

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 **Lac ; Gums, Resins and Oleo Resins & Blankets and Travelling Rugs** and imports of **Soya beans and Carboxylic Acids and its derivatives** 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-1301 & 6301 for export and 1201 & 2918 for import) and the latest finalized data available on the UN Comtrade Database up to year 2022 and on the DGCI&S Database up to May'2023. So, trends from 2018 to 2021 have been shown when we extract the data from UN Comtrade and from 2019 to 2022 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 Lac ; Gums, Resins and Oleo Resins & Blankets and Travelling Rugs and imports of Soya beans and Carboxylic Acids and its derivatives. 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 Lac ; Gums, Resins and Oleo Resins with their shares in percentage.
- Table 2 : World's top 10 Exporters of Lac ; Gums, Resins and Oleo Resins with their shares in percentage.
- Table 3 : World's top 10 Importers of Lac ; Gums, Resins and Oleo Resins with their shares in percentage.
- Annex- I : Top 3 sources of Lac ; Gums, Resins and Oleo Resins of World's top 3 Importers.
- Table 4 : India's top 10 destination of Blankets and Travelling Rugs with their shares in percentage.
- Table5 : World's top 10 Exporters of Blankets and Travelling Rugs with their shares in percentage.
- Table 6 : World's top 10 Importers of Blankets and Travelling Rugs with their shares in percentage.
- Annex-II : Top 3 sources of Blankets and Travelling Rugs of World's top 3 Importers.
- Table 7 : India's top10 Sources of Soya beans with their shares in percentage.
- Table 8 : World's top 10 Importers of Soya beans with their shares in percentage.
- Table 9 : India's top 10 Sources of Carboxylic Acids with their shares in percentage.
- Table 10 : World's top 10 Importers of Carboxylic Acids with their shares in percentage.

EXPORT

Lac, Gums, Resins and Oleoresins

Lac is the resinous secretion of a number of species of lac insects, of which the most commonly cultivated is *Kerria lacca*. Cultivation begins when a farmer gets a stick that contains eggs ready to hatch and ties it to the tree to be infested.^[1] Thousands of lac insects colonize the branches of the host trees and secrete the resinous pigment. The coated branches of the host trees are cut and harvested as **sticklac**.

The harvested sticklac is crushed and sieved to remove impurities. The sieved material is then repeatedly washed to remove insect parts and other material. The resulting product is known as **seedlac**. The prefix *seed* refers to its pellet shape. Seedlac, which still contains 3–5% impurity, is processed into shellac by heat treatment or solvent extraction.

The leading producer of lac is Jharkhand, followed by the Chhattisgarh, West Bengal, and Maharashtra states of India. Lac production is also found in Bangladesh, Myanmar, Thailand, Laos, Vietnam, parts of China, and Mexico. The word *Lac* is derived from the Sanskrit word *lākshā* (लाक्षा) representing the number 100 thousand, which was used for both the Lac insect (because of their enormous number) and the scarlet resinous secretion it produces that was used as wood finish, lacquerware, skin cosmetic, ornaments and dye for wool and silk in ancient India and neighbouring areas. Lac resin was once imported in sizeable quantity into Europe from India along with Eastern woods. These are being used very widely nowadays.

Lac is harvested by cutting the tree branches that hold sticklac. If dye is being produced, the insects are kept in the sticklac because the dye colour comes from the insects rather than their resin. They may be killed by exposure to the sun. On the other hand, if seedlac or shellac is being produced, most insects can escape because less coloured pale lac is generally more desired.

The use of lac dye goes back to ancient times. It was used in ancient India and neighbouring areas as wood finish, lacquerware, skin cosmetic, lacquerware and dye for wool and silk. In China, it is a traditional dye for leather goods. Lac for dye has been somewhat replaced by the emergence of synthetic dyes, though it remains in use, and some juices, carbonated drinks, wine, jam, sauce, and candy are coloured using it. It is still used as sealing wax by the India Post.

Lac is used in folk medicine as a hepatoprotective and anti-obesity drug. It is used in violin and other varnish and is soluble in alcohol. This type of lac was used in the finishing of 18th-century fowling guns in the United States. India exported significant amounts of sticklac derivatives, especially lac dye, from the 1700s to the late 1800s. Production declined as synthetic dyes emerged, and after the late 1940s, production of seedlac and shellac also declined due to replacement.

In the mid-1950s, India annually produced about 50,000 tons of sticklac and exported about 29,000 tons of lac; by the late 1980s the figures were about 12,000 tons and 7,000 tons, respectively. By 1992–93, India's lac exports fell further to 4,500 tons. In the same period, Thailand's production increased somewhat, with annual lac exports of around 7,000 tons in the 1990s, mainly of seedlac. China exported only about 500 tons of shellac per year in the 1990s but produced more lac internally: 4,000–5,000 tons of sticklac and 2,000–3,000 tons of shellac in Yunnan province, with additional, smaller production in Fujian province. While India, Thailand, and China are the major lac producers, Bangladesh, Myanmar, Vietnam, and Sri Lanka also play small roles.

These are broadly classified under **H.S. Code-1301**.

Table - 1

India's Top 10 destination of Lac; Gums, Resins and Oleoresins (H.S Code-1301)

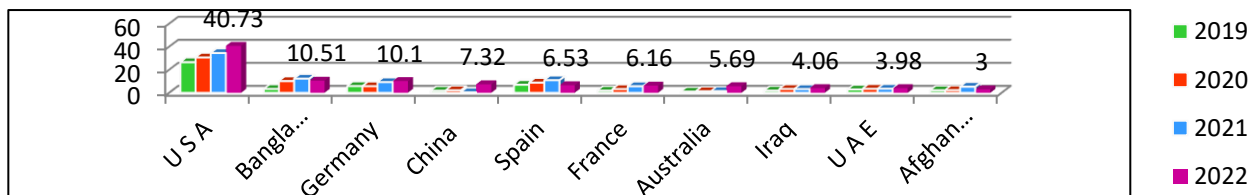
Rank	Countries	2019		2020		2021		2022	
		Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)
1.	U S A	26.56	31.79	30.66	29.31	34.49	27.28	40.73	30.58
2.	Bangladesh	3.31	3.97	10.14	9.69	12.26	9.69	10.51	7.89
3.	Germany	5.80	6.94	5.73	5.47	9.26	7.32	10.10	7.59
4.	China	1.78	2.14	2.16	2.06	0.39	0.31	7.32	5.49
5.	Spain	7.00	8.38	8.79	8.40	10.95	8.66	6.53	4.91
6.	France	1.87	2.24	3.26	3.12	5.69	4.50	6.16	4.62
7.	Australia	1.01	1.21	1.33	1.27	1.46	1.16	5.69	4.27
8.	Iraq	1.93	2.31	3.35	3.21	3.22	2.54	4.06	3.05
9.	U A E	2.91	3.49	3.48	3.33	3.52	2.78	3.98	2.99
10.	Afghanistan	2.21	2.65	2.31	2.21	5.27	4.17	3.00	2.25
	Others	29.16	34.90	33.41	31.93	39.97	31.60	35.10	26.35
	Total	83.55	100	104.63	100	126.47	100	133.18	100

Source: DGCI&S.

Note : India's Export including re-export

India's top destinations of Lac; Gums, Resins and Oleoresins from 2019-2022 (in million USD)

Data label given on the basis of 2022



India's top 5 destinations of Lac; Gums, Resins and Oleoresins by percentage India in 2022:



The value of exports of Lac; natural gums, resins, gum-resins and oleoresins (for example, balsams) from India totalled \$ 133.18 million in 2022. Which was went up by more than 5.30% compared to 2021 or went up by nearly US \$ 7 million worth. USA is the largest destination for Lac, Gums, Resins, Vegetable Saps And Extracts Nes export from India. In 2022 USA imported US \$ 40.73 million worth of Lac, Gums, Resins, Vegetable Saps And Extracts Nes from India which was accounted 30.58% share of India's total export in 2022. Followed by Bangladesh and Germany with 7.89 % and 7.59% respectively.

Table-2

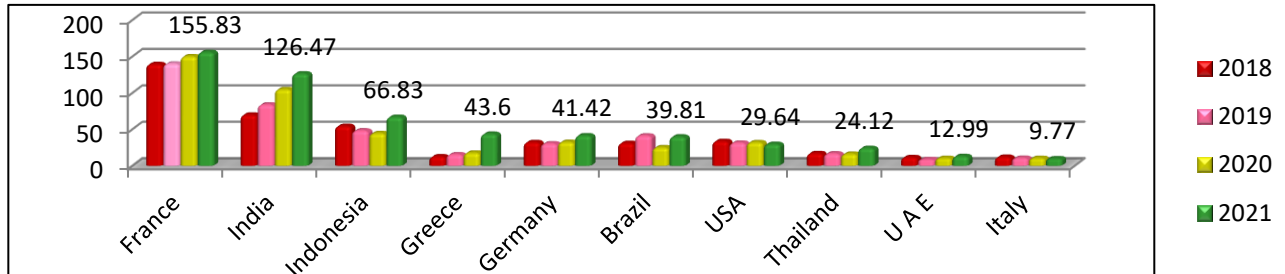
World's Top 10 exporter of Lac; Gums, Resins and Oleoresins (H.S Code-1301)

Rank	Countries	2018		2019		2020		2021	
		Value (million \$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)
1.	France	139.39	22.17	140.01	26.24	150.03	27.87	155.83	23.94
2.	India	69.90	11.12	83.78	15.70	104.83	19.47	126.47	19.43
3.	Indonesia	54.41	8.65	48.22	9.04	44.51	8.27	66.83	10.27
4.	Greece	12.70	2.02	15.41	2.89	17.67	3.28	43.60	6.70
5.	Germany	32.19	5.12	30.40	5.70	32.41	6.02	41.42	6.36
6.	Brazil	31.05	4.94	41.16	7.71	25.01	4.65	39.81	6.12
7.	USA	33.68	5.36	31.37	5.88	32.01	5.95	29.64	4.55
8.	Thailand	17.05	2.71	16.58	3.11	16.11	2.99	24.12	3.71
9.	U A E	11.47	1.82	8.58	1.61	10.30	1.91	12.99	2.00
10.	Italy	12.05	1.92	10.47	1.96	10.32	1.92	9.77	1.50
	Others	214.81	34.17	107.60	20.17	95.18	17.68	100.47	15.43
	Total	628.70	100	533.57	100	538.38	100	650.94	100

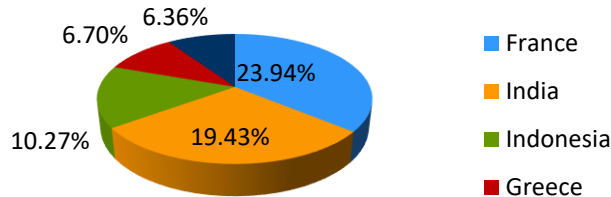
Source: UN Comtrade

World's top Exporters of Lac; Gums, Resins and Oleoresins from 2018-2021(in million USD)

Data label given on the basis of 2021



Country wise world's top 5 exporter of Lac; Gums, Resins and Oleoresins by percentage in 2021 :



In 2021, the world exports of "Lac; natural gums, resins, gum-resins and oleoresins exceeded \$650.94 million. It was \$ 538.38 million in the previous year. France was the top exporting country by Lac; Gums, Resins and Oleoresins exports value in the world. As of 2021, the commodity group exports worth value in the France was US \$ 155.83 million accounts for almost 24% of the world's exports value. India ranked in second that year, with the said export worth value of US \$ 126.47 million, a share of 19.43% of global import. Indonesia ranked in 3rd in the world in the same year, with 10.27% share globally.

Table-3

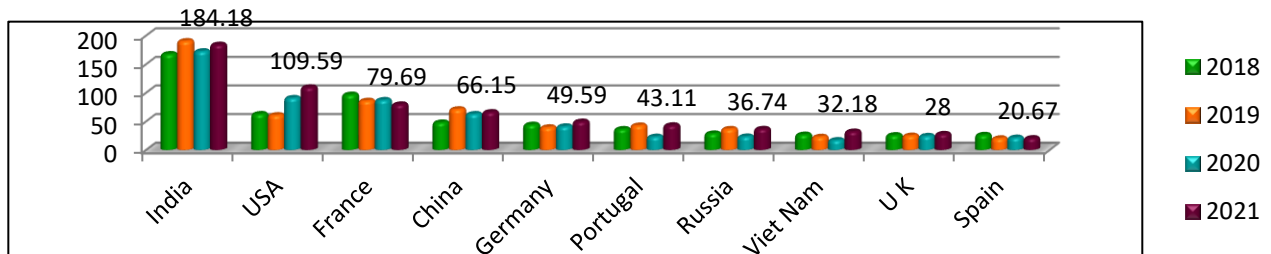
World's top 10 Importers of Lac; Gums, Resins and Oleoresins (H.S Code-1301)

Rank	Countries	2018		2019		2020		2021	
		Value (million \$)	Share (%)	Value (million\$)	Share (%)	Value (million \$)	Share (%)	Value (million\$)	Share (%)
1.	India	167.73	19.00	190.42	20.71	172.73	20.02	184.18	18.99
2.	USA	62.89	7.12	60.77	6.61	90.92	10.54	109.59	11.30
3.	France	96.78	10.96	86.02	9.36	87.36	10.13	79.69	8.22
4.	China	48.04	5.44	71.17	7.74	62.84	7.28	66.15	6.82
5.	Germany	44.14	5.00	39.65	4.31	41.27	4.78	49.59	5.11
6.	Portugal	36.52	4.14	42.74	4.65	23.20	2.69	43.11	4.45
7.	Russia	28.73	3.25	36.64	3.99	23.48	2.72	36.74	3.79
8.	Viet Nam	26.77	3.03	22.97	2.50	17.16	1.99	32.18	3.32
9.	U K	25.81	2.92	25.04	2.72	24.53	2.84	28.00	2.89
10.	Spain	26.33	2.98	20.32	2.21	21.52	2.50	20.67	2.13
	Others	319.18	36.15	323.58	35.20	297.66	34.50	319.98	32.99
	Total	882.92	100	919.32	100	862.69	100	969.88	100

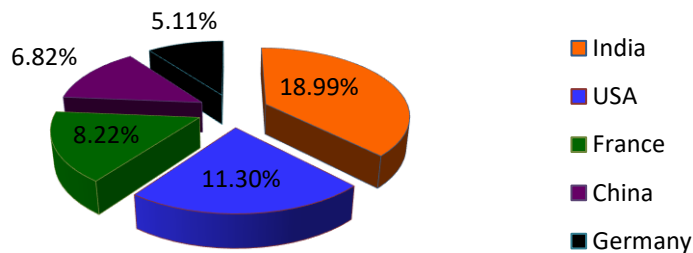
Source : UN Comtrade

Leading Lac; Gums, Resins and Oleoresins importers of world from 2018-2021(in million USD)

Data label given on the basis of 2021



Country wise world's top 3 importers of Lac; Gums, Resins and Oleoresins by percentage in 2021

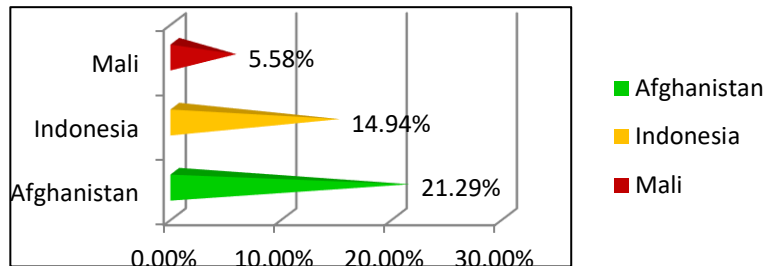


In 2021, the world imports of "Lac; natural gums, resins, gum-resins and oleoresins" was almost \$970 million. It was \$863 million in the previous year. In 2021, India imported Lac with imports valued at approximately US \$ 184.18 million, accounting for 19% of the world import value of it, which makes India the largest importer of the commodity group 1301 in the world. USA ranked second that year, with a share of 11.30% of global import, which was followed by France, who ranked 3rd in the world in the same year, with an 8.22% share globally.

Annexure-1

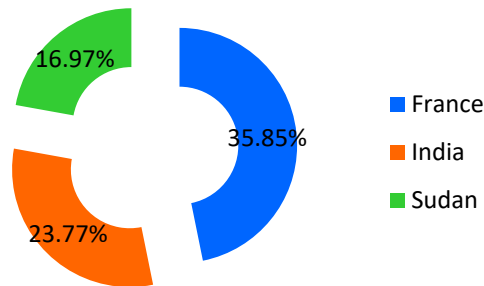
Sources of world's top 3 importers of Lac; Gums, Resins and Oleoresins (H.S Code-1301)

(i) Top 3 Sources of Lac; Gums, Resins, Oleoresin to India in 2021 by percentage:



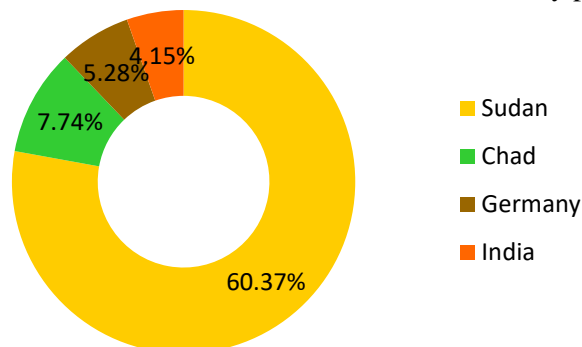
India imported most of its Lac; Gums, Resins, Oleoresin from Afghanistan, 21.29% share of India's total import value of Lac; Gums, Resins, Oleoresin came from Afghanistan in 2021, 14.94% share came from Indonesia and 5.58% from Mali. (Source : UN Comtrade)

ii) Top 3 Sources of Lac; Gums, Resins, Oleoresin to USA in 2021 by percentage:



USA imports most of its requirements of Lac; Gums, Resins, Oleoresin from France (35.85%) ,from India (23.77%) ,from Sudan (16.97%) in 2021.(Source : UN Comtrade)

iii) Top 3 Sources of Lac; Gums, Resins, Oleoresin to France in 2021 by percentage:



Sudan was the largest source country of Lac; Gums, Resins, Oleoresin to France. Sudan exports 60.37% of the Commodity group to France in 2021, It was followed by Chad (7.74%) and Germany (5.28%). In the same year India exported to France 4.15% share of France's total import. (Source: UN Comtrade)

Blankets and Travelling Rugs

A **blanket** is a swath of soft cloth large enough either to cover or to enfold most of the user's body and thick enough to keep the body warm by trapping radiant body heat that otherwise would be lost through convection.

An ancient form of blanket is recorded as "*Kambala*". The 7th century Chinese traveler and scholar Xuanzang mentioned the stuff in his travelogue of his journey to India in 629–645 CE. He refers to "Kambala" as a woolen material made from sheep or goat's hair. He categorized it as a kind of material for clothing. The Sanskrit meaning of Kambala is 'a woolen blanket.' According to India's ancient text, the Atharvaveda, kambala is a generic term for materials such as shawls and blankets.

Pandu-Kambala was a type of Kambala from Gandhāra, Ancient Indian scholar Pāṇini mentioned "pandu-kambala" from the upper parts of Gandhara, the place was "Uddiyana," which was famous for the said blankets. Some more variations of old Indian blankets are "keca-lakah", "kalamitika", "talicchakam", "varavanah", "sarumitika", "paristomah", "samanatabhad", "turangastaranam", "varnakam", "paristomah", "samanatabhad". Coarse qualities were used by farmers, and herdsmen. Some of them were used to spread out on the backs of animals like horses, elephants, and bullocks.

Many types of blanket material, such as wool, are used because they are thicker and have more substantial fabric to them, but cotton can also be used for light blankets. Wool blankets are warmer and also relatively slow to burn compared to cotton. The most common types of blankets are woven acrylic, knitted polyester, mink, cotton, fleece and wool. Blankets also come with exotic crafting and exotic material such as crocheted afghan or a silk covering. The term blanket is often interchanged with comforter, quilt, and duvet, as they all have similar uses.

Blankets have been used by militaries for many centuries. Militaries are some of the biggest single consumers of woolen blankets. Military blankets tend to be coarse grey, with thick fibers of over 20 microns. Special blankets known as baby blankets are used to protect infants from the cold. Small children (and some adults) may also use a blanket as a comfort object. Blankets may be spread on the ground for a picnic or where people want to sit in a grassy or muddy area without soiling their clothing. Temporary blankets have been designed for this purpose.

The travelling rug can be used for travel as a mat or for a child's room, kitchen and bedroom to not only create a beautiful effect, but also to protect the carpets of the house. Travelling rugs has polyester fibers that in addition to good strength, have a relatively low weight and wrinkle less after washing and do not need ironing in most cases. The travelling rug is a convenient and practical mat for family and friendly trips or picnics. A cover has been made for this model, which helps it to be easily carried on various trips and excursions. It goes without saying that the best temperature for washing this carpet is 40 degrees Celsius so as not to damage its texture and fibers.

These are broadly classified under **H.S. Code-6301**

Table - 4

India's Top 10 destination of Blankets and Travelling Rugs (HS Code –6301)

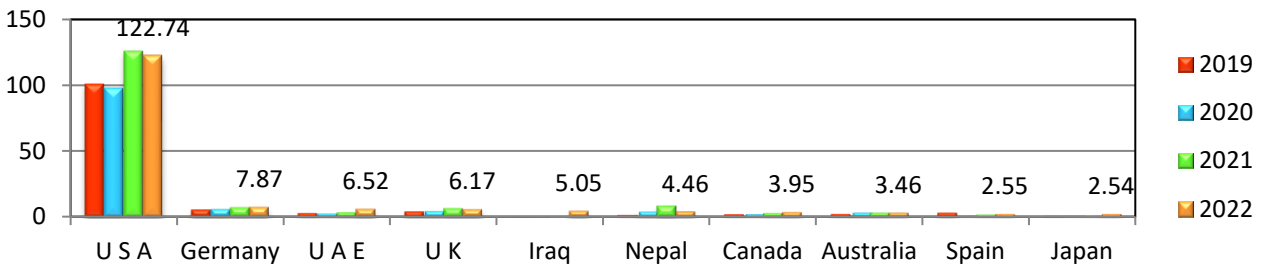
Rank	Countries	2019		2020		2021		2022	
		Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million \$)	Share (%)	Value (million \$)	Share (%)
1.	U S A	100.80	63.60	97.60	62.86	125.93	61.47	122.74	59.80
2.	Germany	5.94	3.75	6.30	4.06	7.60	3.71	7.87	3.83
3.	U A E	3.36	2.12	2.80	1.80	3.78	1.84	6.52	3.18
4.	U K	4.49	2.83	4.64	2.99	6.98	3.41	6.17	3.01
5.	Iraq	0.61	0.39	0.00	0.00	0.07	0.03	5.05	2.46
6.	Nepal	1.79	1.13	4.13	2.66	8.86	4.33	4.46	2.17
7.	Canada	2.20	1.39	2.30	1.48	3.28	1.60	3.95	1.92
8.	Australia	2.60	1.64	3.42	2.20	3.59	1.75	3.46	1.69
9.	Spain	3.51	2.22	1.38	0.89	2.12	1.03	2.55	1.24
10.	Japan	1.00	0.63	1.25	0.81	1.66	0.81	2.54	1.24
	Others	32.20	20.32	31.46	20.26	40.99	20.01	39.95	19.47
	Total	158.50	100	155.28	100	204.86	100	205.26	100

Source: DGCI&S

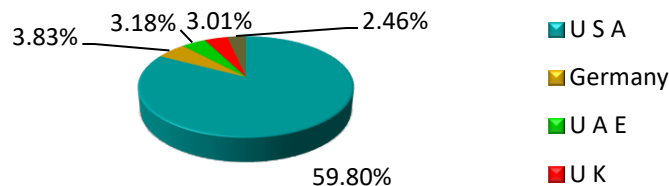
Note : India's Export including re-export

India's major destination Blankets & Travelling Rugs from 2019-2022(Values in million USD)

Data label given on the basis of 2022



India's top 5 destinations of Blankets & Travelling Rugs by percentage in 2022:



India's total export for Blankets And Travelling Rugs is worth US \$ 205.26 Million in 2022, which when compared to the previous year's export statistics it has almost same. Blankets And Travelling Rugs is exported from India majorly to USA, Germany, UK and UAE and Iraq. In 2022 India has exported US \$ 122.74 Million of Blankets and Travelling Rugs to USA, which holds the top position with the share of 59.80% of the total export of India. With the share of 3.83% and 3.18% , Germany and UAE takes runner up and 2nd runner up position in the global importers of Blankets and Travelling Rugs from India.

Table - 5

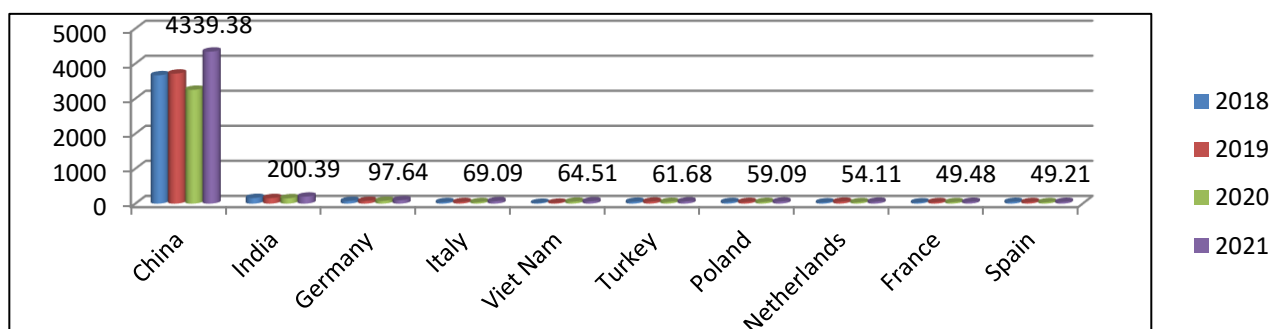
World's Top 10 exporters of Blankets and Travelling Rugs (HS Code –6301)

Rank	Countries	2018		2019		2020		2021	
		Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million \$)	Share (%)
1.	China	3664.71	75.14	3712.82	74.98	3250.34	74.66	4339.38	75.52
2.	India	161.66	3.31	158.22	3.20	154.23	3.54	200.39	3.49
3.	Germany	74.95	1.54	75.07	1.52	77.78	1.79	97.64	1.70
4.	Italy	43.09	0.88	45.04	0.91	42.73	0.98	69.09	1.20
5.	Viet Nam	22.12	0.45	25.07	0.51	53.92	1.24	64.51	1.12
6.	Turkey	51.75	1.06	57.34	1.16	48.40	1.11	61.68	1.07
7.	Poland	44.57	0.91	46.40	0.94	46.23	1.06	59.09	1.03
8.	Netherlands	34.83	0.71	54.54	1.10	40.99	0.94	54.11	0.94
9.	France	34.56	0.71	41.55	0.84	41.05	0.94	49.48	0.86
10.	Spain	48.68	1.00	42.71	0.86	39.35	0.90	49.21	0.86
	Others	696.56	14.28	692.74	13.99	558.50	12.83	701.21	12.20
	Total	4877.47	100	4951.51	100	4353.52	100	5745.79	100

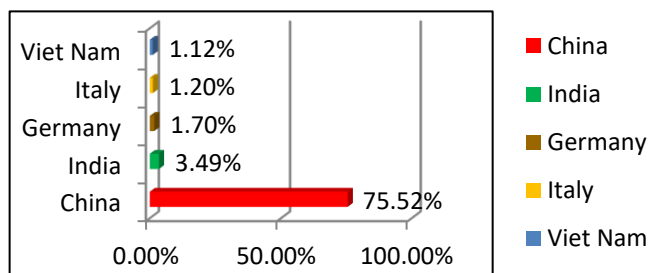
Source: UN Comtrade

Top world exporters of Blankets and Travelling Rugs from 2018 to 2021 (**Values in million USD**)

Data label given on the basis of 2021



Export trends in world's leading Blankets and Travelling Rugs exporters by percentage in 2021:



The global export of blankets and travelling rugs was US \$ 5.74 million in 2021, which has risen by almost 32% over the previous year. China (US \$ 4.34 billion) and **India** (US \$ 200.39 million) were the key exporters of blankets and travelling rugs across the globe in 2021, together comprising 80% of total global export. These were distantly followed by Germany (US \$ 97.64 million), Italy (US \$ 69.09 million), and Viet Nam (US \$ 64.51 million).

Table - 6

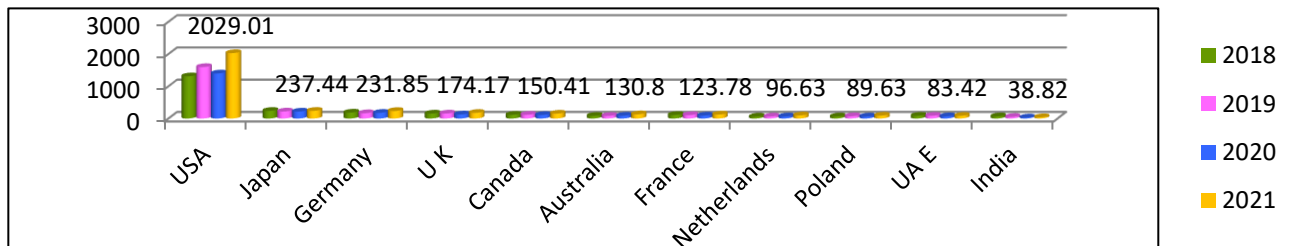
World's Top 10 Importers of Surface Blankets and Travelling Rugs (HS Code –6301)

Rank	Countries	2018		2019		2020		2021	
		Value (million \$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million \$)	Share (%)
1.	USA	1308.69	34.04	1596.24	39.09	1397.67	40.20	2029.01	42.72
2.	Japan	236.55	6.15	217.19	5.32	214.37	6.17	237.44	5.00
3.	Germany	183.15	4.76	164.01	4.02	175.29	5.04	231.85	4.88
4.	U K	152.90	3.98	154.48	3.78	126.89	3.65	174.17	3.67
5.	Canada	115.52	3.01	116.10	2.84	109.64	3.15	150.41	3.17
6.	Australia	81.13	2.11	79.90	1.96	86.39	2.48	130.80	2.75
7.	France	109.84	2.86	105.22	2.58	91.19	2.62	123.78	2.61
8.	Netherland s	57.66	1.50	60.78	1.49	62.32	1.79	96.63	2.03
9.	Poland	62.47	1.63	68.14	1.67	60.34	1.74	89.63	1.89
10.	UA E	83.06	2.16	84.13	2.06	67.52	1.94	83.42	1.76
20.	India	64.64	1.68	48.27	1.18	31.02	0.89	38.82	0.82
	Others	1388.48	36.12	1389.56	34.02	1054.03	30.32	1363.10	28.70
	Total	3844.09	100	4084.02	100	3476.67	100	4749.05	100

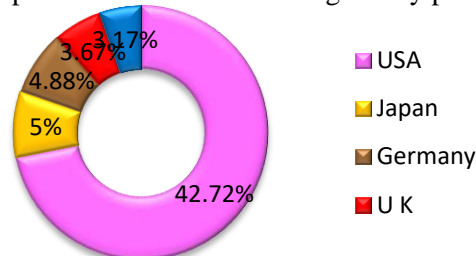
Source :UNComtrade

Top world importers of Surface Active Agents from 2018 to 2021 (Values in million USD)

Data label given on the basis of 2021



Country wise leading global Importer of Surface Active Agents by percentage in 2021

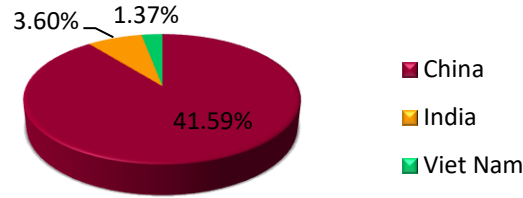


The USA (US \$ 2.03 billion), Japan (\$237.44 million), Germany (\$231.85 million) were the key importers of Blankets and Travelling Rugs across the globe in 2021, together comprising 52.60 of total import. In this year **India** has imported only US \$ 38.82 million worth value of Blankets and Travelling Rugs from the world which was accounted only 0.82% share of world import. This year World import of the commodity group has risen by more than 36% from the year 2020.

Annexure-II

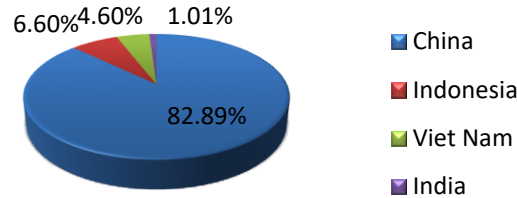
Sources of world's top three importers of Blankets and Travelling Rugs ((HS Code –6301)

i) Top 3 Sources of Blankets and Travelling Rugs to USA in 2021 by percentage:



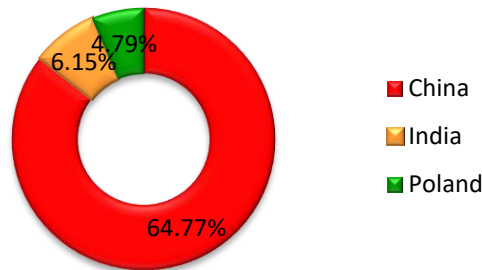
USA, the key importer of Blankets and Travelling Rugs in the world, imported 41.59% of its total requirements of Blankets and Travelling from China in 2021. In the same India was the 2nd largest source country for the commodity group of USA, exports 3.60 % share to USA which was followed by Viet Nam (1.37%). (Source: UN Comtrade)

ii) Top 3 Sources of Blankets and Travelling Rugs to Japan in 2021 by percentage:



82.89% share of Blankets and Travelling Rugs imports to Japan came from China in 2021, it was followed by Indonesia (6.60%) and Viet Nam (4.60%). In the same year Japan imported 1.01% share of its total import of Blankets and Travelling Rugs from **India**. (Source: UN Comtrade)

iii) Top 3 Sources of Blankets and Travelling Rugs to Germany in 2021 by percentage:



With 64.77% share of Germany's total import of Blankets and Travelling Rugs, China became the largest source of it to Germany in 2021. **India**, the 2nd largest source for the commodity group of Germany with 6.15% share, it was followed by Poland with 4.79% share of Germany's total import of Blankets and Travelling Rugs in 2021. (Source : UN Comtrade)

IMPORT

Soya beans

Soybean, is an important crop throughout the world. Soybean is a source of food, oils—both culinary and industrial—and animal feed. In addition, soybean products can be found in plywood, particleboard, printing inks, soap, candy, cosmetics, and antibiotics.

Cultivated soybean and its wild ancestor, *Glycine soja*, are members of the legume family, Fabaceae. Legumes are particularly valuable because, in conjunction with symbiotic bacteria, they fix atmospheric nitrogen and they are excellent sources of protein, with soybeans containing the highest level of this nutrient.

The cultivated soybean plant is an erect, bushy annual. Plants produce clusters of three to fifteen purple or white flowers that develop into pubes-cent (fuzzy) pods, usually containing two to four seeds. Soybean seeds vary in size and are commonly yellow in color, but can also be green, black, or brown. The soybean originated as a cultivated crop in northeast Asia about four thousand years ago. The earliest written record of the soybean plant is from China in 2838 B.C.E. Early farmers grew soy for their own food as well as for livestock feed. Soybean came to the United States in the late 1700s, but was used primarily as a forage crop until the beginning of the twentieth century.

Soybean is planted in the spring with row spacing averaging twelve inches using a grain drill. A skipped row system allows cultivation without damage from tractor tires. Nitrogen fixation by the symbiotic *Rhizobium* bacteria alleviates the need for nitrogen fertilizer, although soil testing may indicate other needed nutrients. Weed and insect pest controls are practiced as needed. Soybean is harvested when the pods are dry and brown and the leaves have fallen, generally after the first freeze in the fall. The crop is harvested with combines that cut the plants and thresh the seed from the pods.

More soybeans are grown in the United States than in any other country in the world. Soybean is the second largest crop produced in the United States after corn. Over half of the soybeans produced in this country are exported to other parts of the world, making soybean an important part of the market economy of the United States. Brazil also an another major producer of Soya Beans.

Greater than half of the vegetable oil consumed in the United States is soy oil, a healthy vegetable oil high in unsaturated fats. Culinary soybean products include extracted soy protein, tofu (soybean curd), tempeh (fermented soybean mash), soy sauce, soy flour, edamame (green vegetable soybeans), soy sprouts, and soymilk. Other important soybean products are the animal feeds made from the meal that is one of the end products of oil extraction, and oil for light industrial purposes.

Soya bean production now occupies close to 6% of the world's arable land. Soya bean expansion is occurring much faster than with other major grains or oilseeds. Since 1993, soybean hectares grew two times the overall global economy. Soya beans increasingly are being employed as the modern input of choice for buyers. They are mainly used as intermediate food, feed, and industrial inputs, not final consumer products, therefore remaining somewhat invisible in the economy.

Brazil is the today's leading exporter of Soya beans capturing more than 44% of world export of Soya beans while USA capturing 39%. Argentina is also an leading exporter of the commodity while China is the major importer of Soya beans capturing more than 60% of world import of Soya bean.

These are broadly classified under **H. S. Code 1201**.

Table - 7

India's Top 10 Source Countries of Soya beans (HS Code : 1201)

Rank	Countries	2019		2020		2021		2022	
		Value (million \$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)
1.	Benin	19.02	16.88	130.80	45.32	32.02	6.56	147.29	34.86
2.	Togo	15.38	13.65	71.49	24.77	80.71	16.54	139.65	33.05
3.	Burkina	1.13	1.01	4.03	1.40	11.65	2.39	36.62	8.67
4.	Mozambiqu e	8.74	7.76	18.56	6.43	100.19	20.53	23.74	5.62
5.	Tanzania	0.00	0.00	0.00	0.00	116.55	23.88	16.70	3.95
6.	U A E	2.18	1.94	18.65	6.46	20.72	4.25	15.83	3.75
7.	Ethiopia	55.74	49.48	12.73	4.41	23.27	4.77	12.37	2.93
8.	Djibouti	4.39	3.89	2.29	0.79	3.48	0.71	7.25	1.72
9.	Sudan	0.04	0.04	0.02	0.01	3.08	0.63	5.80	1.37
10.	Ghana	0.00	0.00	5.21	1.81	8.96	1.83	4.54	1.08
	Others	6.04	5.36	24.82	8.60	87.41	17.91	12.72	3.01
	Total	112.65	100	288.60	100	488.04	100	422.50	100

Source: DGCI&S

Note : India's Import including Re-import

The Soya Bean import to India in 2022 stood at US \$ 422.50 Million and US \$ 488.04 Million in 2021, which shows a negative growth of more than (-) 13.43% from the year 2021 of India's import value of Soya Bean. Major three source countries of Soya Beans to India in 2022 are Benin (US \$ 147.29 Million), Togo (US \$ 139.65 Million) and Burkina (US \$ 36.62 Million). These 3 countries in total sold US \$ 323.56 Million value of Soya Bean to India which rounds up to nearly 76.58% of the total Soya Bean import into India. The import of the commodity to India reached an all time high of US \$ 488.04 million during the year 2021.

Table - 8

World Top 10 Importer of Soya beans (HS Code :1201)

Rank	Countries	2018		2019		2020		2021	
		Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)
1.	China	38087.02	58.94	35342.02	60.37	39545.57	60.43	53528.19	60.45
2.	Argentina	2505.67	3.88	1605.96	2.74	1982.37	3.03	2623.69	2.96
3.	Mexico	1877.62	2.91	1940.41	3.31	2225.84	3.40	2537.82	2.87
4.	Thailand	1150.29	1.78	1151.96	1.97	1602.98	2.45	2266.64	2.56
5.	Netherlands	1715.50	2.65	1531.67	2.62	1743.21	2.66	2194.55	2.48
6.	Egypt	1420.09	2.20	1658.42	2.83	1600.29	2.45	2156.20	2.43
7.	Japan	1539.44	2.38	1534.97	2.62	1490.78	2.28	2074.64	2.34
8.	Spain	1345.52	2.08	1206.42	2.06	1288.96	1.97	2034.09	2.30
9.	Germany	1482.12	2.29	1405.65	2.40	1577.68	2.41	1946.04	2.20
10.	Other Asian	1069.01	1.65	1027.20	1.75	1040.24	1.59	1497.07	1.69
19.	India	78.62	0.12	112.34	0.19	292.09	0.45	488.37	0.55
	Others	12349.07	19.11	10024.18	17.12	11052.64	16.89	15206.20	17.17
	Total	64619.98	100	58541.19	100	65442.67	100	88553.50	100

Source :UNComtrade

Soya bean is among the major oilseed and protein meal products. In the year 2021, around US \$ 88.55 Billion of soybeans were imported globally. China was by far the leading importer of soybeans, with an annual import value of US \$ 53.52 Billion in 2021, accounted for nearly 60.45% share of world import of Soya Beans, which was distantly followed by Argentina (2.96%) and Mexico (2.87%). The import value of Soya Bean into India amounted to US \$ 488.37 Million in the year 2021 and ranked in 19th position in the world with the share of 0.55% of total Global import value of Soya beans. The global import of Soya beans has increased more than 35% during the year 2021 compare to that than the year 2020.

Carboxylic Acids and its Derivatives

Carboxylic acid, any of a class of organic compounds in which a carbon (C) atom is bonded to an oxygen (O) atom by a double bond and to a hydroxyl group (—OH) by a single bond. A fourth bond links the carbon atom to a hydrogen (H) atom or to some other univalent combining group. The carboxyl (COOH) group is so-named because of the *carbonyl* group (C=O) and *hydroxyl* group.

Carboxylic acids occur widely in nature. The fatty acids are components of glycerides, which in turn are components of fat. Hydroxyl acids, such as lactic acid (found in sour-milk products) and citric acid (found in citrus fruits), and many keto acids are important metabolic products that exist in most living cells. Proteins are made up of amino acids, which also contain carboxyl groups. Compounds in which the —OH of the carboxyl group is replaced by certain other groups are called carboxylic acid derivatives, the most important of which are acyl halides, acid anhydrides, esters, and amides.

Carboxylic acid derivatives have varied applications. For example, in addition to its use as a disinfectant, formic acid, the simplest carboxylic acid, is employed in textile treatment and as an acid reducing agent. Acetic acid is extensively used in the production of cellulose plastics and esters. Aspirin, the ester of salicylic acid, is prepared from acetic acid. Palmitic acid and stearic acid are important in the manufacture of soaps, cosmetics, pharmaceuticals, candles, and protective coatings. Stearic acid also is used in rubber manufacture. Acrylic acid is employed as an ester in the production of polymers (long-chain molecules) known as acrylates. Methacrylic acid serves as an ester and is polymerized to form Lucite. Oleic acid is used in the manufacture of soaps and detergents and of textiles.

Salts of carboxylic acids are named in the same manner as are the salts of inorganic compounds; the cation is named first and then the anion, as in sodium chloride. For carboxylic acids, the name of the anion is derived by changing the ending *-oic acid* of the IUPAC name or *-ic acid* of the common name to *-ate*. Some examples are sodium acetate, CH_3COONa ; ammonium formate, HCOONH_4 ; and potassium butanoate (potassium butyrate), $\text{CH}_3\text{CH}_2\text{CH}_2\text{COOK}$. The most important property of carboxylic acids, and the one that is responsible for naming them such, is their acidity. An acid is any compound that donates a hydrogen ion, H^+ (also called a proton), to another compound, termed a *base*. Carboxylic acids do this much more readily than most other classes of organic compounds, so they are said to be stronger acids, even though they are much weaker than the most important mineral acids—sulfuric (H_2SO_4), nitric (HNO_3), and hydrochloric (HCl). The reason for the enhanced acidity of this group of compounds can best be demonstrated by a comparison of their acidity with that of alcohols, both of which contain an —OH group. Alcohols are neutral compounds in aqueous solution. When an alcohol donates its proton, it becomes a negative ion called an alkoxide ion, RO^- . When a carboxylic acid donates its proton, it becomes a negatively charged ion, RCOO^- , called a carboxylate ion.

Carboxylic acids are compounds occurring naturally in different stages of life cycles (living organism-Krebs cycle; fermentation processes, and geological processes) or can be produced in the laboratories or at large scale (synthesis) from oxidation reactions of aldehydes, primary alcohols, and hydrocarbons, oxidative cleavage of olefins, base catalyzed dehydrogenation of alcohols or through the hydrolysis of nitriles, esters, or amides. The organic acids play significant and varied roles in our contemporary society as evidenced by multiple applications in the field of medicine, agriculture, pharmaceuticals, food, and other industries. Carboxylic acids and their derivatives are used in the production of polymers, biopolymers, coatings, adhesives, and pharmaceutical drugs. They also can be used as solvents, food additives, antimicrobials, and flavorings.

These are broadly classified under **H. S. Code 2918**.

Table - 9

India's Top 10 Sources of Carboxylic Acids and its Derivatives (HS Code : 2918)

Rank	Countries	2019		2020		2021		2022	
		Value (million \$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)
1.	China	290.91	71.27	336.18	65.18	397.98	70.15	458.82	71.50
2.	Italy	22.12	5.42	32.33	6.27	28.85	5.08	37.87	5.90
3.	Brazil	1.70	0.42	33.99	6.59	30.96	5.46	31.58	4.92
4.	U S A	11.43	2.80	17.33	3.36	12.26	2.16	23.13	3.60
5.	Singapore	10.42	2.55	8.08	1.57	9.57	1.69	12.45	1.94
6.	Germany	11.67	2.86	13.75	2.67	13.35	2.35	11.53	1.80
7.	Saudi Arab	0.12	0.03	0.07	0.01	1.83	0.32	7.10	1.11
8.	Thailand	6.44	1.58	6.22	1.21	6.20	1.09	6.91	1.08
9.	Belgium	6.25	1.53	9.01	1.75	9.58	1.69	6.19	0.96
10.	Korea RP	6.79	1.66	8.47	1.64	12.46	2.20	5.23	0.81
	Others	40.32	9.88	50.32	9.76	44.34	7.82	40.87	6.37
	Total	408.18	100	515.75	100	567.37	100	641.68	100

Source: DGCI&S

Note : India's Import including re-import

The Carboxylic Acids and its Derivatives import to India in 2022 stood at US \$ 641.88 Million and US \$ 567.37 Million in 2021, which shows a positive growth of 13.09% from the 2021 of India's import value of Carboxylic Acids and its Derivatives. Major three source countries of Carboxylic Acids and its Derivatives to India in 2022 are China (US \$ 458.82 Million), Italy (US \$ 37.87 Million) and Brazil (US \$ 31.58 Million). These 3 countries in total sold US \$ 528.27 Million value of Carboxylic Acids and its Derivatives to India which rounds up to 82.32% of the total Carboxylic Acids and its Derivatives import into India in 2022.

Table - 10

World Top 10 Importer of Carboxylic Acids and its Derivatives (HS Code : 2918)

Rank	Countries	2018		2019		2020		2021	
		Value (million \$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)
1.	USA	1443.86	16.59	1145.42	14.16	1116.34	13.67	1478.39	14.77
2.	Germany	775.25	8.91	703.87	8.70	656.15	8.03	815.53	8.15
3.	India	429.11	4.93	407.96	5.04	518.28	6.34	567.59	5.67
4.	Japan	519.53	5.97	493.98	6.11	476.30	5.83	540.94	5.40
5.	France	380.18	4.37	401.01	4.96	372.22	4.56	450.23	4.50
6.	Italy	385.35	4.43	356.64	4.41	389.75	4.77	429.56	4.29
7.	Rep of Korea	345.43	3.97	265.20	3.28	273.70	3.35	340.46	3.40
8.	Mexico	253.82	2.92	249.70	3.09	248.30	3.04	339.90	3.39
9.	Brazil	264.64	3.04	289.21	3.58	262.35	3.21	337.44	3.37
10.	China	226.48	2.60	274.08	3.39	262.30	3.21	305.28	3.05
	Others	3678.19	42.27	3502.38	43.30	3593.34	43.99	4406.69	44.01
	Total	8701.84	100	8089.45	100	8169.04	100	10012.01	100

Source :UNComtrade

Global Imports of Carboxylic Acids and its Derivatives, the top three importers of Carboxylic Acids and its Derivatives in 2021 were USA (US \$ 1.47 B), Germany (US \$ 815.5. M) and India (US \$567.59 M),accounted for 14.77 %, 8.15 % and 5.67 % respectively of world import value of Carboxylic Acids and its Derivatives. The global import of the commodity group has increased in 2021 by 22.56% compare to that than the year 2020.