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PRODUCTION AND EXPORT PERFORMANCE OF COIR PRODUCTS IN INDIA

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The coir sector is an important agro-based industry in India that plays an important role in employment opportunities and economic development. India is the world's largest producer and exporter of coir and coir products, exporting coir and its products to more than a hundred countries. It is the by-product of coconut's outer shell, which is used to produce coir fiber, coir yarn, different mats, mating rugs, non-woven products, non-woven mats, coir geo-textiles, coir pith, garden articles, curled coir, needle felt, hand knotted netting, coir ply articles, coir braid, coir rope, coir tea leaf bags, coir brushes, lunch bags, office bags, chapels, pouches, and many more. It is a 100 percent natural and biodegradable product that helps to store water molecules in soil to improve its fertility. The aim of the study is to determine the trend in production of coir fiber and its products in India and to know the export performance of coir fiber and its products in India during the last ten years. According to the study release, there are good opportunities in the world market for the coir products.

KEY WORDS: ***coir fiber, coir products, production, exports, value, countries etc.***

INTRODUCTION

India is a largest cultivator of products like coconut, jute, sugarcane, rice, wheat and spices. The MSME sector contributes significantly to all industrial development of the nation. Economic development of country depends upon the growth and development of the industrial sector. Coir industry is an important agro-based industry in India serves as a prime example of a vibrant traditional industry, especially when compared to other sectors like handloom textiles. Similarly, the rubber industry mirrors the coir sector in its efforts to modernize and enhance small industrial units within clusters. However, contemporary coir units face challenges in producing products that cater to the global market, even as the value of coir and its associated products continues to rise internationally. India is the largest producer and exporter of coir and coir products. Coir is the by-product of Coconut's outer shell which is used to produce coir fibre, Coir Yarn, different Mats, Matting rugs, non-woven products, non-woven mats, Coir Geo-Textiles, Coir pith, Garden Articles, Curled Coir, Needled felt, Hand Knotted Netting, Coir ply articles, Coir Braid, Coir Rope, Coir Tea Leaf Bags, Coir Brushes, Lunch Bags, Office Bags, Chapels, Pouches and many more.

India exports coir and its products to the more than hundred countries like USA, China, Netherland, south Korea and UK. Etc. India earns more valuable foreign in exchange through the export of coir and coir products. Coir sector plays an important role in employment opportunity and economic development. The growing "Return to Nature" movement has led to a heightened global interest in coir and its products. India is among the leading producers and exporters of coir worldwide. Indian coir products are highly sought after in the international market due to their unique characteristics, such as durability, affordability, craftsmanship, and eco-friendliness. They are biodegradable, made from renewable resources, and serve as a non-polluting alternative to plastics and other environmentally harmful materials. The Indian government is implementing a scheme to expand the international market share of Indian coir product aiming to assess competitor, product ranges, price and promotional strategies. The coir industry is poised for a promising future, particularly with innovations in

coir geotextiles, organic fertilizers, and various coir products. The Tamil Nadu Coir Policy 2024 aims to attract investments of ₹3,000 crore in the sector by 2030. This initiative seeks to generate 60,000 jobs, promote research and development, and facilitate the growth of the coir industry.

OBJECTIVE OF STUDY

- To examine its trends in production of coir fibre and its products in India.
- To analysis the export performance of coir fiber and its product in India.

REVIEW OF LITERATURE

Chikkannaswamy et. al., (2023): article explained the export performance of the coir industry in India. It's mainly focused on the growth and export performance the coir industry in India, challenges encountered by the coir industry and suggested to improve the coir to better results. The study examined the different types of products and export performance of the coir industry.

Maran (2022): The study about Export Performance and Developmental Perspectives of Small-Scale Enterprises with Special 8Reference to the Coir Industry mainly discussed exploring export growth and the current status of the coir industry in India. The study aims to address the issues and encourage the government to release funds for weaker units and diversify the industry. Coir products are expected to become highly accepted due to their environmentally friendly image. The industry recycles coconut husk waste into valuable products like coir fibre and pith. The Ministry of Commerce and Industry is introducing new schemes for young entrepreneurs.

METHODOLOGY

In this study, the data of production and export of coir fiber and its products collected from period 2013-2014 to 2023-2024.the data collected from various source MSME annual report and coir board. Compound growth rate and trend analysis tools were used to analyze the data.

RESULT AND DISCUSSION

Coconut coir, is a natural fibre extracted from the outer shell of the coconut and used in products such as floor mats, door mats, brushes and mattresses. The coir and its products are exported to more than hundred countries, Total world coir fibre production is 250,000 tonnes in a year. India is a third largest coir producer in the world accounting for more than 80per cent of the world production of coir fibre. In India, eight per cent of the coir and coir product are exported to foreign countries and remaining percent is domestically consumed. This examines the production and export trends of coir fiber and products in India spanning from 2013-2014 to 2022-2023. Through a comprehensive secondary survey analysis.

Type of Coir Product

- **Corn yarn -** Coir Yarn is generally of 2 ply, spun from coir fibre by hand as well as with the help of traditional rats, fully automatic spinning machines etc. The Coir yarn is of different qualities grades based on the quality of fibre used, the nature of twist, presence of impurities etc.
- **Handloom mats-** Mats woven by hand using coir fibres, valued for their durability and unique designs.
- **Tufted mats-** Mats created by inserting coir fibres into a backing, offering a plush texture and various patterns**.**
- **Power loom mats-** Mats produced using power looms, ensuring uniformity and faster production with coir material.
- **Handloom matting-** A flat woven product made by hand, ideal for flooring and decorative purposes.
- **Power loom matting -** Machine-made matting using coir fibers, known for its consistent quality and mass production.
- **Coir geo-textiles-** Biodegradable fabrics made from coir, used in soil erosion control and landscaping.
- **Coir rugs carpet-** Rugs and carpets made from coir fibers, appreciated for their rustic appearance and durability.
- **Coir rope-** Strong, twisted fiber rope made from coir, often used in gardening, construction, and marine applications.
- **Curled coir -** curled fibers processed from coir, typically used for making mats or as a filling material.
- **Rubberised coir -** Coir fibers bonded with rubber, providing added resilience and used in mats and cushioning.
- **Coir pith -** The spongy material left after extracting coir fibers, used as a soil conditioner and for hydroponics.
- **Coir other sorts-** Refers to various miscellaneous coir products not categorized, often customized for specific uses.

Table 1: Production of Coir Fibre in India from 2013-2014 to 2023-2024

Year	Production Quantity (In Metric Tonne)
2013-2014	5,39,815
2014-2015	5,42,000
2015-2016	5,49,300
2016-2017	5,56,900
2017-2018	3,25,900
2018-2019	7,49,600
2019-2020	7,41,000
2020-2021	7,58,000
2021-2022	7,67,000
2022-2023	7,91,000
2023-2024	7,96,300
CGR	**5.50**

Source: MSME Annual Report

Fig 1: Production of Coir Fibre in India from 2013-2014 to 2023-2024

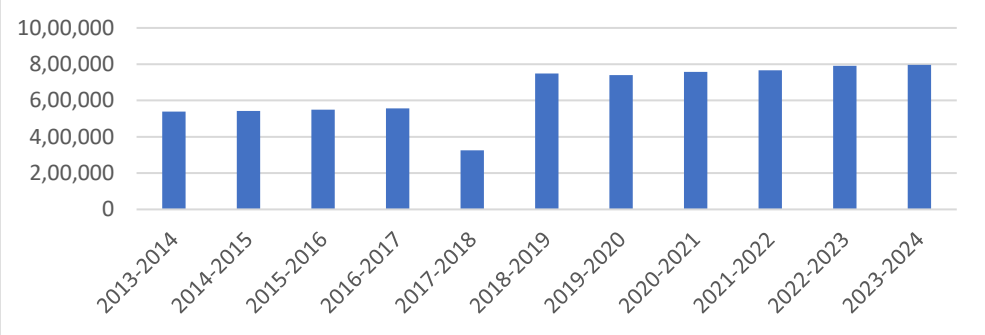


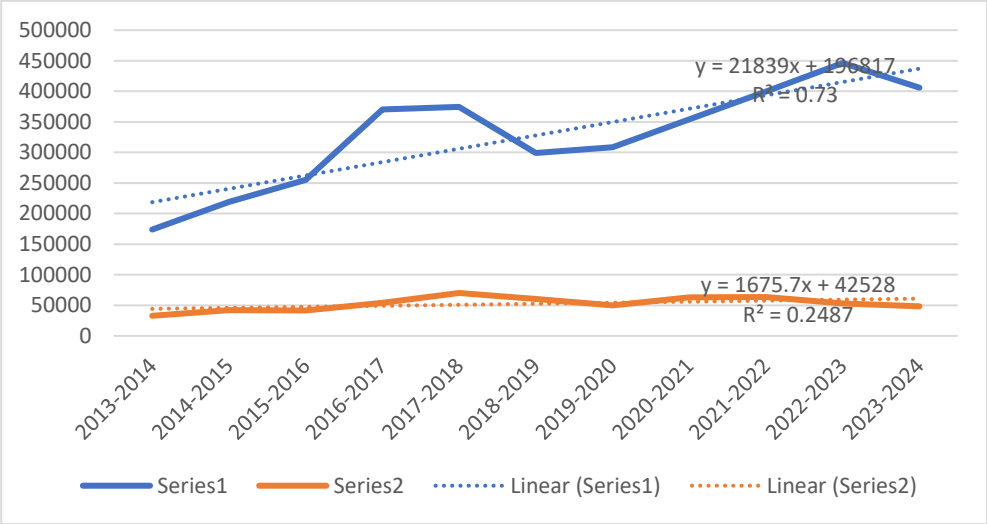
Table 1 explain that the coir fiber production in India during 2013-2014 to 2023 - 2024. The production of coir fiber in India has increased annually except in the year of 2017-2018,2019-2020 and 2022-2023.The CGR value positive at 5.50 per cent.

Table 2: Export of Coir Fibre in India from 2013-2014 to 2023-2024

Year	Quantity (in Metric Tonne)	Value (Rs.in lakhs)
2013-2014	173901.7	32878.11
2014-2015	219103	41923.34
2015-2016	255293	41767.11
2016-2017	370357	53913.63
2017-2018	374320	70177.88
2018-2019	299279	60164.11
2019-2020	308457	49842.6
2020-2021	354123	62890.57
2021-2022	399428	63655.79
2022-2023	446340	52851.99
2023-2024	405751.46	48344.75
CGR	**7.68**	**-**

Source: Coir Board

Fig 2: Export of Coir Fibre in India from 2013-2014 to 2023-2024



Source: Primary Source

Table 2 represents export of coir fiber in India from 2013-2014 to 2023-2024, India's coir fibre exports grew significantly in quantity, increased from 1,73,901.70 metric tonnes to 405751.46 metric tonnes throughout the reference period, except the year 2013-2014 to 2018-2019 with a positive compound growth rate of 7.68 per cent. Despite this rise in quantity, the export value fluctuated on the reference period. The highest export value 70177.88 in 2017-2018 and the lowest value is 32878.11during 2013-2014.

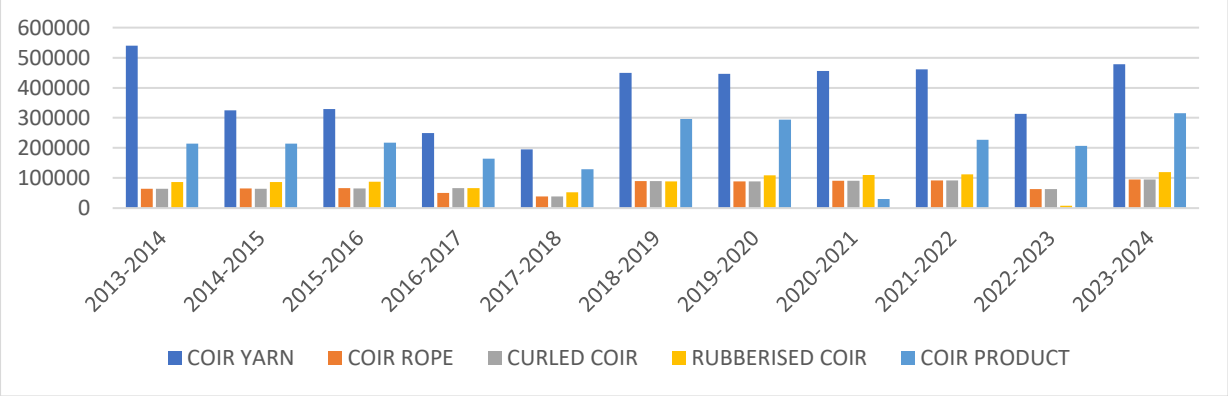
Table. 3: Production of Coir Products in India from 2013-2014 to 2023-2024

(In Metric Tonnes)

Year	Coir Yarn	Coir Rope	Curled Coir	Rubberised Coir	Coir Product
2013-2014	5,39,815	64,780	63,780	86,370	2,13,800
2014-2015	3,25,200	65,040	64,700	86,700	2,14,600
2015-2016	3,29,600	65,920	65,850	87,900	2,17,500
2016-2017	2,49,750	49,900	66,800	66,600	1,64,800
2017-2018	1,95,600	39,150	39,100	52,150	1,29,050
2018-2019	4,49,800	90,000	89,900	89,100	2,96,800
2019-2020	4,46,000	89,200	88,800	1,08,500	2,94,200
2020-2021	4,56,000	91,200	90,800	1,10,400	30,080
2021-2022	4,61,500	92,300	92,000	1,11,800	2,27,300
2022-2023	3,13,800	62,750	62,700	7,845	20,7100
2023-2024	4,77,780	95,556	95,556	1,19,445	3,15,335
CGR	**2.09**	**4.497**	**4.017**	**-4.89**	**-0.58**

Source: MSME annual report

Fig 3: Production of Coir Products in India from 2013-2014 to 2023-2024



Source: Primary Source

Table 3 explain the Production of Coir and its Products in India from 2013-2014 to 2022-2023. The production of coir and its products in India showed mixed trends. The quantity of coir yarn production from 5,39,815 metric tons in 2013-2014 to 4,77,780 metric tons in 2023-2024. In this period, the highest production was 5,39,815 metric tons in 2013-2014, and production declined from 2014-2015 to 2017-2018 and 2022-2023. The coir rope production has fluctuated over the last decades. The curled rope production in India gradually increased from 63,780 metric tons in 2013-2014 to 95,556 metric tons in 2023-2024. The highest production is 95,556 in 2023-2024 and the lowest production is 39,100 in 2017-2018. The rubberized coir has various swings in production, from 86,370 metric tons in 2013-2014 to 1,19,455 metric tons in 2023-2024. In this variance, the highest production is 1,13,445 in 2023-2024 and the lowest production is 7,845 in 2022-2023. The other coir product has increased annual production from 2,13,800 in 2013-2014 to 3,15,335 in 2020-2024. The highest production is 3,15,335 in 2023-2024, and the lowest production is 30,080 in 2020-2021 .The CGR value is positive for coir yarn, coir rope, and curled coir and negative for rubberized coir and other coir product.

Table 4: Export of Coir Products in India from 2013 -2014 to 2023- 2024

(In Metric Tonnes)

Products /Year	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	CGR
Coir Yarn	4246.88	4070	4134	4426	3328	3408	11290	3849	4285	4150	2882.53	**-0.73**
Handloom Mats	22608.9	25354	20386	20144	18277	19367	16910	20527	21079	26287	27197.3	**1.03**
Tufted Mat	43751.79	41284	45770	51718	54279	54131	58300	81799	92810	419	60868.79	**-11.63**
Power Loom Mats	234.21	161	280	166	37	8	26	65	408	96389	0	**0**
Handloom Matting	4468.27	1667	1706	1273	1117	1071	1177	1418	1110	1224	1702.69	**-9.07**
Power Loom Matting	0	28	16	0	131	7	5	11	4	0	161.36	**0**
Coir Geo-Textiles	4468.27	4236	4520	6219	5845	7674	8068	8583	6978	10096	13707.42	**9.57**
Coir Rugs & Carpet	93.43	135	307	888	254	195	367	327	580	711	1893.34	**16.97**
Coir Rope	497.84	614	517	484	491	486	512	505	716	754	770.3	**2.98**
Curled Coir	11262.66	12621	9470	484	8800	10768	3028	9381	9943	14753	8567.63	**3.96**
Rubberised Coir	965.43	897	678	484	900	807	578	982	644	410	145.55	**-4.58**
Coir Pith	271494.76	316425	408897	490552	548479	566661	579980	680898	696175	661629	705856.68	**10.59**
Coir Other Sorts	88.86	71	46	256	306	183	298	744	696	1622	2591.62	**40.38**

Source: Coir Bord

Table 4 describe Export of Coir Products in India from 2013 -2014 to 2023- 20234. Coir yarn experienced a decline, with the highest export at 4,746.88 tonnes in 2013-2014 and a low of 2,882.53 tonnes in 2023-2024. Handloom mats peaked at 26,287 tonnes in 2022-2023, while its lowest was 18,277 tonnes in 2017-2018. Tufted mats showed the highest export at 92,810 tonnes in 2021-2022, with a notable low of 41,719 tonnes in 2022-2023. Power loom mats had a maximum of 408 tonnes in 2021-2022 but dropped to 0 tonnes in 2023-2024. Handloom matting peaked at 1,468.27 tonnes in 2013-2014, with a minimum of 1,071 tonnes in 2018-2019. Power loom matting had a maximum of 131 tonnes in 2017-2018 and ended with 0 tonnes in 2021-2022. Coir geo-textiles reached a high of 13,707.42 tonnes in 2023-2024, with its lowest at 4,468.27 tonnes in 2013-2014. Coir rugs and carpets saw a peak at 1,893.34 tonnes in 2023-2024, with the lowest export being 93.43 tonnes in 2013-2014. Rubberised coir peaked at 900 tonnes in 2017-2018, with a minimum of 145.55 tonnes in 2023-2024.lastly, coir pith showed remarkable growth, reaching its highest at 705,856.68 tonnes in 2023-2024 and its lowest at 271,494.76 tonnes in 2013-2014. Coir other sorts had the highest export of 2,591.62 tonnes in 2023-2024, with its lowest at 46 tonnes in 2015-2016

Table 5: Export Value of Coir Products in India from 2013-2014 to 2023-2024

(Rs.in Lakhs)

Products/Years	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
Coir Yarn	2848.26	3000.89	2820.82	2948.32	2457.66	2642.23	2681.57	2919.3	3330.73	2908.75	2125.83
Handloom Mats	23623.82	23946.91	22279.96	21316.31	18613.96	21911.04	19630.1	24662.1	26173	31071.6	27019.4
Tufted Mat	41776.39	39725.96	44316.03	48442.83	49591.41	52225.03	56344.1	80690.8	100115	0	59457.49
Power Loom Mats	278.36	225.25	367.35	196.38	57.75	15.89	49.65	106.51	753.8	104788	0
Handloom Matting	3503.78	1835.28	1968.78	1535.25	1394.79	1436.08	1366.41	1712	1423.21	1831.62	1930.17
Power Loom Matting	0	43.93	26.48	0	216.49	17.22	8.53	19.24	9.62	0	430.59
Coir Geo- Textiles	3503.78	3270.28	3531.72	4481.04	3996.59	5972.56	6389.45	7059.05	6165.74	9067.32	8276.52
Coir Rugs & Carpet	105.99	146.1	282.5	1295.64	269.58	243.96	483.82	427.9	861.79	1011.32	2414.48
Coir Rope	390.17	391.92	396.61	388.5	401.72	439.79	466.03	491.76	649.84	663.42	844.28
Curled Coir	2947.93	3732	2510.07	388.5	2316.26	3137.02	2301.22	2422.22	2622.89	3784.89	1623.35
Rubberised Coir	1560.76	1410.88	971.74	388.5	1388.64	1029.58	786.82	1321.41	1096.88	739.2	103.01
Coir Pith	34173.23	43295.24	68808.56	90539.11	101846.8	123208.5	134963	191974	225918	186860	183737.8
Coir Other Sorts	163.13	85.79	94.79	416.59	498.29	361.58	476.93	1200.96	1229.56	2751.75	3383.17

Source: Coir Bord

Table 5 show the export value of coir product in India during 2013-2014 to 2023-2024 shows different trends. Coir yarn had its highest export value at 3,330.73 lakhs in 2021-2022 and the lowest at 2,125.83 lakhs in 2023-2024. Handloom mats peaked at 31,071.6 lakhs in 2022-2023, with a low of 18,613.96 lakhs in 2017-2018. Tufted mats reached a maximum of 100,115 lakhs in 2021-2022, while its lowest was 0 lakhs in 2022-2023.Coir geo-textiles reached a maximum of 9,067.32 lakhs in 2022-2023, while the lowest was 3,270.28 lakhs in 2014-2015. Coir rugs and carpets peaked at 2,414.48 lakhs in 2023-2024, with the lowest export value of 105.99 lakhs in 2013-2014. Coir rope had a maximum of 844.28 lakhs in 2023-2024, while the lowest was 390.17 lakhs in 2013-2014. Curled coir had its highest export value at 3,784.89 lakhs in 2022-2023 and a low of 388.5 lakhs in 2016-2017. Rubberised coir peaked at 1,388.64 lakhs in 2017-2018, with a minimum of 103.01 lakhs in 2023-2024.

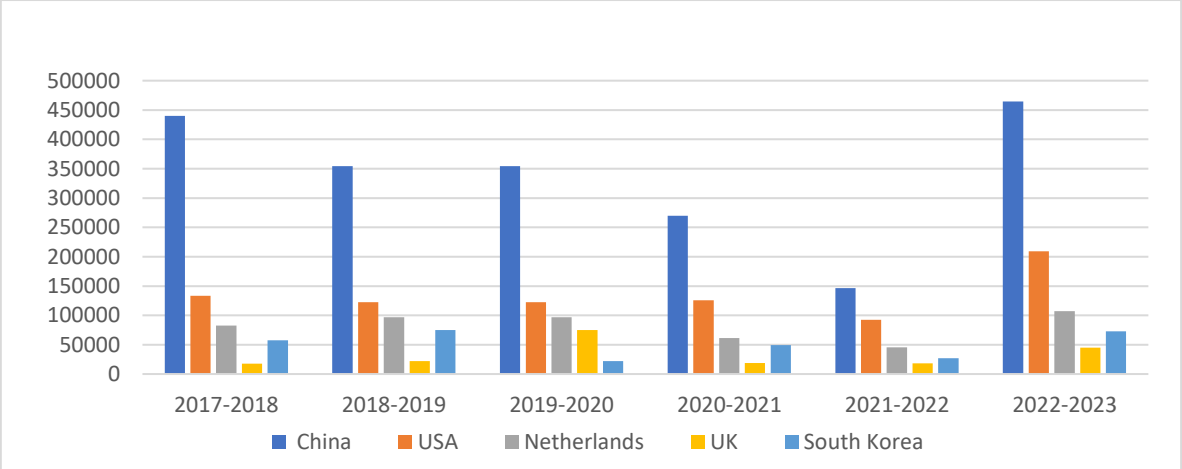
Table 6: Countries Wise Export of Coir Products from 2017 -2018 to 2023- 2024

(In Metric Tonnes)

Year	Countries				
	China	**USA**	**Netherlands**	**UK**	**South Korea**
2017-2018	439884.6	133536.7	82487.53	17668.15	57545.12
2018-2019	354267.6	122220.8	96981.75	22192.45	75186.43
2019-2020	354268	122221	96982	75186	22192
2020-2021	269752.8	125482.6	61276.17	18738.59	49079.33
2021-2022	146198.5	92503.88	45374.82	18414.03	27237.31
2022-2023	464420	209181.9	107030.68	44998.07	72898.47
CGR	**-7.30**	**4.18**	**-4.018**	**8.096**	**-3.01**

Source: MSME Annual Report

Fig 6: Countries Wise Export of Coir Products from 2017 -2018 to 2023- 2024



Source: Primary Source

Table 6 shows export performance from 2017-2018 to 2022-2023. The countries are China, the USA, the Netherlands, the UK, and South Korea. China peaked at 439884.6 in 2017-2018 but fell to 269752.8 in 2020-2021 and rose to 464420 in 2022-2023. The USA's economic performance shows some variability. Beginning at 133,536.7, it slightly declined to 122,221 in 2019-2020. The export rose to 125,482.6 in 2020-2021 and then dropped to 92,503.88 in 2021-2022. The export rebounded to 209,181.9 in 2022-2023. The Netherlands show fluctuation, starting at 82,487.53, it rose to 96,982 in 2019-2020. It then decreased to 45,374.82 in 2021-2022. It rebounded to 107,030.68 in 2022-2023. The UK's show significant variability. Beginning at 17,668.15, it increased to 22,192.45 in 2018-2019 and decreased slightly to 18,414.03 in 2021-2022. There was a notable rebound to 44,998.07 in 2022-2023. South Korea's economic performance reveals fluctuations over the years. Starting at 57,545.12, it rose to 75,186.43 in 2018-2019 and remained stable at 75,186 in 2019-2020. The export dropped to 49,079.33 in 2020-2021 and further declined to 27,237.31 in 2021-2022. However, the export rebounded to 72,898.47 in 2022-2023.

Table 7: Countries Wise Export Value of Coir Products from 2017 -2018 To 2023- 2024

(Rs.in Lakhs)

Year	Countries				
	China	**USA**	**Netherlands**	**UK**	**South Korea**
2017-2018	66655.52	53286 56	18148.78	11076.22	9486.28
2018-2019	71505.98	60134.19	24841.02	11743.33	24841.02
2019-2020	71505.98	60134.19	24841.02	11306.73	11743.33
2020-2021	50923.26	68315.78	17904.51	9087.7	11950.18
2021-2022	29942.22	48983.98	15288.02	8213.72	8315.61
2022-2023	86025.39	129294.3	38044.59	22121.58	21471.8

***Source*:** MSME Annual Report

Table 7 shows the product value (in Rs. lakhs) for China, the USA, the Netherlands, the UK, and South Korea from 2017-2018 to 2022-2023. In 2017-2018, China had the value at Rs. 66,655.52 lakhs. Over the years, export value fluctuated, dropping significantly by 2021-2022 to Rs. 29,942.22 lakhs and then rebounding at 2022-2023 to Rs. 86025.39 lakhs. the USA at Rs. 53,286.56 lakhs in 2017-2018 and saw ups and downs at 48983.98 lakhs in 2021-2022, ending at Rs. 1,29,294.3 lakhs, making it the highest by 2022-2023. The Netherlands had value at Rs. 18148.78 in 2017-2018 with various swings 15288.02 at 2021-2022 and ended up with the highest value of Rs. 38044.59 in 2022-2023. The UK's economic performance from 2017 to 2023 shows significant variation. Starting at 11,076.22 in 2017-2018, the economy grew to 11,743.33 in 2018-2019 but experienced a slight decline to 11,306.73 in 2019-2020. There was a significant drop to 9,087.70 in 2020-2021, followed by a further decline to 8,213.72 in 2021-2022. However, the economy rebounded sharply to 22,121.58 in 2022-2023. South Korea's economic performance shows significant variation over recent years. Starting at 9,486.28, the economy peaked at 24,841.02 in 2018-2019, then decreased to 11,950. in 2020-2021. It dropped further to 8,315.61 in 2021-2022 before rebounding to 21,471.80 in 2022-2023.

CONCLUSION

India's coir industry has seen overall growth over the past decade, with record-high exports in 2022-2023 and steady production increases in coir fibre. However, there are variations in growth rates across different coir products, with declines observed in rubberized coir. Conversely, coir pith and tufted mats have shown significant cumulative growth. These trends underscore the need for strategic interventions to address challenges and capitalize on opportunities within the sector, ensuring sustained growth and competitiveness.

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