. The third on of major problem is the coir industry faces today is the inadequate R&D efforts for product development and diversification.

Production Processes in Coir Industry

The production of process of coir starts from the extraction of coir fibre involving a lengthy process of either retting or unretting of coconut husk. Thus, the process of the extraction of the fibre is done through two methods viz the traditional methods (retting) and the mechanical method (unretting).¹² The traditional method is generally followed in coastal areas where brackish water facility is available. This method is gradually on the wane as the production of coir fibre and coir products spreads to non-traditional areas. The advent of the mechanical method of extraction reduces the period of retting and speeds up the products of fibre. By using coir fibre, coir yarn, coir products and rubberisation of coir products are affected. The following figure depicts the production process involved in the Coir Industry.

FIGURE – 1 : Production Process in Coir Industry



COIR FIBRE PRODUCTION IN INDIA

Coir is a coarse fibre extracted from husk, the fibrous outer shell of coconut. Ropes and cordage, made out of coconut fibre have been in use from ancient times. The Ministry of MSME has been giving chief importance to the development of coir sector in the country for its betterment. Table No. 1 clearly reveals that the coir fibre production in India has been steadily increasing during the last six years from 2015-2016 to 2020-2021. Production of coir fibre was at its peak of 5,49,300 Metric Ton during the year 2015- 16, has estimated upto 7,10,000 Metric Ton during the previous financial year (2020-2021) .

Table-1: Coir Fibre Production in India during last Five years and current financial year.

Year	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21 (As on Dec 2020)	2020-21 (Estimated upto March 2021)
Coir fibre Production (Metric Ton)	5,49,300	5,56,900	5,59,400	7,49,600	7,41,000	5,19,000	7,10,000

The estimated production of coir and coir products during the last two years and the current year are given below:

Table-2 : Growth in production of coir products during 2018-19 to 2020-2021

Item	2018-19 (Qty in MT)	2019-20 (Qty in MT)	2020-21 (Qty in MT) (As on December 2020)	2020-21 (Qty in MT) (Estimated to March 2021)
Coir fibre	7,49,600	7,41,000	5,19,000	7,10,000
Coir yarn	4,49,800	446000	3,12,400	4,27,300
Coir products	2,96,800	294200	2,06,100	281900
Coir Rope	90,000	89200	62,500	85,500
Curled Coir	89,900	88800	62,200	85,100
Rubberized coir	89100	89500	1,19,900	90,700

Export related-

Coir Industry has to its credit a tradition and heritage of centuries. It is one of the few rural or traditional industries' converting the coconut husk, a waste, into wealth. This industry is the largest producer of coir, accounting for more than 80 per cent of the world's production of coir fibre.

Till 1980, the exports from the industry were limited to a few countries, but with the advent of globalization now its horizon has expanded. Initially India's export trade of coir products mainly consisted of coir and coir matting's but at present it comprises 14 products namely curled coir, coir fibre, coir rugs, coir rope, coir yarn, coir geo-textiles, coir pith, handloom mats and mattings, powerloom mats and mattings, rubberized coir and tufted mats. Till today, in terms of both quantity and value export, coir and coir products have been continuing to record an upswing. It is an export oriented industry having potential to enhance exports by value addition through technological interventions.

**Table-3 : Exports of Coir during Last 5 Years and current financial year
(Volume and Value)**

Year	Quantity (MT)	Value (Rs. In Lakhs)
2015-16	752,020	190142.52
2016-17	957,045	228164.82
2017-18	10,16,564	253227.84
2018-19	964,046	272804.59
2019-20	988,996	275790.13
2020-21 (Provisional as on November 2020)	722,459	225497.67
2020-21 (Estimated upto March 2021)	10,00,000	300000.00

Majority of the coir products manufactured in India are exported by the country. Coir is one of the Foreign Exchange earners for the nation. India's export of coir has been increasing constantly both quantity wise and value wise from the year 2015-16 to 2017-18. Even though it has seen a slight decrease in the quantity of export during the year 2018-19 and also estimated to increase considerably by 2020-21.

In order to project the future trend of export of Coir, it is worth estimating the trend of export of Coir (Quantity) from India for the five successive years. The Linear Trend Analysis has been made for six years from 2019-20 to 2024-25 and the Trend Analysis projection is presented Exports of Coir (Volume) in Table No. 4 and Figure No. 2 and Exports of Coir (Value) in Table. No.5 and Figure No. 3.

Table – 4 : Exports of Coir (Volume)

Year	Quantity (MT)	M.A. (1)	M.A. (2)	M.A. (3)	M.A. (4)	M.A. (5)	M.A. (6)	Estimates of Volume
2015-16	752020							752020
2016-17	957045	85453 2.5						957045
2017-18	1016564	98680 4.5	920668 .5					1016564
2018-19	964046	99030 5	988554 .75	954611. 63				964046
2019-20	988996	97652 1	983413	985983. 88	970297. 75			988996
2020-21	1000000	99449 8	985509 .5	984461. 25	985222. 56	977760. 16		1000000
2021-22(E)		10000 00	997249	991379. 25	987920. 25	986571. 41	982165 .78	982165.78
2022-23(E)			100000 0	998624. 50	995001. 88	991461. 06	989016 .23	985591.01
2023-24(E)				1000000 .00	999312. 25	997157. 06	994309 .06	991662.65
2024-25(E)					1000000 .00	999656. 13	998406 .59	996357.83
2025-26(E)						1000000 .00	999828 .06	999117.33

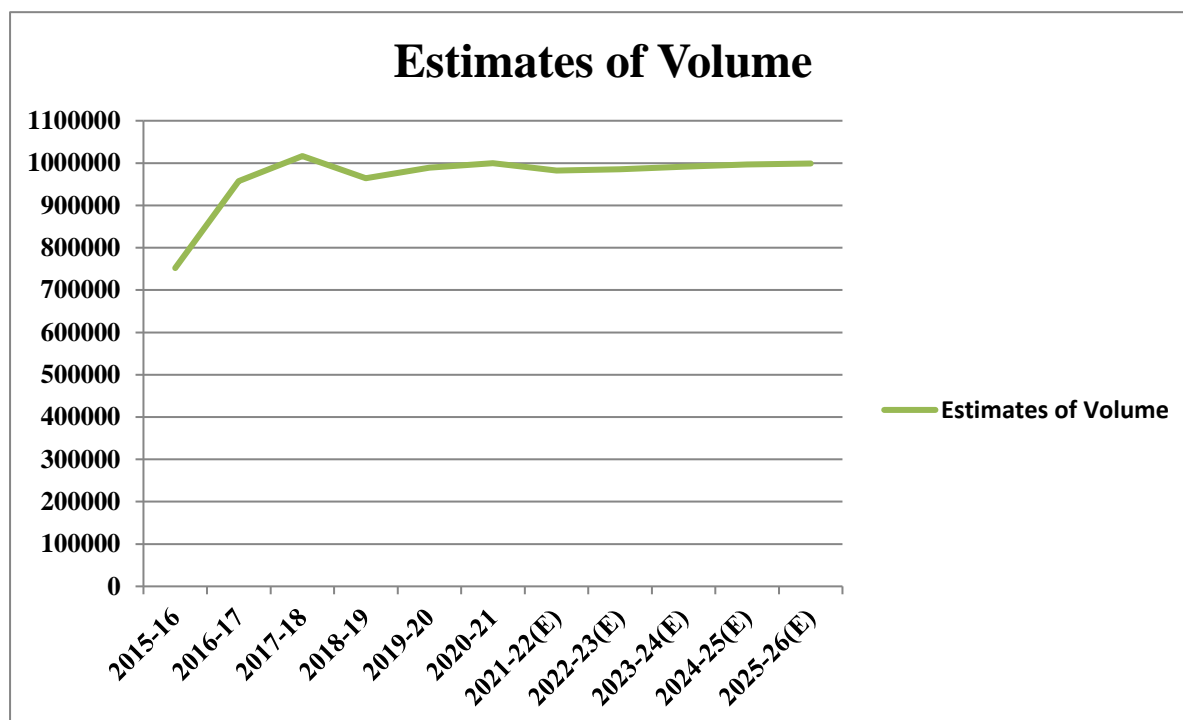


Figure – 2

Table – 5 : Exports of Coir (Value)

Year	Value (Rs. In lakhs)	M.A. (1)	M.A. (2)	M.A. (3)	M.A. (4)	M.A. (5)	M.A. (6)	Estimates of Value
2015-16	190142.52							190142.52
2016-17	228164.82	209153.67						228164.82
2017-18	253227.84	240696.33	224925.00					253227.84
2018-19	272804.59	263016.22	251856.27	238390.64				272804.59
2019-20	275790.13	274297.36	268656.79	260256.53	249323.58			275790.13
2020-21	300000.00	287895.07	281096.21	274876.50	267566.52	258445.05		300000.00
2021-22(E)		300000.00	293947.53	287521.87	281199.19	274382.85	266413.95	266413.95
2022-23(E)			300000.00	296973.77	292247.82	286723.50	280553.18	273483.56
2023-24(E)				300000.00	298486.88	295367.35	291045.43	285799.30
2024-25(E)					300000.00	299243.44	297305.40	294175.41
2025-26(E)						300000.00	299621.72	298463.56

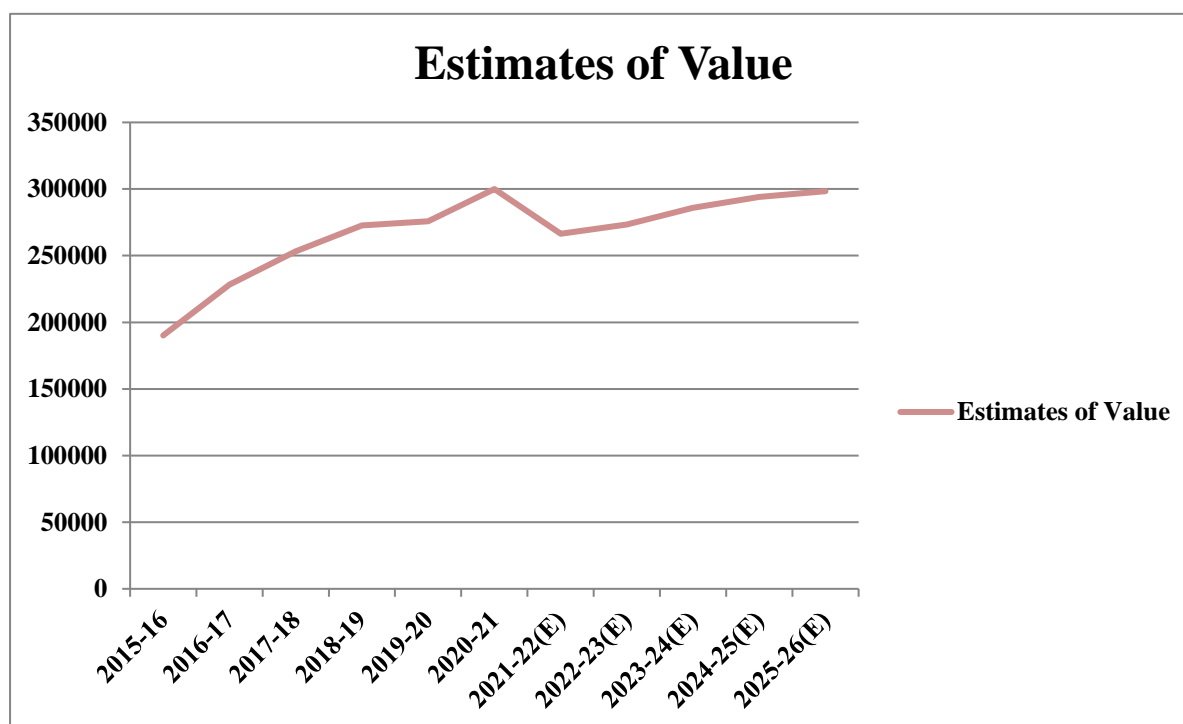


Figure - 3

Note: The Export details of Coir during 2019-2020 have not been published at the time of study hence included in Linear Trend Analysis.

MAJOR IMPORTERS OF COIR FROM INDIA

China, United States of America, Netherlands, South Korea and England are the major importers of coir products from India. India is one of the major quality suppliers of coir products to world countries. There is great demand for India's coir products in world market. Product innovation, modification and the use of new technology have provided strong marketing strength to Indian coir exporters.

**Table-6 : The top 5 coir importing countries from India during 2020-21
(as on November 2020)**

Sl. No.	Country	Quantity (Tonnes)	Percentage (%)	Value (Rs. in Lakhs)	Percentage (%)
1	USA	125482.57	17.37	68315.78	30.30
2	China	269752.82	37.34	50923.26	22.58
3	Netherlands	61276.17	8.48	17904.51	7.94
4	South Korea	49079.33	6.79	11950.18	5.30
5	UK	18738.59	2.59	9087.70	4.03

Table No. 6 indicates that China is the top buyer of coir products from India buying 37.34% of our exportable items for 22.58% of value. United States of America is in the second position buying 17.37% of quantity for 22.58% of value. Netherlands, South Korea and UK are in the next three positions with 8.48%, 6.79% and 2.59% of quantity import from India.

SWOT Analysis on the Opinion of Artisans in the Employment in Coir Industry

SWOT analysis of the employment in coir industry from the point of view of Artisans and identifying the internal and external factors. Strengths, weaknesses, opportunities and threats are normal factors which are positively or negatively influence the artisans in the employment in coir industry.

In order to understand the strengths, weaknesses, opportunities and threats towards in the utilization and its impact of employment in coir industry in Puri district from the point of view coir artisans, the researcher has identified the various factors with rank analysis to rank each factor facilitating SWOT analysis.



Suggestions:

- To pay adequate payment to the artisans. The units can offer more equitable remuneration to its employees which will attract more employees towards the coir industries.
- To facilitate the manufacturer, the government should come forward and stream line the market structure
- To Widen the Farming Area. So that the area of Coconut farming can be increased in potential states to increase the production of Coir.
- In future there are more opportunities in international market for value added products so that the coir board and related organization should come forward uplift the industry.

- To promote the usage of coir products which are eco friendly in nature and therefore the state governments which ban the usage of plastic products in their jurisdiction
- To take necessary steps more financial assistances are expected for value added product manufacturing process so the government has to avail ease loan procedure.
- To widen the export of coir products for the untapped foreign and domestic markets which can be traced
- Entrepreneur development program should arrange for entrepreneurs to make use of updated technologies and quality enhancement in production.
- New cost effective and energy efficient technology and machines can be invented for reducing the time to process coir and its manufacturing.
- The industrial units which are marketing coir products can be encouraged to participate in Consumer Exhibitions
- Coir board and relevant bodies have to conduct research on production of value added products
- The industrial Units which are manufacturing coir products in collaboration with Coir Board can design innovative and attractive products to offer more choices to consumers in order to improve the sales and profit.
- To take steps by Coir Board to offer the coir products through E-Commerce platform either solely or in participation with the prominent online sellers to improve the volume of sale.

CONCLUSION

Coir industry is as an agro-based labour intensive cottage/small scale industry. Labour plays a dominant part in this industry. Though capital is necessary for the smooth running of the industry, it does not play an influential role in the growth and productivity of the industry. The Coir Industry has been significantly export oriented. India is one among the leading exports of coir in the world. It is estimated that more than 90 percent of Indian Coir export revenue comes from value added products. The coir industry was chosen for study because of its social and economic importance to the area. The industry employs vast numbers of disempowered social sections, mostly of the lower castes and outcastes, an overwhelming majority of them are women. Coir and coir products make good progress in the domestic as well as international market because of their unique qualities of durability, bio-degradability and eco-friendliness. At present, the industry gets a phenomenal share in the global market for the value added coir products. In a nutshell the future of the global coir industry depends on international cooperation, whether it is in the field of product development or market development. India has very rich source of coir in various states as growing coconut trees is the long time agricultural activity in the country. Availability of huge manpower in India has paved the way to employ more number of people in this sector. There is a significant change in the behaviour of Indian consumers who started supporting products of the nature will be very supportive to this sector. Considering all these positive aspects we can expect the Coir Industry in India will have good prospects in the future years especially when the suggestions made in this study are getting implemented.

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