

# **India's International Trade of Four Specific Commodities in the Recent Past**

## **Some Insights**

### **Preface**

The study uses trade indicators to analyse merchandise export and import data in a way that should be useful for the purpose of policy. The indicators provide a glimpse of the trade patterns of the world and the performance of India in comparison to various other countries. They have been used in the case of India's exports of **Article of Jewellery and Parts thereof & Laminated or Coated Textile Fabrics** and imports of **Sewing Machines and Activated Carbons** to indicate the possible directions policy may take.

The data used in this study has been sourced from the Export Import Data Bank of the DGCI&S, Department of Commerce, and Government of India and from the United Nations Comtrade Database. Introduction notes of each commodities has been sourced from the various sights –viz Wikipedia, Britannica, The Economic Times etc.

Computations are based on data at ITC-HS four-digit level ( ITC-HS Code-7113 & 5903 for export and 8452 & 3802 for import ) and the latest finalized data available on the UN Comtrade Database up to year 2020 and on the DGCI&S Database up to June'2022. So, trends from 2017 to 2020 have been shown when we extract the data from UN Comtrade and from 2018 to 2021 have been shown when we extract the data from DGCIS Data base.

In this report, we will see various analysis and aspects of India's Precious as well as International export trade of Article of Jewellery and Parts thereof & Laminated or Coated Textile Fabrics and imports of Sewing Machines and Activated Carbons. We will use both the 4 digit Commodity codes.

Trends in India's as well as International Trade i.e. Exports and Imports of above four Commodities are given below in different tables :

- **Table 1 : India's top 10 Export destination of Article of Jewellery and Parts thereof with their shares in percentage.**
- **Table 2 : World's top 10 Exporters of Article of Jewellery and Parts thereof with their shares in percentage.**
- **Table 3 : World's top 10 Importers of Article of Jewellery and Parts thereof with their shares in percentage.**
- **Annex- I : Top 3 sources of Article of Jewellery and Parts thereof of World's top 3 Importers.**
- **Table 4 : India's top 10 destination of Laminated Textile Fabrics with their shares in percentage.**
- **Table 5 : World's top 10 Exporters of Laminated Textile Fabrics with their shares in percentage.**
- **Table 6 : World's top 10 Importers of Laminated Textile Fabrics with their shares in percentage.**
- **Annex-II : Top 3 sources of Laminated Textile Fabrics of World's top 3 Importers.**
- **Table 7 : India's top10 Sources of Sewing Machines with their shares in percentage.**
- **Table 8 : World's top 10 Importers of Sewing Machines with their shares in percentage.**
- **Table 9 : India's top 10 Sources of Activated Carbons with their shares in percentage.**
- **Table 10 : World's top 10 Importers of Activated Carbons with their shares in percentage.**

## EXPORT

### Articles of Jewellery and Parts thereof

**Jewellery** or **jewellery** consists of decorative items worn for personal adornment, such as brooches, rings, necklaces, earrings, pendants, bracelets, and cufflinks. Jewellery may be attached to the body or the clothes. From a western perspective, the term is restricted to durable ornaments, excluding flowers for example. For many centuries metal such as gold often combined with gemstones, has been the normal material for jewellery, but other materials such as shells and other plant materials may be used.

Jewellery is one of the oldest types of archaeological artefact – with 100,000-year-old beads made from *Nassarius* shells thought to be the oldest known jewellery.<sup>[1]</sup> The basic forms of jewellery vary between cultures but are often extremely long-lived; in European cultures the most common forms of jewellery listed above have persisted since ancient times.

Jewellery may be made from a wide range of materials. Gemstones and similar materials such as amber and coral, precious metals, beads, and shells have been widely used, and enamel has often been important. In most cultures jewellery can be understood as a status symbol, for its material properties, its patterns, or for meaningful symbols. Jewellery has been made to adorn nearly every body part, from hairpins to toe rings, and even genital jewellery.

In creating jewellery, gemstones, coins, or other precious items are often used, and they are typically set into precious metals. Platinum alloys range from 900 (90% pure) to 950 (95% pure). The silver used in jewellery is usually sterling silver, or 92.5% fine silver. In costume jewellery, stainless steel findings are sometimes used.

Other commonly used materials include glass, such as fused-glass or enamel; wood, often carved or turned; shells and other natural animal substances such as bone and ivory; natural clay; polymer clay; Hemp and other twines have been used as well to create jewellery that has more of a natural feel. Beads are frequently used in jewellery. These may be made of glass, gemstones, metal, wood, shells, clay and polymer clay. Beaded jewellery commonly encompasses necklaces, bracelets, earrings, belts and rings. Beads may be large or small; the smallest type of beads used are known as seed beads, these are the beads used for the "woven" style of beaded jewellery. Seed beads are also used in an embroidery technique where they are sewn onto fabric backings to create broad collar neck pieces and beaded bracelets. Bead embroidery, a popular type of handwork during the Victorian era, is enjoying a renaissance in modern jewellery making. Beading, or beadwork, is also very popular in many African and indigenous North American cultures.

Silversmiths, goldsmiths, and lapidaries use methods including forging, casting, soldering or welding, cutting, carving and "cold-joining".

The earliest known Jewellery was actually created not by humans but by Neanderthal living in Europe. Specifically, perforated beads made from small sea shells have been found dating to 115,000 years ago in the Cueva de los Aviones, a cave along the southeast coast of Spain.

Most modern commercial jewellery continues traditional forms and styles, but designers such as Georg Jensen have widened the concept of wearable art. The advent of new materials, such as plastics, Precious Metal Clay (PMC), and colouring techniques, has led to increased variety in styles. Other advances, such as the development of improved pearl harvesting by people such as Mikimoto Kōkichi and the development of improved quality artificial gemstones such as moissanite, has placed jewellery within the economic grasp of a much larger segment of the population.

**These are broadly classified under H.S. Code-7113.**

Table - 1

**India's Top 10 destination of Articles of Jewellery and Parts thereof (H.S Code-7113)**

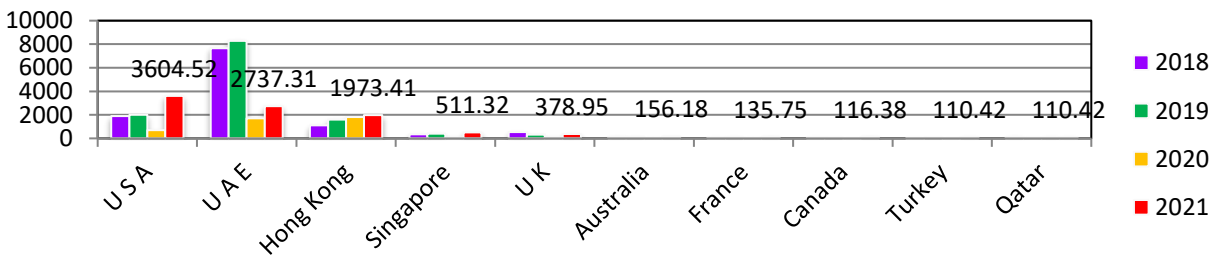
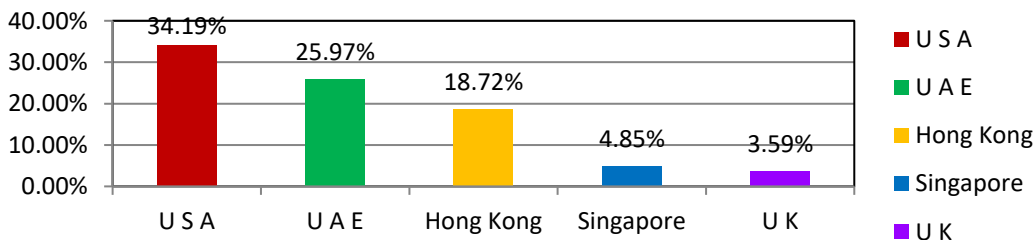
Rank	Countries	2018		2019		2020		2021	
		Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)
1.	U S A	1891.12	15.18	2012.93	14.81	689.76	14.33	3604.52	34.19
2.	U A E	7669.63	61.58	8271.25	60.84	1703.85	35.41	2737.31	25.97
3.	Hong Kong	1095.33	8.79	1593.88	11.72	1814.98	37.72	1973.41	18.72
4.	Singapore	351.22	2.82	396.55	2.92	84.72	1.76	511.32	4.85
5.	U K	538.79	4.33	330.04	2.43	103.66	2.15	378.95	3.59
6.	Australia	123.48	0.99	130.70	0.96	40.50	0.84	156.18	1.48
7.	France	67.80	0.54	90.15	0.66	41.80	0.87	135.75	1.29
8.	Canada	70.75	0.57	81.11	0.60	23.53	0.49	116.38	1.10
9.	Turkey	5.38	0.04	62.04	0.46	11.10	0.23	110.42	1.05
10.	Qatar	95.51	0.77	77.24	0.57	72.52	1.51	110.42	1.05
	Others	545.18	4.38	549.41	4.04	225.67	4.69	707.36	6.71
	<b>Total</b>	<b>12454.19</b>	<b>100</b>	<b>13595.31</b>	<b>100</b>	<b>4812.10</b>	<b>100</b>	<b>10542.02</b>	<b>100</b>

Source: DGCI&amp;S.

Note : India's Export including re-export

**India's top destinations of Article and parts of Jewellery from 2018-2021(in million USD)**

Data label given on the basis of 2021

**India's top 5 destinations of Article and parts of Jewellery by percentage India in 2021:**

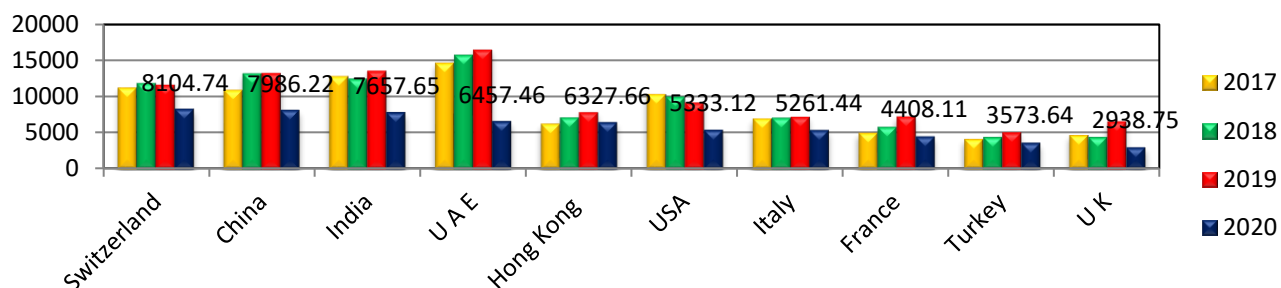
The value of exports of Articles of jewellery and parts thereof of precious metal or of metal clad with precious metal from India totalled US \$ 10.52 billion in 2021 which was 34.19%, increased by almost 2.19 times in value terms compared to 2020. USA, UAE and Hong Kong were three major destination of Articles of jewellery and parts thereof of precious metal or of metal clad with precious metal from India with 34.19%, 25.97% and 18.72% share of India's total export in 2021 respectively. It is noticeable that UAE was the top destination of the commodity group from India from 2018 to 2019. India's export of the commodity group is hit for all time high of US \$ 13.59 Billion in 2019.

**Table-2**  
**World's Top 10 exporter of Articles of Jewellery and Parts thereof (H.S Code-7113)**

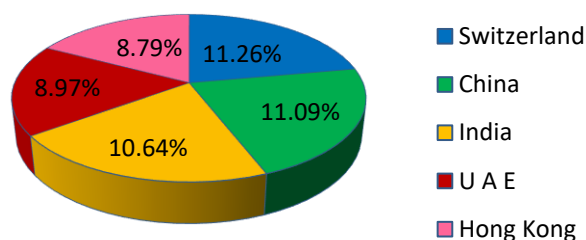
Rank	Countries	2017		2018		2019		2020	
		Value (million \$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)
1.	Switzerland	11193.05	10.59	11753.38	10.65	11644.09	10.06	8104.74	11.26
2.	China	10880.44	10.29	13124.93	11.90	13241.57	11.44	7986.22	11.09
3.	<b>India</b>	<b>12763.44</b>	<b>12.07</b>	<b>12410.96</b>	<b>11.25</b>	<b>13555.27</b>	<b>11.71</b>	<b>7657.65</b>	<b>10.64</b>
4.	U A E	14585.26	13.79	15663.95	14.20	16443.03	14.21	6457.46	8.97
5.	Hong Kong	6234.35	5.90	7099.02	6.44	7854.57	6.79	6327.66	8.79
6.	USA	10298.64	9.74	9930.20	9.00	9187.84	7.94	5333.12	7.41
7.	Italy	6954.26	6.58	7064.58	6.40	7231.96	6.25	5261.44	7.31
8.	France	5012.42	4.74	5812.76	5.27	7282.27	6.29	4408.11	6.12
9.	Turkey	4140.04	3.92	4415.84	4.00	5108.69	4.42	3573.64	4.96
10.	U K	4715.09	4.46	4442.13	4.03	6624.02	5.72	2938.75	4.08
	Others	18962.20	17.93	18599.59	16.86	17538.37	15.16	13954.95	19.38
	<b>Total</b>	<b>105739.20</b>	<b>100</b>	<b>110317.32</b>	<b>100</b>	<b>115711.71</b>	<b>100</b>	<b>72003.73</b>	<b>100</b>

Source: UN Comtrade

**World's top Exporters of Article of Jewellery and parts thereof from 2018-2021(in million USD)**  
**Data label given on the basis of 2020**



**Country wise world's top 5 exporter of Article of Jewellery and parts thereof by percentage in 2020**



In 2020, world export of Articles of jewellery and parts thereof of precious metal or of metal clad with precious metal was US \$ 72 billion. In that year the global exports of Articles of jewellery and parts thereof of precious metal or of metal clad with precious metal decreased from US \$ 115.71 billion in 2019 to US \$ 72 billion. Switzerland the said export structure, which was US \$ 8.10 billion or accounted 11.26% of the global total in 2020, followed by China (11.09%). **India** stood at 3rd position in ranking in the world leading exporting countries with 10.64% share of global export of the commodity group in 2020.

Table-3

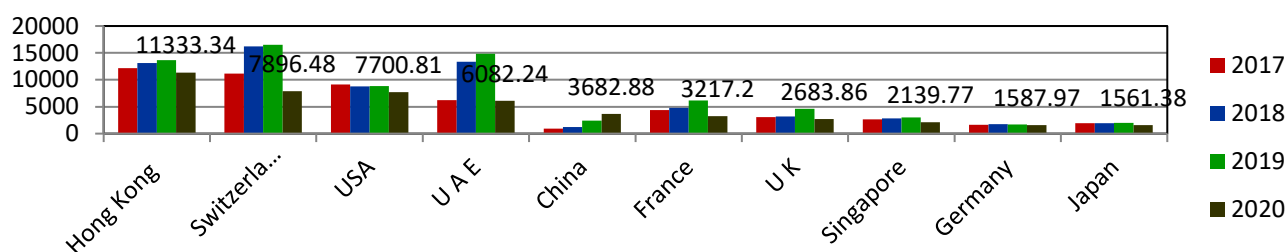
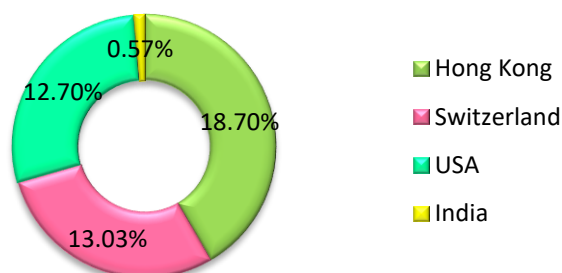
**World's top 10 Importers of Articles of Jewellery and Parts thereof (H.S Code-7113)**

Rank	Countries	2017		2018		2019		2020	
		Value (million \$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)
1.	Hong Kong	12150.76	17.98	13113.10	15.60	13641.85	14.95	11333.34	18.70
2.	Switzerland	11154.39	16.50	16198.08	19.27	16495.95	18.08	7896.48	13.03
3.	USA	9131.05	13.51	8804.07	10.47	8825.26	9.67	7700.81	12.70
4.	U A E	6211.44	9.19	13385.55	15.92	14869.24	16.30	6082.24	10.03
5.	China	944.05	1.40	1224.07	1.46	2384.44	2.61	3682.88	6.08
6.	France	4383.40	6.49	4780.98	5.69	6141.02	6.73	3217.20	5.31
7.	U K	3078.93	4.56	3195.82	3.80	4630.19	5.08	2683.86	4.43
8.	Singapore	2625.37	3.88	2829.41	3.37	3022.91	3.31	2139.77	3.53
9.	Germany	1646.27	2.44	1756.02	2.09	1703.17	1.87	1587.97	2.62
10.	Japan	1935.36	2.86	1924.23	2.29	2023.37	2.22	1561.38	2.58
25.	<b>India</b>	<b>778.15</b>	<b>1.15</b>	<b>660.39</b>	<b>0.79</b>	<b>612.34</b>	<b>0.67</b>	<b>345.44</b>	<b>0.57</b>
	Others	13549.01	20.05	16194.20	19.26	16875.30	18.50	12384.18	20.43
	<b>Total</b>	<b>67588.18</b>	<b>100</b>	<b>84065.91</b>	<b>100</b>	<b>91225.04</b>	<b>100</b>	<b>60615.57</b>	<b>100</b>

Source : UN Comtrade

**Leading Article of Jewellery and parts thereof importers of world from 2018-2021(in million USD)**

Data label given on the basis of 2020

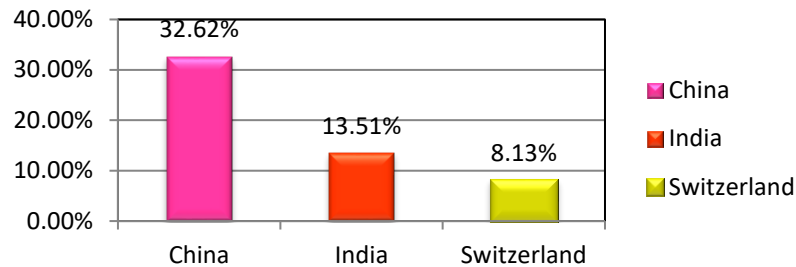
**Country wise world's top 3 importers of Article of Jewellery and parts thereof by percentage in 2020**

In 2020 with Articles of jewellery and parts thereof of precious metal or of metal clad precious metal imported by Hong Kong with imports valued at approximately US \$ 11.33 billion, accounted for 18.70 % of world import value of it. Switzerland ranked in second that year, with a share of 13.30% of global import but Switzerland were the top most importer of the commodity group in the world for the year 2018 and 2019. USA ranked in 3<sup>rd</sup> in the world in the same year, with 12.70% share globally. India ranked in 25<sup>th</sup> position in the world with the share of only 0.57% of total Global import value of Articles of jewellery and parts thereof of precious metal or of metal clad with precious metal in that year.

## Annexure-1

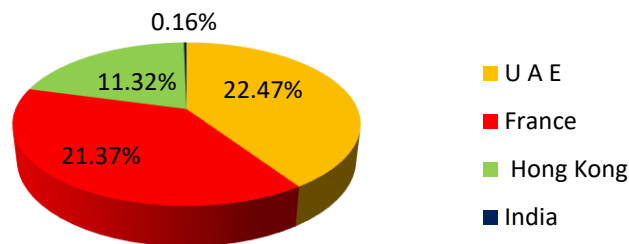
**Sources of world's top 3 importers of Article of Jewellery and parts thereof (H.S Code-7113)**

i) **Top 3 Article of Sources of Article of Jewellery and parts thereof to Hong Kong in 2020 by percentage:**



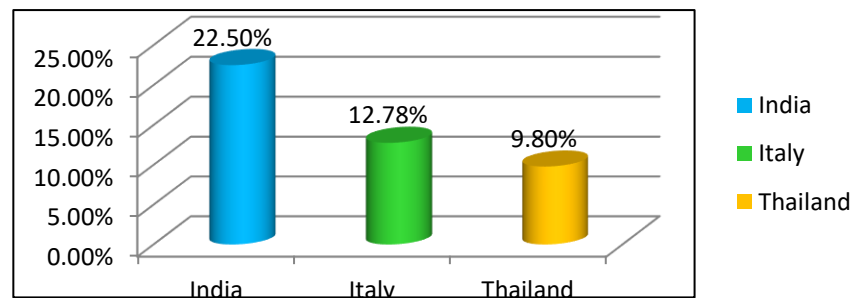
Hong Kong imported most of its Articles of jewellery and parts thereof of precious metal or of metal clad precious metal from China, 32.62% share of China's total import value of Articles of jewellery and parts thereof of precious metal or of metal clad precious metal. Came from China in 2020, 13.51% share came from **India** and 8.13% from Switzerland. (Source: UN Comtrade)

ii) **Top 3 Sources of Article of Jewellery and parts thereof to Switzerland in 2020 by percentage:**



Switzerland imports most of its requirements of Articles of jewellery and parts thereof of precious metal or of metal clad precious metal from UAE (22.47 %), from France (21.37%), from Hong Kong (11.32%) and from India's share was only 0.16% in 2020. (Source : UN Comtrade)

iii) **Top 3 Sources of Article of Jewellery and parts thereof to USA in 2020 by percentage:**



India was the largest source country of Articles of jewellery and parts thereof of precious metal or of metal clad precious to USA. India exports 22.50% of the Commodity group to USA in 2020, It was followed by Italy (12.78%) and Thailand (9.80%). (Source: UN Comtrade)

### Laminated Textile Fabrics

A laminated fabric is a two (or more) layer construction with a polymer film bonded to a fabric. Laminated fabrics are used in rainwear, automotive, and other applications. Wind stopper is an example of such fabrics.

Coating and laminating are methods of both improving and modifying the physical properties and appearance of fabric. They have also facilitated the development of entirely new products and have led to innovations in the area of 'smart' materials. Coating and lamination cuts across virtually every product group of the textile industry, including composites where the scope for future development is extremely wide. This book helps bridge the gap between the two disciplines of textile technology and polymer chemistry, both of which are necessary for success in this area of technical textiles, and it also touches on the related textile processes of fabric impregnation and foam finishing. The manufacturing processes of coated and laminated fabrics involve materials such as solvent- and water-based resins and adhesives, films, foams and hot melt adhesives. In an increasingly environmentally-conscious world, control and handling of potentially toxic materials are becoming very important tasks for plant managers. The author emphasises the factors influencing selection of materials and process machinery -- especially with reference to environmental issues including global warming. Product descriptions, production and test methods and standards are discussed in detail, and the book will be a valuable source of reference, embracing apparel, domestic, medical, military and industrial applications.

Fabric surface modification is a novel technique by coating and lamination which can improve structural performances. It provides the opportunities to manufacturer the special fabrics like water-proof resistant tarpaulins, coverings, large tents and architectural uses, back coating for upholstery including auto seats, food, medical applications, parachutes, woven curtains, for heat-sensitive fabrics, automotive fabrics, disposable hospital apparel etc. the recent developments also enhanced the lamination and coating technique into state-of-art process of the future in textile field.

The processes of coating and laminating have become much more important and novel techniques for adding performance, durability, appearance retention and aesthetic value to textiles. Custom coating and lamination processes add an additional range of property, usages, functionality, improves the ability to perform as needed, and retains overall inherent properties of textiles, all of which have been consistently proven after receiving proper customer coating and laminating services.

Vinyl coated polyester is a material frequently used for flexible fabric structures. It acts as a bonding or adhesive agent, and an exterior PVC coating. Fabric can be manufactured with different levels of light transmission that range from very transparent to completely opaque.

Uses of laminated fabrics are in rainwear, automotive, and other applications are for three-dimensional woven fabrics. For the purposes of this topic, a 'laminated fabric', also sometimes called a 'bonded fabric', is considered to be different from a coated fabric. However, these definitions are of academic interest and there is little benefit in taking a rigid view.

**These are broadly classified under H.S. Code-5903.**

Table - 4

**India's Top 10 destination of Laminated Textile Fabrics ( HS Code –5903)**

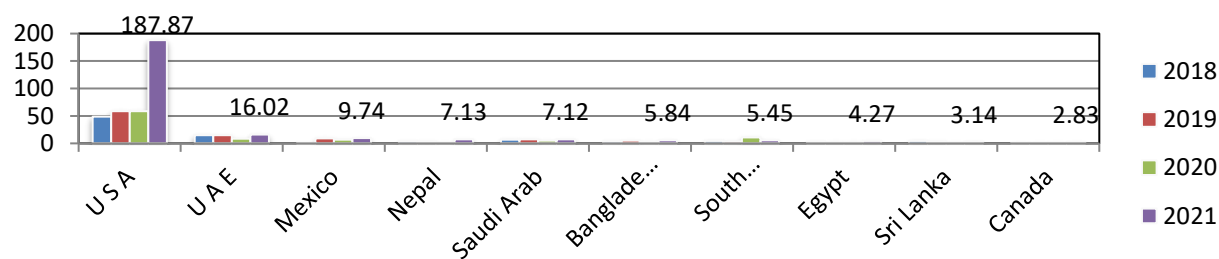
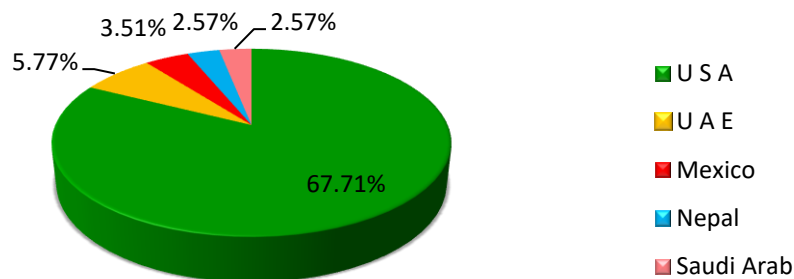
Rank	Countries	2018		2019		2020		2021	
		Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)
1.	U S A	48.61	38.06	58.67	40.48	58.70	49.54	187.87	67.71
2.	U A E	14.63	11.45	14.63	10.09	8.74	7.38	16.02	5.77
3.	Mexico	0.11	0.09	9.07	6.26	6.86	5.79	9.74	3.51
4.	Nepal	4.08	3.19	3.54	2.44	1.48	1.25	7.13	2.57
5.	Saudi Arab	6.63	5.19	7.57	5.22	4.81	4.06	7.12	2.57
6.	Bangladesh	3.58	2.80	5.15	3.55	2.68	2.26	5.84	2.10
7.	South Africa	4.55	3.56	3.82	2.64	10.87	9.17	5.45	1.96
8.	Egypt	2.84	2.22	2.21	1.52	1.97	1.66	4.27	1.54
9.	Sri Lanka	4.42	3.46	3.49	2.41	1.72	1.45	3.14	1.13
10.	Canada	0.87	0.68	1.32	0.91	1.59	1.34	2.83	1.02
	Others	37.41	29.29	35.45	24.46	19.06	16.09	28.07	10.12
	<b>Total</b>	<b>127.74</b>	<b>100</b>	<b>144.93</b>	<b>100</b>	<b>118.49</b>	<b>100</b>	<b>277.48</b>	<b>100</b>

Source: DGCI&amp;S

Note: India's Export including re-export

**India's major destination Laminated Textile Fabrics from 2018-2021(Values in million USD)**

Data label given on the basis of 2021

**India's top 5 destinations of Laminated Textile Fabrics by percentage in 2021:**

India's Laminated Textile Fabrics exports hit all-time high of US \$ 277.48 million in 2021. The export of Laminated Textile Fabrics increased nearly 2.35 times in the year 2021. USA, UAE and Mexico were the major importers of Laminated Textile Fabrics from India. USA has imported worth US \$ 187.87 million in 2021, while UAE and Mexico has imported Maize worth US \$ 16 Million and US \$ 9.74 Million respectively during the year. Other prominent importing countries were Nepal, Saudi Arab, and Bangladesh etc.

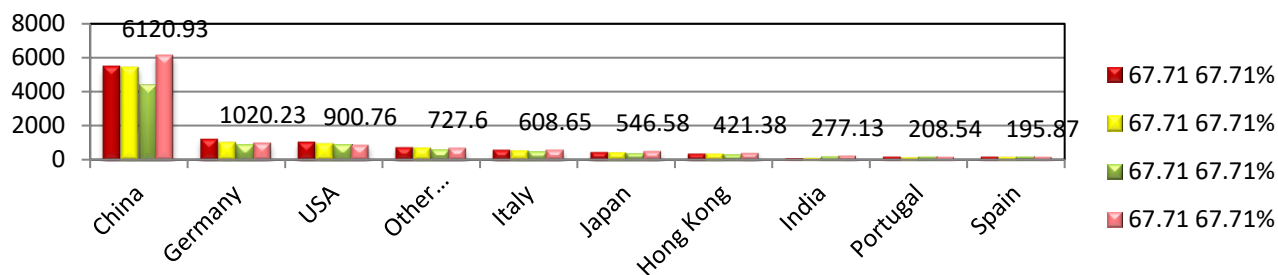


**Table - 5**  
**World's Top 10 exporters of Laminated Textile Fabrics ( HS Code –5903)**

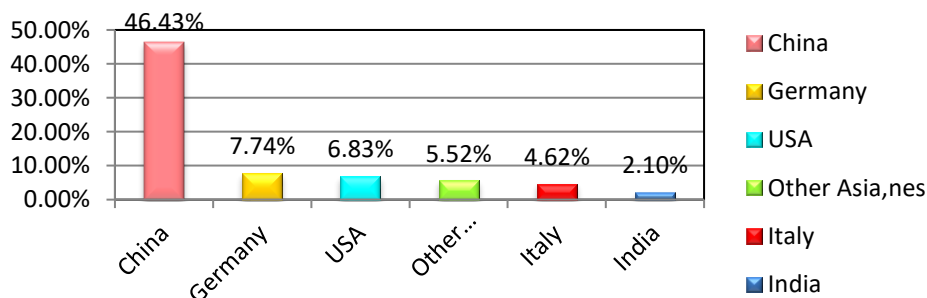
Rank	Countries	2017		2018		2019		2020	
		Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)
1.	China	5470.90	39.50	5408.38	40.78	4451.40	39.33	6120.93	46.43
2.	Germany	1259.27	9.09	1071.01	8.08	894.40	7.90	1020.23	7.74
3.	USA	1077.46	7.78	990.71	7.47	898.62	7.94	900.76	6.83
4.	Other Asia,nes	765.68	5.53	752.52	5.67	592.14	5.23	727.60	5.52
5.	Italy	615.55	4.44	581.89	4.39	495.39	4.38	608.65	4.62
6.	Japan	479.31	3.46	458.77	3.46	401.79	3.55	546.58	4.15
7.	Hong Kong	381.08	2.75	386.77	2.92	319.11	2.82	421.38	3.20
8.	<b>India</b>	<b>127.64</b>	<b>0.92</b>	<b>145.02</b>	<b>1.09</b>	<b>211.14</b>	<b>1.87</b>	<b>277.13</b>	<b>2.10</b>
9.	Portugal	212.56	1.53	187.74	1.42	180.76	1.60	208.54	1.58
10.	Spain	222.42	1.61	197.05	1.49	167.85	1.48	195.87	1.49
	Others	3237.56	23.38	3082.31	23.24	2705.71	23.91	2155.48	16.35
	<b>Total</b>	<b>13849.44</b>	<b>100</b>	<b>13262.16</b>	<b>100</b>	<b>11318.30</b>	<b>100</b>	<b>13183.14</b>	<b>100</b>

Source: UN Comtrade

**Top world exporters of Laminated Textile Fabrics from 2017 to 2020 (Values in million USD)**  
**Data label given on the basis of 2020**



**Export trends in world's leading Laminated Textile Fabrics exporters by percentage in 2020:**



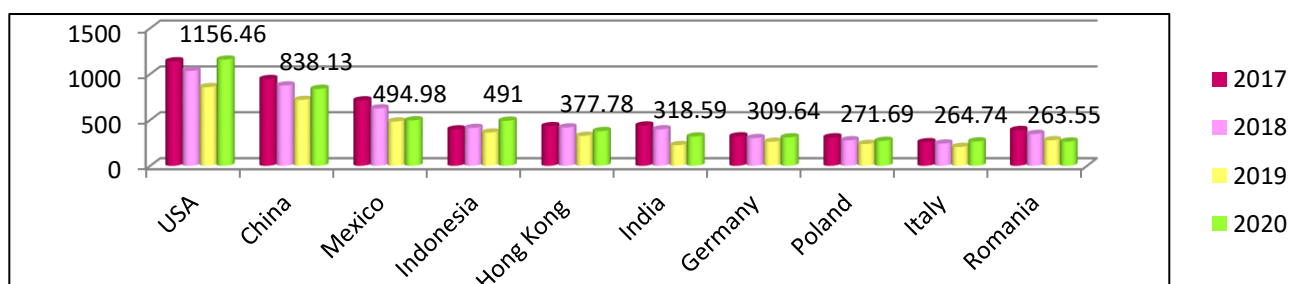
The China was the top country by Laminated Textile Fabrics exports value in the world. As of 2020, Laminated Textile Fabrics exports worth value in the China was US \$ 6.12 Billion accounts for 46.43% of the world's exports value. Other major exporting countries of Laminated Textile Fabrics in 2020 were Germany and USA, these major three country's together account for 61% of it. India's position in world's export of wheat was 8<sup>th</sup> rank with 2.10% share.

**Table - 6**  
**World's Top 10 Importers of Laminated Textile Fabrics (HS Code –5903)**

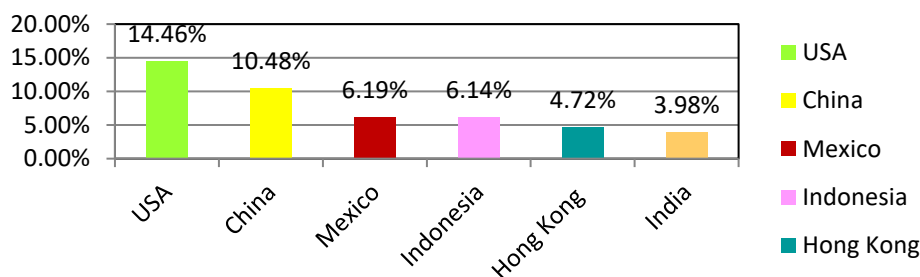
Rank	Countries	2017		2018		2019		2020	
		Value (million \$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)
1.	USA	1138.20	10.87	1034.11	10.22	856.54	9.81	1156.46	14.46
2.	China	945.03	9.03	875.13	8.65	717.31	8.21	838.13	10.48
3.	Mexico	712.59	6.81	625.00	6.17	482.37	5.52	494.98	6.19
4.	Indonesia	396.33	3.79	412.13	4.07	361.68	4.14	491.00	6.14
5.	Hong Kong	431.72	4.12	417.35	4.12	325.95	3.73	377.78	4.72
6.	<b>India</b>	<b>438.52</b>	<b>4.19</b>	<b>397.42</b>	<b>3.93</b>	<b>224.78</b>	<b>2.57</b>	<b>318.59</b>	<b>3.98</b>
7.	Germany	320.41	3.06	301.68	2.98	261.66	3.00	309.64	3.87
8.	Poland	309.57	2.96	277.60	2.74	237.40	2.72	271.69	3.40
9.	Italy	256.73	2.45	241.91	2.39	205.28	2.35	264.74	3.31
10.	Romania	389.55	3.72	346.27	3.42	277.96	3.18	263.55	3.30
	Others	5129.73	49.00	5193.50	51.31	4781.07	54.75	3211.41	40.15
	<b>Total</b>	<b>10468.37</b>	<b>100</b>	<b>10122.09</b>	<b>100</b>	<b>8732.01</b>	<b>100</b>	<b>7997.98</b>	<b>100</b>

Source: UNComtrade

**Top world importers of Laminated Textile Fabrics from 2017 to 2020 (Values in million USD)**  
**Data label given on the basis of 2020**

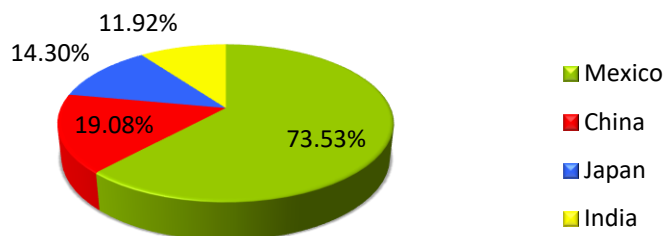


**Country wise leading global Importer of Laminated Textile Fabrics by percentage in 2020**

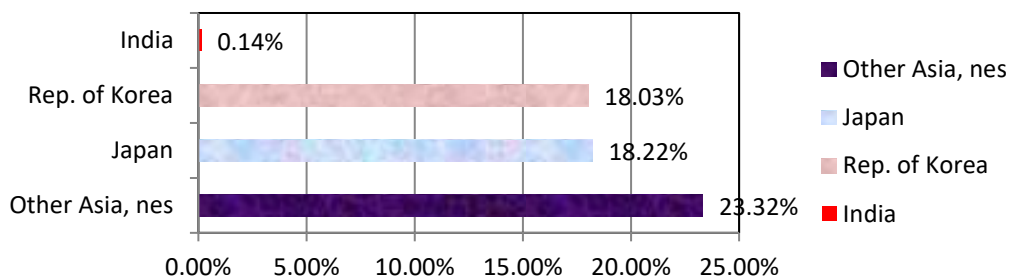


Of Laminated Textile Fabrics importers, USA was the largest Laminated Textile Fabrics Laminated Textile Fabrics-importing nation. Its import worth value of was US \$ 1.15 billion in 2020, accounted 14.46% share of world import value of Laminated Textile Fabrics. The China, Mexico, Indonesia and Hong Kong also import large values of Laminated Textile Fabrics. Collectively, these five major countries represent more than 42% of globally imported Laminated Textile Fabrics during 2020. In the same year India imported 3.98% share of Laminated Textile Fabrics and stood at 6<sup>th</sup> position in ranking in the world.

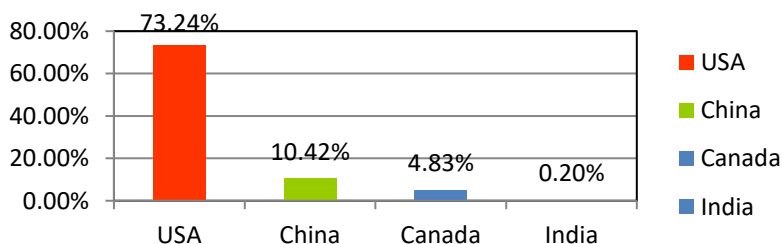
## Annexure-II

**Sources of world's top three importers of Laminated Textile Fabrics (HS Code 5903).****i) Top 3 Sources of Laminated Textile Fabrics to USA in 2020 by percentage:**

Mexico is the main source of Laminated Textile Fabrics to USA, Mexico exported 73.53 % share of USA'S import of the commodity in 2020. China and Japan are found to be the 2<sup>nd</sup> and 3<sup>rd</sup> largest exporters of Laminated Textile Fabrics to USA by 19.08% and 14.30% shares of USA's total import respectively in 2020. Apparently USA imported 11.92% of the commodity from India in 2020 (**Source: UN Comtrade**)

**ii) Top 3 Sources of Laminated Textile Fabrics to China in 2020 by percentage:**

23.32% share of Laminated Textile Fabrics imports to China came from Other Asia, nes in 2020, it was followed by Japan (18.22%) and RP of Korea (18.03%). India's share only 0.14% (**Source: UN Comtrade**)

**iii) Top 3 Sources of Laminated Textile Fabrics to Mexico in 2020 by percentage:**

With 73.24% share of Mexico's total import of Laminated Textile Fabrics, USA became the largest source of it to Mexico in 2020. China (10.42 %) and Canada (4.83%) were other major sources of Laminated Textile Fabrics to Mexico in that year. India's share was only 0.20% share of Mexico's total import in 2020. (**Source: UN Comtrade**)

## IMPORT

### Sewing Machines and Articles thereof

**Sewing machine**, any of various machines for stitching material (such as cloth or leather), usually having a needle and shuttle to carry thread and powered by treadle, waterpower, or electricity. It was the first widely distributed mechanical home appliance and has been an important industrial machine.

In early sewing machine was designed and manufactured by Barthélemy Thimonnier of France, who received a patent for it by the French government in 1830, to mass-produce uniforms for the French army, but some 200 rioting tailors, who feared that the invention would ruin their businesses, destroyed the machines in 1831. Thimonnier's design, in any event, merely mechanized the hand-sewing operation. A decisive improvement was embodied in a sewing machine built by Walter Hunt of New York City about 1832–34, which was never patented, and independently by Elias Howe of Spencer, Massachusetts, patented in 1846. In both machines a curved eye-pointed needle moved in an arc as it carried the thread through the fabric, on the other side of which it interlocked with a second thread carried by a shuttle running back and forth on a track. Howe's highly successful machine was widely copied, leading to extensive patent litigation and ultimately to a patent pool that included the design of Isaac Merritt Singer, the largest manufacturer. In 1860 more than 110,000 sewing machines were produced in the United States alone.

Although modern sewing machine designs have proliferated in an enormous variety, mostly for special industrial purposes, the basic operation remains unchanged. Modern machines are commonly powered by an electric motor, but the foot-treadle machine is still in wide use in much of the world. The world's largest producer is China. Japan's industry pioneered the versatile zigzag machine.

In 1877 the world's first crochet machine was invented and patented by Joseph M. Merrow, then-president of what had started in the 1840s as a machine shop to develop specialized machinery for the knitting operations. This crochet machine was the first production overlock sewing machine. The Merrow Machine Company went on to become one of the largest American Manufacturers of overlock sewing machines, and continues to be a global presence in the 21st century as the last American over-lock sewing machine manufacturer.

In 1885 Singer patented the Singer Vibrating Shuttle sewing machine, which used Allen B. Wilson's idea for a vibrating shuttle and was a better lockstitches than the oscillating shuttles of the time. Millions of the machines, perhaps the world's first really practical sewing machine for domestic use, were produced until finally superseded by rotary shuttle machines in the 20th century. Sewing machines continued being made to roughly the same design, with more lavish decoration appearing until well into the 1900s.

The first electric machines were developed by Singer Sewing Co. and introduced in 1889. By the end of the First World War, Singer was offering hand, treadle and electric machines for sale. At first the electric machines were standard machines with a motor strapped on the side, but as more homes gained power, they became more popular and the motor was gradually introduced into the casing.

A sewing machine is used to stitch the fabric and other pliable materials together with threads. The different parts of a sewing machine and its various functions help the operator to know the functioning of a sewing machine. There are different types of sewing machines used in the manufacturing of garments and other articles. In a modern sewing machine, the fabrics are easily operated in and out of the machine with the convenience of needles and thimbles and other such tools used in hand sewing, thereby automating the various processes of stitching and saving time. Some sewing machines are larger, faster, more complex, and have a wide range in their size, cost, appearance, and task. Safety devices such as needle guards are used to prevent accidental needle-stick injuries, which are often found on modern sewing machines.

**These are broadly classified under H. S. Code 8452.**

Table - 7

**India's Top 10 Sources of Sewing Machines and Articles thereof (HS Code :8452)**

Rank	Countries	2018		2019		2020		2021	
		Value ( million \$)	Share (%)	Value ( million\$)	Share (%)	Value ( million\$)	Share (%)	Value ( million\$)	Share (%)
1.	China	141.81	48.74	127.28	49.91	46.63	51.30	160.58	54.87
2.	Singapore	53.56	18.41	37.55	14.72	14.21	15.63	44.85	15.32
3.	Germany	17.16	5.90	14.62	5.73	5.55	6.11	15.67	5.35
4.	Hong Kong	12.09	4.16	14.99	5.88	2.11	2.32	13.87	4.74
5.	Viet Nam	14.55	5.00	14.11	5.53	4.13	4.54	12.87	4.40
6.	Thailand	11.09	3.81	7.73	3.03	3.81	4.19	10.58	3.61
7.	Malaysia	4.51	1.55	10.14	3.98	4.45	4.90	10.27	3.51
8.	Japan	16.60	5.71	9.49	3.72	3.28	3.61	9.41	3.22
9.	Taiwan	6.26	2.15	6.59	2.58	2.70	2.97	8.01	2.74
10.	Trukey	1.82	0.63	1.67	0.65	0.63	0.69	1.58	0.54
	Others	11.53	3.96	10.88	4.27	3.39	3.73	4.99	1.70
	<b>Total</b>	<b>290.96</b>	<b>100</b>	<b>255.04</b>	<b>100</b>	<b>90.89</b>	<b>100</b>	<b>292.68</b>	<b>100</b>

**Source: DGCI&S**

**Note: India's Import including re-import**

There was a total of 58 countries India imports Sewing Machines and Article thereof. The Sewing Machines and Articles thereof import of India in 2021 stood at US \$ 292.68 Million which was almost 3.22 times more from the year 2020. Major three source countries of Sewing Machines and Article thereof to India in 2021 were China (US \$ 160.58 Million), Singapore (US \$44.85 Million) and Germany (US \$ 15.67 Million). These 3 countries in total sold US \$ 221.10 Million value of Sewing Machines and Article thereof to India which rounds up to 76% of world import in 2021.

Table - 8

**World Top 10 Importer of Sewing Machines and Articles thereof (HS Code :8452)**

Rank	Countries	2017		2018		2019		2020	
		Value ( million \$)	Share (%)	Value ( million\$)	Share (%)	Value ( million\$)	Share (%)	Value ( million\$)	Share (%)
1.	USA	484.75	9.59	544.39	9.77	479.07	9.46	483.19	10.76
2.	Nigeria	85.94	1.70	193.43	3.47	221.47	4.37	364.83	8.12
3.	Viet Nam	392.57	7.77	469.06	8.42	487.91	9.63	307.39	6.85
4.	Germany	333.33	6.59	283.55	5.09	236.42	4.67	299.98	6.68
5.	Japan	194.11	3.84	197.02	3.53	173.49	3.43	172.87	3.85
6.	<b>India</b>	<b>237.83</b>	<b>4.71</b>	<b>291.14</b>	<b>5.22</b>	<b>255.00</b>	<b>5.03</b>	<b>164.35</b>	<b>3.66</b>
7.	Singapore	331.84	6.57	379.55	6.81	298.29	5.89	152.05	3.39
8.	China	227.42	4.50	246.70	4.43	190.97	3.77	145.05	3.23
9.	Turkey	110.57	2.19	127.98	2.30	96.91	1.91	133.98	2.98
10.	Netherlands	100.96	2.00	131.73	2.36	137.63	2.72	120.99	2.69
	Others	2555.06	50.55	2709.53	48.61	2488.07	49.12	2146.01	47.79
	<b>Total</b>	<b>5054.40</b>	<b>100</b>	<b>5574.08</b>	<b>100</b>	<b>5065.24</b>	<b>100</b>	<b>4490.70</b>	<b>100</b>

Source: UNComtrade

Global Imports of Sewing Machines and Articles thereof, the top five importers in 2020 were U A (US \$ 483.19M), Nigeria (US \$ 364.83 M), Viet Nam (US \$ 307.39 M), Germany (US \$ 300 M) and Japan (US \$ 172.87 M), respectively of world import value of Sewing Machines and Articles thereof. The import value of Sewing Machines and Articles thereof into India amounted to US \$ 164.35million in the year 2020 and ranked in 6<sup>th</sup> position in the world with the share of 3.66% of total Global import value of Sewing Machines and Articles thereof. The world import of Sewing Machines and Articles thereof fallen down in 2020 by 11.35% compare to that in the year 2019.

### Activated Carbon

**Activated carbon**, also called **activated charcoal**, is a form of carbon commonly used to filter contaminants from water and air, among many other uses. It is processed (activated) to have small, low-volume pores that increase the surface area available for adsorption (which is not the same as absorption) or chemical reactions. Activation is analogous to making popcorn from dried corn kernels: popcorn is light, fluffy, and has a surface area that is much larger than the kernels. *Activated* is sometimes replaced by *active*.

Due to its high degree of micro porosity, one gram of activated carbon has a surface area in excess of 3,000 m<sup>2</sup> (32,000 sq ft) as determined by gas adsorption. Charcoal, before activation, has a specific surface area in the range of 2.0 - 5.0 m<sup>2</sup>/g. An activation level sufficient for useful application may be obtained solely from high surface area. Further chemical treatment often enhances adsorption properties.

Activated carbon is usually derived from waste products such as coconut husks; waste from paper mills has been studied as a source. These bulk sources are converted into charcoal before being 'activated'. When derived from coal it is referred to as **activated coal**. **Activated coke** is derived from coke.

Activated carbon is used in methane and hydrogen storage, air purification, capacitive deionization, super capacitive swing adsorption, solvent recovery, decaffeination, gold purification, metal extraction, water purification, medicine, sewage treatment, air filters in respirators, filters in compressed air, teeth whitening, production of hydrogen chloride and many other applications.

One major industrial application involves use of activated carbon in metal finishing for purification of electroplating solutions. For example, it is the main purification technique for removing organic impurities from bright nickel plating solutions. A variety of organic chemicals are added to plating solutions for improving their deposit qualities and for enhancing properties like brightness, smoothness, ductility, etc. Due to passage of direct current and electrolytic reactions of anodic oxidation and cathodic reduction, organic additives generate unwanted breakdown products in solution. Their excessive build up can adversely affect plating quality and physical properties of deposited metal. Activated carbon treatment removes such impurities and restores plating performance to the desired level. Activated carbon is used to treat poisonings and overdoses following oral ingestion. Tablets or capsules of activated carbon are used in many countries as an over-the-counter drug to treat diarrhoea, indigestion, and flatulence. However, activated charcoal shows no effect on intestinal gas and diarrhoea, and is, ordinarily, medically ineffective if poisoning resulted from ingestion of corrosive agents, boric acid, petroleum products, and is particularly ineffective against poisonings of strong acids or bases, cyanide, iron, lithium, arsenic, methanol, ethanol or ethylene glycol. Activated carbon will not prevent these chemicals from being absorbed into the human body.

Activated carbon is carbon produced from carbonaceous source materials such as bamboo, coconut husk, willow peat, wood, coir, lignite, coal, and petroleum pitch. Activated carbon is majorly used in various industries such as chemical, petrochemical, food & beverages, pharmaceutical, mining, and automotive industries and water treatment amongst others. Fluctuations in crude oil prices have an impact on the value chain of petrochemical, chemical and its allied industries.

**These are broadly classified under H. S. Code 3802.**

**Table - 9**  
**India's Top 10 Source Countries of Activated Carbons (HS Code : 3802)**

Rank	Countries	2018		2019		2020		2021	
		Value ( million \$)	Share (%)	Value ( million\$)	Share (%)	Value ( million\$)	Share (%)	Value ( million\$)	Share (%)
1.	China	25.85	35.18	29.77	35.19	17.26	38.24	34.10	40.51
2.	U S A	15.26	20.77	14.52	17.17	7.30	16.17	16.00	19.00
3.	Netherland	2.39	3.25	3.05	3.61	2.43	5.38	5.20	6.18
4.	France	2.79	3.80	4.00	4.73	2.81	6.23	3.94	4.68
5.	Japan	3.60	4.90	3.36	3.97	1.92	4.25	3.45	4.10
6.	Germany	2.18	2.97	2.48	2.93	1.92	4.25	2.99	3.55
7.	Malaysia	1.77	2.41	2.25	2.66	1.33	2.95	2.68	3.18
8.	Canada	4.49	6.11	5.83	6.89	1.52	3.37	2.35	2.79
9.	Indonesia	2.13	2.90	1.99	2.35	1.47	3.26	2.13	2.53
10.	Australia	1.86	2.53	1.79	2.12	1.25	2.77	2.05	2.44
	Others	11.14	15.16	15.55	18.38	5.93	13.14	9.29	11.04
	<b>Total</b>	<b>73.47</b>	<b>100</b>	<b>84.59</b>	<b>100</b>	<b>45.14</b>	<b>100</b>	<b>84.18</b>	<b>100</b>

**Source: DGCI&S**

**Note: India's Import including Re-import**

The value of imports of Activated Carbons to India totaled US\$ 84.18 million in 2021. Sales of Activated Hydrocarbons to India increased by more than 86% in value terms compared to 2020. Major five source countries of Activated Carbons to India in 2021 were China (US \$ 34.10 Million), USA (US \$ 16 Million), Netherlands (US \$ 5.20 Million), France (US \$ 3.94 Million) and Japan (US \$3.45 Million). These 5 countries in total exported US \$ 62.69 Million value of Activated Carbons to India which rounds up to 74.47% of the total Activated Carbons import into India.



**Table - 10**  
**World Top 10 Importer of Activated Carbons (HS Code :3802)**

Rank	Countries	2017		2018		2019		2020	
		Value (million\$)	Share (%)	Value ( million\$)	Share (%)	Value ( million\$)	Share (%)	Value ( million\$)	Share (%)
1.	Germany	202.38	8.38	224.28	8.19	223.89	8.20	222.44	8.49
2.	USA	222.27	9.20	246.18	8.99	252.30	9.24	217.55	8.30
3.	Rep. of Korea	146.96	6.08	167.61	6.12	173.32	6.35	171.64	6.55
4.	China	137.98	5.71	168.65	6.16	176.92	6.48	168.39	6.42
5.	Japan	156.78	6.49	182.88	6.68	176.30	6.45	153.39	5.85
6.	Mexico	82.57	3.42	103.82	3.79	97.93	3.59	95.08	3.63
7.	France	88.27	3.65	84.34	3.08	89.60	3.28	94.45	3.60
8.	Belgium	84.19	3.49	87.22	3.19	82.07	3.00	89.81	3.43
9.	Italy	73.86	3.06	95.02	3.47	79.41	2.91	82.67	3.15
10.	U K	57.25	2.37	83.14	3.04	76.20	2.79	75.93	2.90
14.	<b>India</b>	<b>63.25</b>	<b>2.62</b>	<b>73.62</b>	<b>2.69</b>	<b>84.63</b>	<b>3.10</b>	<b>67.95</b>	<b>2.59</b>
	Others	1099.88	45.53	1221.33	44.61	1218.90	44.62	1182.16	45.10
	<b>Total</b>	<b>2415.64</b>	<b>100</b>	<b>2738.08</b>	<b>100</b>	<b>2731.47</b>	<b>100</b>	<b>2621.46</b>	<b>100</b>

Source: UNComtrade

The three major importers of Activated Carbons, namely Germany, USA and Rep. of Korea represented more than 23% of total imports in 2020. In value terms, Germany (US \$ 222.44M), USA (US \$ 217.55M) and Rep. of Korea (US \$ 171.64 M) constituted the countries with the highest levels of imports in 2020. **India** experienced the highest growth rate of the value of imports, among the main importing countries and ranked in 14<sup>th</sup> position in the world with 2.59% share of Global import of Activated Carbons in 2020.