International Journal of Advanced Engineering and Management Research

Vol. 11, No. 03; 2026

ISSN: 2456-3676

Export Performance of India's Coir and Coir Products: Trends, Composition, and Destination Patterns, 1995–96 to 2023–24

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doi.org/10.51505/ijaemr.2026.11337 URL: http://dx.doi.org/10.51505/ijaemr.2026.11337

Received: Jun 04, 2026 Accepted: Jun 08, 2026 Online Published: Jun 25, 2026

Abstract

The coir industry is one of India's traditional labour-intensive sectors and has gained renewed importance in recent years due to increasing global demand for eco-friendly and sustainable products. This paper examines the export performance of India's coir and coir products by analysing long-term trends, product composition, and destination patterns during the period 1995–96 to 2023–24. The study is based on secondary data collected from the *Annual Export Statistics* and *Annual Reports* published by the Coir Board, Government of India. The Compound Annual Growth Rate (CAGR) method is employed to assess export performance in terms of quantity and value, providing a stable measure of long-run growth while minimising short-term fluctuations.

The findings reveal that export quantity has recorded sustained growth over the study period, whereas export value has exhibited a more cyclical pattern. Product-wise analysis shows strong growth in eco-friendly and value-added products such as coir fibre, coir pith, tufted mats, and coir geotextiles, reflecting changing global demand for biodegradable and renewable materials. In contrast, traditional products such as coir yarn and handloom mattings have experienced declining growth due to increasing competition from synthetic substitutes and mechanised alternatives. Destination-wise analysis identifies China and the United States as the major export markets, with China accounting for a large share of export quantity and the United States contributing significantly to export value. The study concludes that growing international demand for sustainable products and increasing product diversification have strengthened India's coir export performance. Further improvements in value addition and market diversification are essential for enhancing export competitiveness and ensuring the long-term growth of the coir industry.

Keywords: Coir Exports, Export Performance, Product Composition, Destination Patterns, CAGR, Sustainability

Vol. 11, No. 03; 2026

ISSN: 2456-3676

1. Introduction

Indian coir industry is the largest producer of coir and accounts for 80 percent of the total fiber produced in the world (Mukherjee, 2018). The coir industry occupies a significant position in the Indian economy, serving as a major source of non-farm employment and the largest exporter of coir yarn (KILE, 2016). The coir industry is one of India's oldest traditional industries and a significant contributor to rural employment, especially among women. Coir, derived from coconut husk, is an eco-friendly and renewable fibre widely used in mats, mattings, carpets, ropes, geotextiles, and horticultural products such as coir pith. With increasing global emphasis on sustainability and biodegradable materials, coir products have gained renewed importance in international markets. India occupies a dominant position in the global coir trade, accounting for the largest share of production and exports. Export performance of the coir sector not only reflects India's competitiveness in natural fibre markets but also has direct implications for income generation and labour welfare in coir-producing regions. Against this background, the present study analyses the trend and composition of exports of coir and coir products from India over a long period, with a focus on quantity, value, product-wise structure, and direction of trade.

2. Literature Review and Theoretical Background

The Kerala State Industrial Development Corporation (2004) reveals that the availability of an abundant workforce and the lack of alternative employment opportunities in the state's coastal belt are among the crucial factors contributing to the growth of the coir industry in Kerala. Issac and Ragavan (1990) show that traditional industries like coir mainly played the role of a residual employment sector, accommodating the surplus workers and industry providing income generation and export promotion**.** Sithrasu (2020) and Poornimadevi (2017) emphasize the coir industry's role in generating income and promoting exports, particularly in providing livelihood support and contributing to regional trade performance**.** Balakrishnan (2005) notes that the coir industry in Kerala was historically export-led, with over 80 per cent of output exported to Europe during the colonial period under monopoly control. Trade advantages and deliberate neglect of technological modernization enabled surplus extraction from cheap labour and raw materials. By the late twentieth century, changing trade policies, rising costs, and consumer shifts towards substitutes led to a sharp decline in European coir manufacturing and a greater role for Indian exporters in global trade. The subsequent process of technological modernisation was largely stimulated by growing domestic and export demand for coir products rather than by labour scarcity or rising wages (Rammohan & Sundaresan,2003).

According to Venkataraman (1940), the three principal ports on the Malabar coast for exporting coir were Alleppey, Cochin, and Calicut. The Malabar Coast coir sector is heavily dependent on exports. Narendran (2014) found that the export performance of the coir sector is more closely linked to the overall economic environment in the domestic and global economies than to industry-specific interventions. Indhu (2015) analysed the impact of institutional changes on the export performance of the coir industry in Kerala by examining state-regulated price controls,

Vol. 11, No. 03; 2026

ISSN: 2456-3676

particularly minimum export prices and raw material pricing mechanisms. The study found that price liberalisation in the export market significantly expanded market relations and improved export opportunities for coir products. However, the persistence of trade union interventions prevented full deregulation of the export sector. The study also observed that dependence on intermediaries for raw material procurement indirectly influenced export competitiveness by increasing production costs and limiting direct market access for coir units. Anandan (2009) noted that countries such as China import coir yarn from India, transform it into value-added products, and re-export them to global markets, thereby eroding India's export competitiveness and highlighting the urgent need for domestic modernization and value addition in the coir industry. Bordoloi (2017) argues that the coir industry was historically commercialized for export under British monopoly control, which later transitioned to domination by local export-cum-producers. These exporters act as gatekeepers to global markets by controlling technology, value addition, and foreign trade, while subcontracting production to small household units through intermediaries. This has resulted in a monopolistic–monopsonistic export structure, leaving small producers and workers highly dependent on exporters. (Isaac, 1983). Anandhu and Sadath (2026) further observed that labour market imperfections persist in the coir spinning sector and that export growth remains crucial for employment generation and worker welfare.

Anoop et al. (2021) show that India's coir exports have experienced rapid growth in volume and value, particularly to China, but with high instability and declining unit value due to the dominance of low-value products. In contrast, markets such as South Korea show higher unit value growth driven by value-added products, though export stability remains weak. Kumaresan (2009) provides a comprehensive overview of India's coir industry and its export performance during the mid-2000s, highlighting the sector's steady growth despite a global economic slowdown. The study documents a significant increase in export quantity and value, supported by diversification of products and expansion of export destinations. Vinoth and Mathiraj (2020) analyzed the performance of coir manufacturing MSMEs in India with special reference to exports, production trends, employment generation, and budgetary support from the Coir Board. Using secondary data from MSME annual reports (2008–09 to 2018–19), the study observed a positive long-term growth trend in coir exports, despite short-term fluctuations.

2.1 Research Gap and Contribution of the Study

Existing studies on India's coir exports have primarily examined export growth, instability, market concentration, and direction of trade. While these studies provide valuable insights into the performance of the coir export sector, most are limited to specific periods and do not adequately capture recent developments in global markets. Furthermore, relatively little attention has been given to the changing composition of coir exports, particularly the growing importance of eco-friendly and value-added products such as coir pith, geotextiles, and tufted mats.

The increasing global preference for sustainable and biodegradable products has significantly influenced the structure of international demand for coir products. However, there is limited empirical evidence on how these changes have affected India's export composition and

Vol. 11, No. 03; 2026

ISSN: 2456-3676

destination-wise export performance over a longer period. In addition, many earlier studies do not incorporate recent export data covering the post-2020 period.

Against this background, the present study seeks to fill this gap by analyzing the export performance of India's coir and coir products during 1995–96 to 2023–24. The study examines long-term export trends, product-wise composition, and destination-wise growth patterns using the Compound Annual Growth Rate (CAGR) method. By providing updated evidence on the evolving structure of coir exports, the study contributes to a better understanding of India's competitiveness in the global coir market.

3. Methodology and Data Sources

3.1 Data Sources

The study is based entirely on secondary data collected from the *Annual Export Statistics of Coir and Coir Products* and various *Annual Reports* published by the Coir Board, Government of India, Kochi. The data cover the period from 1995–96 to 2023–24 and include information on export quantity, export value, product categories, and destination countries. The long time series enables an assessment of changes in export performance, product composition, and market orientation of India's coir sector.

3.2 Methodology

The study employs the Compound Annual Growth Rate (CAGR) method to analyse the long-term performance of India's coir and coir product exports. CAGR is widely used in export and trade studies because it provides a smoothed annual growth rate over a specified period, thereby reducing the influence of short-term fluctuations and year-to-year volatility. It offers a consistent measure of growth and facilitates comparison across products, periods, and destination markets.

The CAGR is calculated using the following formula:
CAGR = [(EV/BV) ^(1/n)] – 1
EV= Ending Value
BV= Beginning Value
n = Number of years

The CAGR method was employed to analyse four dimensions of India's coir exports: **(i)** trends in export quantity, **(ii)** trends in export value, **(iii)** product-wise export performance, and **(iv)** destination-wise export growth patterns. This approach facilitates a comprehensive assessment of long-term export growth, changing product composition, and the diversification of export markets.

In addition to CAGR analysis, descriptive statistical techniques were used to examine the composition of exports across major product categories and destination countries. The findings

Vol. 11, No. 03; 2026

ISSN: 2456-3676

are presented through tables and interpreted in the context of changing global demand patterns, particularly the growing preference for eco-friendly and value-added coir products

4. Results and Discussion

4.1 Trend Analysis of Export Quantity

Table 1. CAGR of Export Quantity of Coir and Coir Products, 1995–96 to 2023–24

Periods	CAGR (%)
1995-96 to 1999-2000	4.89
2000-01 to 2004-2005	12.86
2005-06 to 2009-2010	16.73
2010-11 to 2014-2015	14.52
2015-16 to 2019-2020	5.72
2020-21 to 2023-24	1.43

Source: Calculated by the author from the data published by the Coir Board

Table 1 presents the Compound Annual Growth Rate (CAGR) of export quantity of coir and coir products during different sub-periods between 1995–96 and 2023–24. The results indicate a positive growth performance throughout the study period, although the rate of growth varied considerably across phases. Export quantity recorded a modest CAGR of 4.89 per cent during 1995–96 to 1999–2000. Growth accelerated substantially during the 2000s, reaching a peak CAGR of 16.73 per cent between 2005–06 and 2009–10. This period coincided with increasing global demand for natural fibres and greater market penetration of Indian coir products. The growth momentum continued during 2010–11 to 2014–15 with a CAGR of 14.52 per cent. However, export growth slowed to 5.72 per cent during 2015–16 to 2019–20 and further declined to 1.43 per cent during 2020–21 to 2023–24. The slowdown may be attributed to disruptions in global trade, changing market conditions, and the effects of the COVID-19 pandemic. Overall, the results demonstrate the long-term expansion of India's coir exports in volume terms.

4.2 Trend Analysis of Export Value

Table 2: CAGR of Export Value of Coir and Coir Products, 1995–96 to 2023–24

Periods	CAGR
1995-96 to 1999-2000	-1.13
2000-01 to 2004-2005	8.56
2005-06 to 2009-2010	9.52
2010-11 to 2014-2015	15.27
2015-16 to 2019-2020	7.78
2020-21 to 2023-2024	-2.66

Source: Calculated by the author from the data published by the Coir Board

Vol. 11, No. 03; 2026

ISSN: 2456-3676

Table 2 reports the CAGR of export value of coir and coir products. Unlike export quantity, export value exhibited a more cyclical pattern. The initial period recorded a negative CAGR of –1.13 per cent, indicating weak export earnings despite growth in volume. Export value improved during the subsequent periods, reaching a peak CAGR of 15.27 per cent between 2010–11 and 2014–15. This increase reflects both rising international demand and improved prices for coir products. However, growth moderated to 7.78 per cent during 2015–16 to 2019–20 and turned negative (–2.66 per cent) during 2020–21 to 2023–24. The divergence between quantity growth and value growth suggests that increases in export volume were not always accompanied by proportional increases in export earnings, possibly due to price fluctuations and the dominance of low-value products in the export basket.

4.3 Product-wise Export Performance

According to Coir Board statistics, India exports a wide range of coir and coir products to international markets. The major export items include coir fibre, coir yarn, handloom mats, power loom mats, tufted mats, handloom mattings, power loom mattings, coir geotextiles, coir rugs and carpets, coir rope, curled coir, rubberised coir, coir pith, and other coir products.

Table 3. Product-wise CAGR of Coir and Coir Product Exports, 2000–01 to 2023–24

Item	Quantity CAGR (%)	Value CAGR (%)
Coir fibre	38.41	27.27
Coir Yarn	-7.59	-2.79
Handloom mat	23.26	2.23
Power loom Mat	NA	NA
Tufted mat	15.04	14.94
Handloom mattings	-6.29	-3.27
Power loom mattings	-3.78	1.75
Coir Geotextiles	10.29	11.36
Coir Rugs and Carpets	-1.57	0.88
Coir Rope	2.14	7.61
Curled Coir	15.55	13.34
Rubberized coir	-4.38	-3.89
Coir pith	27.56	25.74
Coir other sorts	7.19	13.43
Total	16.37	10.44

Source: Calculated by the author from the data published by the Coir Board

Vol. 11, No. 03; 2026

ISSN: 2456-3676

The product-wise CAGR analysis reveals significant differences in export performance across product categories. Coir fibre recorded the highest growth in quantity (38.41 per cent) and value (27.27 per cent), followed by coir pith, tufted mats, curled coir, and coir geotextiles. These products have benefited from growing international demand for eco-friendly and biodegradable materials used in horticulture, agriculture, construction, and erosion control. In particular, the strong growth of coir pith and geotextiles reflects increasing global emphasis on sustainable products.

In contrast, traditional products such as coir yarn, handloom mattings, and rubberised coir exhibited negative growth rates. The decline in coir yarn exports may be attributed to competition from synthetic substitutes and the increasing tendency of importing countries, particularly China, to undertake value addition domestically. Similarly, handloom mattings have faced competition from mechanised production systems and alternative flooring materials. These findings indicate a structural transformation in India's coir export basket from traditional products towards higher-demand and application-oriented products.

4.4 Destination- wise Export Performance

Table 4: Destination-wise CAGR of India's Coir Exports, 2000–01 to 2023–24

Country	Quantity CAGR (%)	Value CAGR (%)
China	17.20	15.64
United States	7.42	7.45
Netherlands	6.33	-03.20
United Kingdom	11.31	4.58
Spain	9.60	-.3.20
South Korea	4.52	-7.32
Australia	8.19	2.01
Germany	8.61	3.60
Italy	8.47	0.78
France	8.41	4.70

Source: Calculated by the author from the data published by the Coir Board

The destination-wise CAGR analysis of India's coir exports from 2000–01 to 2023–24 reveals significant variation across major markets. China emerges as the fastest-growing destination, recording high growth in both quantity (17.20 per cent) and value (15.64 per cent). The country's dominant position is largely associated with imports of raw coir fibre and intermediate products. The United States also recorded steady growth in both quantity and value, reflecting demand for value-added products such as mats, geotextiles, and horticultural products.

Several European countries, including the United Kingdom, Germany, France, and Italy, showed moderate but consistent growth. In contrast, the Netherlands, Spain, and South Korea recorded positive quantity growth but negative value growth, indicating possible price pressures or shifts

Vol. 11, No. 03; 2026

ISSN: 2456-3676

towards lower-value products. These results suggest increasing market diversification and highlight the growing importance of sustainability-oriented markets in shaping India's coir export performance.

4.5 Discussion

The findings reveal that India's coir exports have undergone significant transformation during the last three decades. While export quantity has expanded substantially, export value growth has been relatively uneven, indicating the continued importance of product composition and value addition. The strong performance of coir pith, geotextiles, tufted mats, and other eco-friendly products reflects changing global consumer preferences towards sustainable and biodegradable materials. These findings support earlier studies that emphasise the growing role of value-added products in enhancing export competitiveness.

The results also demonstrate the increasing importance of Asian and North American markets, particularly China and the United States, in determining export performance. However, the concentration of exports in relatively low-value products suggests that greater domestic value addition remains necessary. Strengthening technological modernisation, product innovation, and market diversification would help improve export earnings and enhance the long-term competitiveness of India's coir industry.

5. Conclusion

This study examined the export performance of India's coir and coir products during the period 1995–96 to 2023–24 using the Compound Annual Growth Rate (CAGR) method. The analysis reveals that India's coir exports have experienced substantial growth in quantity over the last three decades, although export value has followed a more uneven and cyclical pattern. While export volumes expanded steadily, fluctuations in export earnings indicate the continued importance of product composition, market conditions, and value addition in determining overall export performance.

The product-wise analysis highlights a significant transformation in India's export basket. Products such as coir fibre, coir pith, coir geotextiles, tufted mats, and curled coir recorded strong growth, reflecting increasing global demand for environmentally sustainable and application-oriented products. In contrast, traditional products including coir yarn and handloom mattings experienced declining growth, suggesting changing consumer preferences and increasing competition from synthetic and mechanised alternatives.

The destination-wise analysis indicates the growing importance of China and the United States in India's coir export market. China has emerged as the largest destination in terms of export quantity, primarily importing raw and semi-processed products, whereas the United States and several European countries contribute significantly to export value through demand for finished

Vol. 11, No. 03; 2026

ISSN: 2456-3676

and value-added coir products. These findings suggest that market diversification and product differentiation have become increasingly important determinants of export performance.

Overall, the study demonstrates that the future growth of India's coir exports depends not only on expanding export volumes but also on strengthening domestic value addition, technological modernisation, and product innovation. Greater emphasis on high-value and sustainability-oriented products can enhance export earnings and improve international competitiveness. Policy measures aimed at supporting product diversification, quality improvement, and market expansion will be crucial for ensuring the long-term growth and sustainability of the Indian coir industry.

References

Anandan, A. (2009). Need comprehensive cure. *Kerala Calling*, October, 22–24.

Anandhu, P. S., & Sadath, A. C. (2026). Structure of labour market in coir spinning and its implications for workers' welfare: Evidence from Kerala. *Journal of Global Economics, Management and Business Research, 18*(1), 90–97. https://doi.org/10.56557/jgembr/2026/v18i110133

Anoop, M., Anshida Beevi, C. N., & Bhawar, R. S. (2021). Coir products export from India: Growth, instability, geographic concentration and direction of trade. *Journal of Tropical Agriculture, 58*(2), 211–215.

Balakrishnan, P. K. (2005). *Evolution and working of coir industry in Kerala*. Kochi: Coir Board.

Bordoloi, S. (2017). The rural nonfarm sector in flexible capitalism: The coir industry in Kerala, India. *Human Geography, 10*(1), 50–66.

Indu, K. (2015). *Understanding institutional change and its outcomes in a traditional industry: The case of coir in Kerala* (Unpublished doctoral thesis). Centre for Development Studies, Thiruvananthapuram.

Isaac, T. M. T. (1983). Class struggle and transition to specifically capitalist form of production: Some conclusions of a study of the coir industry in Kerala. *Social Scientist, 11*(12), 35–46.

Isaac, T. M. T., & Raghavan, P. (1990). *A policy framework for revitalisation of coir industry in Kerala* (Working Paper No. 240). Centre for Development Studies

Kerala Institute of Labour and Employment (KILE). (2016). *Current status of the coir industry in Kerala: A critique*. Retrieved from https://kile.kerala.gov.in/wp-content/uploads/2018/09/TSN-PIllai.pdf

Kerala State Industrial Development Corporation Ltd (2004) Sector Study Report on Coir Industry, Thiruvanthapuram

Kumaresan, A. (2009, October). *Coir exports: On the growth path*. *Facts For You*, 30(1).

Mukherjee, S. (2018). Challenges to Indian micro, small and medium enterprises in the era of globalization. *Journal of Global Entrepreneurship Research, 8*(28), 1–19. https://doi.org/10.1186/s40497-018-0115-5

Vol. 11, No. 03; 2026

ISSN: 2456-3676

Narendran, R. (2014). Evaluation of national and industry-specific interventions on coir industry in India: A special reference to Kerala. *International Business & Economics Research Journal, 13*(4), 727–738.

Poornimadevi, S. (2017). A study on the problems and prospects of coir industry in Pollachi, Coimbatore District. *International Journal of Advanced Trends in Engineering and Technology, 2*(1), 87–92.

Rammohan, K. T., & Sundaresan, R. (2003). Socially embedding the commodity chain: An exercise in relation to coir yarn spinning in Southern India. *World Development, 31*(5), 903–923.

Sitrarasu, S. (2020). An analysis of performance of coir industry in India. *The International Journal of Analytical and Experimental Modal Analysis, 12*(5).

Vinoth, M., & Mathiraj, S. P. (2020). A study on performance and consequences of GST regarding manufacturing of coir in MSMEs in India. *International Journal of Psychosocial Rehabilitation, 24*(8), 11931–11938.