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 **Coconuts, Brazil nuts and Cashew nuts & Tube or Pipe fittings of Iron and Steel** and imports of **Unwrought Lead and Padlock & Locks** 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-0801 &7307 for export and 7801 & 8301 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 April'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 Coconuts, Brazil nuts and Cashew nuts & Tube or Pipe fittings of Iron and Steel and imports of Unwrought Lead and Padlock & Locks**.** 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 Coconuts, Brazil nuts and Cashew nuts with their shares in percentage.**
- **Table 2 : World's top 10 Exporters of Coconuts, Brazil nuts and Cashew nuts with their shares in percentage.**
- **Table 3 : World's top 10 Importers of Coconuts, Brazil nuts and Cashew nuts with their shares in percentage.**
- **Annex- I : Top 3 sources of Coconuts, Brazil nuts and Cashew nuts of World's top 3 Importers.**
- **Table 4 : India's top 10 destination of Pipe fittings of Iron or Steel with their shares in percentage.**
- **Table 5 : World's top 10 Exporters of Tube or Pipe fittings of Iron and Steel with their shares in percentage.**
- **Table 6 : World's top 10 Importers of Tube or Pipe fittings of Iron and Steel with their shares in percentage.**
- **Annex-II : Top 3 sources of Tube or Pipe fittings of Iron and Steel of World's top 3 Importers.**
- **Table 7 : India's top10 Sources of Metal-Rolling Mills with their shares in percentage.**
- **Table 8 : World's top 10 Importers of Metal-Rolling Mills Oils with their shares in percentage.**
- **Table 9 : India's top 10 Sources of Unwrought Enzyme with their shares in percentage.**
- **Table 10 : World's top 10 Importers of Unwrought Enzyme with their shares in percentage.**

EXPORT

Coconuts, Brazil nuts and Cashew nuts-Fresh or Dried

Coconuts, Brazil nuts and Cashew nuts. Common usage of the term often refers to any hard-walled, edible kernel as a nut. Nuts are an energy-dense and nutrient-rich food source.

Coconuts : The coconut tree provides food, fuel, cosmetics, folk medicine and building materials, among many other uses. The inner flesh of the mature seed, as well as the coconut milk extracted from it, form a regular part of the diets of many people in the tropics and subtropics. Mature, ripe coconuts can be used as edible seeds, or processed for oil and plant milk from the flesh, charcoal from the hard shell, and coir from the fibrous husk. Dried coconut flesh is called copra, and the oil and milk derived from it are commonly used in cooking – frying in particular – as well as in soaps and cosmetics. Sweet coconut sap can be made into drinks or fermented into palm wine or coconut vinegar. The hard shells, fibrous husks and long pinnate leaves can be used as material to make a variety of products for furnishing and decoration.

Most commercially made coconut oil comes from copra, which is the dried coconut meat. The initial extraction of oil from the coconut meat yields what we call, 'virgin coconut oil.'

In 2020, world production of coconuts was 62 million tonnes, led by Indonesia, India, and the Philippines, with 75% combined of the total.

Brazil Nuts : The Brazil nut is a South American tree in the family Lecythidaceae, and it is also the name of the tree's commercially harvested edible seeds. It is one of the largest and longest-lived trees in the Amazon rainforest. The fruit and its nutshell – containing the edible Brazil nut – are relatively large, possibly weighing as much as 2 kg (4 lb 7 oz) in total weight. As food, Brazil nuts are notable for diverse content of micronutrients, especially a high amount of selenium. The wood of the Brazil nut tree is prized for its quality in carpentry, flooring, and heavy construction.

Brazil nuts contain 14% protein, 12% carbohydrate, and 66% fat by weight; 85% of their calories come from fat, and a 100-gram amount provides 2,740 kilojoules (656 kilocalories) of food energy. The fat components are 23% saturated, 38% monounsaturated, and 32% polyunsaturated.

In 2020, global production of Brazil nuts (in shells) was 69,658 tonnes, most of which derive from wild harvests in tropical forests, especially the Amazon regions of Brazil and Bolivia which produced 92% of the world total.

Cashew Nuts : The cashew tree is a tropical evergreen tree that produces the cashew seed and the cashew apple accessory fruit. The tree can grow as tall as 14 metres (46 feet), but the dwarf cultivars, growing up to 6 m (20 ft), prove more profitable, with earlier maturity and greater yields. The cashew seed is commonly considered a snack nut (cashew nut) eaten on its own, used in recipes, or processed into cashew cheese or cashew butter. Like the tree, the nut is often simply called a cashew. Cashew allergies are triggered by the proteins found in tree nuts, and cooking often does not remove or change these proteins.

Raw cashews are 5% water, 30% carbohydrates, 44% fat, and 18% protein (table). In a 100 gram reference amount, raw cashews provide 553 Calories, 67% of the Daily Value (DV) in total fats, 36% DV of protein, 13% DV of dietary fiber and 11% DV of carbohydrates. Cashews are rich sources (20% or more of the DV) of dietary minerals, including particularly copper, manganese, phosphorus, and magnesium (79-110% DV), and of thiamine, vitamin B_6 and vitamin K (32-37% DV) (table). Iron, potassium, zinc, and selenium are present in significant content (14-61% DV) (table). Cashews (100 grams, raw) contain 113 milligrams (1.74 gr) of beta-sit sterol.

In 2020, global production of cashew nuts (as the kernel) was 4,180,990 tonnes, led by Ivory Coast and India with a combined 39% of the world total (table). Vietnam, Burundi, and the Philippines also had significant production. Vietnam was the largest processor of cashew globally in 2020.

These are broadly classified under H.S. Code-0801.

Table - 1

India's Top 10 destination of Coconuts, Brazil nuts and Cashew nuts (H.S Code-0801)

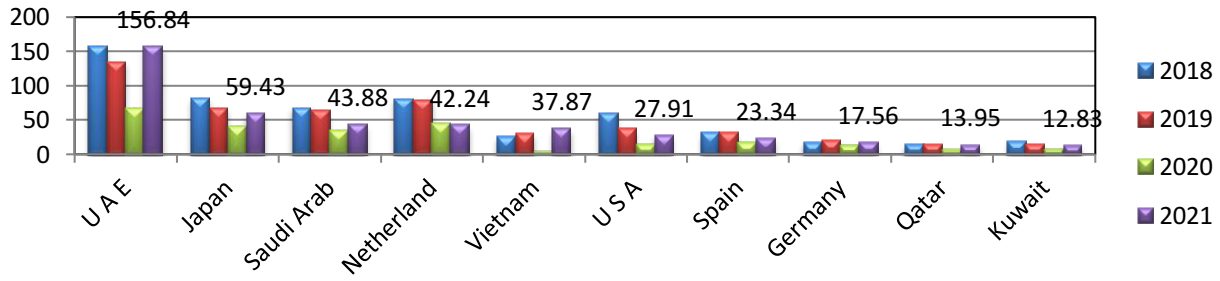
Rank	Countries	2018		2019		2020		2021	
		Value (million$)	Share (%)	Value (million$)	Share (%)	Value (million$)	Share (%)	Value (million$)	Share (%)
1.	U A E	156.35	20.60	135.27	21.18	66.36	21.50	156.84	29.28
2.	Japan	83.08	10.95	67.52	10.57	41.02	13.29	59.43	11.10
3.	Saudi Arab	67.99	8.96	63.21	9.90	34.72	11.25	43.88	8.19
4.	Netherland	81.00	10.67	79.34	12.42	44.24	14.33	42.24	7.89
5.	Vietnam	25.32	3.34	29.72	4.65	3.66	1.19	37.87	7.07
6.	U S A	59.00	7.78	38.11	5.97	14.85	4.81	27.91	5.21
7.	Spain	31.92	4.21	31.04	4.86	17.41	5.64	23.34	4.36
8.	Germany	17.35	2.29	20.98	3.29	13.37	4.33	17.56	3.28
9.	Qatar	15.10	1.99	15.02	2.35	7.02	2.27	13.95	2.60
10.	Kuwait	19.00	2.50	15.31	2.40	8.15	2.64	12.83	2.39
	Others	202.75	26.72	143.13	22.41	57.87	18.75	99.77	18.63
	Total	**758.87**	**100**	**638.65**	**100**	**308.68**	**100**	**535.64**	**100**

Source: DGCI&S.

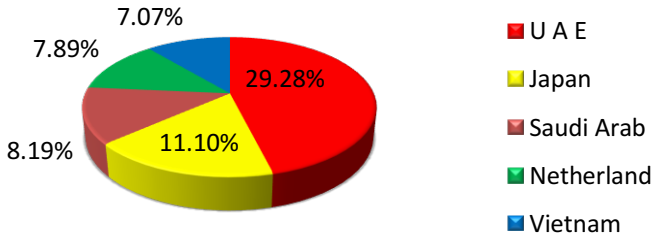
Note : India's Export including re-export

Leading importers of edible nuts from India from 2018-2021(Values in M USD)

Data label given on the basis of 2021



India's top 5 destinations of Coconuts, Brazil nuts and Cashew nuts by percentage India in 2021:



India has exported Coconuts, Brazil Nuts and Cashew Nuts, Fresh Or Dried worth of US $ 535.64 million which was 40% more than the year 2020. The figures show the great potential for India's export of these types of nuts to increase its share in global market. U A E is the largest market for edible nuts export from India. In 2021, U A E imported US $ 156.84 million worth nuts from India, which was accounted 29.28% of India's total export of nuts. It was followed by Japan (11.10%) and Saudi Arab

(8.19%). The top 5 countries account for 63.53% of the total Coconuts, Brazil Nuts And Cashew Nuts, Fresh Or Dried export from India in that year.

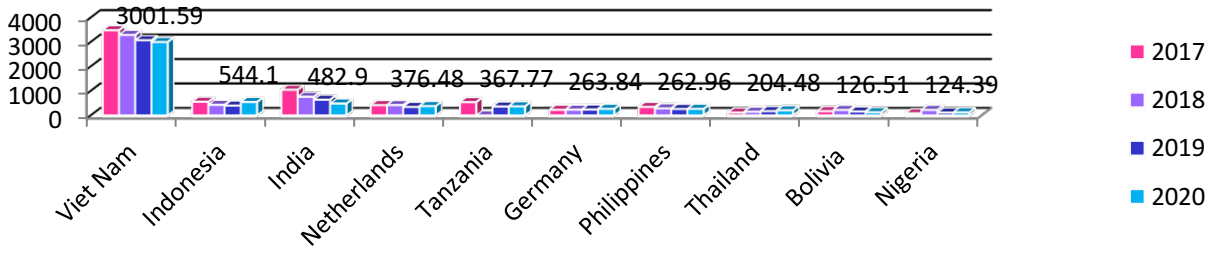
Table-2

World's Top 10 exporter of Coconuts, Brazil nuts and Cashew nuts (H.S Code-0801)

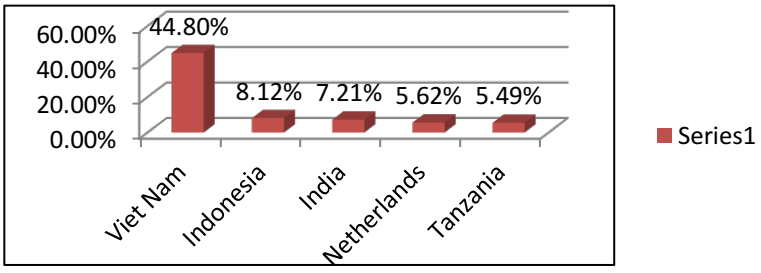
Rank	Countries	2017		2018		2019		2020	
		Value (million $)	Share (%)	Value (million$)	Share (%)	Value (million$)	Share (%)	Value (million$)	Share (%)
1.	Viet Nam	3482.61	36.39	3290.70	37.09	3072.13	38.97	3001.59	44.80
2.	Indonesia	554.77	5.80	429.61	4.84	399.03	5.06	544.10	8.12
3.	**India**	**1045.33**	**10.92**	**758.29**	**8.55**	**639.10**	**8.11**	**482.90**	**7.21**
4.	Netherlands	417.89	4.37	419.49	4.73	344.42	4.37	376.48	5.62
5.	Tanzania	541.16	5.65	0.25	0.00	360.88	4.58	367.77	5.49
6.	Germany	224.52	2.35	232.93	2.63	237.55	3.01	263.84	3.94
7.	Philippines	345.00	3.60	284.88	3.21	259.49	3.29	262.96	3.92
8.	Thailand	112.84	1.18	148.10	1.67	169.93	2.16	204.48	3.05
9.	Bolivia	171.40	1.79	221.19	2.49	155.96	1.98	126.51	1.89
10.	Nigeria	80.64	0.84	219.44	2.47	112.23	1.42	124.39	1.86
	Others	2594.54	27.11	2866.31	32.31	2132.88	27.05	945.09	14.11
	Total	**9570.70**	**100`**	**8871.17**	**100**	**7883.59**	**100**	**6700.11**	**100**

Source: UN Comtrade

Leading Exporters of Coconuts, Brazil nuts and Cashew nuts of world from 2017 to 2020
(Values in M USD)
Data label given on the basis of 2020



Country wise world's leading exporter of Coconuts, Brazil nuts and Cashew nuts by percentage in 2020 :



The total worth value of Coconuts, Brazil Nuts And Cashew Nuts export around the world in year 2020 was US $ 6.7 Billion. Between 2019 and 2020 the exports of Coconuts, Brazil Nuts, and Cashews decreased by -15%, from U $ $7.88 Billion to US $ 6.7 Billion. Viet Nam was the largest exporter of

Coconuts, Brazil Nuts And Cashew Nuts in the world in 2020. In that year Indonesia exported US $ 3.00 Billion worth value of these commodities, which was accounted 44.80% of world export, followed by Indonesia and India with share of 8.12% and 7.21% respectively.

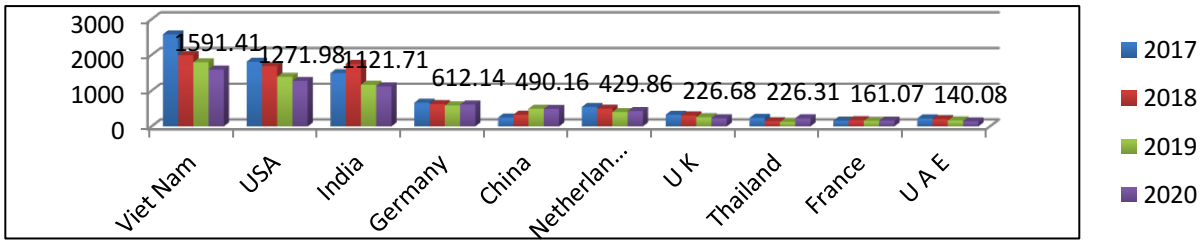
Table-3

World's top 10 Importers of Coconuts, Brazil nuts and Cashew nuts (H.S Code-0801)

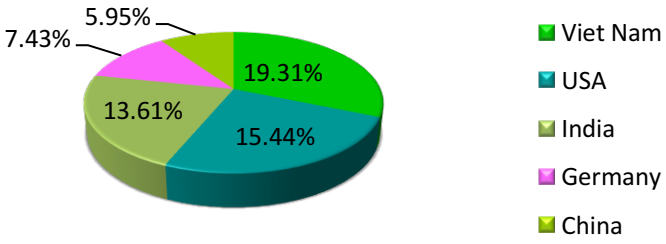
Rank	Countries	2017		2018		2019		2020	
		Value (million $)	Share (%)	Value (million$)	Share (%)	Value (million$)	Share (%)	Value (million$)	Share (%)
1.	Viet Nam	2578.09	24.37	1995.42	19.68	1795.11	20.63	1591.41	19.31
2.	USA	1812.92	17.14	1692.10	16.69	1386.70	15.93	1271.98	15.44
3.	**India**	**1492.67**	**14.11**	**1749.67**	**17.26**	**1166.52**	**13.40**	**1121.71**	**13.61**
4.	Germany	661.80	6.26	624.74	6.16	584.73	6.72	612.14	7.43
5.	China	247.44	2.34	327.37	3.23	495.36	5.69	490.16	5.95
6.	Netherlands	546.03	5.16	497.53	4.91	401.19	4.61	429.86	5.22
7.	U K	325.13	3.07	307.38	3.03	256.83	2.95	226.68	2.75
8.	Thailand	238.09	2.25	145.10	1.43	122.95	1.41	226.31	2.75
9.	France	159.21	1.51	175.00	1.73	154.42	1.77	161.07	1.95
10.	U A E	222.83	2.11	204.40	2.02	166.23	1.91	140.08	1.70
	Others	2294.11	21.69	2421.34	23.88	2172.59	24.96	1969.29	23.90
	Total	**10578.30**	**100**	**10140.06**	**100**	**8702.62**	**100**	**8240.68**	**100**

Source : UN Comtrade

Leading Coconuts, Brazil nuts and Cashew nuts importers of world from 2017 to 2020
(Values in million USD)
Data label given on the basis of 2020



Country wise world's leading importers of Coconuts, Brazil nuts and Cashew nuts by percentage in 2020



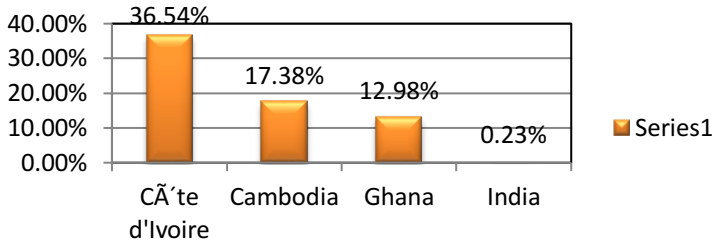
The total value of import for Coconuts, Brazil nuts and cashew nuts, fresh or dried was US $ 8.24 Billion in 2020. In that year the top importing countries were Viet Nam (US $ 1.59 B), USA (US $ 1.27 B), **India (US $ 1.12 B)**, Germany (US $ 612.14M) and China (US $ 490.16 M). Here it is noticeable that

Viet Nam and India were in the top three exporter in the world as well as in the top three importers also in 2020. In the same year the top five importing countries together imported 61.74% share of world import of Coconuts, Brazil nuts and Cashew nuts.

Annexure-1

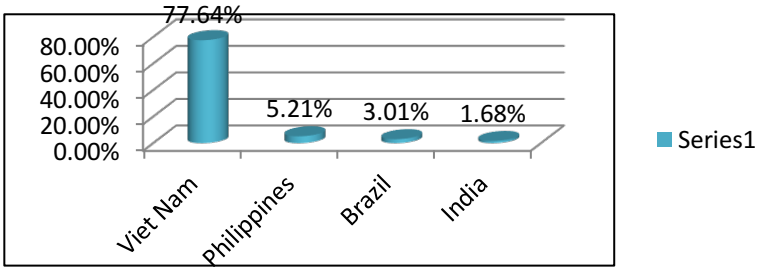
Sources of world's top 3 importers of Coconuts, Brazil nuts and Cashew nuts (H.S Code - 0801)

i) Top 3 Sources of Coconuts, Brazil nuts and cashew nuts to Viet Nam in 2020 by percentage*:*



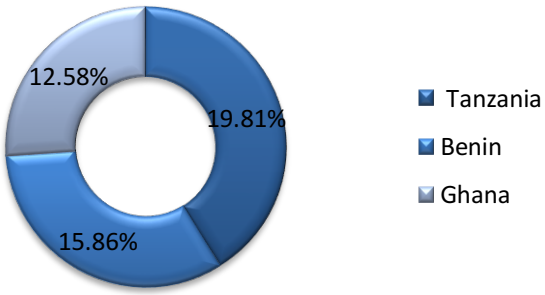
Viet Nam imported most of its Coconuts, Brazil nuts and cashew nuts from CA'te d' Ivory, 36.54% share of Viet Nam's total import value of it came from CA'te d' Ivory in 2020 followed by Cambodia (17.38%) and Ghana (12.98%). India exports only 0.23% share in 2020 to Viet Nam.**(Source : UN Comtrade).**

ii) Top 3 Sources of Coconuts, Brazil nuts and cashew nuts to China in 2020 by percentage*:*



Viet Nam was the primary source of Coconuts, Brazil nuts and cashew nuts to USA. USA imported 77.64% of Coconuts, Brazil nuts and cashew nuts s from Viet Nam in 2020, followed by Philippines (5.21%) & Brazil (3.01%). India exported only 1.68% share of USA's total import.**(Source : UN Comtrade)**

iii) Top 3 Sources of Coconuts, Brazil nuts and cashew nuts to India in 2020 by percentage*:*



India's 3 major source countries of Coconuts, Brazil nuts and cashew nuts in 2020 were Tanzania (19.81%), Benin (15.86%) and Ghana (12.58%) in 2020.**(Source: UN Comtrade)**

Tube or Pipe fittings of Iron or Steel

A **fitting** or **adapter** is used in pipe systems to connect straight sections of pipe or tube, adapt to different sizes or shapes, and for other purposes such as regulating (or measuring) fluid flow. These fittings are used in plumbing to manipulate the conveyance of water, gas, or liquid waste in domestic or commercial environments, within a system of pipes or tubes.

Fittings (especially uncommon types) require money, time, materials, and tools to install, and are an important part of piping and plumbing systems. Valves are technically fittings, but are usually discussed separately.

The bodies of fittings for pipe and tubing are most often the same base material as the pipe or tubing connected: copper, steel, PVC, CPVC, or ABS. Any material permitted by the plumbing, health, or building code (as applicable) may be used, but it must be compatible with the other materials in the system, the fluids being transported, and the temperature and pressure inside (and outside) the system. Brass or bronze fittings are common in copper piping and plumbing systems. Fire resistance, earthquake resistance, mechanical ruggedness, theft resistance, and other factors also influence the choice of pipe and fitting materials.

Piping or tubing is usually inserted into fittings to make connections. Connectors are assigned a gender, abbreviated M or F. An example of this is a "3⁄4-inch female adapter NPT", which would have a corresponding male connection of the same size and thread standard. There are following types of fittings of Tube or Pipe;- Adapter, Elbow, Coupling, Union, Nipple, Reducer, Diverter Tee, Cross, Cap, Plug, Barb, Valve, Slip-joint fitting, Sweep Elbow etc.

Steel pipe fittings are complementary products for steel pipes since they connect pipes in both engineering networks and industrial equipment. Therefore, in the medium term, the growth of the world economy and population growth, as well as rapid urbanization in Asian countries will remain the main factors of market growth. These factors promote the development of a number of industries, such as the food and beverage industry, the chemical and petrochemical industry etc., which leads to increased consumption of technological systems and equipment, as well as engineering systems of buildings and structures including steel pipes and fittings. Despite the trend to reduce the consumption of steel pipes in construction in favour of plastic pipes, the growth in demand for pipes from the industry will be the main contributor to the growth of the market. Steel pipes have no alternative in many industries requiring handling with aggressive and dangerous fluids and gases. Considering all of the above, the forecasted market volume will be determined by the growth dynamics of the world economy in general.

The global production leadership still belongs to China; moreover, it has been increasingly robust over the recent years. On the other hand, Italy, the U.S., India and Germany are the largest if only considering those that decline in production volumes. Furthermore, the largest and growing exporting countries are China, India, and Italy. Among them, China and India had the lowest export prices, which is why they are expected to be the most attractive exporters of steel tube fittings. Nevertheless, the choice of the most promising country also depends on the specific type and purpose of the fittings â€“ Germany and the United States export the most expensive products, but they are designed for high-tech applications, whereas China massively exports cheap fittings for a more general use.

The largest consumers are China and the U.S., but in China, the market is buoyed by domestic production; moreover, China remains the leading exporter. The U.S. remains the largest importer: despite the market volume there is decreasing, the volume of imports is on the rise.

These are broadly classified under **H.S. Code-7307**.

Table - 4

India's Top 10 destination of Tube or Pipe fittings of Iron or Steel (HS Code –7307)

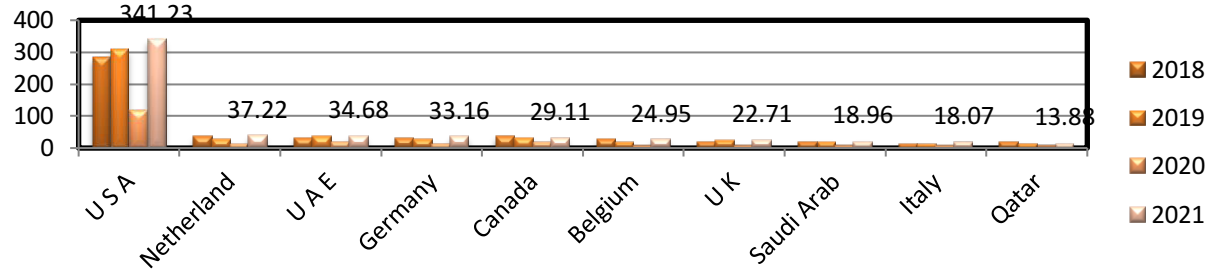
Rank	Countries	2018		2019		2020		2021	
		Value (million$)	Share (%)	Value (million$)	Share (%)	Value (million$)	Share (%)	Value (million$)	Share (%)
1.	U S A	281.67	41.62	306.87	45.37	117.68	39.46	341.23	45.33
2.	Netherland	35.14	5.19	26.22	3.88	13.79	4.62	37.22	4.94
3.	U A E	31.28	4.62	34.89	5.16	19.88	6.66	34.68	4.61
4.	Germany	30.18	4.46	25.67	3.80	14.38	4.82	33.16	4.41
5.	Canada	36.63	5.41	32.59	4.82	17.40	5.83	29.11	3.87
6.	Belgium	27.75	4.10	17.02	2.52	6.84	2.29	24.95	3.31
7.	U K	20.32	3.00	21.05	3.11	7.77	2.61	22.71	3.02
8.	Saudi Arab	19.75	2.92	19.36	2.86	8.21	2.75	18.96	2.52
9.	Italy	13.85	2.05	11.35	1.68	7.56	2.53	18.07	2.40
10.	Qatar	20.18	2.98	14.05	2.08	6.77	2.27	13.88	1.84
	Others	159.99	23.64	167.34	24.74	77.96	26.14	178.81	23.75
	Total	**676.74**	**100**	**676.41**	**100**	**298.24**	**100**	**752.79**	**100**

Source: DGCI&S

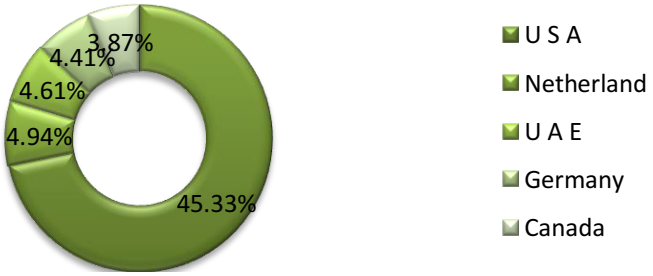
Note : India's Export including re-export

India's major destination of tube or Pipe fittings of Iron or Steel from 2018-2021**(Values in million USD)**

Data label given on the basis of 2021



India's top 5 major destinations of S. S. Wire by percentage India in 2021:



The data provided on the export analysis shows that there are so many countries, which actively import Steel Pipe Fittings from India. The combined value of total export is US $ 752.79 Million in 2021. In the year 2020 the total value of Steel Pipe Fittings export was US $ 298.24 million, which shows a considerable more than 60% greater in 2021. In the same year India's Steel Pipe Fittings export Value to USA was US $ 341.23 Million, which holds the top position with the share of 45.33% of the total export value of India. With 4.94% share Netherland took runner up position in the global importers of Steel Pipe Fittings from India and UAE was the 2nd runner up with 4.61 % share of India's total export.;

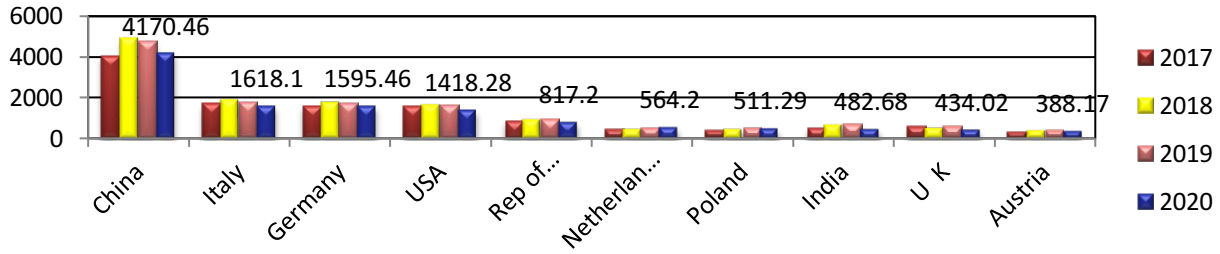
Table - 5

World's Top 10 exporters of Tube or Pipe fittings of Iron or Steel (HS Code –7307)

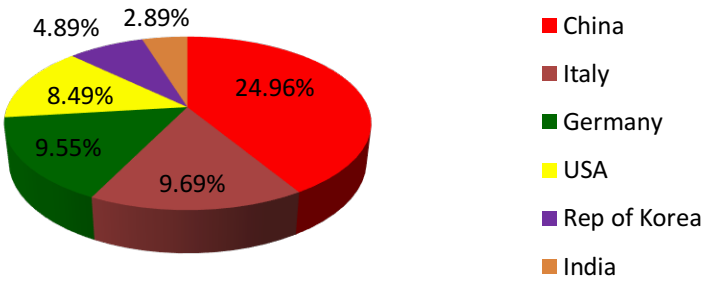
Rank	Countries	2017		2018		2019		2020	
		Value (million $)	Share (%)	Value (million$)	Share (%)	Value (million$)	Share (%)	Value (million$)	Share (%)
1.	China	4047.13	24.21	4906.00	25.53	4756.58	25.45	4170.46	24.96
2.	Italy	1666.31	9.97	1921.20	10.00	1784.38	9.55	1618.10	9.69
3.	Germany	1571.81	9.40	1779.07	9.26	1712.31	9.16	1595.46	9.55
4.	USA	1547.26	9.26	1667.59	8.68	1647.80	8.82	1418.28	8.49
5.	Rep of Korea	841.55	5.03	955.56	4.97	927.59	4.96	817.20	4.89
6.	Netherlands	408.42	2.44	463.70	2.41	531.62	2.84	564.20	3.38
7.	Poland	345.32	2.07	475.49	2.47	495.57	2.65	511.29	3.06
8.	**India**	**508.85**	**3.04**	**677.76**	**3.53**	**676.20**	**3.62**	**482.68**	**2.89**
9.	U K	536.94	3.21	547.11	2.85	548.88	2.94	434.02	2.60
10.	Austria	324.18	1.94	394.13	2.05	360.71	1.93	388.17	2.32
	Others	4918.12	29.42	5429.49	28.25	5247.96	28.08	4705.50	28.17
	Total	**16715.88**	**100**	**19217.09**	**100**	**18689.61**	**100**	**16705.37**	**100**

Source: UN Comtrade

Leading Iron or Steel Pipe Fittings exporters of world from 2017 to 2020 (Values in million USD)
Data label given on the basis of 2020



Export trends in world's leading Iron or Steel Pipe Fittings exporters by percentage in 2020:



In value terms, exports amounted to US $ 16.70 Billion in 2020, decline by 10.62% over the last year. China was the main global supplier of tube or pipe fittings of iron or steel with a worth value of US $ 4.17 Billion which was accounted by almost 25% share of global exports in that year. It was distantly followed by Italy 9.69%), Germany (9.55%), USA (8.49%) and Rep. of Korea (4.89%). Though, the India is one of the largest producer of Iron or Steel. However, **India** was also far behind from China in the global export of Tube or pipe fittings of Iron or Steel and stood at 8th position in ranking in the world with 2.89% share of world export in 2020. Which has declined by 28.62% from 2019.

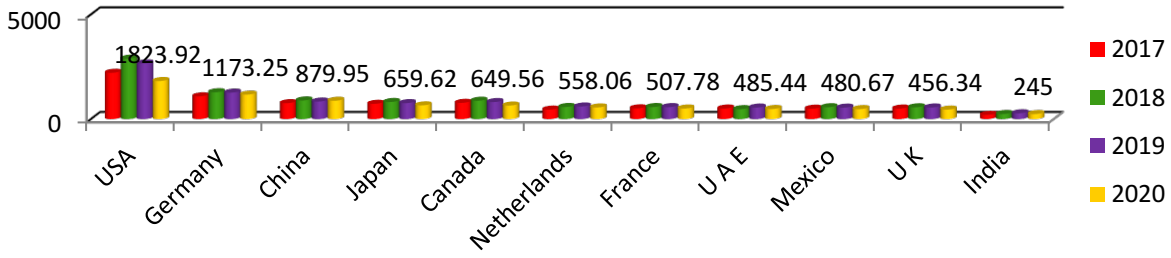
Table - 6

World's Top 10 Importers of Tube or Pipe fittings of Iron or Steel (HS Code –7307)

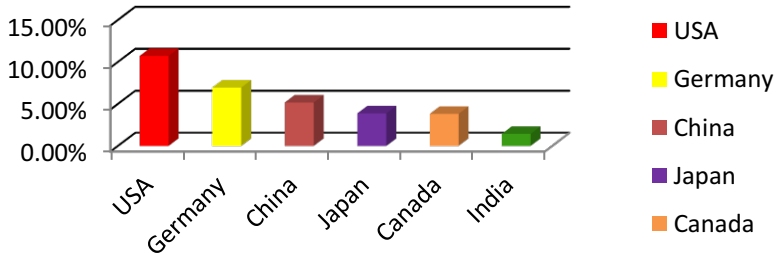
Rank	Countries	2017		2018		2019		2020	
		Value (million $)	Share (%)	Value (million$)	Share (%)	Value (million$)	Share (%)	Value (million$)	Share (%)
1.	USA	2216.77	12.63	2893.86	14.48	2668.67	13.66	1823.92	10.72
2.	Germany	1091.44	6.22	1287.40	6.44	1269.68	6.50	1173.25	6.90
3.	China	764.27	4.35	894.71	4.48	841.50	4.31	879.95	5.17
4.	Japan	732.66	4.17	820.23	4.10	766.38	3.92	659.62	3.88
5.	Canada	778.70	4.44	879.81	4.40	816.57	4.18	649.56	3.82
6.	Netherlands	456.05	2.60	580.63	2.90	605.34	3.10	558.06	3.28
7.	France	517.02	2.94	578.29	2.89	574.79	2.94	507.78	2.99
8.	U A E	507.41	2.89	478.55	2.39	553.57	2.83	485.44	2.85
9.	Mexico	500.04	2.85	569.79	2.85	549.89	2.81	480.67	2.83
10.	U K	505.45	2.88	566.41	2.83	557.45	2.85	456.34	2.68
27.	**India**	**209.76**	**1.19**	**246.68**	**1.23**	**280.25**	**1.43**	**245.00**	**1.44**
	Others	9486.75	54.04	10442.42	52.23	10337.77	52.90	9333.84	54.88
	Total	**17556.56**	**100**	**19992.11**	**100**	**19541.60**	**100**	**17008.44**	**100**

Source: UNComtrade

Leading pipe fittings of iron or steel importers of world from 2017 to 2020 (Values in M USD)
Data label given on the basis of 2020



Country wise leading Importer world's tube or pipe fittings of iron or steel import by percentage in 2020 :

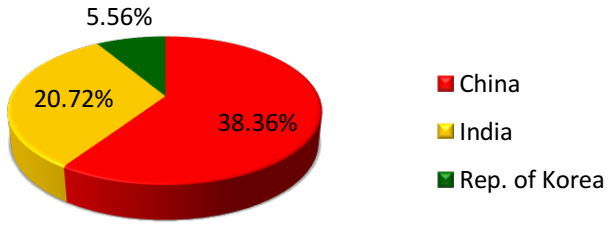


The volume of global imports of totalled US $ 17 Billion in 2020. The U.S. Remains the Largest Global Importer of Tube or Pipe Fittings, comprising 10.72% of global imports in 2020. It was followed by Germany (6.90%), China(5.17%), Japan(3.88%) and Canada (3.82%) of global import. In that year India imported only 1.44% share of global import and stood at 27th rank in the world.

Annexure-II

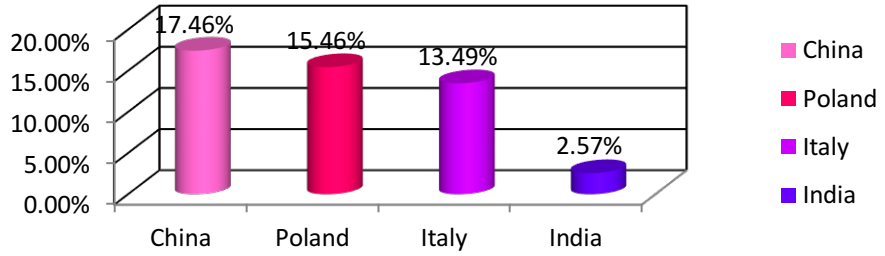
Sources of world's top three importers of Tube or Pipe fittings of Iron or Steel (HS Code 7307).

i) Top 3 Sources of Tube or Pipe fittings of Iron or Steel to USA in 2020 by percentage**:**



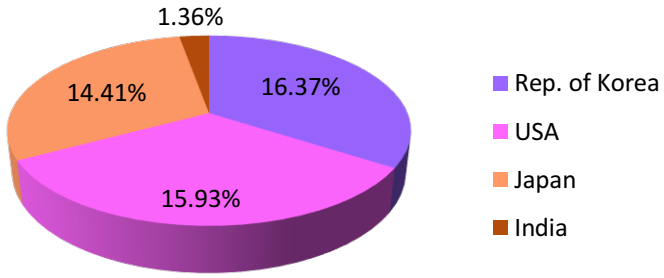
USA's source most of its Tube or Pipe fittings of Iron or Steel from China with 38.36% share of its import of the commodity comes from China in 2020. India and Rep. of Korea are found to be the 2nd and 3rd largest exporters of Tube or Pipe fittings of Iron or Steel to USA by 20.72% and 5.56% shares of USA's total import respectively in 2020. .**(Source: UN Comtrade)**

ii) Top 3 Sources of tube or pipe fittings of iron or steel to Germany in 2020 by percentage**:**



17.46% share of Tube or Pipe fittings of Iron or Steel imports to Germany came from China in 2020, followed by Poland (15.46%) and Italy (13.49%). In the same year Germany imports of Tube or Pipe fittings of Iron or Steel 2.57% from India.**(Source: UN Comtrade)**

iii) Top 3 Sources of tube or pipe fittings of iron or steel to China in 2020 by percentage**:**



With 16.37% share of China's total import, Rep. of Korea became the largest source of Tube or Pipe fittings of Iron or Steel to China in 2020. USA(15.93%) and Japan(14.41%) were other major sources of Tube or Pipe fittings of Iron or Steel to China in that year. India's share was only 1.36% share of China's total import in 2020. **(Source : UN Comtrade)**

IMPORT

Unwrought Lead

Lead is a chemical element with the symbol **Pb** (from the Latin *plumbum*) and atomic number 82. It is a heavy metal that is denser than most common materials. Lead is soft and malleable, and also has a relatively low melting point. When freshly cut, lead is silvery with a hint of blue; it tarnishes to a dull grey color when exposed to air. Lead has the highest atomic number of any stable element and three of its isotopes are endpoints of major nuclear decay chains of heavier elements.

Lead is a relatively unreactive post-transition metal. Its weak metallic character is illustrated by its amphoteric nature; lead and lead oxides react with acids and bases, and it tends to form covalent bonds. Compounds of lead are usually found in the +2 oxidation state rather than the +4 state common with lighter members of the carbon group. Exceptions are mostly limited to organ lead compounds. Like the lighter members of the group, lead tends to bond with itself; it can form chains and polyhedral structures.

Since lead is easily extracted from its ores, prehistoric people in the Near East were aware of it. Galena is a principal ore of lead which often bears silver. Interest in silver helped initiate widespread extraction and use of lead in ancient Rome. Lead production declined after the fall of Rome and did not reach comparable levels until the Industrial Revolution. Lead played a crucial role in the development of the printing press, as movable type could be relatively easily cast from lead alloys. In 2014, the annual global production of lead was about ten million tonnes, over half of which was from recycling. Lead's high density, low melting point, ductility and relative inertness to oxidation make it useful. These properties, combined with its relative abundance and low cost, resulted in its extensive use in construction, plumbing, batteries, bullets and shot, weights, solders, pewters, fusible alloys, white paints, leaded gasoline, and radiation shielding. Lead's toxicity became widely recognized in the late 19th century, although a number of well-educated ancient Greek and Roman writers were aware of this fact and even knew some of the symptoms of lead poisoning. Lead is a neurotoxin that accumulates in soft tissues and bones; it damages the nervous system and interferes with the function of biological enzymes, causing neurological disorders ranging from behavioral problems to brain damage, and also affects general health, cardiovascular, and renal systems.

Metallic lead beads dating back to 7000–6500 BCE have been found in Asia Minor and may represent the first example of metal smelting. At that time lead had few (if any) applications due to its softness and dull appearance. The major reason for the spread of lead production was its association with silver, which may be obtained by burning galena (a common lead mineral) The Ancient Egyptians were the first to use lead minerals in cosmetics, an application that spread to Ancient Greece and beyond; the Egyptians may have used lead for sinkers in fishing nets, glazes, glasses, enamels, and for ornaments. Various civilizations of the Fertile Crescent used lead as a writing material, as coins, and as a construction material. Lead was used in the Ancient Chinese royal court as a stimulant, as currency, and as a contraceptive; the Indus Valley civilization and the Mesoamericans used it for making amulets; and the eastern and southern African peoples used lead in wire drawing.

The top three producers of refined lead were China, the United States, and India. According to the International Resource Panel's Metal Stocks in Society report of 2010, the total amount of lead in use, stockpiled, discarded, or dissipated into the environment, on a global basis, is 8 kg per capita. Much of this is in more developed countries (20–150 kg per capita) rather than less developed ones (1–4 kg per capita).

These are broadly classified under H. S. Code 7801.

Table - 7

India's Top 10 Sources of Unwrought Lead (H.S. Code - 7801)

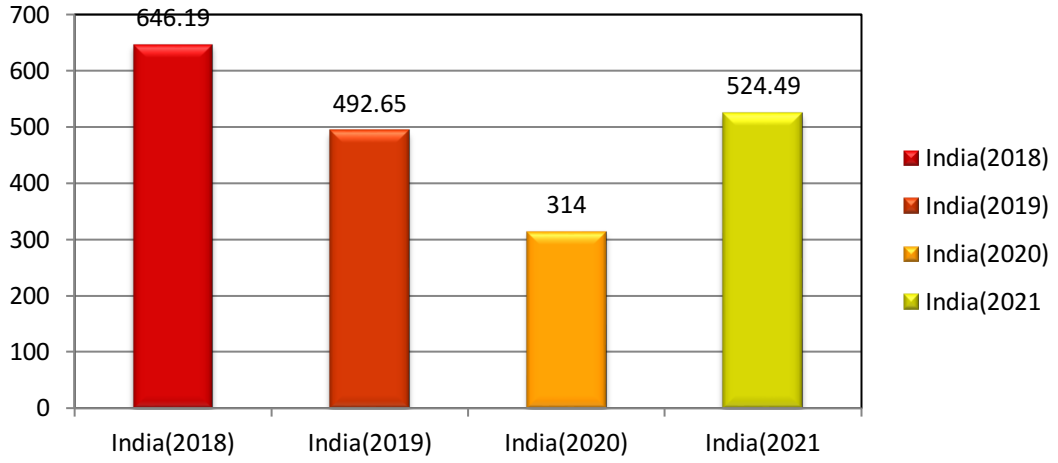
Rank	Countries	2018		2019		2020		2021	
		Value (million $)	Share (%)	Value (million$)	Share (%)	Value (million$)	Share (%)	Value (million$)	Share (%)
1.	Korea RP	183.50	28.40	154.44	31.35	96.35	30.68	155.17	29.59
2.	U A E	60.99	9.44	43.73	8.88	32.33	10.29	69.59	13.27
3.	Malaysia	40.44	6.26	55.31	11.23	26.56	8.46	39.96	7.62
4.	Singapore	9.96	1.54	18.99	3.85	10.27	3.27	33.64	6.41
5.	Philippines	1.51	0.23	10.83	2.20	8.42	2.68	24.54	4.68
6.	Tanzania	15.93	2.47	12.81	2.60	6.36	2.03	19.23	3.67
7.	Senegal	3.92	0.61	6.85	1.39	5.08	1.62	14.65	2.79
8.	Sri Lanka	14.10	2.18	14.75	2.99	5.43	1.73	14.29	2.72
9.	Viet Nam	64.42	9.97	42.83	8.69	26.17	8.33	13.18	2.51
10.	Saudi Arab	5.72	0.89	3.25	0.66	1.75	0.56	11.31	2.16
	Others	245.70	38.02	128.88	26.16	95.29	30.35	128.93	24.58
	Total	**646.19**	**100**	**492.65**	**100**	**314.00**	**100**	**524.49**	**100**

Source: DGCI&S

Note : India's Import including re-import

The trends of India's import of Unwrought Lead during the period from 2018 to 2021:

(Values in million USD)



The dollar value of Unwrought Lead import in 2021 stood at US $ 524.49 Million and US $ 646.19 Million in 2018, which shows a decline trends. In the 2021 the import of Unwrought Lead in India grew by more than 40% compare to the year 2020. In 2021 India imported Unwrought Lead maximum worth value of US $ 155.17 Million from Rep. of Korea or 29.59% of India's total import, which was greater than the previous year Unwrought Lead shipments from Rep. of Korea into India. In second and third place were UAE and Malaysia, from where India imported around 20.89% share of Unwrought Lead. The top 10 countries shared 75.42% of the Unwrought Lead import to India in 2021.

Table - 8

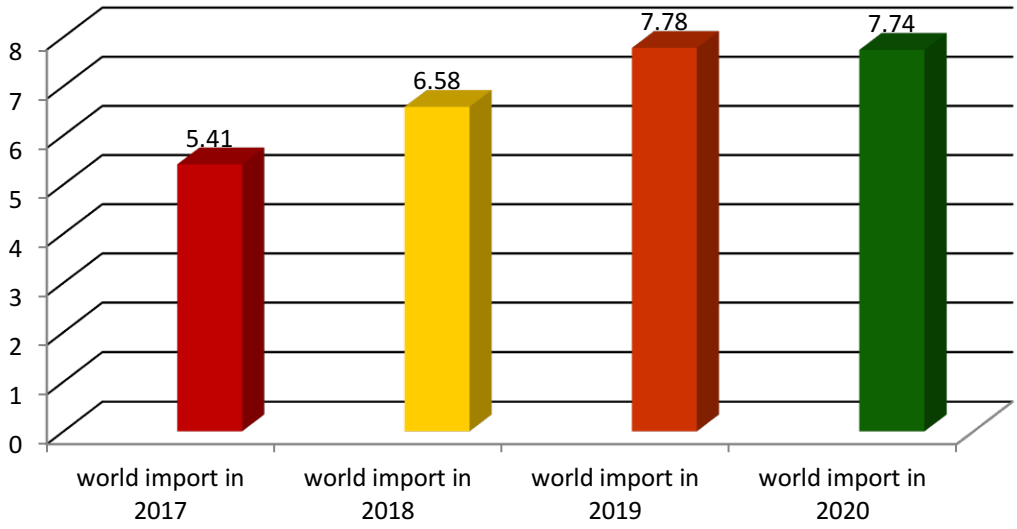
World's Top 10 Importer of Unwrought Lead (H.S. Code - 7801)

Rank	Countries	2017		2018		2019		2020	
		Value (million$)	Share (%)	Value (million$)	Share (%)	Value (million$)	Share (%)	Value (million$)	Share (%)
1.	USA	1512.86	19.54	1308.50	16.82	1043.71	15.86	740.72	13.69
2.	**India**	**578.54**	**7.47**	**643.36**	**8.27**	**492.68**	**7.48**	**487.44**	**9.01**
3.	Viet Nam	338.63	4.37	420.55	5.41	452.65	6.88	466.29	8.62
4.	U K	560.36	7.24	437.20	5.62	418.31	6.35	368.22	6.81
5.	Germany	471.17	6.09	500.09	6.43	432.80	6.57	362.51	6.70
6.	Czechia	372.59	4.81	392.15	5.04	329.16	5.00	273.60	5.06
7.	Rep. of Korea	301.82	3.90	342.56	4.40	261.30	3.97	265.93	4.92
8.	Turkey	314.28	4.06	344.67	4.43	267.56	4.06	255.81	4.73
9.	Spain	280.70	3.63	251.45	3.23	235.53	3.58	203.95	3.77
10.	Thailand	267.07	3.45	278.19	3.58	214.32	3.26	181.83	3.36
	Others	2743.86	35.44	2861.34	36.78	2434.75	36.99	1803.97	33.34
	Total	**7741.87**	**100**	**7780.05**	**100**	**6582.77**	**100**	**5410.27**	**100**

Source :UNComtrade

Trends of the global import of Unwrought Lead during the period from 2017 to 2020:

(Values in million USD)



In 2020, the global refined lead imports amounted to US $ 5.41 Billion, decreasing by nearly 18% against the previous year figure. Over the period under review, global refined lead imports reached its maximum level of US $ 7.78 Billion in 2018, however, from 2019 to 2020, it failed to regain its strength. In 2020 USA (US $ 740.72 M) constitutes the largest market for imported refined lead worldwide, making up 13.69% of global imports. The second position in the ranking was occupied by India (US $ 487.44 M), with the share of 9.01% of global imports. It was followed by the Viet Nam, with the share of 8.62%. These three major importing countries represented 31.32% of total global import of Unwrought Lead in 2020.

Padlock and Lock

Padlocks are portable locks with a shackle that may be passed through an opening (such as a chain link, or hasp staple) to prevent use, theft, vandalism or harm.

There are padlocks dating to the Roman Era, 500 BC – 300 AD. They were known in early times by merchants traveling the ancient trade routes to Asia, including China. Padlocks have been used in Europe since the middle La Tène period, subsequently spreading to the Roman world and the Przeworsk and Chernyakhov cultures. Roman padlocks had a long bent rod attached to the case, and a shorter piece which could be inserted into the case. Przeworsk and Chernyakhov padlocks had a sleeve attached to the case, and a long bent rod which could be inserted into the case and the sleeve. Padlocks have been used in China since the late Eastern Han Dynasty (25–220 AD). According to Hong-Sen Yan, director of the National Science and Technology Museum, early Chinese padlocks were mainly "key-operated locks with splitting springs, and partially keyless letter combination locks". Padlocks were made from bronze, brass, silver, and other materials. The use of bronze was more prevalent for the early Chinese padlocks. Padlocks with spring tine mechanisms have been found in York, England, at the Jorvik Viking settlement, dated 850 AD.

A padlock is composed of a body, shackle, and locking mechanism. The typical shackle is a "U" shaped loop of metal (round or square in cross-section) that encompasses what is being secured by the padlock (e.g., chain link or hasp). Generally, most padlock shackles either swing away (typical of older padlocks) or slide out of the padlock body when in the unlocked position. Less common designs include a straight, circular, or flexible (cable) shackle. Some shackles split apart and come together to lock and unlock.

The more modern modular locking mechanisms, however, do not directly employ the tumblers to lock the shackle. Instead, they have a plug within the "cylinder" that, with the correct key, turns and allows a mechanism, referred to as a "locking dog" (such as the ball bearings found in American Lock Company padlocks) to retract from notches cut into the shackle. Padlocks with modular locking mechanisms can often be taken apart to change the tumblers or to service the lock. Modular locking mechanism cylinders frequently employ pin, wafer, and disc tumblers. Padlocks with modular mechanisms are usually automatic, or self-locking (that is, the key is not required to lock the padlock).
Combination locks do not use keys. Instead, the lock opens when its wheels are lined up correctly to display the correct combination.

A padlock was invented by John I. W. Carlson in 1931 (a patent was granted in November 1934) that has both a combination on one side and a key on the other.
The rising smart home adoption across the globe and an influx of companies coming up with innovative home automation technologies are also responsible for the growing smart lock demand. Industry players focus on offering commercially viable products and developing advanced techniques, including remote locking/unlocking of entrances, doors, and windows. Moreover, since the number of households with voice assistants is continuously increasing, manufacturers are integrating their offerings with such devices, enabling the locks to be voice-controlled. Such innovations are expected to result in considerable traction among customers since they are increasingly seeking advanced and convenient locking/unlocking procedures.

Smart locks have witnessed significant demand across the residential area globally. With an increasing number of renovations and new construction activities across the Asia Pacific and North America, the industry has garnered immense potential in recent years due to a surge in new installations. When connected to a smart home hub, the lock acts as the most prominent element in a connected home. As a result, customers demand products that can suffice all their requirements and consider crucial factors such as battery life, size, design, and price when selecting a lock.

These are broadly classified under **H. S. Code - 8301**.

Table - 9

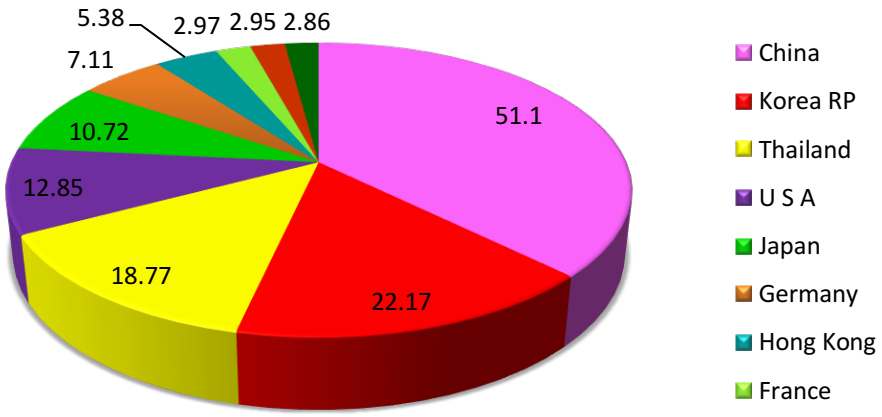
India's Top 10 Source Countries of Padlocks & Locks (HS Code : 8301)

Rank	Countries	2018		2019		2020		2021	
		Value (million $)	Share (%)	Value (million$)	Share (%)	Value (million$)	Share (%)	Value (million$)	Share (%)
1.	China	65.44	37.92	59.16	36.27	21.61	32.42	51.10	33.86
2.	Korea RP	24.20	14.02	29.14	17.86	9.25	13.88	22.17	14.69
3.	Thailand	13.45	7.79	13.19	8.09	5.67	8.51	18.77	12.44
4.	U S A	14.14	8.19	13.37	8.20	6.47	9.71	12.85	8.51
5.	Japan	7.99	4.63	7.23	4.43	4.08	6.12	10.72	7.10
6.	Germany	12.22	7.08	7.73	4.74	2.59	3.89	7.11	4.71
7.	Hong Kong	3.72	2.15	4.96	3.04	1.87	2.81	5.38	3.57
8.	France	1.17	0.68	0.97	0.59	1.94	2.91	2.97	1.97
9.	Finland	1.87	1.08	1.99	1.22	2.96	4.44	2.95	1.96
10.	Taiwan	3.39	1.97	3.35	2.06	1.96	2.93	2.86	1.90
	Others	24.99	14.48	22.01	13.50	8.25	12.38	14.04	9.30
	Total	**172.57**	**100**	**163.10**	**100**	**66.66**	**100**	**150.93**	**100**

Source: DGCI&S

Note : India's Import including Re-import

Country wise trends for Padlock and Locks to India in 2021 (USD Million)



Collectively India imported US $ 150.93 Million of Padlocks from different countries in 2021. Padlock and Lock imports to India reached its maximum level of US $ 172.57 Million in 2018. The data table shows the decreasing trends of import to India. To import Padlocks to India, the best countries according to Indian shipment records are China (US $ 51.10 M), Rep. of Korea (US $ 22.17M), Thailand (US $ 18.77M), USA (US $ 12.85M) & Japan (US $ 10.72M). Together they sold US $ 115.64 Million worth value of Padlocks to India in 2021 which was accounted 76.60% share of world import of Padlocks and Locks.

Table - 10

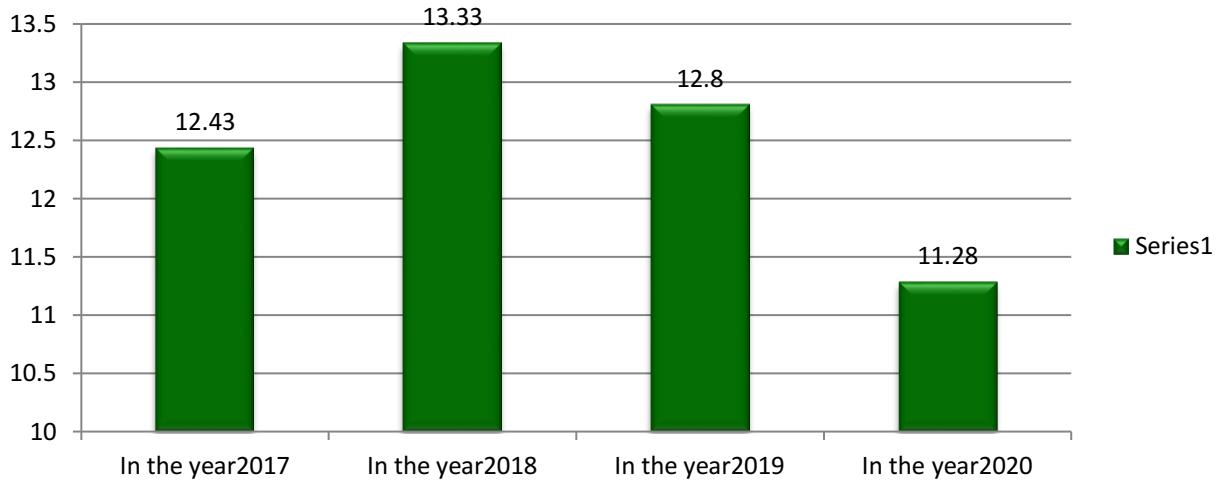
World Top 10 Importer of Padlocks & Locks (HS Code : 8301)

Rank	Countries	2017		2018		2019		2020	
		Value (million$)	Share (%)	Value (million$)	Share (%)	Value (million$)	Share (%)	Value (million$)	Share (%)
1.	USA	2475.03	19.90	2619.80	19.64	2644.38	20.65	2432.67	21.55
2.	Germany	1068.73	8.59	1174.05	8.80	1076.37	8.41	963.86	8.54
3.	Mexico	772.50	6.21	786.17	5.89	722.10	5.64	671.27	5.95
4.	China	585.72	4.71	593.40	4.45	547.86	4.28	498.22	4.41
5.	U K	494.08	3.97	507.83	3.81	482.24	3.77	410.17	3.63
6.	France	495.42	3.98	530.40	3.98	485.87	3.79	406.50	3.60
7.	Canada	393.18	3.16	412.56	3.09	426.33	3.33	348.82	3.09
8.	Czechia	378.43	3.04	377.23	2.83	357.84	2.79	286.78	2.54
9.	Japan	318.09	2.56	322.37	2.42	326.44	2.55	284.65	2.52
10.	Netherlands	200.21	1.61	252.00	1.89	263.63	2.06	267.34	2.37
27.	**India**	**151.72**	**1.22**	**172.71**	**1.29**	**163.05**	**1.27**	**104.66**	**0.93**
	Others	5105.66	41.05	5589.27	41.91	5307.53	41.45	4611.04	40.86
	Total	**12438.77**	**100**	**13337.80**	**100**	**12803.63**	**100**	**11285.98**	**100**

Source :UNComtrade

17

Year wise trends of Global import of Padlock and Locks during the period from 2017 to 2018 : (USD Billion)



Padlocks and Locks imports stood at US $ 11.28 Billion in 2020, which was the lowest during the period from 2017 to 2020. The trend pattern indicated some noticeable fluctuations throughout the analyzed period. The global import of Padlock and Lock reached its maximum level of US $ 13.33 Billion in 2018. USA was the key importer of Padlock and Lock in 2020, accounting for 21.55% of total imports. The second position in the ranking was occupied by Germany with the share of 8.54% of global imports. It was followed by Mexico, with the share of 5.95%. India occupied 27th position in the world with 0.93% share of global import of Padlock and Locks in the same year.