

# **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 **Rice & Tea** and imports of **Polymers of Ethylene in primary form & Sulphonamides** 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 commodity 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-1006 & 0902 for export and 3901 & 2935 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 June'2023. So, trends from 2019 to 2022 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 Rice & Tea and imports of Polymers of Ethylene & Sulphonamides. 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 Rice with their shares in percentage.
- Table 2 : World's top 10 Exporters of Rice with their shares in percentage.
- Table 3 : World's top 10 Importers of Rice with their shares in percentage.
- Annex- I : Top 3 sources of Rice of World's top 3 Importers.
- Table4: India's top 10 Export destination of Tea with their shares in percentage.
- Table 5 : World's top 10 Exporters of Tea with their shares in percentage.
- Table 6 : World's top 10 Importers of Tea with their shares in percentage.
- Annex-II : Top 3 sources of Tea of World's top 3 Importers.
- Table 7 : India's top10 Sources of Polymers of Ethylene with their shares in percentage.
- Table 8 :World's top 10 Importers of Polymers of Ethylene with their shares in percentage.
- Table 9 : India's top 10 Sources of Sulphonamides with their shares in percentage.
- Table 10 : World's top 10 Importers of Sulphonamides with their shares in percentage.

## EXPORT

### Rice

**Rice** is the seed of the grass species *Oryza sativa*. As a cereal grain, domesticated rice is the most widely consumed staple food for over half of the world's human population, particularly in Asia and Africa. It is the agricultural commodity with the third-highest worldwide production, after sugarcane and maize. Since sizable portions of sugarcane and maize crops are used for purposes other than human consumption, rice is the most important food crop with regard to human nutrition and caloric intake, providing more than one-fifth of the calories consumed worldwide by humans. There are many varieties of rice, and culinary preferences tend to vary regionally. The traditional method for cultivating rice is flooding the fields while, or after, setting the young seedlings. This simple method requires sound irrigation planning, but it reduces the growth of less robust weed and pest plants that have no submerged growth state, and deters vermin. While flooding is not mandatory for the cultivation of rice, all other methods of irrigation require higher effort in weed and pest control during growth periods and a different approach for fertilizing the soil.

Rice, a monocot, is normally grown as an annual plant, although in tropical areas it can survive as a perennial and can produce a ratoon crop for up to 30 years. Rice cultivation is well-suited to countries and regions with low labor costs and high rainfall, as it is labor-intensive to cultivate and requires ample water. However, rice can be grown practically anywhere, even on a steep hill or mountain area with the use of water-controlling terrace systems. Although its parent species are native to Asia and certain parts of Africa, centuries of trade and exportation have made it commonplace in many cultures worldwide. Production and consumption of rice is estimated to have been responsible for 4% of global greenhouse gas emissions in 2010. Rice is a cereal crop belonging to the family Poaceae. Rice being a tropical crop can be grown during the two distinct seasons (dry and wet) of the year provided that moisture is made available to the crop.

Rice is commonly consumed as food around the world. Rice is the staple food of over half the world's population. It is the predominant dietary energy source for 17 countries in Asia and the Pacific, 9 countries in North and South America and 8 countries in Africa. Rice provides 20% of the world's dietary energy supply, while wheat supplies 19% and maize (corn) 5%. Cooked unenriched long-grain white rice is composed of 68% water, 28% carbohydrates, 3% protein, and 1% fat (table). A 100-gram (3+1/2-ounce) reference serving of it provides 540 kilojoules (130 kilocalories) of food energy and contains no micronutrients in significant amounts, with all less than 10% of the Daily Value (DV) (table). Cooked short-grain white rice provides the same food energy and contains moderate amounts of B vitamins, iron, and manganese (10–17% DV) per 100-gram serving (table).

The history of rice cultivation is an interdisciplinary subject that studies archaeological and documentary evidence to explain how rice was first domesticated and cultivated by humans, the spread of cultivation to different regions of the planet, and the technological changes that have impacted cultivation over time. The current scientific consensus, based on archaeological and linguistic evidence, is that *Oryza sativa* rice was first domesticated in the Yangtze River basin in China 13,500 to 8,200 years ago. Cultivation, migration and trade spread rice around the world - first to much of east Asia, and then further abroad, and eventually to the Americas as part of the Columbian exchange. The now less common *Oryza glaberrima* rice was independently domesticated in Africa around 3,000 years ago. Other wild rice species have also been cultivated in different geographies, such as in the Americas.

Since its spread, rice has become a global staple crop important to food security and food cultures around the world. Local varieties of *Oryza sativa* have resulted in over 40,000 cultivars of various types. More recent changes in agricultural practices and breeding methods as part of the Green Revolution and other transfers of agricultural technologies has led to increased production in recent decades, with emergence of new types such as golden rice, which was genetically engineered to contain beta carotene. In 2020, world production of paddy rice was 756.7 million metric tons (834.1 million short tons), led by China and India with a combined 52% of this total. Other major producers were Bangladesh, Indonesia and Vietnam. The five major producers accounted for 72% of total production, while the top fifteen producers accounted for 91% of total world production in 2017. Developing countries account for 95% of the total production.

Rice is a major food staple and a mainstay for the rural population and their food security. It is mainly cultivated by small farmers in holdings of less than one hectare. Rice is also a wage commodity for workers in the cash crop or non-agricultural sectors. Rice is vital for the nutrition of much of the population in Asia, as well as in Latin America and the Caribbean and in Africa; it is central to the food security of over half the world population. Developing countries are the main players in the world rice trade, accounting for 83% of exports and 85% of imports. While there are numerous importers of rice, the exporters of rice are limited. Just five countries—Thailand, Vietnam, China, the United States and India—in decreasing order of exported quantities, accounted for more than three-quarters of world rice exports in 2022. However, this ranking has been rapidly changing in recent years. In 2022, the three largest exporters of rice, were **India**, USA and China.

The primary variety exported by Thailand and Vietnam were Jasmine rice, while exports from India included aromatic Basmati variety. China, an exporter of rice in early 2000. Major importers usually include Nigeria, Indonesia, Bangladesh, Saudi Arabia, Iran, Iraq, Malaysia, the Philippines, Brazil and some African and Persian Gulf countries. In common with other West African countries, Nigeria is actively promoting domestic production. However, its very heavy import duties (110%) open it to smuggling from neighbouring countries. Parboiled rice is particularly popular in Nigeria. Although China and India are the two largest producers of rice in the world, both countries consume the majority of the rice produced domestically, leaving little to be traded internationally.

These are broadly classified under **H.S. Code-1006**.

Table – 1

**India's Top 10 destination of Rice (H.S Code-1006)**

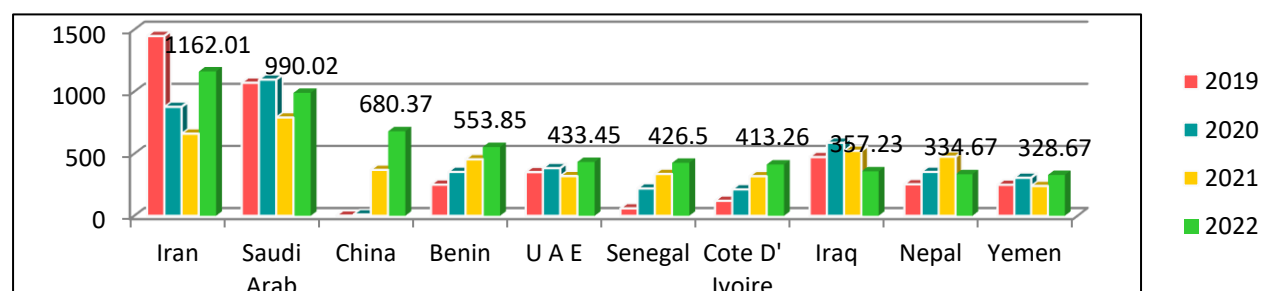
| Rank | Countries      | 2019              |            | 2020              |            | 2021              |            | 2022              |            |
|------|----------------|-------------------|------------|-------------------|------------|-------------------|------------|-------------------|------------|
|      |                | Value (million\$) | Share (%)  | Value (million\$) | Share (%)  | Value (million\$) | Share (%)  | Value (million\$) | Share (%)  |
| 1.   | Iran           | 1447.82           | 21.19      | 877.41            | 10.98      | 661.27            | 6.82       | 1162.01           | 10.78      |
| 2.   | Saudi Arab     | 1071.52           | 15.68      | 1096.59           | 13.73      | 791.36            | 8.16       | 990.02            | 9.18       |
| 3.   | China          | 1.00              | 0.01       | 10.63             | 0.13       | 369.54            | 3.81       | 680.37            | 6.31       |
| 4.   | Benin          | 250.31            | 3.66       | 353.05            | 4.42       | 454.80            | 4.69       | 553.85            | 5.14       |
| 5.   | U A E          | 351.67            | 5.15       | 383.63            | 4.80       | 319.76            | 3.30       | 433.45            | 4.02       |
| 6.   | Senegal        | 59.53             | 0.87       | 219.70            | 2.75       | 336.86            | 3.47       | 426.50            | 3.96       |
| 7.   | Cote D' Ivoire | 120.39            | 1.76       | 212.53            | 2.66       | 318.48            | 3.28       | 413.26            | 3.83       |
| 8.   | Iraq           | 472.65            | 6.92       | 587.97            | 7.36       | 523.60            | 5.40       | 357.23            | 3.31       |
| 9.   | Nepal          | 253.89            | 3.72       | 353.17            | 4.42       | 476.03            | 4.91       | 334.67            | 3.10       |
| 10.  | Yemen          | 249.50            | 3.65       | 306.20            | 3.83       | 240.23            | 2.48       | 328.67            | 3.05       |
|      | Others         | 2555.24           | 37.39      | 3588.59           | 44.92      | 5204.25           | 53.67      | 5099.77           | 47.31      |
|      | <b>Total</b>   | <b>6833.52</b>    | <b>100</b> | <b>7989.46</b>    | <b>100</b> | <b>9696.18</b>    | <b>100</b> | <b>10779.79</b>   | <b>100</b> |

Source: DGCI&S.

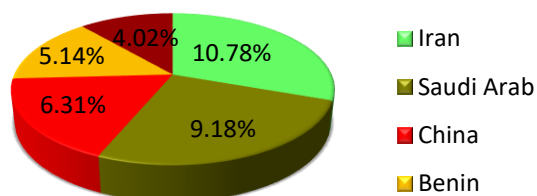
Note : India's Export including re-export

**Major destinations of Rice from India from 2019-2022( in Million USD)**

Data label given on the basis of 2022



India's top 5 destinations of Rice by percentage India in 2022:



**India is the largest rice exporter** with its market share of **55.08%** from world's output in 2022. It has generated the export value of US \$ 10.78 Billion in 2022 which was 11.17% high from the year 2021. India is exporting rice in more than 185 countries across the world. India primarily focuses Middle East and African countries for exporting its rice. Iran was the main market for rice exporters of India in 2022. A total value of US \$ 1.16 Billion has exported to Iran in 2022. Saudi Arab and China were next in the list rice importing countries of India. During the review period India has registered highest sales of US \$ 10.78 Billion during the year 2022. The other countries like Benin, UAE, Senegal were next in the list rice export from India.

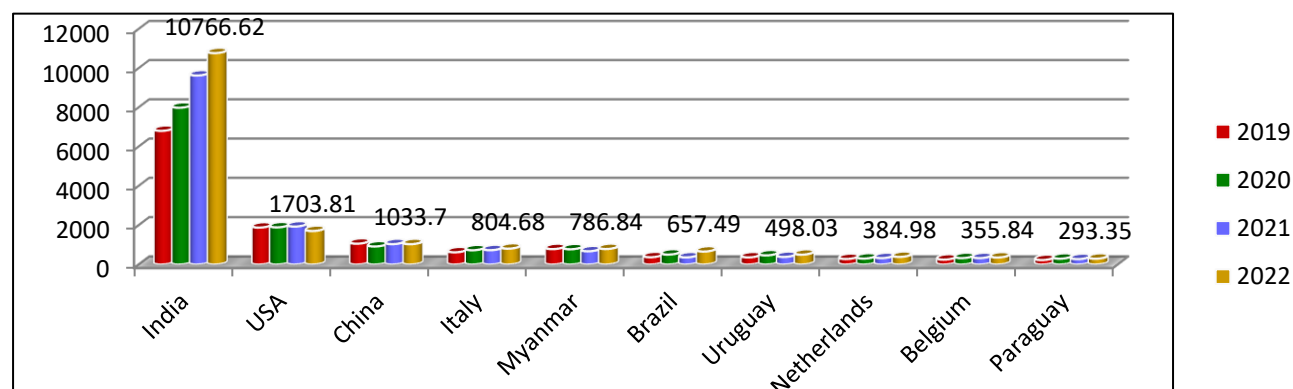
Table-2  
**World's Top 10 exporter of Rice (H.S Code-1006)**

| Rank | Countries    | 2019                  |              | 2020                 |              | 2021                 |              | 2022                 |              |
|------|--------------|-----------------------|--------------|----------------------|--------------|----------------------|--------------|----------------------|--------------|
|      |              | Value<br>(million \$) | Share<br>(%) | Value<br>(million\$) | Share<br>(%) | Value<br>(million\$) | Share<br>(%) | Value<br>(million\$) | Share<br>(%) |
| 1.   | <b>India</b> | <b>6800.67</b>        | <b>28.24</b> | <b>7980.03</b>       | <b>31.24</b> | <b>9623.56</b>       | <b>35.70</b> | <b>10766.62</b>      | <b>55.08</b> |
| 2.   | USA          | 1877.05               | 7.80         | 1888.78              | 7.39         | 1928.55              | 7.15         | 1703.81              | 8.72         |
| 3.   | China        | 1058.96               | 4.40         | 916.28               | 3.59         | 1035.66              | 3.84         | 1033.70              | 5.29         |
| 4.   | Italy        | 619.02                | 2.57         | 723.09               | 2.83         | 727.59               | 2.70         | 804.68               | 4.12         |
| 5.   | Myanmar      | 782.43                | 3.25         | 773.18               | 3.03         | 670.70               | 2.49         | 786.84               | 4.02         |
| 6.   | Brazil       | 368.45                | 1.53         | 503.58               | 1.97         | 359.09               | 1.33         | 657.49               | 3.36         |
| 7.   | Uruguay      | 361.28                | 1.50         | 462.55               | 1.81         | 382.53               | 1.42         | 498.03               | 2.55         |
| 8.   | Netherlands  | 279.13                | 1.16         | 301.38               | 1.18         | 324.13               | 1.20         | 384.98               | 1.97         |
| 9.   | Belgium      | 248.35                | 1.03         | 324.53               | 1.27         | 324.12               | 1.20         | 355.84               | 1.82         |
| 10.  | Paraguay     | 226.65                | 0.94         | 295.01               | 1.15         | 273.87               | 1.02         | 293.35               | 1.50         |
|      | Others       | 11456.82              | 47.58        | 11374.94             | 44.53        | 11309.35             | 41.95        | 2263.60              | 11.58        |
|      | <b>Total</b> | <b>24078.80</b>       | <b>100</b>   | <b>25543.33</b>      | <b>100</b>   | <b>26959.14</b>      | <b>100</b>   | <b>19548.94</b>      | <b>100</b>   |

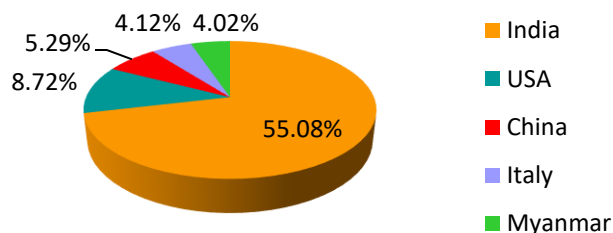
Source: UN Comtrade

Leading exporters of Rice of world from 2019 to 2022 (in million USD)

Data label given on the basis of 2022



Country wise leading exporter of Rice by percentage in 2022 :



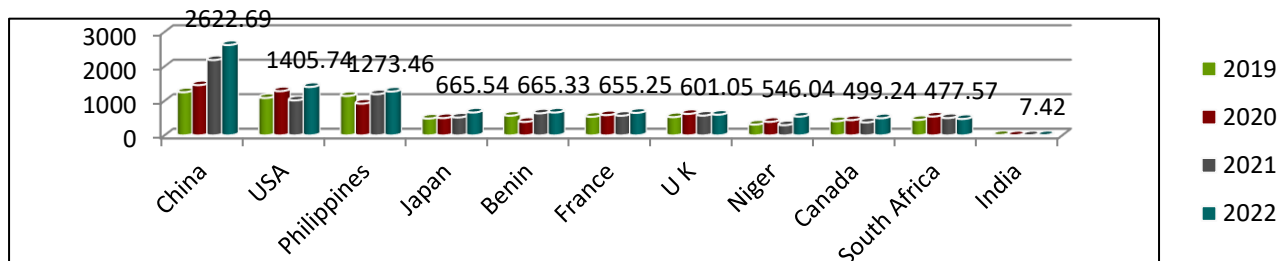
In 2022, the amount of Rice exported worldwide amounted to US \$ 19.55 Billion which has falling down by 27.49% from the year 2021. Over the period under review, global Rice exports reached its maximum level of US \$ 26.96 Billion in 2021. The value of US \$ 10.77 billion or 55.08% share of world export, **India** takes 1<sup>st</sup> position in the global exporters of Rice. USA (US \$ 1.70 B) and China (US \$ 1.03 B ) constitute the 2<sup>nd</sup> and 3<sup>rd</sup> largest exporter of Rice in 2022, with 8.72% and 5.29 %share respectively of global exports.

Table-3  
**World's top 10 Importers of Rice (H.S Code-1006)**

| Rank | Countries    | 2019              |             | 2020               |             | 2021               |             | 2022               |             |
|------|--------------|-------------------|-------------|--------------------|-------------|--------------------|-------------|--------------------|-------------|
|      |              | Value (million\$) | Share (%)   | Value ( million\$) | Share (%)   | Value ( million\$) | Share (%)   | Value ( million\$) | Share (%)   |
| 1.   | China        | 1253.45           | 6.20        | 1458.97            | 6.82        | 2187.46            | 10.21       | 2622.69            | 15.32       |
| 2.   | USA          | 1086.33           | 5.37        | 1284.21            | 6.00        | 1017.75            | 4.75        | 1405.74            | 8.21        |
| 3.   | Philippines  | 1144.67           | 5.66        | 921.84             | 4.31        | 1196.91            | 5.59        | 1273.46            | 7.44        |
| 4.   | Japan        | 489.67            | 2.42        | 503.44             | 2.35        | 520.16             | 2.43        | 665.54             | 3.89        |
| 5.   | Benin        | 572.46            | 2.83        | 393.06             | 1.84        | 640.44             | 2.99        | 665.33             | 3.89        |
| 6.   | France       | 540.86            | 2.68        | 589.24             | 2.75        | 570.85             | 2.66        | 655.25             | 3.83        |
| 7.   | U K          | 530.66            | 2.63        | 624.51             | 2.92        | 574.72             | 2.68        | 601.05             | 3.51        |
| 8.   | Niger        | 315.44            | 1.56        | 393.42             | 1.84        | 297.38             | 1.39        | 546.04             | 3.19        |
| 9.   | Canada       | 413.01            | 2.04        | 444.77             | 2.08        | 376.96             | 1.76        | 499.24             | 2.92        |
| 10.  | South Africa | 449.15            | 2.22        | 548.33             | 2.56        | 502.85             | 2.35        | 477.57             | 2.79        |
| 77.  | <b>India</b> | <b>11.24</b>      | <b>0.06</b> | <b>3.32</b>        | <b>0.02</b> | <b>3.24</b>        | <b>0.02</b> | <b>7.42</b>        | <b>0.04</b> |
|      | Others       | 13416.08          | 66.38       | 14235.75           | 66.53       | 13542.40           | 63.20       | 7703.17            | 45.01       |
|      | <b>Total</b> | 20211.77          | 100         | 21397.53           | 100         | 21427.88           | 100         | 17115.07           | 100         |

Source : UN Comtrade

Leading Rice importers of world from 2019 to 2022(in million USD)  
 Data label given on the basis of 2022



Country wise leading importers of Rice by percentage in 2022

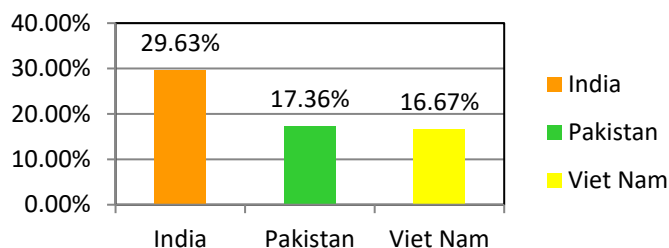


There are US \$ 17.11 billion worth of rice imports worldwide in 2022 which has decreased by 20.16% from previous year's import. China is the largest rice importer in 2022, by importing of rice worth US \$ 2.62 billion, which was accounted 15.32% of the total global import. USA imported US \$ 1.40 billion, and stood at 2<sup>nd</sup> position with the share of 8.21% of the total world import value. With the value of US \$ 1.27 billion Philippines took 2<sup>nd</sup> runner position. In the same year **India** took 77<sup>th</sup> position with share of 0.04% of global import. In the year 2021, global Rice imports reached its maximum value of US \$ 21.43 Billion.

## Annexure-1

**Major sources of world's top 3 importers of Rice (HS Code-1006)**

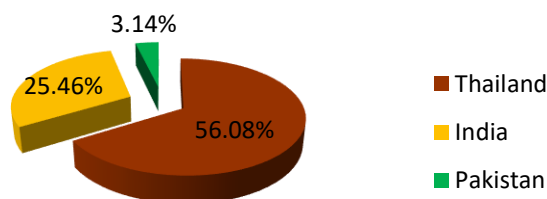
i) Top 3 Sources of Rice to China in 2022 by percentage:



China imports most of its requirements of Rice from India with nearly 29.63 % share of China's total import of Rice came from India in 2022. Pakistan (17.36%) & Viet Nam (16.67%) were the 2<sup>nd</sup> and 3<sup>rd</sup> major source of Rice to China in the same year.

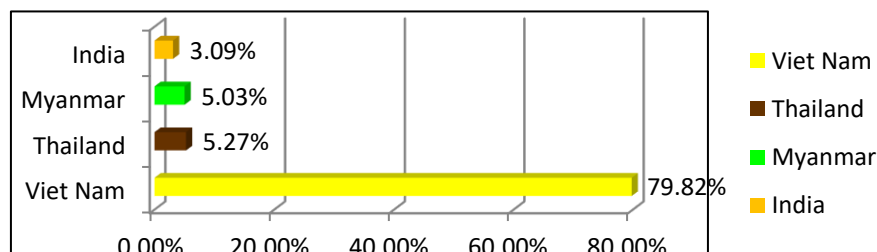
(Source: UN Comtrade)

ii) Top 3 Sources of Rice to USA in 2022 by percentage:



56.08 % of Rice imports of USA came from Thailand in 2022, and in the same year USA imports more than 25.46% share of its total requirement of Rice from **India** which was followed by Pakistan with 3.14% share of USA's total import of Rice in 2022. (Source: UN Comtrade)

iii) Top 3 Sources of Rice to Philippines in 2022 by percentage:



Viet Nam was the Primary source of Rice to Philippines in 2022, 79.82% of total Rice imported by Philippines from Viet Nam in 2022. Thailand and Myanmar were 2<sup>nd</sup> and 3<sup>rd</sup> largest sources of Rice to Philippines in that year with the share of 5.27% and 5.03% respectively. In the same year **India** exported 3.09% of Rice to Philippines. (Source : UN Comtrade)

## Tea

**Tea** is an aromatic beverage prepared by pouring hot or boiling water over cured or fresh leaves of *Camellia sinensis*, an evergreen shrub native to East Asia which probably originated in the borderlands of southwestern China and northern Myanmar.<sup>[3][4][5]</sup> Tea is also made, but rarely, from the leaves of *Camellia taliensis*. After plain water, tea is the most widely consumed drink in the world. There are many different types of tea; some have a cooling, slightly bitter, and astringent flavor, while others have profiles that include sweet, nutty, floral, or grassy notes. Tea has a stimulating effect in humans primarily due to its caffeine content. An early credible record of tea drinking dates to the third century AD, in a medical text written by Chinese physician Hua Tuo. It was popularised as a recreational drink during the Chinese Tang dynasty, and tea drinking subsequently spread to other East Asian countries. Portuguese priests and merchants introduced it to Europe during the 16th century. During the 17th century, drinking tea became fashionable among the English, who started to plant tea on a large scale in British India.

Chinese legends attribute the invention of tea to the mythical Shennong (in central and northern China) in 2737 BC, although evidence suggests that tea drinking may have been introduced from the southwest of China (Sichuan/Yunnan area). The earliest written records of tea come from China. The word appears in the *Shijing* and other ancient texts to signify a kind of "bitter vegetable, and it is possible that it referred to many different plants such as sow thistle, chicory, or smartweed. The term *herbal tea* refers to drinks not made from *Camellia sinensis*. They are the infusions of fruit, leaves, or other plant parts, such as steeps of rosehip, chamomile, or rooibos. These may be called *tisanes* or *herbal infusions* to prevent confusion with tea made from the tea plant.

Tea plants are native to East Asia and the probable center of origin of tea is near the source of the Irrawaddy River from where it spread out fan-wise into southeast China, Indo-China and Assam. Thus, the natural home of the tea plant is considered to be within the comparatively small fan-shaped area between Nagaland, Manipur and Mizoram along the Burma frontier in the west, through China as far as the Chekiang Province in the east, and from this line generally south through the hills to Burma and Thailand to Vietnam. The west–east axis indicated above is about 2,400 km long extending from longitude 95°–120°E. The north–south axis covers about 1,920 km, starting from the northern part of Burma, latitude 29°N passing through Yunnan, Tongkin, Thailand, Laos and on to Annam, reaching latitude 11°N.

Chinese (small-leaf) type tea (*C. sinensis* var. *sinensis*) may have originated in southern China possibly with hybridization of unknown wild tea relatives. However, since there are no known wild populations of this tea, its origin is speculative.

People in ancient East Asia ate tea for centuries, perhaps even millennia, before ever consuming it as a beverage. They would nibble on the leaves raw, add them to soups or greens, or ferment them and chew them as betel is chewed. Tea drinking may have begun in the region of Yunnan during the Shang dynasty, where it was used for medicinal purposes. It is also believed that in Sichuan, "people began to boil tea leaves for consumption into a concentrated liquid without the addition of other leaves or herbs, thereby using tea as a bitter yet stimulating drink, rather than as a medicinal concoction

Tea was first introduced to Western priests and merchants in China during the 16th century, at which time it was termed *chá*. The earliest European reference to tea, written as *chiai*, came from *Delle navigationi e viaggi* written by Venetian Giambattista Ramusio in 1545.<sup>[36]</sup>

The first recorded shipment of tea by a European nation was in 1607 when the Dutch East India Company moved a cargo of tea from Macao to Java, then two years later, the Dutch bought the first assignment of tea which was from Hirado in Japan to be shipped to Europe.<sup>[37]</sup> Tea became a fashionable drink in The Hague in the Netherlands, and the Dutch introduced the drink to Germany, France, and across the Atlantic to New Amsterdam (New York). Physically speaking, tea has properties of both a solution and a suspension. It is a solution of all the water-soluble compounds that have been extracted from the tea leaves, such as the polyphenols and amino acids, but is a suspension when all of the insoluble components are considered, such as the cellulose in the tea leaves. Tea infusions are among most consumed beverages



globally. Although health benefits have been assumed throughout the history of *Camellia sinensis*'s consumption, there is no high-quality evidence showing that tea consumption gives significant benefits other than possibly increasing alertness, an effect caused by caffeine in the tea leaves. In clinical research conducted in the early 21st century, it was found there is no scientific evidence to indicate that consuming tea affects any disease or improves health. Black and green teas contain no essential nutrients in significant amounts, with the exception of the dietary mineral manganese, at 0.5 mg per cup or 26% of the Reference Daily Intake (RDI). Fluoride is sometimes present in tea; certain types of "brick tea", made from old leaves and stems, have the highest levels, enough to pose a health risk if much tea is drunk, which has been attributed to high levels of fluoride in soils, acidic soils, and long brewing.

Tea is mainly grown in Asia and Africa, though it is also grown in South America and around the Black and Caspian Seas. The four biggest tea-producing countries are China, India, Kenya and Sri Lanka, together representing 75% of world tea production. Smaller hubs of production include such places as São Miguel Island, Azores, in Portugal, and Guria, in Georgia. In 2020, global production of tea was 7.0 million tonnes, led by China with 42% and India with 20% of the world total. Kenya, Argentina, and Sri Lanka were secondary producers

These are broadly classified under **H.S. Code-0902**.

Table – 4

**India's Top 10 destination of Tea (H.S Code-0902)**

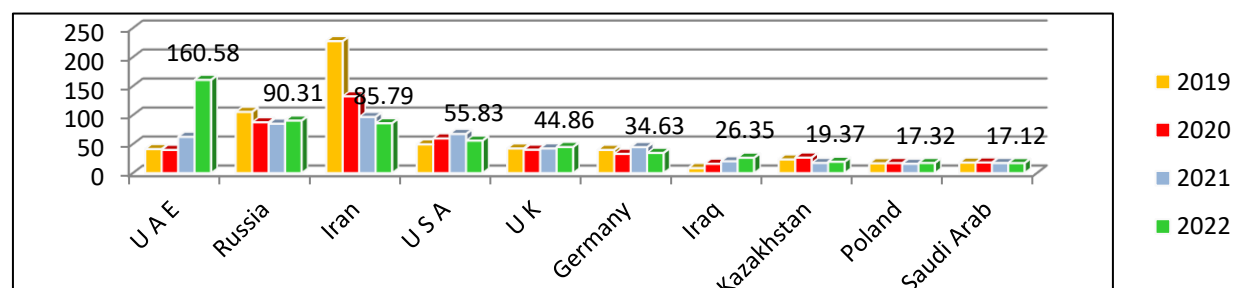
| Rank | Countries    | 2019              |           | 2020              |           | 2021              |           | 2022              |           |
|------|--------------|-------------------|-----------|-------------------|-----------|-------------------|-----------|-------------------|-----------|
|      |              | Value (million\$) | Share (%) | Value (million\$) | Share (%) | Value (million\$) | Share (%) | Value (million\$) | Share (%) |
| 1.   | U A E        | 41.25             | 5.07      | 39.88             | 5.77      | 62.33             | 9.06      | 160.58            | 21.48     |
| 2.   | Russia       | 105.40            | 12.95     | 87.47             | 12.65     | 84.99             | 12.35     | 90.31             | 12.08     |
| 3.   | Iran         | 227.34            | 27.94     | 132.23            | 19.12     | 96.60             | 14.04     | 85.79             | 11.48     |
| 4.   | U S A        | 49.40             | 6.07      | 59.65             | 8.62      | 67.36             | 9.79      | 55.83             | 7.47      |
| 5.   | U K          | 42.32             | 5.20      | 40.14             | 5.80      | 42.35             | 6.16      | 44.86             | 6.00      |
| 6.   | Germany      | 39.88             | 4.90      | 33.00             | 4.77      | 44.62             | 6.49      | 34.63             | 4.63      |
| 7.   | Iraq         | 8.50              | 1.04      | 15.90             | 2.30      | 20.22             | 2.94      | 26.35             | 3.53      |
| 8.   | Kazakhstan   | 23.30             | 2.86      | 26.52             | 3.83      | 17.34             | 2.52      | 19.37             | 2.59      |
| 9.   | Poland       | 16.81             | 2.07      | 17.17             | 2.48      | 15.82             | 2.30      | 17.32             | 2.32      |
| 10.  | Saudi Arab   | 17.90             | 2.20      | 18.15             | 2.62      | 17.24             | 2.51      | 17.12             | 2.29      |
|      | Others       | 241.55            | 29.69     | 221.52            | 32.03     | 219.06            | 31.84     | 195.28            | 26.13     |
|      | <b>Total</b> | 813.64            | 100       | 691.62            | 100       | 687.94            | 100       | 747.45            | 100       |

Source: DGCI&amp;S

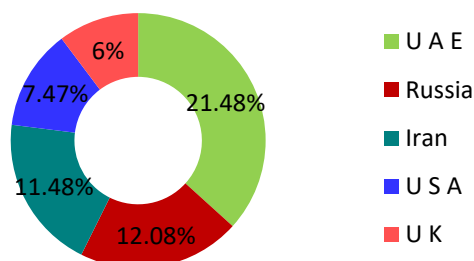
Note : India's Export including re-export

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

Data label given on the basis of 2022



India's top 5 destinations of Tea by percentage in 2022:



In 2022, India's export of Tea amounted to US \$ 747.45 Million, going up by almost 8.65% against the previous year figure. UAE was the largest tea export partner of India and shipped US \$ 160.58 million which represented 21.48% of total export during 2022. Russia was India's second largest export partner. India tea exports to Russia worth US \$ 90.31 million and represented 12.08 % of India's total tea exports. Iran and USA were another two biggest markets importing tea varieties from India and recorded US \$ 85.79 million and US \$ 55.83 million in the year 2022 respectively,

Table - 5

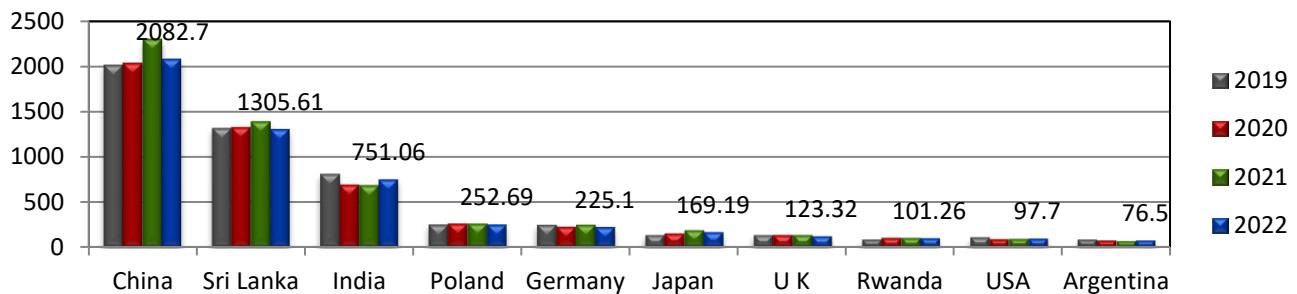
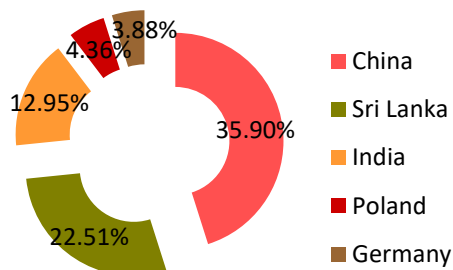
**World's Top 10 exporter of Tea (H.S Code-0902)**

| Rank      | Countries    | 2019                  |              | 2020                 |              | 2021                 |              | 2022                 |              |
|-----------|--------------|-----------------------|--------------|----------------------|--------------|----------------------|--------------|----------------------|--------------|
|           |              | Value<br>(million \$) | Share<br>(%) | Value<br>(million\$) | Share<br>(%) | Value<br>(million\$) | Share<br>(%) | Value<br>(million\$) | Share<br>(%) |
| 1.        | China        | 2019.61               | 24.78        | 2038.06              | 25.23        | 2299.19              | 27.25        | 2082.70              | 35.90        |
| 2.        | Sri Lanka    | 1322.58               | 16.23        | 1329.51              | 16.46        | 1391.65              | 16.49        | 1305.61              | 22.51        |
| <b>3.</b> | <b>India</b> | <b>813.75</b>         | <b>9.98</b>  | <b>692.07</b>        | <b>8.57</b>  | <b>687.89</b>        | <b>8.15</b>  | <b>751.06</b>        | <b>12.95</b> |
| 4.        | Poland       | 255.21                | 3.13         | 264.51               | 3.27         | 262.81               | 3.11         | 252.69               | 4.36         |
| 5.        | Germany      | 251.05                | 3.08         | 228.27               | 2.83         | 250.24               | 2.97         | 225.10               | 3.88         |
| 6.        | Japan        | 137.11                | 1.68         | 154.40               | 1.91         | 189.79               | 2.25         | 169.19               | 2.92         |
| 7.        | U K          | 138.29                | 1.70         | 136.35               | 1.69         | 135.73               | 1.61         | 123.32               | 2.13         |
| 8.        | Rwanda       | 86.67                 | 1.06         | 104.55               | 1.29         | 104.17               | 1.23         | 101.26               | 1.75         |
| 9.        | USA          | 111.69                | 1.37         | 88.72                | 1.10         | 93.44                | 1.11         | 97.70                | 1.68         |
| 10.       | Argentina    | 87.69                 | 1.08         | 75.36                | 0.93         | 68.79                | 0.82         | 76.50                | 1.32         |
|           | Others       | 2926.23               | 35.91        | 2967.51              | 36.73        | 2954.70              | 35.01        | 615.86               | 10.62        |
|           | <b>Total</b> | <b>8149.87</b>        | <b>100</b>   | <b>8079.32</b>       | <b>100</b>   | <b>8438.39</b>       | <b>100</b>   | <b>5800.98</b>       | <b>100</b>   |

Source: UN Comtrade

**Top world exporters of Tea from 2019 to 2022 (Values in million USD)**

Data label given on the basis of 2022

**Export trends in world's leading Tea exporters by percentage in 2022:**

The global tea export is estimated to be at around US \$ 58 billion, as of 2022. In that year the total export value decreased at an rate of - 31.26% from 2021. The trend pattern indicated increasing trends up to the year 2021. In 2022, China exported approximately US \$2.08 billion worth of tea accounted for 35.90% of global export value, making it the leading exporter of tea worldwide. Sri Lanka followed at 22.51% share. **India**, in contrast, exported a comparable US \$ 751.06 million of tea in 2022 which was accounted 12.95% of world export of tea and making it the 3<sup>rd</sup> largest exporter of tea in world.

Table - 6

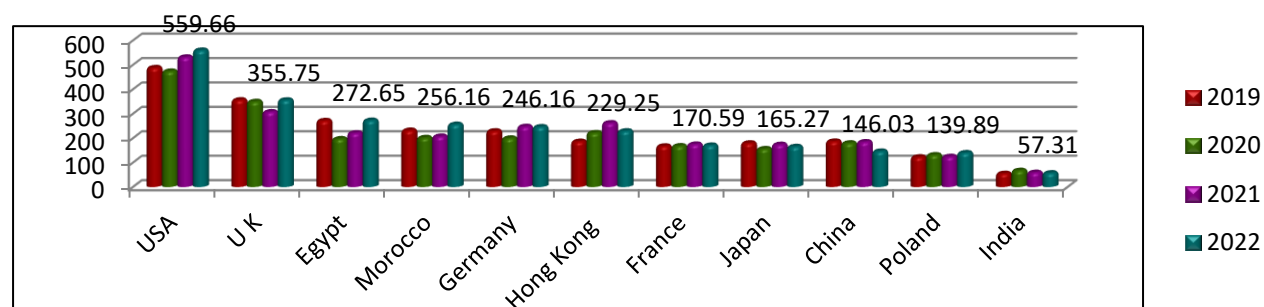
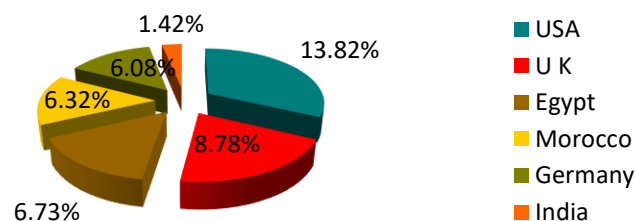
**World's top 10 Importers of Tea (H.S Code-0902)**

| Rank | Countries        | 2019                  |              | 2020                 |              | 2021                 |              | 2022                 |              |
|------|------------------|-----------------------|--------------|----------------------|--------------|----------------------|--------------|----------------------|--------------|
|      |                  | Value<br>(million \$) | Share<br>(%) | Value<br>(million\$) | Share<br>(%) | Value<br>(million\$) | Share<br>(%) | Value<br>(million\$) | Share<br>(%) |
| 1.   | USA              | 488.41                | 7.82         | 473.83               | 8.02         | 531.76               | 8.77         | 559.66               | 13.82        |
| 2.   | U K              | 356.10                | 5.70         | 349.76               | 5.92         | 307.44               | 5.07         | 355.75               | 8.78         |
| 3.   | Egypt            | 271.56                | 4.35         | 197.22               | 3.34         | 221.13               | 3.65         | 272.65               | 6.73         |
| 4.   | Morocco          | 231.92                | 3.71         | 202.06               | 3.42         | 207.48               | 3.42         | 256.16               | 6.32         |
| 5.   | Germany          | 229.11                | 3.67         | 199.88               | 3.38         | 247.47               | 4.08         | 246.16               | 6.08         |
| 6.   | Hong Kong        | 186.43                | 2.98         | 221.82               | 3.75         | 262.20               | 4.32         | 229.25               | 5.66         |
| 7.   | France           | 167.38                | 2.68         | 168.18               | 2.85         | 174.83               | 2.88         | 170.59               | 4.21         |
| 8.   | Japan            | 179.78                | 2.88         | 156.43               | 2.65         | 173.98               | 2.87         | 165.27               | 4.08         |
| 9.   | China            | 187.22                | 3.00         | 179.92               | 3.05         | 184.66               | 3.05         | 146.03               | 3.61         |
| 10.  | Poland           | 122.81                | 1.97         | 131.27               | 2.22         | 124.56               | 2.05         | 139.89               | 3.45         |
|      | <b>17. India</b> | <b>55.11</b>          | <b>0.88</b>  | <b>67.45</b>         | <b>1.14</b>  | <b>59.41</b>         | <b>0.98</b>  | <b>57.31</b>         | <b>1.42</b>  |
|      | Others           | 3826.68               | 61.25        | 3626.97              | 61.40        | 3627.30              | 59.83        | 1508.63              | 37.25        |
|      | <b>Total</b>     | <b>6247.41</b>        | <b>100</b>   | <b>5907.33</b>       | <b>100</b>   | <b>6062.79</b>       | <b>100</b>   | <b>4050.03</b>       | <b>100</b>   |

Source :UNComtrade

**Top world importers of Tea from 2019 to 2022 (Values in million USD)**

Data label given on the basis of 2022

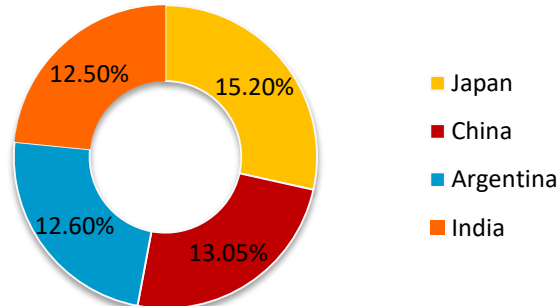
**Country wise leading global Importer of Tea by percentage in 2022**

USA imported around US \$ 559.66 million worth of Tea in 2022, making it the leading importer of Tea worldwide that year. UK followed in the second place, importing around US \$ 355.75 Million worth of Tea from the world. It was followed by Egypt, imported around US \$ 272.65 Million of Nucleic Tea in the same year. **India's** share was 1.42% share of world import and making it the 17<sup>th</sup> largest importer world wide in that year. Over the period under review Morocco, Germany and Hong Kong were the other renowned importer of Tea

## Annexure-II

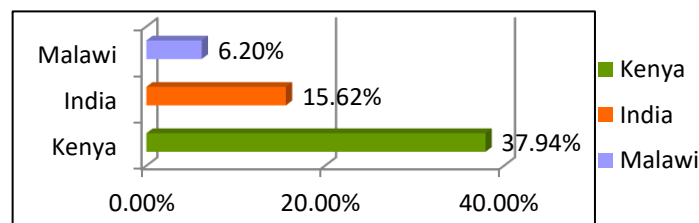
**Sources of world's top three importers of Tea (H.S Code-0902)**

i) Top 3 Sources of Tea to USA in 2022 by percentage:



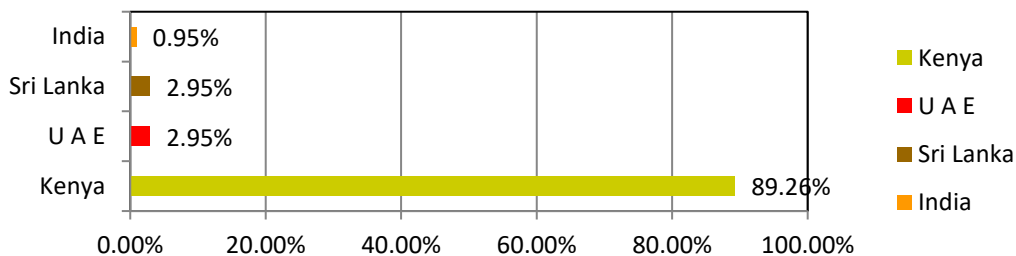
At 15.20% share, Japan had the highest value of imports of all countries in 2022 to USA. This was followed by China with 13.05% share and Argentina with 12.60% share of USA's total import of Tea in 2022. In the same year **India** also feature on the top Four, with the 12.50% share of USA's total import on its various teas. (Source: UN Comtrade)

ii) Top 3 Sources of Tea to UK in 2022 by percentage:



Kenya was the Primary source of Tea to UK, imports 37.94% share from Kenya, 15.62% from India and 6.20% share from Malawi in 2022.. (Source: UN Comtrade)

iii) Top 3 Sources of Tea to Egypt in 2022 by percentage:



Kenya was the largest source country of Tea to Egypt in 2022, Egypt imports, 89.26% share of its total requirement of Tea from Kenya in that year. Egypt imported 2.95% share from UAE and 2.94% share of Tea from Sri Lanka. **India** exported 0.95% share of Egypt's total import of Tea in that year. (Source : UN Comtrade)

## IMPORT

### Polymer of Ethylene in Primary forms

**Polyethylene** or **polythene** (abbreviated **PE**; IUPAC name **polyethene**) is the most commonly produced plastic. Many kinds of polyethylene are known, with most having the chemical formula  $(C_2H_4)_n$ . PE is usually a mixture of similar polymers of ethylene, with various values of  $n$ . It can be *low-density* or *high-density*: low-density polyethylene is extruded using high pressure (1,000–5,000 atm (100–510 MPa)) and high temperature (520 K (247 °C; 476 °F)), while high-density polyethylene is extruded using low pressure (6–7 atm (610–710 kPa)) and low temperature (333–343 K (60–70 °C; 140–158 °F)). Polyethylene is usually thermoplastic, but it can be modified to become thermosetting instead, for example, in cross-linked polyethylene. While monomers with an -ene suffix have a double bonded carbon pair, that double bond is lost in the polymerization of polyethylene; the -ethylene is retained in the name only to reflect the monomer form from which it is polymerized.

Polyethylene was first synthesized by the German chemist Hans von Pechmann, who prepared it by accident in 1898 while investigating diazomethane. When his colleagues Eugen Bamberger and Friedrich Tschirner characterized the white, waxy substance that he had created, they recognized that it contained long  $-CH_2-$  chains and termed it *polymethylene*.

The first industrially practical polyethylene synthesis (diazomethane is a notoriously unstable substance that is generally avoided in industrial application) was again accidentally discovered in 1933 by Eric Fawcett and Reginald Gibson at the Imperial Chemical Industries (ICI) works in Northwich, England.

The properties of polyethylene can be divided into mechanical, chemical, electrical, optical, and thermal properties. Polyethylene is of low strength, hardness and rigidity, but has a high ductility and impact strength as well as low friction. It shows strong creep under persistent force, which can be reduced by addition of short fibers. It feels waxy when touched. The commercial applicability of polyethylene is limited by its low melting point compared to other thermoplastics. For common commercial grades of medium- and high-density polyethylene the melting point is typically in the range 120 to 130 °C (248 to 266 °F). The melting point for average commercial low-density polyethylene is typically 105 to 115 °C (221 to 239 °F).

Polyethylene consists of nonpolar, saturated, high-molecular-weight hydrocarbons. Therefore, its chemical behavior is similar to paraffin. The individual macromolecules are not covalently linked. Because of their symmetric molecular structure, they tend to crystallize; overall polyethylene is partially crystalline. Higher crystallinity increases density and mechanical and chemical stability.

Polyethylene is a good electrical insulator. It offers good electrical treeing resistance; however, it becomes easily electrostatically charged (which can be reduced by additions of graphite, carbon black or antistatic agents). When pure, the dielectric constant is in the range 2.2 to 2.4 depending on the density<sup>[19]</sup> and the loss tangent is very low, making it a good dielectric for a capacitor.

The ingredient or monomer is ethylene (IUPAC name ethene), a gaseous hydrocarbon with the formula  $C_2H_4$ , which can be viewed as a pair of methylene groups ( $-C_2-$ ) connected to each other. Typical specifications for PE purity are <5 ppm for water, oxygen, and other alkenes contents. Acceptable contaminants include  $N_2$ , ethane (common precursor to ethylene), and methane. Ethylene is usually produced from petrochemical sources, but also is generated by dehydration of ethanol. Ethylene is a stable molecule that polymerizes only upon contact with catalysts. The conversion is highly exothermic. Coordination polymerization is the most pervasive technology, which means that metal chlorides or metal oxides are used. The most common catalysts consist of titanium(III) chloride, the so-called Ziegler–Natta catalysts. Another common catalyst is the Phillips catalyst, prepared by depositing chromium(VI) oxide on silica.

These are broadly classified under **H. S. Code 3910**.

Table - 7

**India's Top 10 Sources of Polymer of Ethylene in Primary forms (HS Code :3901)**

| Rank | Countries    | 2019                   |              | 2020                  |              | 2021                  |              | 2022                  |              |
|------|--------------|------------------------|--------------|-----------------------|--------------|-----------------------|--------------|-----------------------|--------------|
|      |              | Value<br>( million \$) | Share<br>(%) | Value<br>( million\$) | Share<br>(%) | Value<br>( million\$) | Share<br>(%) | Value<br>( million\$) | Share<br>(%) |
| 1.   | U A E        | 425.22                 | 19.06        | 402.90                | 20.05        | 763.59                | 24.70        | 965.25                | 23.12        |
| 2.   | Saudi Arab   | 252.72                 | 11.33        | 208.75                | 10.39        | 356.33                | 11.52        | 563.48                | 13.50        |
| 3.   | Korea RP     | 229.67                 | 10.29        | 198.34                | 9.87         | 286.68                | 9.27         | 401.63                | 9.62         |
| 4.   | Singapore    | 399.74                 | 17.92        | 259.44                | 12.91        | 351.28                | 11.36        | 386.62                | 9.26         |
| 5.   | U S A        | 202.11                 | 9.06         | 249.55                | 12.42        | 232.44                | 7.52         | 373.55                | 8.95         |
| 6.   | Qatar        | 215.74                 | 9.67         | 147.37                | 7.33         | 229.41                | 7.42         | 306.28                | 7.34         |
| 7.   | Oman         | 2.16                   | 0.10         | 2.67                  | 0.13         | 55.71                 | 1.80         | 231.18                | 5.54         |
| 8.   | Thailand     | 95.17                  | 4.27         | 75.86                 | 3.78         | 137.59                | 4.45         | 153.29                | 3.67         |
| 9.   | Malaysia     | 51.07                  | 2.29         | 105.32                | 5.24         | 147.49                | 4.77         | 147.65                | 3.54         |
| 10.  | Belgium      | 73.91                  | 3.31         | 75.07                 | 3.74         | 114.83                | 3.71         | 110.51                | 2.65         |
|      | Others       | 283.78                 | 12.72        | 284.17                | 14.14        | 416.67                | 13.48        | 535.37                | 12.82        |
|      | <b>Total</b> | 2231.30                | 100          | 2009.46               | 100          | 3092.01               | 100          | 4174.81               | 100          |

Source: DGCI&amp;S

Note : India's Import including re-import

Imports of Polymer of Ethylene in Primary forms in India increased to US \$ 4.17 Billion in 2022 from US \$ 3.09 Billion in 2021. Over the period under review, global Polymer of Ethylene in Primary forms imports attained its maximum worth value of US \$ 4.17 Billion in this year. In 2022 **India** imported the highest dollar worth of Polymer of Ethylene in Primary forms from UAE with valued at US \$ 965.25 Million. In Second and Third source countries were Saudi Arab and Korea RP , from where India imported around US \$ 563.48 Million and US \$ 401.63 Million worth of Polymer of Ethylene in Primary forms respectively. In the same year. The top 10 countries shared 87.18 % of the Polymer of Ethylene in Primary forms import to India.

Table - 8

**World Top 10 Importer of Polymer of Ethylene in Primary forms (HS Code :3901)**

| Rank | Countries    | 2019                  |              | 2020                 |              | 2021                 |              | 2022                 |              |
|------|--------------|-----------------------|--------------|----------------------|--------------|----------------------|--------------|----------------------|--------------|
|      |              | Value<br>(million \$) | Share<br>(%) | Value<br>(million\$) | Share<br>(%) | Value<br>(million\$) | Share<br>(%) | Value<br>(million\$) | Share<br>(%) |
| 1.   | China        | 20690.90              | 26.22        | 20155.39             | 28.34        | 22653.72             | 22.70        | 23192.00             | 27.22        |
| 2.   | USA          | 4172.46               | 5.29         | 3670.22              | 5.16         | 6143.83              | 6.16         | 5290.27              | 6.21         |
| 3.   | Germany      | 3758.43               | 4.76         | 3281.17              | 4.61         | 5050.81              | 5.06         | 5048.97              | 5.93         |
| 4.   | <b>India</b> | <b>2230.39</b>        | <b>2.83</b>  | <b>2013.21</b>       | <b>2.83</b>  | <b>3094.86</b>       | <b>3.10</b>  | <b>4193.07</b>       | <b>4.92</b>  |
| 5.   | Italy        | 2570.71               | 3.26         | 2150.25              | 3.02         | 3721.61              | 3.73         | 3924.39              | 4.61         |
| 6.   | Türkiye      | 1867.61               | 2.37         | 1973.10              | 2.77         | 3270.50              | 3.28         | 3587.09              | 4.21         |
| 7.   | Mexico       | 1795.19               | 2.27         | 1658.10              | 2.33         | 3250.51              | 3.26         | 3253.93              | 3.82         |
| 8.   | France       | 1826.67               | 2.31         | 1543.18              | 2.17         | 2450.18              | 2.46         | 2537.92              | 2.98         |
| 9.   | Poland       | 1250.26               | 1.58         | 1465.68              | 2.06         | 2526.38              | 2.53         | 2500.90              | 2.94         |
| 10.  | Spain        | 1537.19               | 1.95         | 1302.74              | 1.83         | 2108.37              | 2.11         | 2289.83              | 2.69         |
|      | Others       | 37215.57              | 47.16        | 31917.73             | 44.87        | 45509.19             | 45.61        | 29379.78             | 34.48        |
|      | <b>Total</b> | 78915.38              | 100          | 71130.76             | 100          | 99779.96             | 100          | 85198.15             | 100          |

Source :UNComtrade

In 2022 Global import of Polymer of Ethylene in Primary forms totaled were US \$ 85.20 Billion, which was decreased by 14.62% from the year of 2021. Global import of Polymer of Ethylene in Primary forms peaked of US \$ 99.78 Billion in 2021. In value terms, China constitutes the largest market for imported Polymer of Ethylene in Primary forms worldwide with worth value of US \$ 23.19 Billion, making up 27.22% of global imports. The second position in the ranking was occupied by USA (US \$ 5.29 B), with the share of 6.21% of global imports. It was followed by the Germany with the share of 5.93%. In the same year **India** constitutes the 4<sup>th</sup> position in ranking with 4.92% share of world import.



## Sulphonamides

**Sulfonamide** is a functional group (a part of a molecule) that is the basis of several groups of drugs, which are called **sulphonamides**, **sulfa drugs** or **sulpha drugs**. The original antibacterial sulfonamides are synthetic (nonantibiotic) antimicrobial agents that contain the sulfonamide group. Some sulfonamides are also devoid of antibacterial activity, e.g., the anticonvulsant sultiame. The sulfonamide diuretics and thiazide diuretics are newer drug groups based upon the antibacterial sulfonamides.

Allergies to sulfonamides are common. The overall incidence of adverse drug reactions to sulfa antibiotics is approximately 3%, close to penicillin; hence medications containing sulfonamides are prescribed carefully. Sulfonamide drugs were the first broadly effective antibacterials to be used systemically, and paved the way for the antibiotic revolution in medicine. In bacteria, antibacterial sulfonamides act as competitive inhibitors of the enzyme dihydropteroate synthase (DHPS), an enzyme involved in folate synthesis. Sulfonamides are therefore bacteriostatic and inhibit growth and multiplication of bacteria, but do not kill them. Humans, in contrast to bacteria, acquire folate (vitamin B<sub>9</sub>) through the diet.

Structural similarity between sulfanilamide (left) and PABA (center) is the basis for the inhibitory activity of sulfa drugs on tetrahydrofolate (right) biosynthesis. Sulfonamides are used to treat allergies and coughs, as well as having antifungal and antimalarial functions. The moiety is also present in other medications that are not antimicrobials, including thiazide diuretics (including hydrochlorothiazide, metolazone, and indapamide, among others), loop diuretics (including furosemide, bumetanide, and torsemide), acetazolamide, sulfonamide diuretics (including glipizide, glyburide, among others), and some COX-2 inhibitors (e.g., celecoxib). Sulfasalazine, in addition to its use as an antibiotic, is also used in the treatment of inflammatory bowel disease.

Sulfonamide drugs were the first broadly effective antibacterials to be used systemically, and paved the way for the antibiotic revolution in medicine. The first sulfonamide, trade-named Prontosil, was a prodrug. Experiments with Prontosil began in 1932 in the laboratories of Bayer AG, at that time a component of the huge German chemical trust IG Farben. The Bayer team believed that coal-tar dyes which are able to bind preferentially to bacteria and parasites might be used to attack harmful organisms in the body.

Sulfonamides are prepared by the reaction of a sulfonyl chloride with ammonia or an amine. Certain sulfonamides (sulfadiazine or sulfamethoxazole) are sometimes mixed with the drug trimethoprim, which acts against dihydrofolate reductase. As of 2013, the Republic of Ireland is the largest exporter worldwide of sulfonamides, accounting for approximately 32% of total exports.

Sulfonamides have the potential to cause a variety of adverse effects, including urinary tract disorders, haemopoietic disorders, porphyria and hypersensitivity reactions. When used in large doses, they may cause a strong allergic reaction. The most serious of these are classified as severe cutaneous adverse reactions (i.e. SCARs) and include the Stevens–Johnson syndrome, toxic epidermal necrolysis (also known as Lyell syndrome), the DRESS syndrome, and a not quite as serious SCARs reaction, acute generalized exanthematous pustulosis. Any one of these SCARs may be triggered by certain sulfonamides.

Approximately 3% of the general population have adverse reactions when treated with sulfonamide antimicrobials. Of note is the observation that patients with HIV have a much higher prevalence, at about 60%.

These are broadly classified under **H. S. Code -2935**.

Table - 9

**India's Top 10 Source Countries of Sulphonamides (HS Code : 2935)**

| Rank | Countries    | 2019                   |              | 2020                  |              | 2021                  |              | 2022                  |              |
|------|--------------|------------------------|--------------|-----------------------|--------------|-----------------------|--------------|-----------------------|--------------|
|      |              | Value<br>( million \$) | Share<br>(%) | Value<br>( million\$) | Share<br>(%) | Value<br>( million\$) | Share<br>(%) | Value<br>( million\$) | Share<br>(%) |
| 1.   | China        | 27.52                  | 56.63        | 37.14                 | 59.94        | 45.00                 | 60.51        | 46.56                 | 67.13        |
| 2.   | Italy        | 8.51                   | 17.52        | 12.96                 | 20.92        | 9.72                  | 13.07        | 10.32                 | 14.88        |
| 3.   | France       | 2.63                   | 5.41         | 3.02                  | 4.88         | 2.90                  | 3.90         | 3.52                  | 5.08         |
| 4.   | Germany      | 3.61                   | 7.44         | 2.05                  | 3.32         | 2.12                  | 2.85         | 2.00                  | 2.88         |
| 5.   | Japan        | 0.45                   | 0.93         | 0.08                  | 0.13         | 0.31                  | 0.42         | 1.29                  | 1.86         |
| 6.   | Korea RP     | 0.57                   | 1.18         | 1.72                  | 2.78         | 1.21                  | 1.63         | 1.08                  | 1.55         |
| 7.   | Belgium      | 0.29                   | 0.60         | 0.34                  | 0.55         | 0.56                  | 0.76         | 0.73                  | 1.06         |
| 8.   | Ireland      | 0.02                   | 0.04         | 0.00                  | 0.01         | 0.08                  | 0.11         | 0.52                  | 0.74         |
| 9.   | Spain        | 0.14                   | 0.29         | 0.31                  | 0.50         | 0.60                  | 0.80         | 0.47                  | 0.67         |
| 10.  | Netherland   | 0.39                   | 0.81         | 0.07                  | 0.11         | 1.48                  | 1.99         | 0.45                  | 0.65         |
|      | Others       | 4.45                   | 9.16         | 4.26                  | 6.87         | 10.36                 | 13.94        | 2.43                  | 3.50         |
|      | <b>Total</b> | 48.59                  | 100          | 61.95                 | 100          | 74.36                 | 100          | 69.36                 | 100          |

Source: DGCI&S

Note : India's Import including Re-import

There are so many countries India imports Sulphonamides from. The dollar value of Sulphonamides import in 2022 stood at US \$ 69.36 Million and US \$ 74.36 Million in 2021. Which shows a negative growth of almost - 6.73% from 2021. In 2022 India imported the highest dollar worth of Sulphonamides from China with valued at US \$ 46.56 Million. In Second and Third major sources were Italy and France, from where India imported around US \$ 10.32 Million and US \$ 3.52 Million worth of Sulphonamides in 2022 respectively. In the same year The top 10 countries shared 96.50% of the import to India.

Table - 10

**World Top 10 Importer of Sulphonamides (HS Code : 2935)**

| Rank       | Countries    | 2019                 |              | 2020                 |              | 2021                 |              | 2022                 |              |
|------------|--------------|----------------------|--------------|----------------------|--------------|----------------------|--------------|----------------------|--------------|
|            |              | Value<br>(million\$) | Share<br>(%) | Value<br>(million\$) | Share<br>(%) | Value<br>(million\$) | Share<br>(%) | Value<br>(million\$) | Share<br>(%) |
| 1.         | USA          | 4246.43              | 38.42        | 3713.69              | 36.05        | 3034.64              | 28.54        | 2572.74              | 28.24        |
| 2.         | Spain        | 1055.20              | 9.55         | 968.68               | 9.40         | 1569.26              | 14.76        | 1285.01              | 14.11        |
| 3.         | Belgium      | 811.62               | 7.34         | 672.81               | 6.53         | 799.68               | 7.52         | 1037.75              | 11.39        |
| 4.         | France       | 702.57               | 6.36         | 508.26               | 4.93         | 628.93               | 5.91         | 721.87               | 7.92         |
| 5.         | Italy        | 238.52               | 2.16         | 245.50               | 2.38         | 504.86               | 4.75         | 472.02               | 5.18         |
| 6.         | Slovenia     | 46.72                | 0.42         | 282.62               | 2.74         | 267.33               | 2.51         | 449.45               | 4.93         |
| 7.         | Germany      | 521.89               | 4.72         | 491.25               | 4.77         | 354.55               | 3.33         | 392.66               | 4.31         |
| 8.         | Japan        | 547.64               | 4.95         | 483.30               | 4.69         | 238.78               | 2.25         | 356.76               | 3.92         |
| 9.         | China        | 402.83               | 3.64         | 367.36               | 3.57         | 461.82               | 4.34         | 353.06               | 3.88         |
| 10.        | Brazil       | 209.04               | 1.89         | 232.85               | 2.26         | 229.05               | 2.15         | 228.85               | 2.51         |
| <b>16.</b> | <b>India</b> | <b>48.60</b>         | <b>0.44</b>  | <b>62.20</b>         | <b>0.60</b>  | <b>74.43</b>         | <b>0.70</b>  | <b>69.38</b>         | <b>0.76</b>  |
|            | Others       | 2271.47              | 20.55        | 2335.49              | 22.67        | 2544.95              | 23.93        | 1239.40              | 13.61        |
|            | <b>Total</b> | 11053.93             | 100          | 10301.81             | 100          | 10633.86             | 100          | 9109.58              | 100          |

Source :UNComtrade

Global Sulphonamides imports amounted to US \$ 9.11 Billion in 2022, approximately decreasing by 14.34% from the previous year level. Over the period under review, global Sulphonamides imports attained its maximum worth value of US \$ 10.63 Billion in 2021. USA imports a significant amount of Sulphonamides. In 2022, USA imported a staggering US \$ 2.57 billion of Sulphonamides, making it the world's top import market. The Spain was the second-largest import market for Sulphonamides, with an import value of US \$ 1.28 billion in that year. Belgium also imports a significant amount of Sulphonamides. In 2022, Belgium imported US \$ 1.04 billion of Sulphonamides, making it the third-largest import market globally. In the same year **India** has imported US \$ 69.38 Million of Sulphonamides from world and occupied 16<sup>th</sup> position in ranking in the world import of Sulphonamides with 0.76% share of world import.