

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 **Frozen Meat of Bovine Animals & Pasta whether or not cooked or stuffed** and imports of **Unwrought lead&Uncoated Kraft Paper and Paper Board** 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-0202 & 1902 for export and 7801&4804 for import) and the latest finalized data available on the UN Comtrade Database up to year 2021 and on the DGCI&S Database up to February'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 Frozen Meat of Bovine Animals & Pasta whether or not cooked or stuffed and imports of Unwrought lead&Uncoated Kraft Paper and Paper Board. We will use both the 4 digit Commodity codes, for our analysis, as appropriate.

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

- Table1: India's top 10 Export destination of Frozen Meat of Bovine Animals with their shares in percentage.
- Table 2 : World's top 10 Exporters of Frozen Meat of Bovine Animals with their shares in percentage.
- Table 3 : World's top 10 Importers of Frozen Meat of Bovine Animals with their shares in percentage.
- Annex- I : Top 3 sources of Frozen Meat of Bovine Animals of World's top 3 Importers.
- Table4: India's top 10 Export destination of Pasta with their shares in percentage.
- Table 5 : World's top 10 Exporters of Pasta with their shares in percentage.
- Table 6 : World's top 10 Importers of Pasta with their shares in percentage.
- Annex-II : Top 3 sources of Pasta of World's top 3 Importers.
- Table 7 : India's top 10 Sources of Unwrought lead with their shares in percentage.
- Table 8 : World's top 10 Importers of Unwrought lead Oils with their shares in percentage.
- Table 9 : India's top 10 Sources of Uncoated Kraft Paper and Paper Board with their shares in percentage.
- Table 10 : World's top 10 Importers of Uncoated Kraft Paper and Paper Board with their shares in percentage.

EXPORT

Frozen Meat of Bovine Animals

Bovine meat, the flesh or other edible parts of animals (usually domesticated cattle, swine, and sheep) used for food, including not only the muscles and fat but also the tendons and ligaments. Bovine Meat is valued as a complete protein food containing all the amino acids necessary for the human body. The fat of meat, which varies widely with the species, quality, and cut, is a valuable source of energy and also influences the flavour, juiciness, and tenderness of the lean. Parts such as livers, kidneys, hearts, and other portions are excellent sources of vitamins and of essential minerals, easily assimilated by the human system.

Bovine Meat digests somewhat slowly, but 95 percent of meat protein and 96 percent of the fat are digested. Fats tend to retard the digestion of other foods; thus, meat with a reasonable proportion of fat remains longer in the stomach, delaying hunger and giving “staying power.” Extractives in meat cause a flow of saliva and gastric juices, creating the desire to eat and ensuring ease of digestion.

The most widely consumed meat is beef, the flesh of mature cattle that normally weigh from 450 to 540 kg (1,000 to 1,200 pounds) and yield between 55 and 60 percent of their weight in meat. Veal, the flesh of calves of cattle, is much less fatty than beef.

People have eaten the flesh of bovines since prehistoric times; some of the earliest known cave paintings, such as those of Lascaux, show aurochs in hunting scenes. People domesticated cattle to provide ready access to beef, milk, and leather. Cattle have been domesticated at least twice over the course of evolutionary history. The first domestication event occurred around 10,500 years ago with the evolution of *Bos taurus*. The second was more recent, around 7,000 years ago, with the evolution of *Bos indicus* in the Indian subcontinent. There is a possible third domestication event 8,500 years ago, with a potential third species *Bos africanus* arising in Africa.

In the United States, the growth of the beef business was largely due to expansion in the Southwest. Upon the acquisition of grasslands through the Mexican–American War of 1848, and later the expulsion of the Plains Indians from this region and the Midwest, the American livestock industry began, starting primarily with the taming of wild longhorn cattle. Chicago and New York City were the first to benefit from these developments in their stockyards and in their meat markets.

The meat-products industry, though called meat packing, includes the slaughtering of animals. The steps in this process generally include stunning, bleeding, eviscerating, and skinning. Carcasses are then inspected and graded according to government-set standards of quality.

Bovine cattle are cattle raised for meat production (as distinguished from dairy cattle, used for milk production). The meat of mature or almost mature cattle is mostly known as beef. In beef production there are three main stages: cow-calf operations, backgrounding, and feedlot operations. The usual methods of preserving meat from bacteria and decay are refrigerating, freezing, curing, freeze-drying, and canning.

Meats are marketed as fresh or processed goods or become ingredients of various meat products, including many types of sausages and luncheon meats. They also yield a number of important by-products.

As per 2021, Brazil was the largest Frozen Bovine Meat exporter in the world followed by Australia, United States, India (Includes Carabeef only) and Argentina. Brazil, Australia, the United States and India accounted for roughly 61% of the world's beef exports.

These are broadly classified under **H.S. Code-0202**.

Table – 1

India's Top 10 destination countries of Frozen Meat of Bovine Animals (H.S Code-0202)

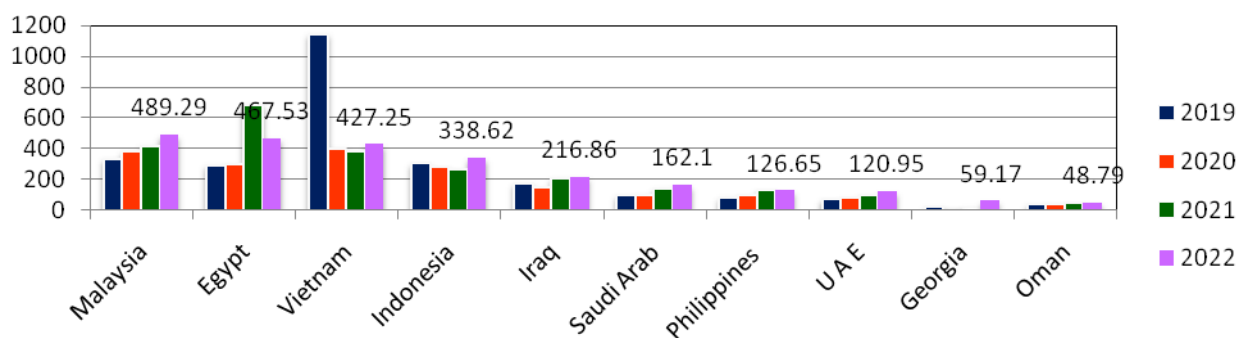
Rank	Countries	2019		2020		2021		2022	
		Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)
1.	Malaysia	333.08	10.88	379.80	13.74	415.70	14.15	489.29	17.10
2.	Egypt	290.13	9.48	295.43	10.69	681.83	23.22	467.53	16.34
3.	Vietnam	1141.72	37.30	400.89	14.51	383.18	13.05	427.25	14.93
4.	Indonesia	301.06	9.84	276.28	10.00	261.68	8.91	338.62	11.83
5.	Iraq	171.77	5.61	142.09	5.14	205.23	6.99	216.86	7.58
6.	Saudi Arab	93.99	3.07	98.12	3.55	139.25	4.74	162.10	5.66
7.	Philippines	80.03	2.61	93.79	3.39	126.86	4.32	126.65	4.43
8.	U A E	68.01	2.22	77.07	2.79	92.63	3.15	120.95	4.23
9.	Georgia	17.54	0.57	10.24	0.37	13.32	0.45	59.17	2.07
10.	Oman	35.09	1.15	37.39	1.35	43.92	1.50	48.79	1.70
	Others	528.42	17.26	952.27	34.46	573.25	19.52	404.83	14.14
	Total	3060.82	100	2763.37	100	2936.85	100	2862.04	100

Source: DGCI&S.

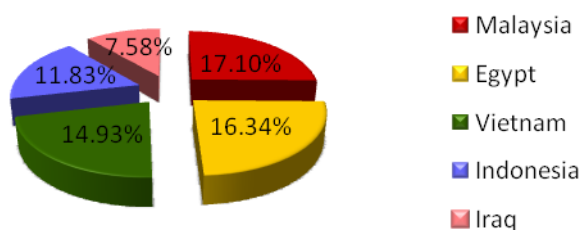
Note : India's Export including re-export

Major destinations of Frozen Meat of Bovine Animals from India from 2019-2022(in Million USD)

Data label given on the basis of 2022



India's top 5 destinations of Frozen Meat of Bovine Animals by percentage India in 2022:



In the year 2022, India has exported Frozen meat of Bovine animals worth of US \$ 2.86 Billion, showing the decline of almost 2.55% compared to the year 2021. Malaysia was the largest market for Frozen meat of Bovine animals export from India, in 2022 Malaysia imported US \$ 489.29 Million worth of Frozen meat of Bovine animals from India which was 17.10% share of India's total export. It was followed by Egypt and Viet Nam with 16.34 % and 14.93% share respectively. Here it is noticeable that India has exported US \$ 1141.72 million worth of the said meat to Vietnam in 2019, which was the highest shipment of Frozen meat of Bovine Animals for ever to a single country from India.

Table-2

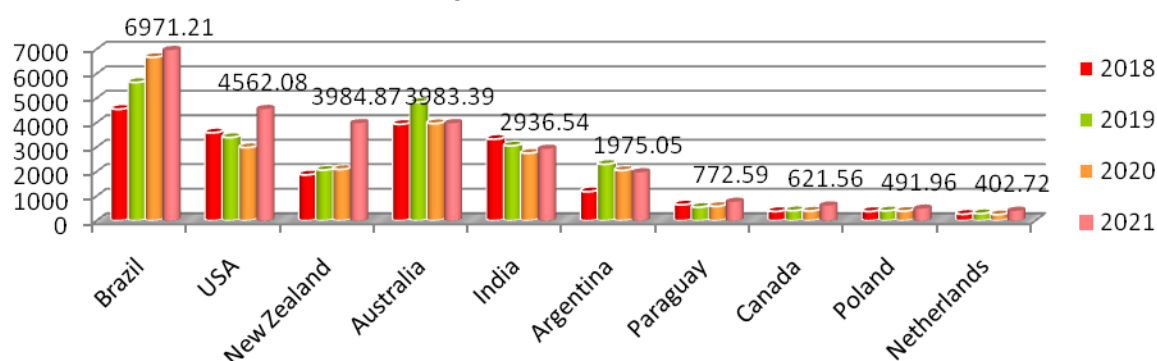
World's Top 10 exporting countries of Frozen Meat of Bovine Animals (H.S Code-0202)

Rank	Countries	2018		2019		2020		2021	
		Value (million \$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)
1.	Brazil	4556.56	18.63	5653.37	20.16	6679.11	25.12	6971.21	23.19
2.	USA	3594.23	14.69	3403.15	12.13	2991.58	11.25	4562.08	15.17
3.	New Zealand	1876.28	7.67	2070.69	7.38	2100.68	7.90	3984.87	13.25
4.	Australia	3944.27	16.12	4838.50	17.25	3972.87	14.94	3983.39	13.25
5.	India	3332.46	13.62	3062.59	10.92	2762.44	10.39	2936.54	9.77
6.	Argentina	1191.28	4.87	2309.03	8.23	2058.60	7.74	1975.05	6.57
7.	Paraguay	650.92	2.66	555.48	1.98	591.28	2.22	772.59	2.57
8.	Canada	383.14	1.57	413.30	1.47	400.07	1.50	621.56	2.07
9.	Poland	382.06	1.56	409.76	1.46	394.65	1.48	491.96	1.64
10.	Netherlands	268.49	1.10	294.34	1.05	251.48	0.95	402.72	1.34
	Others	4282.24	17.51	5035.13	17.95	4390.98	16.51	3364.26	11.19
	Total	24461.94	100	28045.35	100	26593.75	100	30066.21	100

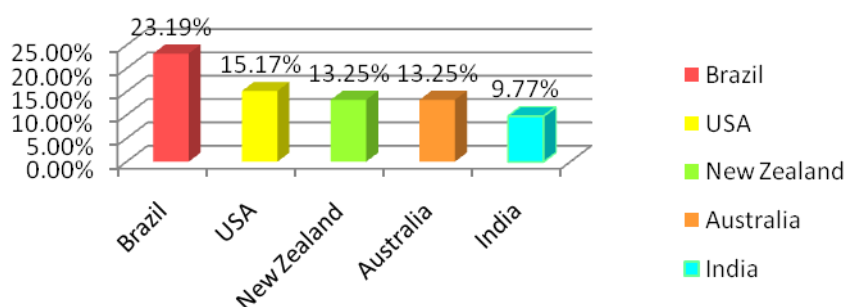
Source: UN Comtrade

Top exporting countries of Frozen meat of Bovine Animals of world from 2018 to 2021 (in million\$)

Data label given on the basis of 2021



Country wise world's leading exporting countries of Frozen meat of Bovine animals by % in 2021 :



Global export of Frozen Meat of Bovine Animals amounted to US \$ 30 Billion in 2021, increased by 11.55% over the last year. Brazil was the main global supplier of Frozen meat of Bovine animals with a worth value of US \$ 6.97 Billion which was accounted by 23.19% share of global exports in that year. It was followed by USA (15.17%), New Zealand (13.25%). Though, the India is one of the largest producer of Frozen Meat of Bovine Animals. However, India was far behind from Brazil in the global export of Frozen meat of Bovine animals and stood at 5th position in ranking in the world with 9.77% share of world export in 2021.

Table-3

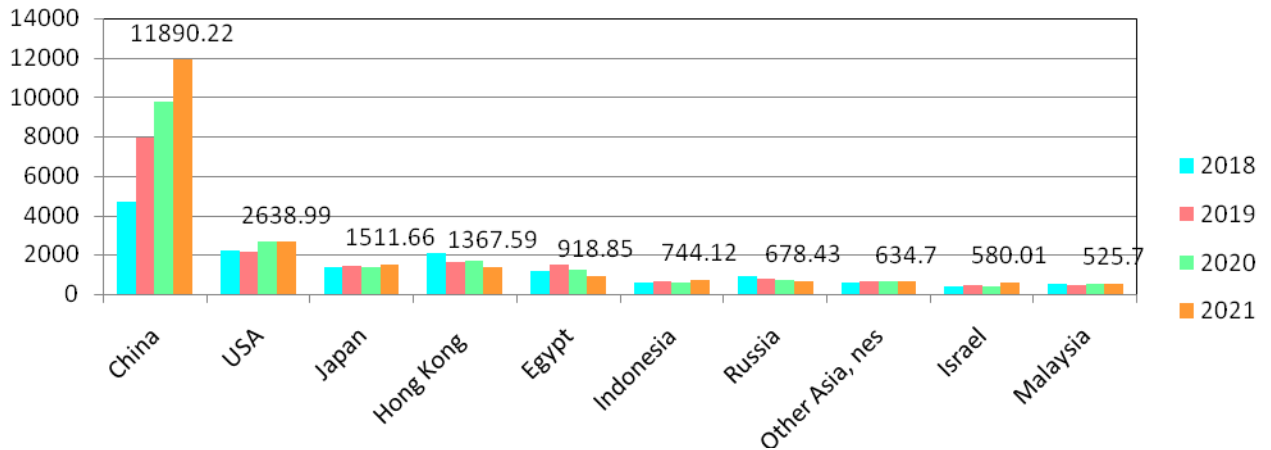
World's top 10 Importing countries of Frozen Meat of Bovine Animals (H.S Code-0202)

Rank	Countries	2018		2019		2020		2021	
		Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)
1.	China	4662.39	20.67	7928.22	30.87	9770.74	36.54	11890.22	45.18
2.	USA	2226.34	9.87	2155.31	8.39	2681.85	10.03	2638.99	10.03
3.	Japan	1370.88	6.08	1402.33	5.46	1381.93	5.17	1511.66	5.74
4.	Hong Kong	2093.47	9.28	1636.35	6.37	1664.15	6.22	1367.59	5.20
5.	Egypt	1155.56	5.12	1496.75	5.83	1236.75	4.62	918.85	3.49
6.	Indonesia	565.07	2.51	653.17	2.54	559.28	2.09	744.12	2.83
7.	Russia	892.88	3.96	808.94	3.15	707.86	2.65	678.43	2.58
8.	Other Asia, nes	579.82	2.57	631.72	2.46	628.69	2.35	634.70	2.41
9.	Israel	396.82	1.76	456.28	1.78	410.40	1.53	580.01	2.20
10.	Malaysia	498.08	2.21	445.81	1.74	489.87	1.83	525.70	2.00
	Others	8110.12	35.96	8066.31	31.41	7209.33	26.96	4828.85	18.35
	Total	22551.44	100	25681.18	100	26740.84	100	26319.13	100

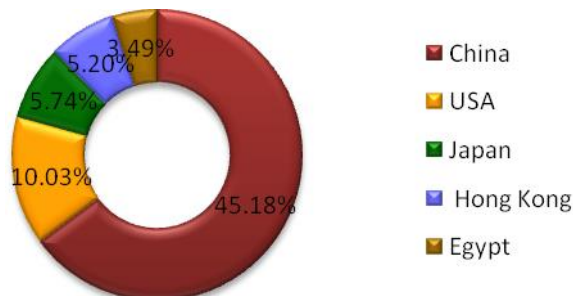
Source : UN Comtrade

Top10 Frozen Meat of Bovine Animals importing countries of world from 2018 to 2021(in million \$)

Data label given on the basis of 2021



Country wise top 10 importing countries of Frozen Meat of Bovine Animals by percentage in 2021

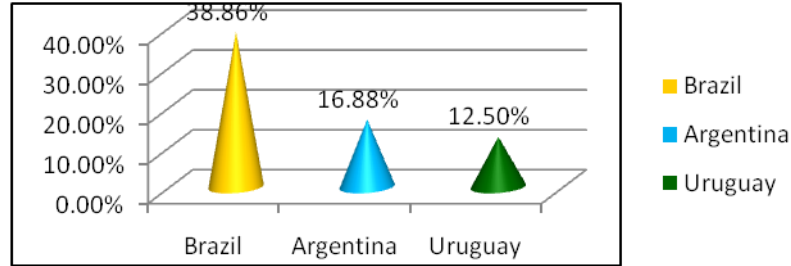


The volume of global imports of Frozen Meat of Bovine Animals totaled US \$ 26.31 Billion in 2021. Global import of Frozen Meat of Bovine Animals has decreased 1.58 % over the previous year. The China Remains the Largest Global Importer of Frozen Meat of Bovine Animals, comprising 45.18% of global imports in 2021. It was followed by USA (10.03%) and Japan (5.74%) of global import. In that year there was no import trade of Frozen Meat of Bovine Animals into India

Annexure-1

Major sources of world’s top 3 importing countries of Frozen Meat of Bovine Animals (H.S Code-0202)

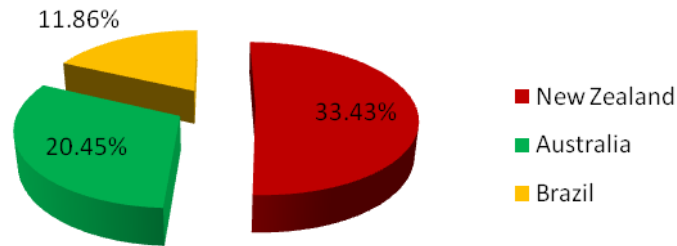
(i) Top 3 Source countries of Frozen Meat of Bovine Animals to China in 2021 by



%

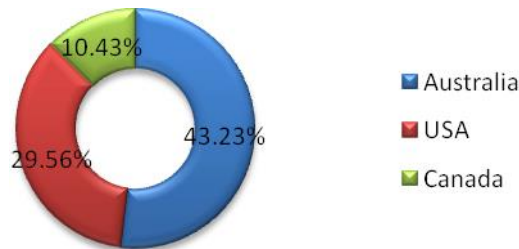
China imports most of its requirements of Frozen Meat of Bovine Animals from Brazil with 38.86 % share of China’s total import of Frozen Meat of Bovine Animals came from Brazil in 2021. Argentina (16.88%) & Uruguay (12.50%) were the 2nd and 3rd major source of Frozen Meat of Bovine Animals to China in the same year. **(Source: UN Comtrade)**

ii) Top 3 Source countries of Frozen Meat of Bovine Animals to USA in 2021 by percentage:



33.43% of Frozen Meat of Bovine Animals imports of USA came from New Zealand in 2021, followed by Australia (20.45%) and Brazil (11.86%). There was no transaction to USA from India in that year. **(Source: UN Comtrade)**

iii) Top 3 Source countries of Frozen Meat of Bovine Animals to Japan in 2021 by percentage:



Australia was the largest source of Frozen Meat of Bovine Animals to Japan in 2021, 43.23% of total Frozen Meat of Bovine Animals import by Japan from Australia in 2021. USA and Canada were other important sources of Frozen Meat of Bovine Animals to Japan in that year. In the same year there was no export trade of Frozen Meat of Bovine Animals from India to Japan.

(Source : UN Comtrade)

Pasta, Whether or not Cooked or Stuffed

Pasta is a type of food typically made from an unleavened dough of wheat flour mixed with water or eggs, and formed into sheets or other shapes, then cooked by boiling or baking. Rice flour, or legumes such as beans or lentils, are sometimes used in place of wheat flour to yield a different taste and texture, or as a gluten-free alternative. Pasta is a staple food of Italian cuisine.

In commercial processing, the semolina mixed with warm water is kneaded into a smooth stiff dough and extruded. The dough, moved forward while it is being compacted and mixed, is forced through perforated plates, or dies, that form it into the desired shape. Hollow tubular forms, such as macaroni, result when the perforations are small and contain steel pins, while smaller holes without pins produce spaghetti. Flat ribbon like types are made by slitted perforations. Shell forms are produced by a special die; small fancy shapes are produced by rotary knives slicing the dough as it emerges from the die. The formed dough is next dried, reducing its moisture content from about 31 percent to approximately 12 percent. The drying is carefully regulated, as very rapid drying may result in cracking, and very slow drying may produce stretching or encourage the growth of mould or of organisms that produce souring. Doughs may be coloured with spinach juice, producing green pasta; with beet juice, resulting in red types; and with eggs, adding bright yellow colour. Eggs are frequently added to homemade pastas. Pastas are prepared by boiling and may be cooked until firm and resilient to the bite or until very tender. Prepared Italian style, they may be tossed with butter, cheese, and seasoning (nutmeg, pepper) or served with a variety of sauces—tomato, cream, seafood, or others. Shaped pastas are often stuffed with meat, cheese, spinach, or a combination of these and other ingredients.

As a category in Italian cuisine, both fresh and dried pastas are classically used in one of three kinds of prepared dishes: as pasta asciuta, cooked pasta is plated and served with a complementary sauce or condiment; a second classification of pasta dishes is pasta in brodo, in which the pasta is part of a soup-type dish. A third category is pasta al forno, in which the pasta is incorporated into a dish that is subsequently baked in the oven. Pasta dishes are generally simple, but individual dishes vary in preparation.

In terms of nutrition, cooked plain pasta is 31% carbohydrates 6% protein, and low in fat, with moderate amounts of manganese, but pasta generally has low micronutrient content. Pasta may be enriched or fortified, or made from whole grains.

The art of pasta making and the devotion to the food as a whole has evolved since pasta was first conceptualized. In 2008, it was estimated that Italians ate over 27 kg (60 lb) of pasta per person, per year, easily beating Americans, who ate about 9 kg (20 lb) per person. Pasta is so beloved in Italy that individual consumption exceeds the average production of wheat of the country; thus Italy frequently imports wheat for pasta making. In contemporary society, pasta is ubiquitous and there is a variety of types in local supermarkets, in many countries. With the worldwide demand for this staple food, pasta is now largely mass-produced in factories and only a tiny proportion is crafted by hand.

When cooked, plain pasta is composed of 62% water, 31% carbohydrates (26% starch), 6% protein, and 1% fat. A 100-gram (3+1/2-ounce) portion of unenriched cooked pasta provides 670 kilojoules (160 kilocalories) of food energy and a moderate level of manganese (15% of the Daily Value), but few other micronutrients.

As pasta was introduced elsewhere in the world, it became incorporated into a number of local cuisines, which often have significantly different ways of preparation from those of Italy. When pasta was introduced to different nations, each culture would adopt a different style of preparation. In the past, ancient Romans cooked pasta-like foods by frying rather than boiling. It was also sweetened with honey or tossed with garum. Ancient Romans also enjoyed baking it in rich pies, called timballi.

These are broadly classified under **H.S. Code-1902.**

Table – 4

India's Top 10 destination countries of Pasta Whether or not cooked (H.S Code-1902)

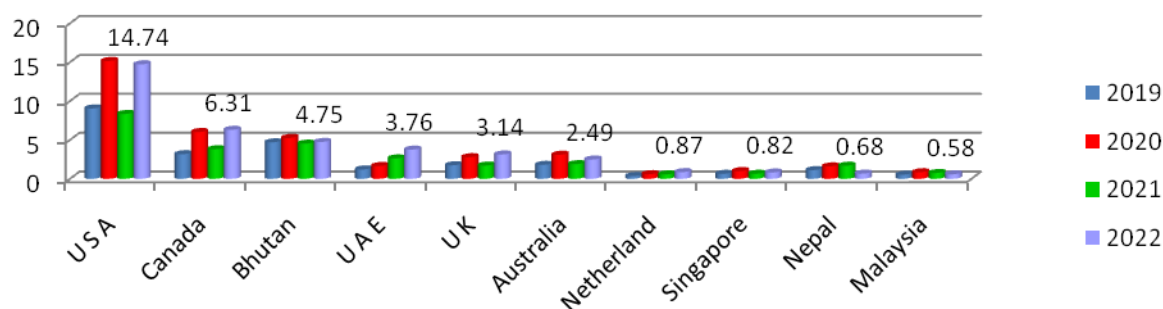
Rank	Countries	2019		2020		2021		2022	
		Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)
1.	U S A	9.06	33.73	15.17	36.49	8.35	27.53	14.74	34.22
2.	Canada	3.17	11.81	6.03	14.50	3.81	12.54	6.31	14.65
3.	Bhutan	4.70	17.50	5.26	12.66	4.53	14.93	4.75	11.03
4.	U A E	1.21	4.52	1.66	4.00	2.63	8.65	3.76	8.74
5.	U K	1.75	6.51	2.79	6.72	1.71	5.65	3.14	7.28
6.	Australia	1.80	6.71	3.10	7.45	1.89	6.22	2.49	5.78
7.	Netherland	0.36	1.35	0.60	1.44	0.57	1.88	0.87	2.02
8.	Singapore	0.65	2.41	1.00	2.41	0.65	2.15	0.82	1.91
9.	Nepal	1.13	4.22	1.60	3.85	1.69	5.57	0.68	1.58
10.	Malaysia	0.54	2.02	0.85	2.04	0.76	2.52	0.58	1.36
	Others	2.48	9.24	3.51	8.43	3.75	12.36	4.93	11.44
	Total	26.85	100	41.58	100	30.35	100	43.08	100

Source: DGCI&S

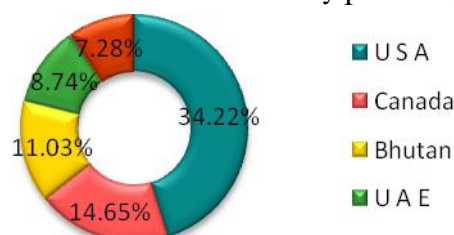
Note : India's Export including re-export

India's major destination countries Pasta from 2019-2022(Values in million USD)

Data label given on the basis of 2022



India's top 5 destination countries of Pasta by percentage in 2022:



In 2022, India's export of Pasta whether or not cooked or stuffed amounted to US \$ 43.08 Million, going up by almost 42% against the previous year figure. Over the period under review, Pasta whether or not cooked or stuffed export from India reached its maximum volume in 2022. USA represented the major importer of Pasta whether or not cooked or stuffed from India in 2022, recording US \$ 14.74 Million which was 34.22% of total export of India, followed by Canada and Bhutan with 14.65% and 11.03% share of India's total export value of Pasta whether or not cooked or stuffed 2022.

Table - 5

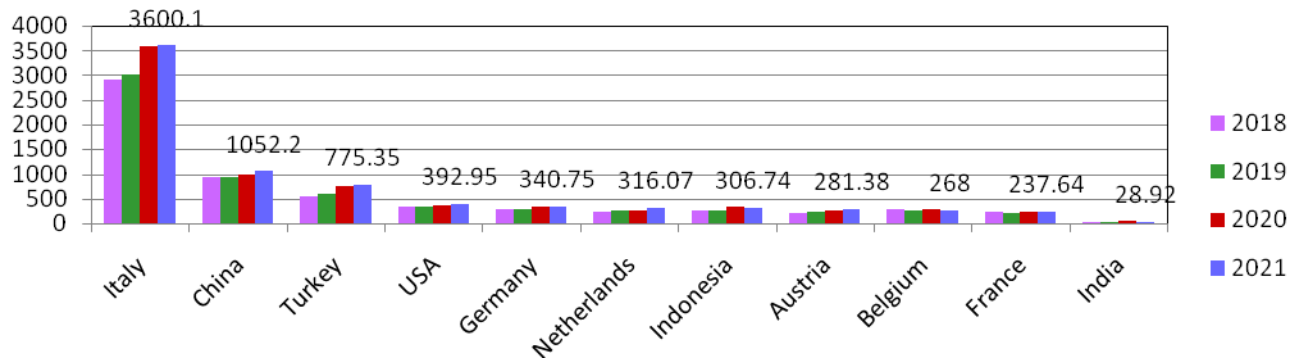
World's Top 10 exporting countries of Pasta Whether or not cooked (H.S Code-1902)

Rank	Countries	2018		2019		2020		2021	
		Value (million \$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)
1.	Italy	2913.07	29.07	3022.50	29.15	3587.77	30.11	3600.10	35.93
2.	China	923.42	9.22	929.43	8.96	979.75	8.22	1052.20	10.50
3.	Turkey	553.23	5.52	608.91	5.87	761.28	6.39	775.35	7.74
4.	USA	342.59	3.42	349.73	3.37	375.09	3.15	392.95	3.92
5.	Germany	284.74	2.84	295.07	2.85	338.17	2.84	340.75	3.40
6.	Netherlands	228.50	2.28	251.23	2.42	263.91	2.22	316.07	3.15
7.	Indonesia	258.64	2.58	269.23	2.60	325.56	2.73	306.74	3.06
8.	Austria	201.02	2.01	225.60	2.18	260.61	2.19	281.38	2.81
9.	Belgium	276.13	2.76	263.49	2.54	275.23	2.31	268.00	2.67
10.	France	224.48	2.24	217.96	2.10	230.59	1.94	237.64	2.37
36.	India	25.50	0.25	26.15	0.25	39.73	0.33	28.92	0.29
	Others	3789.41	37.82	3910.75	37.71	4476.20	37.57	2420.80	24.16
	Total	10020.71	100	10370.05	100	11913.90	100	10020.89	100

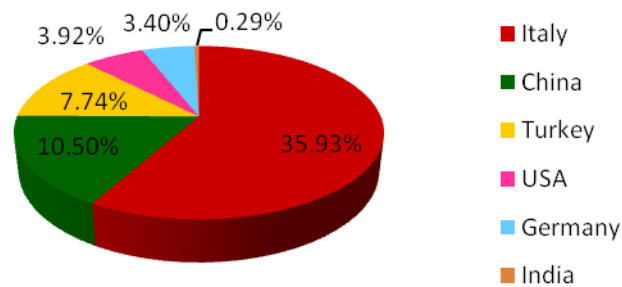
Source: UN Comtrade

Top world exporting countries of Pasta from 2018 to 2021 (Values in million USD)

Data label given on the basis of 2021



Export trends in world's leading Pasta exporting countries by percentage in 2020:



Global export of Pasta whether or not cooked or stuffed was totaled US \$ 10 Billion in 2021. In that year the total export value decreased at an rate of -16% from 2020. The trend pattern indicated some almost constant over the period under review except 2020. Italy represented the major exporter of Pasta whether or not cooked or stuffed in the world, exported 35.93% share of world export. China and Turkey constitutes the 2nd and 3rd largest exporter of the Commodity in the same year with 10.50% and 7.74% share of world export respectively. In the same year India's contribution was only 0.29%.

Table - 6

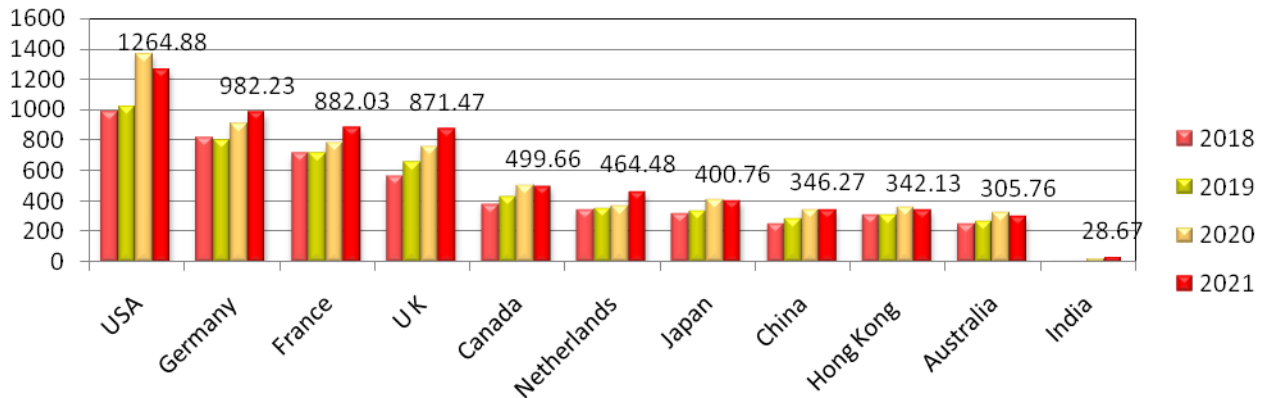
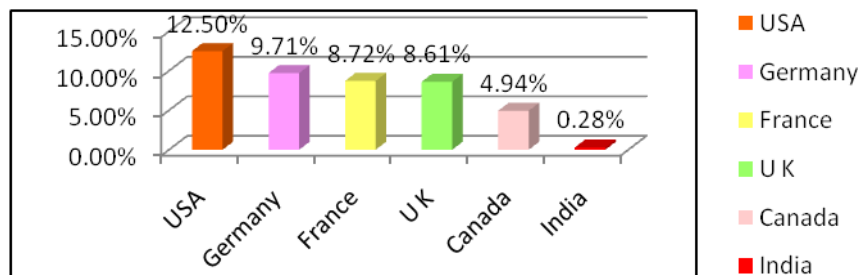
World's top 10 Importing countries of Pasta Whether or not cooked (H.S Code-1902)

Rank	Countries	2018		2019		2020		2021	
		Value (million \$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)
1.	USA	987.81	10.80	1017.13	10.85	1365.72	12.80	1264.88	12.50
2.	Germany	814.68	8.90	803.50	8.57	909.27	8.52	982.23	9.71
3.	France	711.04	7.77	712.08	7.60	782.98	7.34	882.03	8.72
4.	U K	562.99	6.15	658.72	7.03	760.35	7.12	871.47	8.61
5.	Canada	380.86	4.16	427.01	4.56	507.84	4.76	499.66	4.94
6.	Netherlands	346.69	3.79	356.29	3.80	372.98	3.49	464.48	4.59
7.	Japan	322.73	3.53	333.08	3.55	410.92	3.85	400.76	3.96
8.	China	248.20	2.71	282.56	3.01	341.49	3.20	346.27	3.42
9.	Hong Kong	312.34	3.41	308.36	3.29	364.26	3.41	342.13	3.38
10.	Australia	251.69	2.75	264.91	2.83	327.93	3.07	305.76	3.02
45.	India	16.51	0.18	18.87	0.20	21.75	0.20	28.67	0.28
	Others	4194.11	45.84	4190.25	44.71	4506.66	42.23	3727.74	36.85
	Total	9149.64	100	9372.75	100	10672.16	100	10116.07	100

Source :UNComtrade

Top world importing countries of Pasta from 2018 to 2021 (Values in million USD)

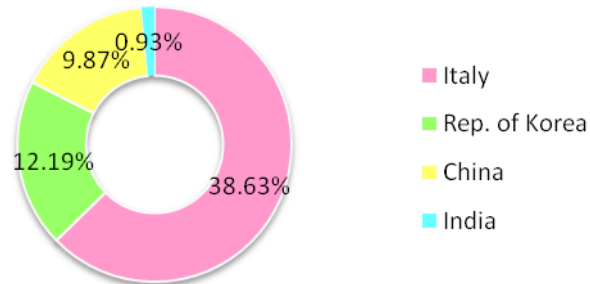
Data label given on the basis of 2021

**Country wise leading global Importing countries of Pasta by percentage in 2021**

The USA imported around US \$ 1.26 Billion worth of Pasta whether or not cooked or stuffed in 2021, making it the leading importer of Pasta whether or not cooked or stuffed worldwide that year. Germany followed in second place, importing around US \$ 982.23 million worth of the commodity. It was followed by France, imported US \$ 882 million of Pasta whether or not cooked or stuffed in the same year. India's share was only 0.28% share of world import. The top 10 importing countries imported 63.15% share of world import of Pasta whether or not cooked or stuffed in that year.

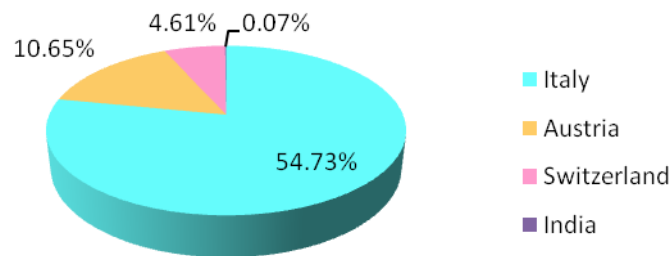
Sources of world's top three importing countries of Pasta (H.S Code-1902)

i) Top 3 Source countries of Pasta to USA in 2021 by percentage:



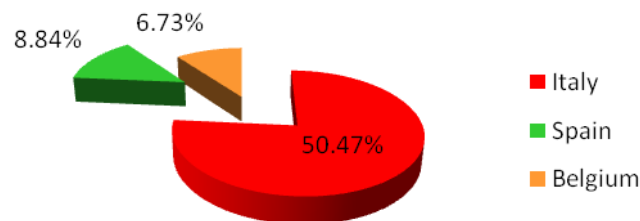
In the year 2021 USA, imports largest worth value of Pasta whether or not Cooked or Stuffed 38.63% share from Italy, which was followed by Rep. of Korea (12.19%) and China (9.87%). **India** has exported 0.93% of USA's total import of Pasta whether or not Cooked or Stuffed in 2021. (Source: UN Comtrade)

ii) Top 3 Source countries of Pasta to Germany in 2021 by percentage:



Italy was the number one source of Pasta whether or not Cooked or Stuffed to Germany, imports 54.73% share from Italy, 10.65% from Austria and 4.61% share from Switzerland in 2021. In the same year **India** has exported US \$ 0.7 Million of Pasta to Germany. (Source: UN Comtrade)

iii) Top 3 Source countries of Pasta to France in 2021 by percentage:



Italy was the largest source country of Pasta whether or not Cooked or Stuffed to France in 2021, France imports, 50.47% share of its total import of Pasta whether or not Cooked or Stuffed from Italy in that year. France imported 8.84% from Spain and 6.73% Pasta whether or not Cooked or Stuffed from Belgium respectively. (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 gray 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 organolead 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 Source countries of Unwrought Lead (H.S. Code - 7801)

Rank	Countries	2019		2020		2021		2022	
		Value (million \$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)
1.	Korea RP	154.44	31.35	138.85	28.48	155.17	29.59	134.84	22.56
2.	U A E	43.73	8.88	47.44	9.73	69.59	13.27	85.49	14.30
3.	Malaysia	55.31	11.23	40.05	8.22	39.96	7.62	62.45	10.45
4.	Singapore	18.99	3.85	21.30	4.37	33.64	6.41	32.98	5.52
5.	Tanzania	12.81	2.60	8.90	1.83	19.23	3.67	28.06	4.69
6.	Philippine	10.83	2.20	11.55	2.37	24.54	4.68	25.29	4.23
7.	Mozambique	6.93	1.41	10.97	2.25	10.90	2.08	16.99	2.84
8.	Australia	23.66	4.80	45.44	9.32	10.95	2.09	16.78	2.81
9.	Senegal	6.85	1.39	7.70	1.58	14.65	2.79	13.86	2.32
10.	U K	15.16	3.08	6.64	1.36	11.13	2.12	13.41	2.24
	Others	143.96	29.22	148.61	30.49	134.73	25.69	167.58	28.04
	Total	492.65	100	487.46	100	524.49	100	597.72	100

Source: DGCI&S

Note : India's Import including re-import

The dollar value of Unwrought Lead import in 2022 stood at US \$ 597.72 Million and US \$ 4921.65 Million in 2019, which shows an increasing trend. In the 2022 the import of Unwrought Lead in India grew by more than 13.96% compare to the year 2021. In 2022 India imported Unwrought Lead maximum worth value of US \$ 134.84 Million from Korea RP or 22.56 % of India's total import, which was less 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 14.30% and 10.45% share of Unwrought Lead respectively. The top 10 countries shared 72% of the Unwrought Lead import to India in 2022.

Table - 8

World's Top 10 Importing countries 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.	USA	1308.50	16.82	1043.71	15.80	740.72	13.64	1411.95	22.56
2.	U K	437.20	5.62	418.31	6.33	368.22	6.78	541.19	8.65
3.	India	643.36	8.27	492.68	7.46	487.44	8.98	524.37	8.38
4.	Germany	500.09	6.43	432.80	6.55	362.51	6.68	475.31	7.60
5.	Czechia	392.15	5.04	329.16	4.98	273.60	5.04	409.91	6.55
6.	Turkey	344.67	4.43	267.56	4.05	255.81	4.71	352.08	5.63
7.	Spain	251.45	3.23	235.53	3.57	203.95	3.76	252.11	4.03
8.	Poland	225.32	2.90	183.49	2.78	141.11	2.60	217.93	3.48
9.	Italy	270.76	3.48	195.46	2.96	158.34	2.92	200.14	3.20
10.	Brazil	173.26	2.23	119.53	1.81	103.47	1.91	197.26	3.15
	Others	3233.30	41.56	2887.50	43.71	2335.21	43.00	1675.86	26.78
	Total	7780.05	100	6605.73	100	5430.39	100	6258.12	100

Source :UNComtrade

In 2021, the global refined lead imports amounted to US \$ 6.25 Billion, increasing by more than 15% 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 2021 USA (US \$ 1.41 B) constitutes the largest market for imported refined lead worldwide, making up 22.56 % of global imports. The second position in the ranking was occupied by UK (US \$ 541.19 M), with the share of 8.65% of global imports. It was followed by the **India**, with the share of 8.38%. These three major importing countries represented 39.59% of total global import of Unwrought Lead in 2021.

Uncoated Kraft Paper and Paper Board

Kraft paper or Kraft is paper or paperboard (cardboard) produced from chemical pulp produced in the Kraft process.

Pulp produced by the Kraft process is stronger than that made by other pulping processes; acidic sulphite processes degrade cellulose more, leading to weaker fibres, and mechanical pulping processes leave most of the lignin with the fibres, whereas Kraft pulping removes most of the lignin present originally in the wood. Low lignin is important to the resulting strength of the paper, as the hydrophobic nature of lignin interferes with the formation of the hydrogen bonds between cellulose (and hemicellulose) in the fibres.

Kraft pulp is darker than other wood pulps, but it can be bleached to make very white pulp. Fully bleached Kraft pulp is used to make high quality paper where strength, whiteness, and resistance to yellowing are important.

Paperboard is a thick paper-based material. While there is no rigid differentiation between paper and paperboard, paperboard is generally thicker (usually over 0.30 mm, 0.012 in, or 12 points) than paper and has certain superior attributes such as fold ability and rigidity. According to ISO standards, paperboard is a paper with a grammage above 250 g/m², but there are exceptions. Paperboard can be single- or multi-ply.

Paperboard can be easily cut and formed, is lightweight, and because it is strong, is used in packaging. Another end-use is high quality graphic printing, such as book and magazine covers or postcards. Paperboard is also used in fine arts for creating sculptures.

Wood pulp for sack paper is made from softwood by the Kraft process. The long fibres provide the paper its strength and wet strength chemicals are added to even further improve the strength. Both white and brown grades are made. Sack paper is then produced on a paper machine from the wood pulp. The paper is microcrepped to give porosity and elasticity. Microcrepping is done by drying with loose draws allowing it to shrink. This causes the paper to elongate 4% in the machine direction and 10% in the cross direction without breaking.^[2] Machine direction elongation can be further improved by pressing between very elastic cylinders causing more microcrepping. The paper may be coated with polyethylene (PE) to ensure an effective barrier against moisture, grease and bacteria, although recyclability is hindered. Zein coatings are also water resistant but allow better recyclability.

A paper sack can be made of several layers of sack paper depending on the toughness needed. Kraft paper is produced on paper machines with moderate machine speeds. The raw material is normally softwood pulp from the Kraft process. The Kraft process can use a wider range of fibre sources than most other pulping processes. All types of wood, including very resinous types like southern pine, and non-wood species like bamboo and kenaf can be used in the Kraft process.

Kraft paper and paper board, produced from chemical pulp, is used vastly in the packaging industry especially in the western countries and North America. Countries like India, China, and Brazil are further expanding its usage and so the business is further expected to rise in the coming future. The elastic Kraft papers are found in many types in the market, for instance, extensible, semi extensible, natural, and coated Kraft paper. India alone accounts for 3 % of the total annual paper demand, globally. Kraft papers are considered as a best form of wrapping paper due to its strength, elasticity, low price, quality from carrier perspective, durability, etc.

In 2019, Uncoated Kraft Paper were the world's 256th most traded product, with a total trade of \$13.9B. Between 2018 and 2019 the exports of Uncoated Kraft Paper decreased by -12.5%, from \$15.9B to \$13.9B. Trade in Uncoated Kraft Paper represent 0.077% of total world trade.

In 2019 the top exporters of Uncoated Kraft Paper were United States, Sweden, Germany, Austria, and Finland whereas in 2019 the top importers of Uncoated Kraft Paper were Germany, China, Italy, Mexico, and United States.

These are broadly classified under the ITCHS Code-4804.

Table 9

India's Top 10 Source countries of Uncoated Kraft Paper and Paper Board (HS Code : 4804)

Rank	Countries	2019		2020		2021		2022	
		Value (million \$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)
1.	U S A	59.56	33.65	49.61	30.76	63.63	32.04	93.50	37.65
2.	Sweden	25.89	14.63	25.90	16.06	33.96	17.10	24.50	9.87
3.	Poland	8.08	4.56	7.73	4.79	12.95	6.52	13.14	5.29
4.	Germany	7.30	4.13	7.31	4.53	7.56	3.80	12.86	5.18
5.	Slovenia	0.72	0.41	3.34	2.07	7.66	3.86	10.93	4.40
6.	Spain	9.70	5.48	7.82	4.85	6.90	3.47	10.22	4.12
7.	Finland	9.23	5.22	7.26	4.50	8.92	4.49	9.72	3.91
8.	Belgium	4.01	2.26	2.71	1.68	4.21	2.12	7.92	3.19
9.	Indonesia	0.48	0.27	1.38	0.86	4.39	2.21	7.04	2.83
10.	Russia	7.34	4.15	8.07	5.01	7.43	3.74	6.76	2.72
	Others	44.67	25.24	40.13	24.88	41.02	20.65	51.76	20.84
	Total	176.98	100	161.28	100	198.63	100	248.34	100

Source: DGCI&S

Note : India's Import including re-import

USA, Sweden and Poland are the top three countries from which India imported Uncoated Kraft Paper and Paper Board, with import value shares of 37.65%, 9.87% and 5.29 % respectively in 2021. Thus Indian Uncoated Kraft Paper and Paper Board imports of value more than 52.81 % shares of India's import of the commodity were sourced from these three countries in 2022. India's import of the commodity was increasing trends during the review period. In the year 2022 India's import of Uncoated Kraft Paper and Paper Board has increased by 25% from the year 2021.

Table 10

World's top 10 importing countries of Uncoated Kraft Paper and Paper Board (HS Code -4804)

Rank	Countries	2018		2019		2020		2021	
		Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)
1.	Germany	1556.76	10.18	1332.29	9.85	1251.89	9.95	1518.16	10.93
2.	China	1358.84	8.88	1028.77	7.61	1221.56	9.71	1179.29	8.49
3.	Italy	1083.20	7.08	963.64	7.12	828.60	6.59	974.78	7.02
4.	Mexico	844.82	5.52	841.25	6.22	745.52	5.93	962.88	6.93
5.	USA	814.71	5.33	820.60	6.07	722.05	5.74	849.15	6.11
6.	Canada	495.62	3.24	504.37	3.73	509.21	4.05	598.20	4.31
7.	Spain	582.04	3.80	504.29	3.73	457.61	3.64	577.65	4.16
8.	U K	505.80	3.31	410.43	3.03	391.67	3.11	512.30	3.69
9.	Netherlands	456.04	2.98	425.46	3.15	435.01	3.46	504.41	3.63
10.	Turkey	425.30	2.78	310.03	2.29	365.64	2.91	434.88	3.13
14.	India	169.80	1.11	177.13	1.31	161.62	1.29	198.63	1.43
	Others	7006.34	45.80	6209.22	45.90	5485.85	43.62	5579.94	40.17
	Total	15299.27	100	13527.46	100	12576.23	100	13890.25	100

Source: UN Comtrade

Germany tops the world in terms import of Uncoated Kraft Paper and Paper Board and its share in the world export of it was nearly 11% of the total world import value of Uncoated Kraft Paper and Paper Board in 2021, followed by China and Italy. In the year 2021 **India** imports US \$ 198.63 million and comes at 14th rank in the world. The trends of world import of Uncoated Kraft Paper and Paper Board is increasing from 2018 to 2020 however in the year 2021 it has increased by nearly 9.46% compare to that in the year 2020.